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Exploring the Costs and Values of the Household Model in Long Term Care

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EXPLORING THE COST AND VALUES OF THE HOUSEHOLD MODEL

IN LONG TERM CARE

by

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ABSTRACT

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As part of the culture change movement in long term care, nursing homes are transforming into person centered living settings that reject the previous medical emphasis that dominated the industry. The household model is one approach to achieve this goal by systemically altering the traditional nursing home's organization, routines and physical setting with an emphasis on recreating familiar, domestic places for its residents. The household model is hallmarked by three key characteristics: 1) the creation of a smaller functional group of residents within the nursing home that is delineated by the environment (24 residents or less) with the 2) intent of replicating familiar daily life patterns and routines found in a home aided by a 3) decentralized staffing structure working as a team that supports a family atmosphere. While the household model has high face validity for benefiting residents, staff and family members, there is limited empirical evidence in the literature. Since nursing homes have a scarcity of resources, embracing culture change and the household model incurs a degree of risk. Yet, no business case for the household model exists to inform interested

providers. This dissertation begins to fill this gap by exploring the monetary issues related to planning, creating, and operating and evaluating the household model in long term care.

The approach to this dissertation was a pragmatic case study design to compare three innovative providers that pursued culture change and adopted the household model in the mid 2000's. Utilizing a mixed method approach, a total of 42 informants were interviewed, archival records and floor plans were analyzed, informal observations were conducted, and an instrument was developed to access the affordances of the environment for each household. A conceptual framework was developed to organize the information which emphasized the resource system for the three cases.

Case based reasoning for the cost and values for the household model offer the following key findings:

1) All three providers were highly respected and rated organizations before culture change, but adopted the household model due to a moral imperative and not a financial need.
2) The providers shifted from a task based organization to one that focuses on the person and their location (i.e. The Households).
3) Providers engaging in culture change utilized significant resources to train all staff on campus in person centered care, conduct tours, hire consultants and host meetings to generate a common understanding among stakeholders. However, most of these costs were not tracked.
4) Resident quality indicator outcomes were not conclusive for the three cases, but do demonstrate a trend of improved psychosocial factors and behaviors.

5) Providers strove for cost neutral goals. However, staff to resident ratios increased and compensation methods for staff with versatile roles increased costs due to reimbursements for job enlargement (e.g. salary to hourly or certifications required).

6) Providers did not perceive the model to be any more difficult or costly to operate and believed there were opportunities for cost savings.

7) Material costs might increase due to a learning curve for the model, but offering residents a choice comes with some associated costs and the potential for waste without vigilance.

8) All three providers had higher daily rates compared to regional and state benchmarks and lower hours per resident day ratios.

9) Efficiencies within the operating the household model did not result in a reduction of staff, but a degree of organizational slack that was utilized to focus on the residents' quality of life needs.

Case based reasoning also provides guidance for attempting to measure the costs and values of the model utilizing a retrospective pre-post comparison. Key findings include:

1) The socio-economic context (e.g. state policies, organization composition, economic outlook and resident characteristics) for the three cases impacts the monetary outcomes (e.g. staff turnover, revenue, etc.) for the organization, which made comparisons challenging.

2) Due to the nature of culture change, comparing the results of satisfaction surveys might not illicit a change as new routines of the household became reified as the cultural norm.

3) Providers only measure what was necessary, and are not always able to provide specific costs when the nursing home was part of a larger organization.

4) Conversion to households, which requires capital expenditure, was often accompanied with other changes that impact revenue, such as an increase in private rooms or the creation of a short term rehabilitation unit with higher Medicare reimbursements.

Although not the intent of a pragmatic case study, the theories of Neo-Institutionalism and conceptualizing the built environment as a resource to reinforce Place Identity were common themes in the findings.

To my parents.

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LIST OF ABBREVIATIONS

AAHSA	American Association of Homes and Services for the Aging
ADL	Activities of Daily Living
BAF	Budget Adjustment Factor
CCRC	Continuing Care Retirement Community
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CMS	Centers for Medicare and Medicaid Services
CNAs	Certified Nursing Assistants
DON	Director of Nursing
FTE	Full Time Equivalent
HH	Households
HPRD	Hours per Resident Day
LPNs	Licensed Practical Nurse
MDS	Minimum Data Set
Med.	Medicine
MN	Minnesota
NC	North Carolina
NCMI	Nursing Case Mix Index
NS	Nurse Station
OBRA-87	Omnibus Budget Reconciliation Act of 1987
PA	Pennsylvania

PPS	Prospective Payment System
QI	Quality Indicator
QIO	Quality Improvement Organization
RNCC	Registered Nurse Clinical Coordinator
RNs	Registered Nurses
RUGs	Resource Utilization Group System
sq. ft.	Square Feet
TMAs	Trained Medication Aide

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CHAPTER ONE– INTRODUCTION

This dissertation explores the costs and values inherent in adopting the Household Model; an environmental/organizational intervention intended to reform traditional long term care settings into a person centered, meaningful place for living. The focus of the dissertation is nursing home care settings, which are a place type that provide medical, skilled nursing services for people who are elderly or infirmed. Because residents may live at the nursing home for extended periods of time, these places are also forms of housing. Lawton (1986) arrays housing settings for the elderly on a continuum in which skilled nursing provides the highest level of support. Beyond their functional use, nursing homes are a meaningful reflection of society and its views of elders. They reflect what is viewed as an appropriate home for elders, and these views are beginning to change. Changing the nursing home is not an easy task. As providers embrace this endeavor, they increasingly need evidence to guide their course, which is the role of this dissertation.

The Nursing Home in Society

The Nursing Home is a socio-cultural phenomenon. The nursing home as we know it today was shaped by society and continues to change as societal expectations alter and evolve. Furthermore, nursing homes are a socio-physical phenomenon in which meaningful experience results in an understood place type with expectations for what is normal and expected. An essential focus of this dissertation is the socio-economic phenomenon of the nursing home in which monetary considerations play a role in shaping and reshaping the nursing home.

Nursing Home as a Social Institution

Eisenstadt (1968) as cited by King (1980) argues that the conventional practice of understanding societies occurs through the understanding of common institutions, such as the "spheres of family and kinship, economy, policy, education, religion, and social stratification" (p. 409). These spheres are evident in the historical rise of the nursing home as a social institution for elders in the United States. Elders who lacked family support or had few economic resources were provided for at poor houses and poor farms up until the early 1900's (Hubbard, 1992; Katz, 1996). Residents were viewed as recipients of needed charity in addition to targets for moral reform. A strong protestant work ethic predicated that poor house residents work for their keep; a practice that was also intended to reduce freeloaders (Vladeck, 1980). Vladeck (1980) argues widespread changes in the United States economy in the 1930s made it increasingly obvious that being poor and elderly was not due to laziness or a lack of foresight. Therefore, a new industry was born due to political and economic factors (Vladeck, 1980).

During the 1930's Nursing homes emerged as a new structure to replace the welfare based poor houses for the elderly, which is attributed to elders having funds through the Social Security Act (Vladeck, 1980; Zinn, 1999). An assortment of private convalescent homes, rest homes and nursing homes responded to this new market (Zinn, 1999). These care settings primarily offered custodial care with few if any medical services (Vladeck, 1980). With the passage of Medicare and Medicaid in the 1960's, government policies transformed nursing homes into healthcare institutions to justify paying for their services (Capitman, Leutz, Bishop, & Casler, 2005a; Vladeck, 1980). According to Zinn, a new message was apparent: "it was

becoming less and less acceptable to simply park the elderly wherever a bed could be found and call it caring" (1999, p. 46). Regulations demanded professionally trained medical staff, and an emphasis on medical care (Zinn, 1999). Thus, the nursing home began to be shaped as a social institution by policies and regulations that emphasized medical care and imitated hospital based settings, which were the epicenter of the medical care industry for the period (Vladeck, 1980).

Nursing Home as a Place

The concept of place provides further explanations for why early nursing homes resembled and felt like hospitals. Per Cutchin (2005), Place is "a concept that broadly refers to the ensemble of social, cultural, historic, political, economic and physical features that make up the meaningful context of human life" (p. 121). Place expands social institutions to explicitly include the experience of the physical environment. Imamoğlu (2007) argues that Place is a schema or cognitive structure that organizes prior knowledge to provide understanding of situations. Thus, the nursing home can be conceived of as a place type that gains meaning though societal expectations for its purpose, inhabitants, activities and the physical setting (Weisman, 2001). Silverstein and Jacobson (1978) refer to this implicit understood meaning as the Hidden Program. The medical model has traditionally shaped the place type of a nursing home with expectations for an efficient delivery of care for an ill and aging population, an emphasis on nursing care and routines, and an environment that is perceived as efficient and sanitary (M. K. Chapin, 2008; Cutchin, 2005; B. Schwarz, 1996).

Nursing Home Quality Concerns

Nursing Homes in the United States are facing tremendous pressure to change from this traditional medical model approach, towards a holistic, consumer-driven product. These pressures come not only from current and future consumers of nursing homes, but also policy officials and regulatory agencies who are concerned with improving nursing home quality (Capitman, Leutz, Bishop, & Casler, 2005b; N. G. Castle, Engberg, & Liu, 2007; General Accounting Office, 2005, 2002; Vladeck & Feuerberg, 1995). The hybrid nature of nursing homes as both a place of living and a place of care renders quality an elusive concept (M. L. Fennell & A. B. Flood, 1998; Vladeck, 1980). Numerous reports and studies have found nursing homes to be wanting in quality, such as negative perceptions of the industry by potential consumers and concerns for iatrogenesis (i.e. bedsores, falls, malnutrition, etc.) (Stone & Steinbach, 1999; The Kaiser Family Foundation, 2007; J. M. Wiener, M. P. Freiman, & D. Brown, 2007b). There is a longstanding tradition of policies addressing nursing home quality concerns with a watershed moment around the passage of The Omnibus Budget Reconciliation Act of 1987 (OBRA-87) (N. G. Castle & Ferguson, 2010). For the first time, nursing homes had to consider the quality of life for nursing homes residents, rather than emphasizing quality of medical care standards (J. M. Wiener et al., 2007b). This was the beginning of a holistic focus for the nursing home resident, who no longer was being conceived as an ill patient.

Quality and Costs are Intertwined

While quality is paramount, the cost and efficiency of long term care are equally critical concerns for both the nursing home organization and policy makers. A nursing home

organization must operate within a reasonable degree of economic efficiency to remain viable. The United States government, as the primary payer source of long term care, is also concerned with costs (Capitman et al., 2005b). The entitlement programs of Medicare and Medicaid that pay for nursing home care are one of the largest proportions of government budgets at both the state and federal level and are anticipated to grow in relation to the rising aging population (Vladeck, 1980). Paradoxically, while significant calls have been made for addressing poor quality in long term care, there have also been cuts in spending and payment policies that hinder quality initiatives (Mor, Zinn, Angelelli, Teno, & Miller, 2004). Collectively, changes to resident characteristics, the market, and revenue make it difficult to address quality concerns in a nursing home, while ignoring efficiency and costs.

Changing Residents: Before the 1990's nursing homes often provided custodial care for a less frail population since few options for subsidized care by the government existed (Administration on Aging, 2010). Once private funds were exhausted by the resident, Medicaid paid for nursing home services for these long term residents (Singh, 2010). Currently, nursing homes are also serving a population with more severe physiological and psychological conditions, as well as a growing number of residents staying for short recuperative periods after being discharged from a hospital (Singh, 2010). Short term residents are a source of higher paying Medicare dollars and reimbursements for therapy services. Accordingly, nursing home residents are a changing population with greater care needs compared to the past.

Changing Markets: Nursing homes are also facing a different market. Although most nursing homes operate with high occupancy levels, some homes are facing competition as consumers have more care options available, including assisted living, community based health

care programs, as well as an anticipated shrinking customer base temporarily resulting from the smaller age cohort found in the Silent Generation (Administration on Aging, 2010; N. G. Castle et al., 2007). Consumers have more information when selecting a care setting through the use of publically available statistics on the internet, as well as a government sanctioned five star rating system which serves as a report card of nursing home quality (Mukamel & Spector, 2003).

Changing Revenue: Nursing Homes are often impacted by the external policies. Government ratings may eventually lead to differences in reimbursements by the government, which piloted a pay for performance program in the state of Colorado (A. E. Elliot, 2010). Rachel M. Werner, Konetzka, and Liang (2010) identified nine states with existing pay for performance programs and five states with planned pay for performance programs in a survey issued in 2009. Nursing home revenues were significantly impacted by The Balanced Budget Act of 1997, which changed the way nursing homes were reimbursed for services from reasonable costs to a prospective payment system adjusted for the case mix of the residents and the region (Bowblis, 2011). After the Act's implementation, there was a notable increase in nursing home closures or conversions from for-profit to non-profit (Bowblis, 2011).

Culture Change in Long Term Care

Dissatisfaction with the nursing home has led to changes. Strategic movements to holistically alter nursing homes are increasingly referred to as culture change within the industry. The movement was slow to gain legitimacy from its grassroots origins. Early stories about culture change efforts by nursing homes can be considered a "rational myth." Edelman,

Uggen, and Erlanger (1999) described rational myths as "belief systems that embody stories about cause and effect and successful solutions to problems" (p. 410)." Early culture change practices were often shared as provider stories with varying definitions, practices, outcomes, goals or measurements (Chapin, 2010; Rahman & Schnelle, 2008; A. S. Weiner & J. L. Ronch, 2003). In 2005, a report generated by the National Commission for Quality Long-term Care described the challenges of nursing homes adopting culture change as "swimming against the tide of regulation, limited resources, and established practices" (Capitman et al., 2005b, p.33).

Economic sociology provides one lens for understanding how culture change gained momentum and legitimacy in the nursing home industry field. In the introduction to the *Handbook of Economic Sociology*, Dobbin (2004) summarized the findings of a study conducted by Davis, Diekmann & Tinseley (1994) to suggest "business practices change through the confluences of [1] a powerful set of actors introducing a new strategy, [2] a network promoting the strategy, [3] regulatory institutions that permit the change, and [4] a cognitive framework that legitimates the new strategy" (p. 14).

These four factors strengthened the Culture Change Movement in Long Term Care. First, early culture change pioneers were vocal proponents of the movement who became a powerful set of actors. For example, Dr. William Thomas, a medical doctor who founded the Eden Alternative® to alleviate the three plagues of long term care, loneliness, helplessness and boredom, became a strong messenger for the movement making frequent and empowered presentations (W. H. Thomas & Johansson, 2003). Furthermore, the Eden Alternative also empowered actors at the nursing home level through the use of Eden Associate training. Eden Associates became localized leaders in the nursing home who advocated for change. Second,

networks formed to promote the culture change movement. Specifically, the Pioneer Network was founded in 1997 by a small group of early adopters to offer education and support for the movement (Pioneer Network, n.d.; Rahman & Schnelle, 2008). Eden Alternative® also created regional networks for members to share resources and support one another during reform efforts (A. S. Weiner & J. L. Ronch, 2003). Third, regulatory institutions permitted the culture change movement and encouraged the movement. The Center for Medicare and Medicaid Services (CMS) was involved indirectly or directly in promoting culture change, advocating for culture change, and revised regulations to promote culture change practices and issued interpretive guidelines for regulators (CMS, 2012). CMS also funded Quality Improvement Organizations (QIO's) to serve as resources for nursing homes with directives to improve nursing home quality and promote the establishments of Culture Change Coalitions (N. G. Castle & Ferguson, 2010; R. M. Werner & Konetzka, 2010). Karen Schoeneman, Deputy Division Director of the Division of Nursing Homes at CMS (Retired 2012) , which regulates nursing homes, was involved in rewriting regulations that address quality of life and promoting outcomes based regulations (Berger, 2010; CMS, 2012; A. E. Elliot, 2010). CMS also funded the creation of a measurement instrument to assess culture change progress called the Artifacts of Culture Change (Bowman & Schoeneman, 2006). Starting on November 28th 2016 over the next three years, a new section is being added to the federal regulations for nursing homes to require person centered care planning (CANHR, 2016; Jaffe, 2015, Reform of requirements for long term care facilities, 2016). Fourth, there was a cognitive framework that often guided culture change efforts to replace the medical/hospital place type with the idea of a familiar home. The concept of creating a familiar place can be attributed to the thought that

environments can serve as a therapeutic resource and contribute to the quality of life and care for elders (M. P. Calkins & Weisman, 1999). Therapeutic goals for environments for elders and people with dementia often included concepts that related to creating a familiar or homelike setting (Briller & Calkins, 2000; Cohen & Weisman, 1991). Eventually a recognition that a familiar home represents an ideal setting for all nursing homes residents began to resonate (M. P. Calkins, 2008). The construct of "home" becoming a yardstick to gage culture changing practices, routines and settings reflected a recognizable shared cognitive framework among culture change participants (Action Pact, 2008; Shields & Norton, 2006).

Studies have found that culture change has gained more exposure in the industry. Notably, the movement has traction with nearly 56% of nursing homes indicating some engagement in Culture Change in 2007 (Doty, Koren, & Sturla, 2008). A survey conducted from 2009 to 2010 of 3695 Directors of Nursing and Nursing Home Administrators revealed that 85% reported some culture change implementation, but only 28% indicated full implementation (Miller, Looze, et al., 2014).

The Household Model

Culture change advocates implement multiple strategies to alter the nursing home. Chapin (2006) identified over 300 different strategies employed by nursing homes for culture change as part of her doctoral research that reviewed the efforts of pioneering organizations. These strategies often fall into key categories of altering the organization's mission, goals, structure, processes, routines and the physical environment.

One comprehensive strategy for rethinking the nursing home is the Household Model, which is an attempt to normalize the large institutional organizational structure into smaller family-like structures which resemble and operate like a home (e.g. See Figure 3 & 4). As a systemic change, the Household Model requires altering the built environment, the organizational structure and the daily activities of both staff and residents. For example, an 80 resident nursing unit can be divided into four, 20 resident households, each with its own living space, dining room and kitchen. Instead of all 80 residents reporting to one large dining room, meals are prepared and served in the households. Staff members are reassigned to work in specific households with expanded roles such as assisting with meals, housekeeping and Certified Nursing Assistant duties.

The use of smaller care settings has its early roots in community based and cottage based mental health institutions, which were an attempt to normalize versus institutionalize mentally ill individuals in Scandinavian countries (Erickson, 1985; Nirje, 1970). Alzheimer's and Dementia Care Settings have also emphasized creating smaller care settings to provide latent support for those suffering from cognitive decline to reduce decision making and promote orientation by recreating more familiar living settings (M. P. Calkins, 1988; M.P. Calkins, Briller, Proffitt, Marsden, & K., 2001; Cohen & Weisman, 1991). There was a recognition by stakeholders in the industry, including senior living architects, that these smaller, residential care settings were appropriate for all elders and reflected the more desirable qualities of a home (M. Calkins, 2016).

Growth of the Household Model

Based upon national surveys and compiled directories, a small portion of the nation's nursing homes have adopted the household model. According to the 2007 Commonwealth Survey of 1435 Directors of Nursing, less than one percent describe their nursing home as an example of a Household Model, which was defined as "self-contained areas with a full kitchen, living room and dining room, with relative small number of residents per household" (Doty, Koren, & Sturla, 2007, p. 29). In 2008, ActionPact, a culture change consultancy practice, provided a directory of 98 nursing homes in the United States that had built or were building households. A study of 164 culture change adopters identified by Pioneer Network board members identified 89 settings with altered physical environments: 57% (51) identified as households and 43% (38) identified as small house (A. Elliot, Cohen, Reed, Nolet, & Zimmerman, 2014). The authors defined households "as self-contained units for fewer residents, with a living room, dining room, and full kitchen"; and small house was defined as "a stand-alone house for fewer residents"(p. S18). Based upon these numbers, household models represent less than one percent of the total number of nursing homes (i.e. 62%, 98/15,682 in 2010) in the United States (AHCA, 2011).

Defining the Household Model

A common agreed upon definition for the household model does not exist within the industry. While the Commonwealth Fund Survey definition is fairly concise, it lacks what some would consider the essential ingredient of the revamped organizational structure. A definitive, holistic definition is lacking for the Household Model, which leaves a great deal of room for

ambiguity (M. A. Proffitt, Abushousheh, Kaup, & Basting, 2010). Advocates for the model have made some inroads. Action Pact gave the following parameters for including an organization in the previously mentioned directory of households:

> . . . a household is a small group of residents living within a physically defined environment that feels like home; a kitchen(with a variety of food accessible to residents 24/7 including breakfast to order and on demand), a dining room and a living room. It also has a permanently assigned, cross-functioning staff. (Action Pact, 2008, p. 28)

The ActionPact definition provides more emphasis on the activities of the Household and the staffing expectations compared to the Commonwealth Survey that emphasized the characteristics of the physical setting.

Lavrene Norton, the president of ActionPact, partnered with Leslie Grant, associate professor of Health Policy and Management at the University of Minnesota, to further clarify the household model. Grant and Norton (2003) devised one of the most comprehensive conceptions of the Household Model as part of a four stage model for culture change in long term care that utilizes five key benchmark domains to assess progress in altering a nursing home: 1) decision making, 2) staff roles, 3) physical environment, 4) organizational design, and 5) leadership practices. Notably, households were identified as stage four of the culture change process. The authors argue that a household should include the following:

> Household Model consists of self-contained living areas with 25 or fewer residents who have their own full kitchen, living room and dining room. Staff work in cross-functional, self-led work teams. The hierarchical organizational structure is "flattened" through the elimination of traditional departments. (Grant & LaVrene, 2003, p. 3)

In contrast, a traditional institutional model is described by Grant and Norton as the following:

> Institutional model is a traditional medical model organized around a nursing unit without permanent staff assignment. Neither residents nor staff are "empowered" in this model, because the organizational power structure is" top-down" or hierarchical going from administrator to department heads to supervisors to frontline staff. (Grant & LaVrene, 2003, p. 2)

Table 1 illustrates Grant and Norton's expectations for the five key domains for the household model stage compared to the institutional stage:

Table 1

Comparison of Institutional Model with Household Model

Organizational System	Stage Four – Household Model	Stage One – Institutional Model
Decision Making	Resident directed decision making occurs through group process such as learning circle Residents have access to a refrigerator that is theirs Residents are given options and choices about when and what to eat Decisions about daily activities and routines are influenced by residents	Decision making involves top managers (primarily administrator and director of nursing with input from other department heads) with little input from frontline staff, residents or family members. Group process such as a "learning circle" is not used in decision making. Instead, most decisions affecting the daily lives of residents or staff are made by top management. The round of daily activities is determined by the needs of the staff and the institution with limited input from residents.
Staffing Roles	Staff are permanently assigned to a single household Household teams create their own work schedules Staff are no longer working in traditional functional departments Staff mix moves towards having staff who serve multiple roles (universal workers) CNA certification for all staff working in households is important	Nursing staff are not permanently assigned to nursing units. Staff rotate across units based on organizational policies or depending on need. If one unit is short-staffed, staff from another unit is pulled to fill that position on a day-to-day basis. Staffing patterns are determined by policies and procedures that are centrally controlled throughout the facility. Staff roles reflect the traditional functions defined by organizational departments (e.g., nursing, food service, housekeeping, activities, and therapy).

Table 1 - Continued

Organizational System	Stage Four – Household Model	Stage One – Institutional Model
Physical Environment	A self-contained area with 16 to 24 (or fewer) residents Core services are decentralized Each household has its own full kitchen Personal laundry is done on the household A common dining room and living room are provided to residents in the household Staff work areas are integrated into common areas so the nurse station and medication carts are eliminated Most daily activities occur in the household to reduce transport issues	This model has centralized dining in a large common dining room that serves residents from multiple units. Kitchen access is limited primarily to food service workers or others who have authorization to be in kitchen areas. The decor (e.g., interior design, furnishing, finishes, lighting, and materials) is institutional (as opposed to homelike). The typical nursing facility with an institutional model is divided into 3 to 4 nursing units with 25 to 35 or more residents each.
Organization Design	Smaller organizational unit of 16 to 24 people per household Elimination of traditional departments of nursing, housekeeping, food service, activities with services being offered to households as support services Each household has a nurse leader who reports to a clinical mentor (Former Director of Nursing) Each household as community coordinator who reports to the social mentor (Former Activity Director and Social Service Director).	This is the typical hierarchical organizational model with a board of directors and administrator at the top. There are department heads for key functions such as nursing, rehabilitation, social services, food services, activities, building maintenance, and business office.
Leadership Practices	Leadership team emerges as the administrator, clinical mentor and social mentor, and nurse leaders from each household as well as community mentors Leadership engage in conflict management skills	A broad range of leadership skills are found at this stage. The leadership team primarily involves the administrator, the director of nursing, and key department heads

Note. Adapted from "A Stage Model of Culture Change in Nursing Facilities", by L. A. Grant and L. Norton, 2003, Paper presented at Gerontological Society of America, San Diego, CA, p. 8-9.

In 2010, a Think Tank hosted by the Center on Age and Community and the Institute on Aging and Environment was convened to further clarify the Household Model. While

participants did not generate a unique definition for the model, they did agree on a set of principles which included the following:

> A household: is a small grouping (typically 10-20) of residents and their dedicated staff with the purpose of fostering self-directed, relationship-based life;
>
> has pleasing, homey spaces with a functional kitchen at its hub—nurturing daily life, responding to individual residents, and fostering community life;
>
> is intimately-sized with clear boundaries and a variety of spaces typical of home, including the flexibility of private and shared bedrooms spaces as desired by the residents;
>
> includes clinical best practices, the tasks and routines and pleasures of daily life, cutting edge technologies to encourage life choices and promote functionality, mobility, wellness and growth;
>
> Household life is facilitated by an empowered self-led team of residents and staff. Deep knowing, reflective of true home, fosters a good life for everyone and is supported by the resources of the organization;
>
> The organization has been redesigned to position households and their leadership with the autonomy and accountability to respond to individual resident needs, as well as the responsibility to create meaningful household life. In other words, the households, together as a team with the Administrator and Director of Nursing Services, become the vehicle for all operational decisions and administration, replacing the traditional department structure (M. A. Proffitt et al., 2010, p. 7).

Working Definition of the Household Model

In essence, these attempts at definitions allude to the Household Model being conceived as a place-based intervention for rethinking the nursing home from a hospital based place to a home based place. As a place, the environment, the operation and the organizational structure must work collectively and reinforce each other (Briller & Calkins, 2000). The principles of the household model generated by the think tank are specific, but some of the concepts raised are not exclusive to the household model or even culture change. However, these principles can be distilled into having three main parameters that are exclusive to the household model, but still reflect the essence of what makes the model unique systemically. A household model includes: 1) the creation of a smaller functional group of residents within the nursing home that is delineated by the environment (24 residents or less) with the 2) intent of replicating familiar daily life patterns and routines found in a home aided by a 3) decentralized staffing structure working as a team that supports a family atmosphere (c.f. Action Pact, 2008; Grant & LaVrene, 2003). Fundamentally, these parameters represent a different view of people, program and environment. If any of these three items are missing, a nursing home would not be considered a household model for the purposes of this research as they would not be reinforcing the place type of home.

Figure one shows an early example of a household environment for eleven residents with its own living room, dining room, kitchen and staffing area. The household is self-contained with a distinctive entry doorway. Some unique aspects are the bathing spa that is shared between two households like a "Jack and Jill" style bathroom in a home as well as a "back" passage between the households primarily for staff access and the servicing of the

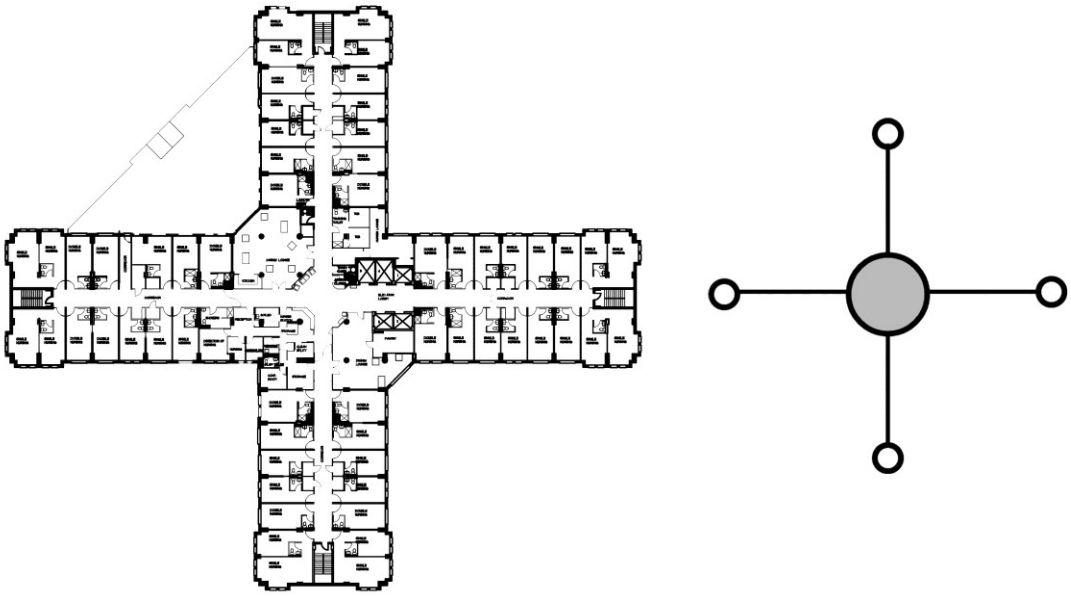
laundry and linens through an exterior backdoor (soiled utility). Yet, the floor plan still replicates the three parameters—a smaller group of eleven residents, a kitchen, dining room and living area, which affords opportunities for familiar daily activities, and decentralized staffing and support areas.

Figure 1. Eleven Resident Household Plan for Creekview South, Adapted from "Household Model for Nursing Home Environments, by G.G. Nelson, Paper presented at Creating home in the nursing some: A national symposium on culture change and the environmental requirements, Pioneer Network, Washington D.C.

Socio-Physical Nature of the Household Model

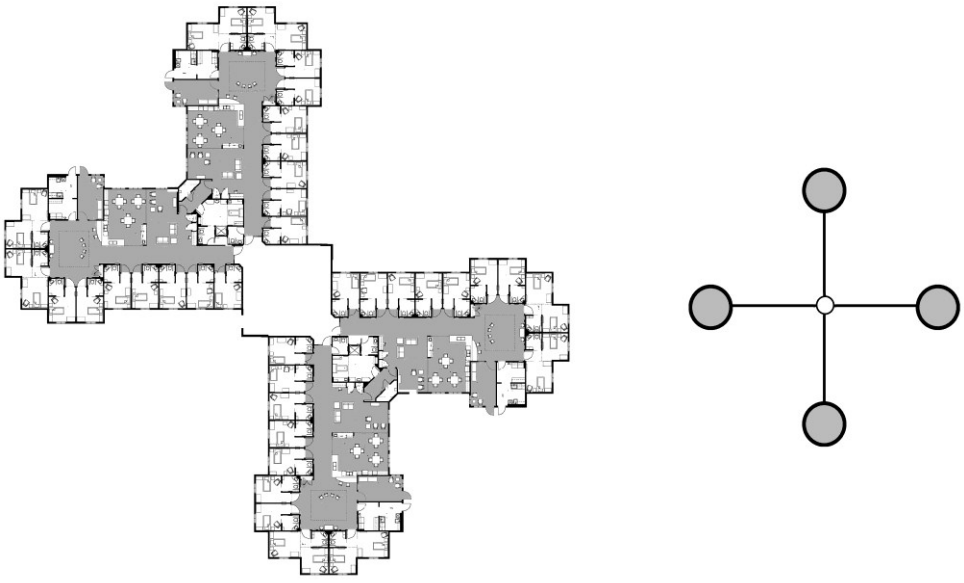
A nursing home that utilizes the household model has a fundamentally different social organization and physical environment. Proponents of the household model argue that these two systems must work together for the household to be successful (M. A. Proffitt et al., 2010). For example, early adopters of households who changed the physical environment into a setting for smaller groups, but did not decentralize the organizational structure have experienced challenges (M. A. Proffitt et al., 2010). Based upon the description by Grant and Norton, a traditional institutional nursing home's environment and organization can be described as being centralized. (See *Figure 2*). The authority of the nursing home administrative staff is emphasized with those working directly with the residents having less power through this environment and organization. The nursing station was typically the center of power for these care settings, and consequently was typically located at the center of the building for required resident surveillance.

In contrast, the household model reflects a different social organization and corresponding environment. A Household has a decentralized organizational structure and environment (See *Figure 3*). There is an intentional shift to decentralize authority to be more responsive to resident needs. However, the Households are not completely autonomous as they are subject to central administrative/clinical staff control, who have oversight roles, centralized support spaces that support the decentralized Household functions and social /therapy spaces that serve as destinations external to the Household for the use of residents and their guests.



Centralized Environment Centralized Org. Structure

Figure 2. Traditional Nursing Home - Centralized Organization and Environment



Decentralized Environment Decentralized Structure with Support

Figure 3. Household Nursing Home - Decentralized Organization and Environment

Purpose of the Inquiry

The purpose of this exploratory study is three fold: 1) this study is intended to fill a gap in knowledge about costs and values for implementing the household model, 2) provide guidance for measuring costs and values for future studies, and 3) refocuses attention on information care providers need when implementing culture change.

Gaps in Knowledge about the Household Model

To date, limited empirical evidence exists for the Household Model in long-term care and much of the development has been informed through practice-based knowledge and conjecture. More extensive empirical evidence is available on the Eden Alternative developed Green House© Model, which is a licensed variation of the household model that initially mandated separate buildings for 10 residents (but now separate floors in a building are permitted), and a specific staffing structure with flexible, empowered roles for frontline staff (S. Zimmerman & Cohen, 2010). However, the connected form of the "unlicensed" household model has much less evidence for empirical resident outcomes. Anecdotally, providers express concern that the household model is expensive to build and operate, while proponents of the model argue there are cost savings in addition to enhanced resident outcomes (Semuels, 2015). Without further guidance for providers, the ideals of this model may be difficult to sustain. Furthermore, the household model may become distorted or rejected unfairly if it is not a reflection of a systemic change made to the nursing home.

Integrating Monetary Concerns into a Historically Social Science Field

This dissertation seeks to fill this knowledge gap by exploring the financial aspects of the household model using a systemic, pragmatic framework that can be utilized for future inquires. Untangling costs and savings can be a complicated endeavor in long term care settings. While costs may be fairly obvious in a budgetary report, the accuracy of the information may reflect a different reality. Even more difficult will be addressing savings that are based upon social strategies such as changing to home-like routines. Unlike acute care which has a clear goal of recovery and recuperation, long term care residents ultimately may die regardless of the staff's efforts (M. L. Fennell & A. B. Flood, 1998). Thus, a key aspect of this study will be evaluating and identifying effective measurement strategies, processes and resources. Accordingly, this research is exploratory in order to explore these topics from knowledge gained in the context of practice from nursing home that adopted the household model.

The Field of Gerontology and the Provider

Much of the evidence for the Household Model (or small house model) has been framed from the standpoint of the residents with limited information that would benefit an organization who is considering adopting this extensive culture change strategy. Framing research from the stand point of the organization may represent a moral and practical dilemma particularly in the field of gerontology, which has often focused on outcomes for older adults. Even policy based research often ignores the needs of the organization and is typically framed from the societal view (Finkler & Ward, 2003). There is a common belief that improving

therapeutic care settings for older adults is an inalienable right and thus framing research from the perspective of an organization's bottom line is relatively rare (e.g. Day, Carreon, & Stump, 2000). However, culture change's emphasis on systemic charge has further illuminated the need for researchers to address the providers' perspective and monetary concerns. Framing research questions from an economic perspective requires a paradigm shift with an emphasis on the practical use of knowledge (Fishman, 1999).

Significance of the Inquiry

This research is intended to inform and promote the creation of a different type of nursing home that is being reframed to reflect a holistic view of elders. These systemic changes to promote excellence are not without some financial risks. Nursing homes that embrace culture change require evidence to make informed decisions when allocating a scarcity of resources.

Older Adults Exposure to Nursing Homes

At any given time, 1.5 million people in the United States reside in nursing homes (S. Zimmerman & Cohen, 2010). Although this number reflects a relatively small (4.1%) percentage of adults 65 and older who live in institutional settings, the proportion increases with age (e.g. 14.3% for persons 85+) and nursing homes are increasingly being used for short term post-acute care (Administration on Aging, 2010). Therefore, it is likely that older adults will spend some time in a nursing home. Regardless of the calls for the demise of the nursing home and a push for community based home health care, there will always be a need for settings that

provide more intensive care. It is paramount that these places be shaped in a way that is deemed appropriate by society.

Risks Involved with Innovation

Long-term care organizations have a unique opportunity to reshape their environments and restructure their organization with a consumer focus. However, limited funding and potential adoption costs (e.g. construction, training, etc.) introduce a high degree of risk for these organizations who wish to embrace the culture change movement due moral and ethical reasons (Doty et al., 2007). The Culture Change movement offers a guide for these changes. However, a Delphi survey of 170 long term care stakeholders demonstrated culture change strategies are often perceived to be more desirable than feasible (Abushousheh, Proffitt, & Kaup, 2010). Similarly, a 2007 Commonwealth Fund survey identified costs as a primary barrier to adopting culture change (Doty et al., 2007). Arguments for or against the Household Model based upon the number of residents in regards to financial and/or social issues are prevalent in the practice based literature (e.g. Abushousheh et al., 2010; Dickey, 2010; Shields & Slack, 2008). For example, The Methodist Home in Tupelo, Mississippi which constructed the first Green Houses dropped its Green House licensure when expanding the number of houses on the campus while making tweaks to the design and operations (R. A. Kane & Cutler, September, 2008). Research is clearly needed to understand the investments and values of the Household Model if some operators are not finding it sustainable. Even if these settings are found to cost more than traditional institutional settings to operate; an awareness of where cost increases

potentially exist would have great utility for providers. Furthermore, the retrospective nature of this inquiry also offers a lens for how these costs might change over time.

Costly Environmental Changes

Risk is also a key concern when considering the rare opportunity to create a new care environment. Significant environmental changes for culture change have arguably the most substantial upfront cost and may have substantial repercussions on the operations of a nursing home over the building's lifespan (e.g. Dickey, 2010; F Duffy & Henney, 1989). As a place based model of change, altering the physical environment is an essential element of the household model. Lewis (2005) stated the average nursing home building is 29 years old in 2005, and as of the end of 2015 the National Investment Council reported a median age for nursing home properties to be 37 years old (NIC, 2016). These numbers are indicative of the long life span of these buildings, and signal that these structures may be at a point of replacement. With construction being a limited occurrence for most long term care organizations, it is imperative to make strategic decisions that not only impact the residents favorably, but also the organization itself (e.g. Shields & Slack, 2008). Just as challenging is rethinking old mindsets regarding what a nursing home should be and resemble. Brand (1994) argues all buildings change, but the most difficult to change are institutional buildings such as nursing homes. Culture change advocates hope to achieve the place of home, as ultimately these buildings become a new place with the environment becoming a reified artifact that represents the goals and intent of the organization (Schein, 1992).

Dissertation Overview

This dissertation seeks to explore the costs and values inherent in a nursing home adopting the household model, which is associated with the culture change movement. This chapter started with a brief overview of the nursing home as a social institution and its development into a meaningful place. Next, the chapter discussed societal concerns with the nursing home and a desire for change. The culture change movement in long term care was then described and the process by which it has gained increased legitimacy. This was followed by an introduction of the household model and a discussion of the varying ways it is being defined. Next a working definition of the household model was presented with three key parameters that emphasized a smaller function group of residents, an emphasis on familiar daily routines and a decentralized staffing structure acting as a team. A key issue of the lack of information regarding the investments and costs for developing and operating the household model was presented next. The purpose of this study was presented as exploring the monetary resources for adopting and operating the household model utilizing a consistent framework. The intent is to build upon a practice based knowledge base of adopters of the model. The significance of the inquiry is reducing risk to an organization that is significantly altering its culture and environment to reflect a changing view of elders.

Chapter two introduces a framework that was used to collect information from three case study nursing homes that have adopted a household model. Chapter three presents an overview of the literature that has informed the study. This includes an overview of nursing home quality and costs information, the measurements used in culture change studies, and outcomes for the household model. Chapter four provides an overview and rationale for this

study, which utilizes a comparative, pragmatic case study design (Fishman, 1999). Three nursing home organizations that have adopted the household model will be presented and compared in the dissertation. Chapter five is the beginning of the descriptions for the three case study nursing homes which starts with contextual issues. Chapter six describes the three organizations' investment into the process of culture change and the intended objectives. Chapter seven describes the investment of environmental changes made to the building for the three cases. Chapter eight describes alterations to the organizational system. Chapter nine discusses the values of implementing the household model organized as resident outcomes, staff outcomes, and organizational outcomes. Chapter ten provides the conclusion for this study which provides both pragmatic applications and contributions to theory.

CHAPTER TWO – CONCEPTUAL FRAMEWORK & RESEARCH QUESTIONS

Purpose of Conceptual Framework

The following chapter discusses the conceptual framework for the dissertation. The use of a framework is entrenched within the pragmatic case study approach with the intention of gaining knowledge within a specific context (See Methodology Chapter for more detailed information). The pragmatic case study approach accepts different epistemological approaches that are useful to answer the questions being framed (Fishman, 1999). This flexible approach is relevant to the dissertation as much of the knowledge exists within the context of the case and the approach is exploratory (R. K. Yin, 2003). Yin (2000) argues that the use of a logic model is an advancement in case study evaluations as it reveals the underlying assumptions as well as specifies what data should be collected. Accordingly, conceptual frameworks as logic models help to organize exploratory inquiries and information.

Peterson (1991) argues for a similar framed approach for post-modern pragmatic psychology in which a disciplined inquiry is part of professional activity (See Figure 4 for Peterson's model). Peterson's model is divided into three key areas: 1) the client who wishes to change 2) a program of services and 3) evaluation. Applicable to this dissertation's inquiry, the concept of a client can be expanded beyond an individual to include a "group, organization, community, or even society" (Fishman, 1999, p. 10). The evaluation utilizes feedback loops to make corrections or confirmations to the program of services the client receives. Satisfactory or Unsatisfactory outcomes are based upon meeting the goals of the client. A starting point for a disciplined inquiry is an assessment, which is informed by a guiding conception. Fishman

(1999) suggests that this guiding conception includes "the practitioners assumptions about theory, epistemology, program, goals and ethics" (p. 12). The three case studies presented in this dissertation are a disciplined inquiry in which all three nursing homes are engaged in a process of change through a comprehensive change to their program of services. Therefore, the development of a conceptual framework as a guiding conception is an essential first step to guide the inquiry process and organize the information.

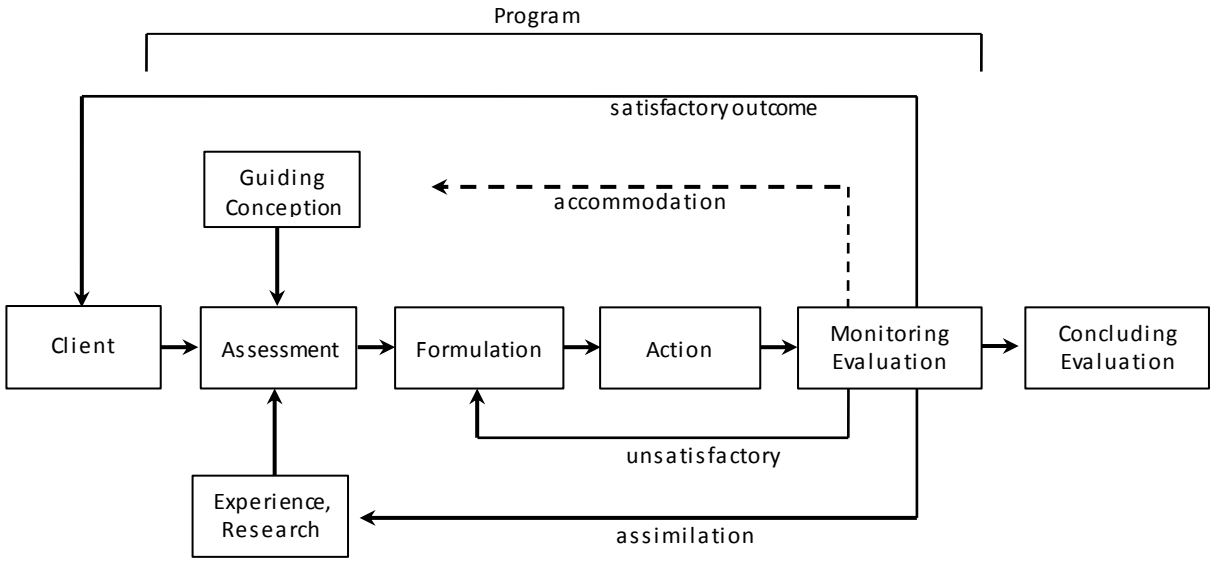


Figure 4. Professional Activity as Disciplined Inquiry, Adapted from "Connection and disconnection of research and practice in the education of professional psychologists," by D. R. Peterson, 1991, *American Psychologist, 46*, p. 426.

This study also reflects theory based program evaluation, which focuses on the process of what a program does, the change process, and finally the outcomes. Traditional program evaluation often emphasizes outcomes without a clear understanding of the intervention process to explain how, or why. Theory based evaluation does not test a grand theory in the

traditional sense, but rather the development of a program logic model or the theory of change that posits how a model is supposed to work (Bickman, 1987; Chen & Rossi, 1983). The evaluator identifies the key components of the model and makes explicit the underlying assumptions that lead to these assumptions. Theory based program evaluation suggests findings need to reflect more than outcomes, but also consider the assumptions that were made by the three nursing homes and the process of change. The remainder of this chapter discusses the process of developing the dissertation's framework followed by the key research questions that further guided the inquiry.

Three Relevant Frameworks to Approach the Problem

An initial survey of the literature did not reveal an existing framework that could guide the inquiry. Therefore, one of the first tasks was the development of a unique conceptual framework for the dissertation. Nevertheless, the work of previous authors did provide significant guidance. Two of the frameworks identified are based upon utilizing a lifecycle approach that argues that the true value of any endeavor must weigh upfront and continuing costs with long term values (e.g. M. P. Calkins & Cassella, 2007; F Duffy & Henney, 1989; Markus et al., 1972). A third complimentary typology is based upon the healthcare quality field, which seeks to understand the impact of altering various dimensions on healthcare outcomes. The following section describes these three frameworks in greater detail.

Figure 5. Investment Model of Culture Change. Adapted from Investment Model of Culture Change, by Pioneer Network, 2010, Retrieved March 10, 2010, from http://www.pioneernetwork.net/Providers/Investment/.

Framework One - Investment Model of Culture Change

As discussed in the Chapter One, the Pioneer Network is a non-profit support group that was founded by the early adopters of culture change in 1997 to advocate and educate for person directed care. In 2010, the Pioneer Network expanded the rationale for adopting culture change from a primary moral basis to one that considers returns on investment. To make a case for adoption, an "Investment Model of Culture Change" was published on the website that presents culture change strategies as potential investments that have returns in improved outcomes (See *Figure 5*) (Pioneer Network, 2010). This model postulates investments (i.e. changes) in the environment, education, communication and other systems lead to optimal

resident and organization outcomes or returns on investments. Adopting business concepts of investment and return on investment to discuss the adoption of a socio-cultural program is unique, but reflects a growing trend that social programs are increasingly expected to have monetized outcomes for the benefit of society. For the purposes of this dissertation framework, the investment model is useful for outlining the components of change and the hypothesized outcomes of culture change. However, the model only offers vague guidance for how investment strategies link to the suggested outcomes as it represents a very coarse-grained level of detail.

Framework Two- Building Performance Evaluation.

A framework in the multidisciplinary field of building performance evaluation offers more utility for understanding conceptual linkages. The authors of this framework are a group of architects and engineers who founded the Building Performance Research Unit (The Unit) in the 1960's. To illustrate the role of buildings and people as part of their research agenda, The Unit developed a "Conceptual Model of the System of Building and People" (Markus et al., 1972). Similar to the Investment Model of Culture Change, this building performance evaluation model is based upon a premise of investment but offers more specific, finer grained details related to buildings, people, and the resources utilized for achieving objectives (See Figure Six). The model uses organizational goals, reflected in the objective system, that are compared against the resource system (i.e. costs of constructing and operating the building as well as the cost of the activities) to determine value. In essence, determining the value of outcomes requires comparing both first time costs for construction, as well as long term costs for operations. This

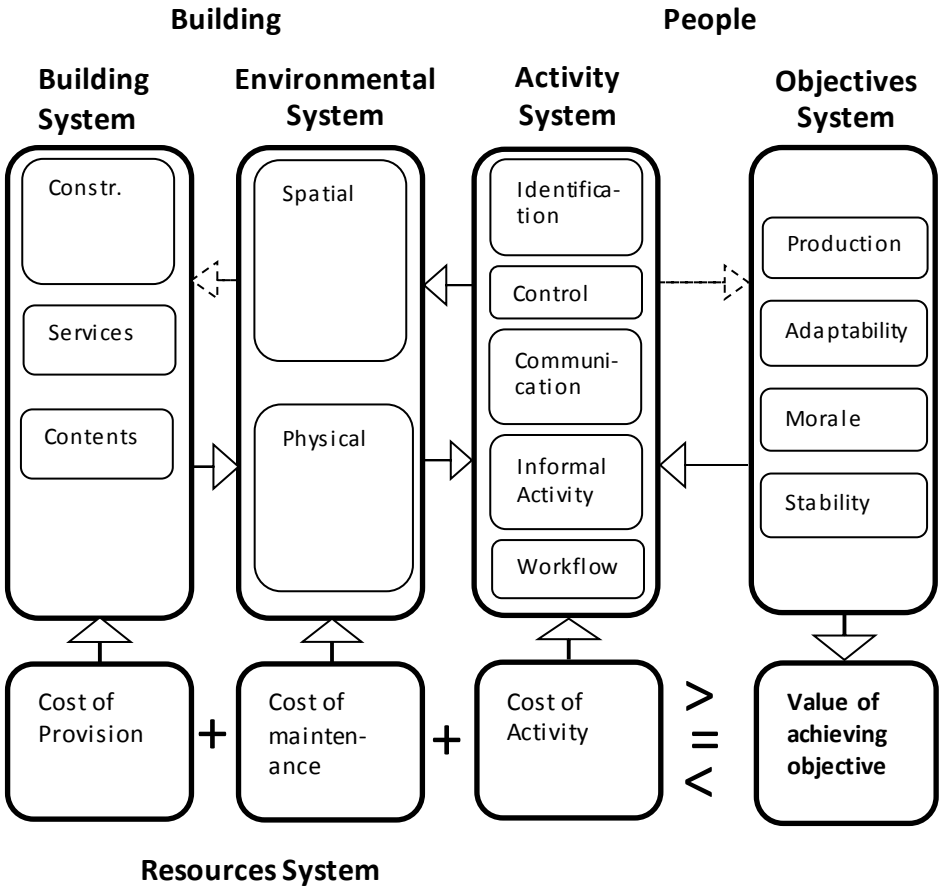


Figure 6. Framework Two - Building Performance Research Unit, Adapted from *Building Performance* (p.4), by T. A., Markus, et al, 1972, School of Architecture, University of Strathclyde. New York: Halsted Press.

model provides more clarity for a study of costs and values, as it considers the impact of the built environment as well as the activities of the organization and the various types of outcomes. Furthermore, The Unit's model distinguishes between creation costs and maintenance costs. Nevertheless, there are several limitations to the model proposed. First the model represents a closed system of a single building/organization without considerations of contextual factors which are significant in the long term care industry (Unruh & Wan, 2004).

Second, the categories of the model tends to favor areas related to the building and physical environment and lacks considerations for the organizational structure, which is a significant dimension in culture change (Koren, 2010). Third, the outcomes of the model are more in keeping for a factory or office, instead of a healthcare organization or long term care.

Framework Three - Typology of Quality Dimensions

Studies related to healthcare quality provide a third valuable framework for this dissertation. Stiles and Mick (1993) proposed a conceptual paradigm to classify quality dimensions based upon Donabedian's structure/process/outcome model for categorizing healthcare domains of quality (Donabedian, 1966, 1988). Figure Seven illustrates the Stiles and Mick Typology that takes the form of a matrix. The horizontal axis of the typology follows the Donabedian's model in which structures are considered the stable characteristics of a healthcare organization such as "the number and mix of providers and other personnel, the organization of care, accreditation status, governing board profiles and mechanical characteristics of the physical plant" (Stiles & Mick, 1993, p. 312). Processes are the "set of activities that go on within and between practitioners and patients" (Donabedian 1980). Outcomes are the "end results of the structure/process interaction" (Stiles & Mick, 1993, p. 312). Outcomes can be immediate or deferred. Stiles and Mick refer to the vertical axis of the matrix as "three types of activities one might study in order to quantify the more abstract structural, process and outcome phenomena" (p. 313). These are Technical Procedures, Interpersonal Encounters and the availability of Amenities. Although Stiles and Mick make no reference to Socio-Technical Systems in their description, it shares a

	Structure	Process	Outcome
Technical	Equipment available Staffing (numbers, qualifications, expertise) Training programs Teaching affiliation Size, volume, Ownership Governing board	Accuracy of diagnosis Appropriateness of treatment Treatment skillfully applied Treatment plans, sequencing Practice guidelines	Morbidity, mortality Increments or decrements in health or functional status Palliation Frequency, distribution of adverse incidents Malpractice Donations (Time, Bequest)
Interpersonal	New Technology's impact on roles and role relationships Building design, signage Presence of chaplains, patient advocates, social workers, translators, ethics committees	Collegiality Nature of communication Honest, forthright treatment of patients and families Sensitivity and compassion in delivery of care	Patient satisfaction Emotional, spiritual peace Family satisfaction Referrals Compliance Return for future care Malpractice Donations
Amenities	Cleanliness Presence of conveniences Ease of access, parking Appearance of staff	Efficiency in patient flow Short waiting periods	Patient satisfaction Family satisfaction Referrals Donations

Figure 7. Typology of Health Care Quality Dimensions, Adapted from "Classifying quality initiatives: a conceptual paradigm for literature review and policy analysis," by R. A. Stiles and S. S. Mick, 1993, *Hospital & Health Services Administration, 39*, p. 313.

common basis for their typology in which maximizing quality outputs reflects considerations of technical procedures for how work is done in combination with the considerations of the social interpersonal interactions of the people (Trist, 1982) (See Chapter 4 for More Information). Stiles and Mick refer to Technical Procedures as the mechanics of providing care such as the availability of equipment. The second activity of Interpersonal Encounters is defined by the authors as the art of medicine and reflects the interactions among care providers and providers and patients. The third dimension of Amenities reflects modifiers of the experience at an

institutional level such as cleanliness, comfort and accessibility. The intersections of columns and rows are intended to provide a means to define quality initiatives that are intuitively clear and understood with practice based settings. Furthermore, the authors acknowledge that the typology is a heuristic and that the multidimensional nature of quality may require using multiple cells in the matrix. The proposed typology provides additional guidance for conceptualizing a study of costs and values in a healthcare setting: particularly as it relates to outcomes. Compared to the Investment Model of Culture Change, this typology provides more detail and clarity similar to the building performance model. The matrix does not provide an explicit category for contextual issues and also tends to favor organizational dimensions over the physical environment. The matrix format is beneficial to reflect the multidimensional nature of quality initiatives, but the format loses some utility in the outcomes sections, which are repetitive and not as easily associated to the corresponding structure and process. There is little acknowledgement of the goals of the organization or the reflection of an alteration process in the matrix which is a key aspect of culture change. Finally, the matrix lacks explicit locations for monetary costs and values in the typology which are key considerations for this study.

Constructing a Conceptual Framework for the Dissertation

Of the three frameworks previously reviewed, the building performance model offered the best fit for a study of costs and values. Therefore, the conceptual framework developed for this dissertation was heavily influenced by this building performance model with some adaptations to reflect the emphasis on healthcare/long term care settings found in the other

two models. Weisman's Model of Place provided additional organizational guidance for key components (Weisman, 1998, 2001). The following section describes the components of a framework developed to guide this studies process and organize the information gathered from the case studies.

Objectives

Buildings are constructed or altered for a purpose that relates to the goals and objectives of an organization (See *Figure 8*). Therefore the first component of the framework is the objective system that reflects the purpose of the organization and its goals for engaging in a deep systems change process. A new building, addition or renovation project can be conceived as a strategic change for the purpose of improving the organization for a myriad of reasons (e.g. capacity, revenue, image, etc.). Nevertheless, a nursing home which is altering its environment for culture change can be conceived as seeking a better fit between the intent of the organizations revised objectives and the physical environment (e.g. Becker, 2007; Handy, 1993; Sundstrom & Sundstrom, 1986).

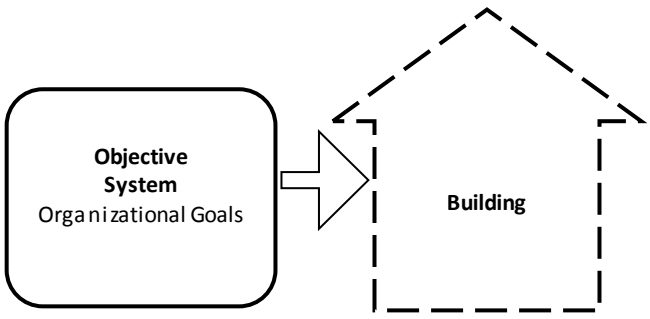


Figure 8. Objectives Generate Buildings

Environment System and Organizational System

Objectives not only inform alterations to the building, but also the nursing home organizational system. Therefore, two key components of the framework include the Environmental System and the Organizational System. Once a building is designed and constructed, the actual role of people and their interactions with the built environment begins (See *Figure 9*). The organizational system is reflective of the people and is comprised of both individual users and groups that are served by the organization (Weisman, 2001). For example nursing homes primarily serve residents, and their family members (or other concerned individuals). Another key group of people is the actual organization of staff and administration itself. These include people such as the front line care staff, administrative staff as well as support staff such as maintenance or housekeeping. People in an organization take on key roles and tasks, which are configured into an organizational structure which reflect lines of authority, decision making and a span of control (Sundstrom & Sundstrom, 1986). A nursing home that embraces culture change is anticipated to make significant changes to their organizational structure both formally and informally (A. S. Weiner & J. L. Ronch, 2003). The environment system represents the building and specifically its physical characteristics and spatial characteristics. Alterations to the environment system are not always concurrent to alterations to the organizational structure. Notably, each of the cases began the process of altering their organizational system before altering their physical environment.

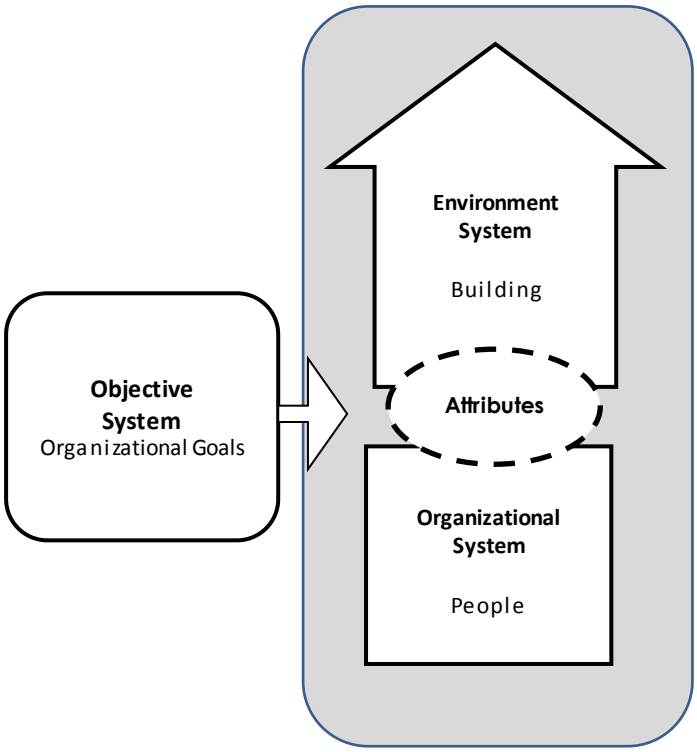


Figure 9. Attributes as a Link between Buildings and People

Attributes

As people interact with buildings, these experiences become meaningful. Meaningful interactions of people within an environment for a purpose are referred to as a Place (Weisman, 1998). Nursing homes represent a Place Type with an expected set of activities and experiences (e.g.M. K. Chapin, 2008). Weisman (1998, 2001) argues that our interactions with a place are modified by our past experiences. He refers to these as attributes of place experience and argues for their use in environmental design research to inform practice. Attributes, therefore, reflect socio-physical modifiers of our experiences such as a sense of privacy, legibility or accessibility. Therefore attributes link people and environments on the framework

(See Figure 9) Stiles and Mick (1993) argued for a similar concept in their typology of quality dimensions (See Figure 7). These authors also perceived "amenities" as modifiers of the health care experience that fell outside the structure and interpersonal dimensions. Attributes in this study are considered a link between people and the environment to reflect the holistic nature of the concept of place (i.e. the nursing home) that is changing. Thus, attributes will reflect the guiding intentions of the three organizations to alter the resident's experience. Silverstein and Jacobson (1978) would refer to this concept as a core pattern as part of a Hidden Program that is often taken for granted. Traditionally, nursing home resembled hospital places but culture change advocates for replicating the place and experience of a home. Future use of the framework in other studies might consider individual attributes in finer detail. For example a study of a newly implemented wayfinding system at a hospital may be reviewed from a cost and values perspective. The environment system, attributes and the organizational system are an integrated place, and are combined together as a shaded box on the framework.

Activities

The issue of what activities occur within the place is the next consideration. Activities can be formally defined by the organization as the operations, but also include informal activities that reflect users' daily routines. For example the formal activity of a break room may be to provide a place to consume food, but it may also serve as an informal purpose of being a social gathering place. The typology of Stiles and Mick (1993) similarly acknowledged that healthcare organizations have both technical procedures and interpersonal interactions. Therefore, both technical activities and social interpersonal based activities are relevant to

understanding what occurs in a place. A reciprocal relationship is acknowledged by the dual arrow between the people/building/attribute dimensions and the activity dimension of the framework. Activities both influence the place as well as define the place and therefore are combined on the framework as a shaded box (Weisman, 1998) (See *Figure 10*).

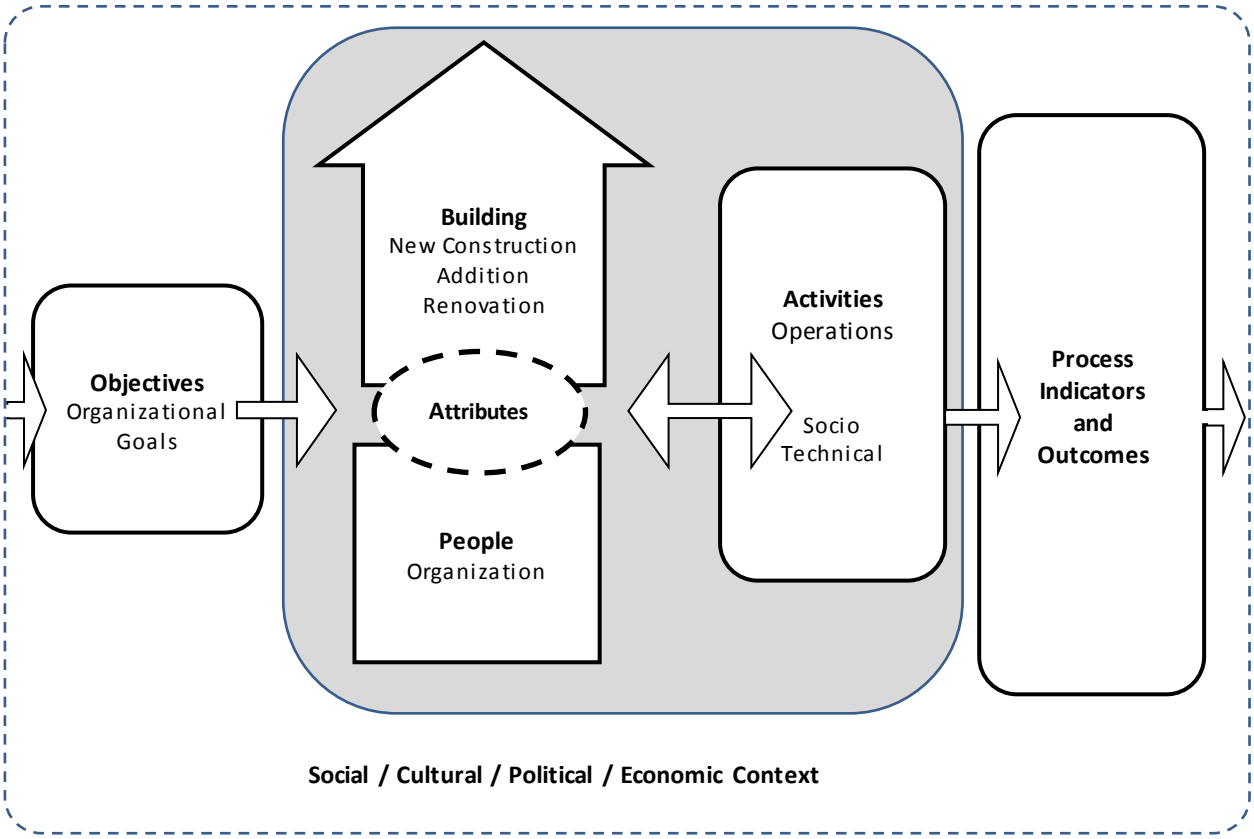


Figure 10. Activities, Outcomes and Context

Context

Contextual dimensions are a key source of knowledge for a pragmatic case study (Fishman, 1999). As discussed previously in chapter one, Nursing homes are not closed ended systems, but rather these organizations are heavily influenced by the external environment

(Unruh & Wan, 2004). The external environment reflects social, cultural, political, and economic factors that affect the organization. Socially nursing homes are impacted by socioeconomic factors and demographics of the users (e.g., Residents, Family Members, etc.). Culturally nursing homes are also reflective of societal expectations and customs. Nursing homes also have significant political drivers due to the government (i.e., State and Federal) being one of the primary payer sources for its services (Vladeck, 1980). The government regulates the nursing home industry with concerns for efficiency and quality by setting minimum standards, demanding regular accountability reports and issuing sanctions when appropriate. Policy decisions can make significant impacts on the bottom line of nursing homes that rely on Medicaid and Medicare funding (Lepore et al., 2015; Miller, Cohen, Lima, & Mor, 2014). Reliance on government funding does not isolate a nursing home from other economic factors such as changing state budgets, or fluctuations in the economy or market that impact the internal organization of the nursing home. Contextual factors are conceptualized as impacting objectives, the place, as well as outcomes and thus are represented as an encompassing element in the diagram (See *Figure 10*). Moreover as an industry, nursing home influences the broader context in a reciprocal manner such as providing employment for the region.

Outcomes

Fishman (1999) argues that performance indicators provide abbreviated, efficient samples of system functioning. Two types of performance indicators are process indicators and outcome indicators. Process indicators measure how a system is working internally and thus

may continue to feed information back into the system when monitored (Fishman, 1999). In contrast, outcome indicators measure how a system is accomplishing its objectives in the external world (Fishman, 1999). Outcomes reflect the consequences of setting objectives, the creation or alteration of a place and the activities (See *Figure 10*). Outcomes are indicators of the performance of the system. For nursing homes involved in culture change, outcomes reflect what the results are after making system wide changes. Outcomes can be conceived as what is different, but also what remains the same.

Some outcomes may occur immediately, such as the resident's reactions to a new setting after experiencing the old setting. Other outcomes may be differed. For example, improved market reputation for the nursing home that grows after implementing the household model may occur several years later. Building upon the outcomes of the Stiles and Mick (1993) typology, outcomes can be categorized as changes in technical issues (e.g., Quality Measurement) or Interpersonal issues (e.g. Resident, Staff Relationships) or Amenities (e.g. Resident Satisfaction). For this particular study, outcomes will be grouped around the three key user groups of residents, staff and the organization. Outcomes are also conceptualized as knowledge that informs future changes in the framework. Nursing homes engaged in culture change are often referred to as learning organizations that continually refine and develop based upon feedback loops (Anderson, Issel, & McDaniel Jr, 2003; Rabig, Thomas, Kane, Cutler, & McAlilly, 2006; Senge, 1990; J. M. Wiener, M. Freiman, & D. Brown, 2007a).

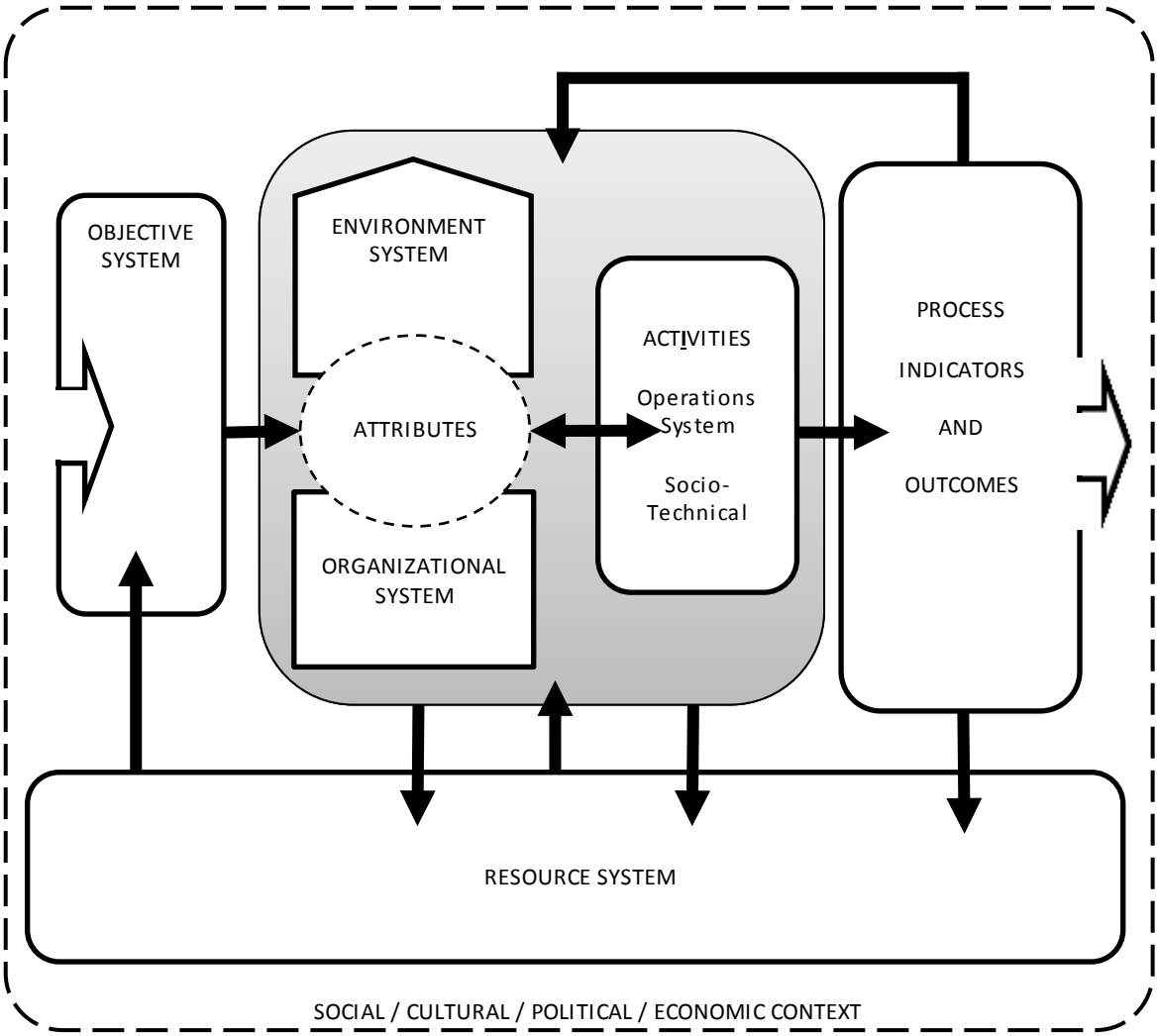


Figure 11. Conceptual Framework for Exploring Costs and Values

Resource System

The resource system reflects the cost investment model aspect of the framework and will be the focus of this dissertation (See Figure 11). A cost is something of value that is given up in exchange for something else such as goods or services. Costs can be conceived as inputs or investments that yield an output of values (Markus et al., 1972). Resources are consumed both initially and continuously in the process of changing and operating a nursing home. A

nursing home's resources are finite and create constraints upon the designers, owners, managers, and users. Resources are used to engage in the culture change process and are reflected in the cost to plan. The environment dimension reflects capital costs and ongoing maintenance costs respectively. Altering the physical environment may incur the highest initial costs, but the costs for operating the organization are ongoing and typically the greatest costs over time (F Duffy & Henney, 1989). The organization is supported by the provision of salaries for staff members and other incidental costs that support the employees. Similarly, the costs of activities are reflective of the revenues received less the operational costs of the nursing home.

A value for this study is something that has worth or relative merit, importance or utility (Harper, 1978). Outcomes are conceived as having a value. This is a departure from The Unit's Building Performance Model which focuses on the value of achieving the objective (See Figure 3 as a comparison). In contrast, the value of outcomes reflects a more detailed analytical view and also conveys the issue that outcomes can be intentional or unintentional. The dissertation framework suggests that costs can be greater than, equal to, or less than the value of the outcomes. While costs and values may be highly abstract and not easily monetized, the framework still reflects the critical balance of inputs and outputs that frame the underlying concept of an investment model.

Similar to the disciplined inquiry model by Peterson (See *Figure 4*), this conceptual framework reflects a dynamic process of planning, modifying/creating, operating and evaluating (See Figure 9). This process is seen as a feedback loop in which the three nursing homes are engaged in a continual process and thus the input and output arrows within the context exist. Alterations or changes made over time from the initial process will be an

important aspect to consider for each case, since all have been operating a household model for different periods of time.

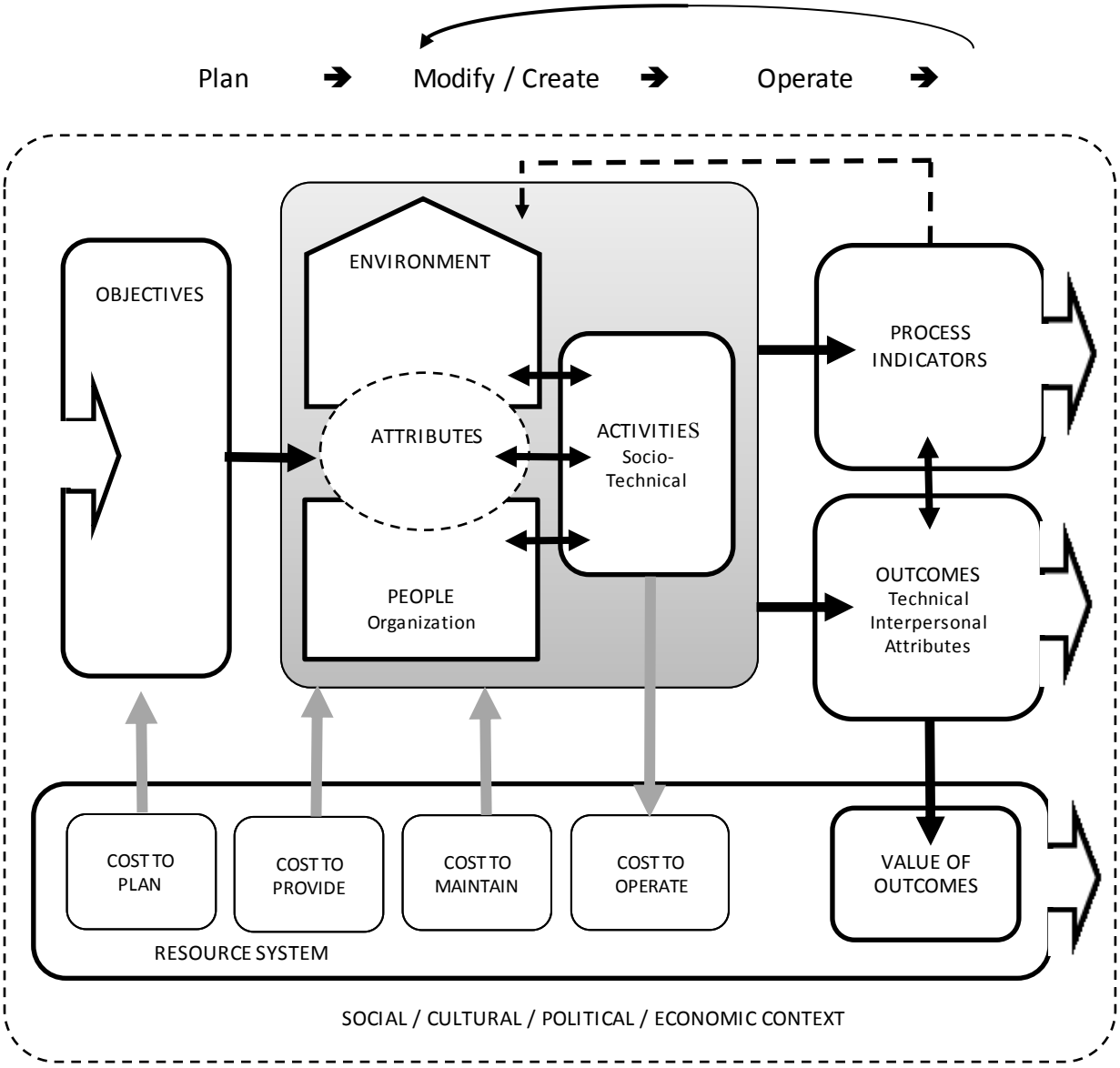


Figure 12. Conceptual Framework to Explore Costs and Values

Key Research Questions

The presented framework is intended to be a guiding conception for the study and a heuristic to organize the case study material from the three nursing homes. Case studies can be descriptive, explanatory or exploratory or some combination of these three purposes (R. K. Yin, 1989). Research questions guide research strategies. According to Yin (R. K. Yin, 2003) "what?" questions are suited for exploratory research, and case studies are best suited to answer the explanatory questions "how?" and "why?" The research purposes of this study are three fold: 1) to describe each cases change process, 2) explore the impact of each cases change process, and 3) explain why it is believed these changes made a monetary impact. These five primary research questions reflect the strategy of this comparative case study approach.

1) What investments did the providers make to adopt and operate the household model?
2) What are the values of the outcomes for adopting the household model?
3) What factors influenced these outcomes?
4) How does the household model impact providers monetarily?
5) Why do providers perceive that these impacts exist?

These research questions were slightly modified from the original proposal, which sought to gather information for specific departmental costs from the cases. However, numerous factors made the collection of this information impossible, inaccurate or incomparable (See Conclusions). Thus, a primary source of information for this exploratory study was interview data, which was supplemented by descriptive quantitative figures from existing records.

Chapter Summary

This chapter introduced the notion of a conceptual framework as a guiding conception for a disciplined inquiry and a logic model for case study evaluations. This was followed by an overview of three conceptual models that informed the development of the dissertation's framework. Two of the models were organized as a return on investment concepts with varying degrees of detail, while one model utilized a structures, process, outcome matrix approach for understanding healthcare quality (Donabedian, 1966). These overviews were followed by a description of this dissertation's conceptual framework and the key components and dimensions. Similar to Markus et al. (1972) building performance model, the central premise is the concept of investments in culture change that must be weighed against the value of the outcomes as part of a resource system. An overview of the dissertation's five research questions that informed the exploratory, case study approach was then discussed. These questions focus on determining what are the investments and values of the outcomes for the household model, understanding how and why the household impacts the organization monetarily. The next chapter presents a summary of the literature that informed the inquiry.

CHAPTER THREE – LITERATURE REVIEW

A broad range of literature sources were consulted to inform the dissertation. This section provides an overview of the literature that was primarily gathered prior to 2011, but updated in 2015. This chapter is organized into four key sections. First, an overview of the culture change movement is presented. Next the origins and background of the household model are presented. This is followed by a review of the evidence for the three main components of the household model. Finally, a review of the evidence related to the resource system for culture change and the household model is shared.

Culture Change Overview

Culture change in long term care is rooted in the premise that business organizations possess cultural properties: a concept which rose to prominence during the 1970's and 1980's (Allaire & Firsirotu, 1984). Rather than seeing a business organization respond rationally to the external environment, there was a recognition that organizations have cultural properties such as values, beliefs, and meanings that impact business behaviors and outcomes (Allaire & Firsirotu, 1984). Edgar H Schein (1992) argued for three levels of organizational culture: 1) artifacts which are visible organizational structures and processes, 2) Espoused Values which are strategies, goals and philosophies, and 3) Basic Underlying Assumptions which are unconscious, taken for granted beliefs and perceptions. While artifacts may be visible aspects of an organizational culture, it becomes increasingly more difficult to uncover espoused values and the underlying beliefs. A review of culture change resources for Long Term Care reveals a similar language of identifying underlying assumptions in the process of culture change, altering

organizational structures and processes and the recognition of artifacts (Bowman & Schoeneman, 2006; Grant & LaVrene, 2003; Shields & Norton, 2006).

Culture change in the organizational culture literature has multiple meanings and processes, which vary based upon differing ontological and epistemological stances (Allaire & Firsirotu, 1984; Edmondson, 1996). Experts have divergent views on the appropriate process to change an organizational culture to meet a desired outcome (Denison & Spreitzer, 1991; Edgar H. Schein, 1992; Senge, 1994). Culture change in long term care has traditionally focused on converting existing facilities that operate using a medical/institutional model into a setting that embraces a person centered approach (M. Chapin, 2008). The medical model typically focuses on the medical condition of residents with an emphasis toward a cure, but rarely addresses the holistic needs of an individual (Briller & Calkins, 2000; M. Chapin, 2008; Benyamin Schwarz, 1996). This medical model can be inferred to be a component of the cultural description of a traditional long term care organization as it provides guidance towards understanding the values, norms, customs, and beliefs of the organization (Allaire & Firsirotu, 1984). While the starting point is often clear, the trajectory and destination for change in long term care settings has taken a plethora of processes and forms.

Origins of the Culture Change Movement

Historically, the rise of Culture Change in Long Term Care is intertwined in the continued concerns for nursing home quality (Koren, 2010). Quality is a relative concept that has shifted in focus for the nursing home industry over time. Avedis Donabedian's (1966) structure/process/outcome model is frequently used to measure quality in other healthcare

settings. Applying the Donabedian model to a nursing home, *structures* refers to the professional and organizational resources to provide care. *Processes* reviews the cultural norms within the organization of how work is done. *Outcomes* is the patient's state resulting from care processes. Capitman et al (2005a) traced the history of nursing home policies to demonstrate a shift from an emphasis on structure to one of process and eventually to outcomes by the government. First, government was concerned about created a specifically sanctioned institution for protecting older adults in the United States as a structure (Vladeck, 1980). Second, the government promoted a process which emphasized medical care and not just custodial care. Borrowing from hospital settings, an emphasis on the medical model permeated the nursing home in which residents were viewed as sick or ill (B. Schwarz, 1996; White-Chu, William, Sandra, Alice, & Philip, 2009). Finally, with the availability of the Minimum Data Set records, outcomes based upon mostly medical indicators became the rubric to judge quality (Mukamel & Spector, 2003; Winzelberg, 2003). Hence, quality has never been absolute and is continually being redefined for the nursing home by policy decisions.

Consumers have also had changing views for nursing home quality. In the early 1980's, consumers and advocacy groups continued to express their concerns with nursing home quality (Koren, 2010). In 1985, focus groups with actual nursing home residents provide a published report of consumers' perspectives that was funded by a coalition of interested stakeholders (Spalding & Frank, 1985). The Institute of Medicine used these findings to publish a report of recommended regulatory changes in 1986 (Vladeck & Feuerberg, 1995). These changes emphasized not only quality of care concerns (i.e. medical treatments) but also quality of life concerns (i.e. treatment of the person).

These reports by the Institute of Medicine led to sweeping nursing home reforms being incorporated in the Omnibus Budget Reconciliation Act for 1987 (OBRA-87). OBRA-87 was a landmark, watershed change in policy that recognized more holistic approach to resident wellness and a new emphasis on provider accountability for the nursing home. OBRA-87 decreed that residents must be provided with services to attain and maintain physical, mental, and psychosocial well-being. Consequently, nursing homes were charged with meeting a resident's social and emotional needs as well as maintaining and promoting physical and mental health. This holistic view was labeled "person-centered care" by Tom Kitwood, who developed theories of personhood for caring for people with dementia (Kitwood, 1997). Personhood is defined as the fundamental attributes of being a person and Kitwood emphasized the role of lived experience when caring for an individual with dementia (Dewing, 2008). While these ideas originated in dementia care, person-centered care became an emphasis of a grassroots movement to reform and reshape the nursing home for all residents (Koren, 2010). This process became known as Culture Change in recognition of the sweeping holistic change required.

Establishing Principles and Values

As mentioned in chapter one, the Pioneer Network was founded in 1997 when the leaders of four approaches for person centered care met in Rochester New York along with 28 additional participants, who were nursing home staff members, regulators, researchers and representatives in the legal field. The goal for the meeting was seeking a common ground for changing long term care (Koren, 2010; A. S. Weiner & J. L. Ronch, 2003). After three days of

rigorous discussion, participants realized that meaningful and sustained change could only occur through a process of deep and systemic culture change (A. S. Weiner & J. L. Ronch, 2003). To this end, the group established a vision goal, agreed to meet regularly, and recruit others to join the movement. This vision was "envisioning a culture of aging that is life affirming, satisfying, humane and meaningful" (A. S. Weiner & J. L. Ronch, 2003, p 131). The Pioneer Group also established a set of 13 principles as core values for addressing culture change in long term care (See Table 2). Prominent in these principles are themes that focus on the holistic needs of a person, an expanded view towards addressing the needs of everyone in the organization and not just the residents, the acknowledgment of the importance of the psycho/social/physical environment, and recognition of the need for continual refinement of approaches.

Table 2

Values and Principles of the Pioneer Network

13 Principles
1. Know each person
2. Each person can and does
3. Relationships is the fundamental building block of transformed culture
4. Respond to the spirit, as well as mind and body
5. Risk taking is normal part of life
6. Put elders before task
7. All elders are entitled to self-determination wherever they life
8. Community is the antidote to institutionalization
9. Do unto others as you would have them do to you
10. Promote the growth and development of all
11. Shape and use the potential of the environment in all its aspects: physical, organizational, psycho/social/spiritual
12. Practice self-explanation, searching for new creativity and opportunities for doing better.
13. Recognize that culture change and transformation are not destinations buy a journey, always a work in progress.

Note. Adapted from "About Us," by Pioneer Network, Retrieved October 31, 2016, from http://pioneernetwork.net/AboutUs/

Table 3

Principles of the Eden Alternative

10 Principles
1. The three plagues of loneliness, helplessness, and boredom account for the bulk of suffering among our Elders.
2. An Elder-centered community commits to creating a Human Habitat where life revolves around close and continuing contact with plants, animals, and children. It is these relationships that provide the young and old alike with a pathway to a life worth living.
3. Loving companionship is the antidote to loneliness. Elders deserve easy access to human and animal companionship.
4. An Elder-centered community creates opportunity to give as well as receive care. This is the antidote to helplessness.
5. An Elder-centered community imbues daily life with variety and spontaneity by creating an environment in which unexpected and unpredictable interactions and happenings can take place. This is the antidote to boredom.
6. Meaningless activity corrodes the human spirit. The opportunity to do things that we find meaningful is essential to human health.
7. Medical treatment should be the servant of genuine human caring, never its master.
8. An Elder-centered community honors its Elders by de-emphasizing top-down bureaucratic authority, seeking instead to place the maximum possible decision-making authority into the hands of the Elders or into the hands of those closest to them.
9. Creating an Elder-centered community is a never-ending process. Human growth must never be separated from human life.
10. Wise leadership is the lifeblood of any struggle against the three plagues. For it, there can be no substitute.

Note. Adapted from "Eden Alternative, Spreading the Word," by Eden Alternative, Retrieved February 4, 2014, from http://www.edenalt.org/

Prior to the Pioneer Network, there were few organizations or resources that provided culture change guidance that was accessible for the long term care industry to promote person centered care. The most pervasive was the Eden Alternative, a non-profit established by Dr. William Thomas and his wife in 1991 (Eden Alternative, n.d.). Notably, the Eden Alternative is not a prescriptive model, but rather it is a principle based approach that can be applied to multiple care settings. Individuals trained in Eden Alternative principles and practices are referred to as Eden Associates and providers that embrace the principles may register with the Eden Registry. The ten principles of The Eden Alternative are listed in Table 3 and share many similarities with the Pioneer Network's values. While these ten principles of Eden do not

specifically mention the physical environment, one can infer possible translations into the design of the physical environment. Eden was originally intended to be an overlay program for a nursing home and was not conceived as a sweeping holistic change to the overall structure and organization of the nursing home. This changed in the early 2000's with the Eden Alternative's Green House™ Model, which will be discussed further in the chapter (Rabig et al., 2006). Notably, the Green House was not conceived as an example of culture change, but rather as culture creation for long term care (Green House Project, n.d.-a).

Process of Culture Change

The process of culture change in long term care is aided by uncovering the espoused values and underlying meanings of both the medical model and the person centered model (M. K. Chapin, 2008). Specifically, principles and values that refute the medical model and emphasize the person have served as a rubric for those involved in the process. Culture change, conventionally, has not been viewed as a prescriptive model (Koren, 2010). The broad range of activities involved in culture change have been categorized into six key domains to include the following:

1) Resident direction: care and resident related activities are selected and determined by residents:
2) Home environments: environment is designed as a residence, rather than an institution;
3) Close relationships: relationships among residents, family members, staff, and the community are close knit;
4) Staff empowerment: work is organized to support and enable all staff to respond to residents' needs and desires;

5) Collaborative decision making: management allows for shared and decentralized decision making;
6) Measurement-based continuous quality improvement (CQI) processed: Systematic processes are comprehensive, measurement based, and used to monitor, support, and refine culture change activities (Shier, Khodyakov, Cohen, Zimmerman, & Saliba, 2013, pp. S8-S9).

These broad domains suggest overarching goals for an organization that is engaged in culture change.

M. K. Chapin (2008) refers to culture change in long-term care as an "organic, creative, complex, and holistic process" (pg. iii). Chapin suggests this process can be broken into three distinct phases: 1) visioning, 2) implementing and 3) stabilization. While these stages can be conceived as a linear arrangement, the process of reaching these stages is generative with a reciprocal processes of learning which can be conceived as a series of spirals with a vector towards the next level (M. Chapin, 2008; Geboy, 2005). Although organizations often have varying goals for change, most agree upon focusing on creating an organization that is responsive to the holistic needs of the residents, family members and staff members (M. Chapin, 2008). This responsiveness reflects a learning organization, which Senge (1990) argues to be:

> …an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspirations is set free, and where people are continually learning to see the whole together. (p. 3)

Holistic Culture change within long term care frequently involves deep changes to the organization that include altering mission and vision statements, organizational structures,

hierarchies, practices, policies, routines and the environment (M. Chapin, 2008; Shields & Norton, 2006). In the face of these sweeping changes, organizations often seek a model to guide and shape their process (P. J. Dimaggio & Powell, 1983). The household model in long term care offered such an approach, which was already familiar to many stakeholders in the long term care industry for dementia care.

Household Model Overview

As discussed in chapter one, the household model is not clearly defined in the industry, but it is rooted in the concept of emphasizing the role of a familiar domestic, structure and routine of a home (Grant & LaVrene, 2003). This overarching view of normalization is the foundation for several therapeutic approaches for utilizing the environment as a supportive resource for those who require care (Erickson, 1985; Nirje, 1970). These care settings eventually led to the creation of the household model that emerged in the late 1990's.

Origins of the Household Model

The recognition that environments could serve as a therapeutic resource in the treatment of people with Alzheimer's disease, dementia, or what is commonly referred to as memory loss, resulted in the creation of special care units within long term care settings (M. P. Calkins, n.d.). Early examples were more concerned with the creation of segregated units within existing buildings or campuses. These units were designed to promote wayfinding, encourage socialization, and keep the residents safe from harm often within a locked unit. Both the Philadelphia Geriatric Center Home in the mid 1970's and the Corrine Dolan Alzheimer

Center in Ohio that opened in 1989 utilized an open pavilion plan that arranged resident rooms around a large central gathering space to improve visual access to desired destinations, and thereby encourage social interaction (M. P. Calkins, n.d.; Cohen & Day, 1993). Gradually, these smaller special care units were conceptualized as being more representative of a domestic place. In 1991 the assisted living care community of Woodside Place opened with a memory care design for 36 residents, which was deeply rooted in the image and arrangement of a home. Residents were grouped into 12 person "households" with a kitchen, great room and bedrooms located down the hall (Cohen & Day, 1993). This widely publicized design, as well as the popular design guideline book, *Holding onto Home: Designing Environments for People with Dementia*, pushed the idea of using "home" as a benchmark for special care settings for people with memory loss into the forefront (Cohen & Weisman, 1991). In the 1990s, there was substantial growth in creating specialized settings for people with dementia (Holmes, n.d.). Providers perceived social benefits for segregating people with dementia from non-cognitively impaired residents, and realized financial benefits from specialized care upcharges. There still is a strong debate today whether segregation is beneficial or whether it is better to encourage integration and aging in place (Grande, 2002). Yet, these small-scale settings served as the early foundation of the culture change movement and the household model as it was discovered that a good environment for people with dementia benefits those without memory loss as well.

Traditional nursing home designs often were conceived as large nursing units for 60 residents with several halls radiating from a centralized nursing station (See Chapter 1 for Plan Example). The concept of dividing a large nursing home into smaller, functional groups was a

fundamental aspect of the cluster design concept advocated by the long term care programming and design consultant, Lorraine Hiatt. Cluster designs were intended to minimize walking distances and improve staff efficiency by creating smaller working groups of residents and staff (B. Schwarz, 1996). Social spaces for residents could be located outside the clusters or within the clusters, but that was described as increasing the grossing factor by Hiatt. While it was acknowledged that clustering offered a more residential image, the emphasis of the clusters was on reinforcing staffing patterns and improving staff efficiency (B. Schwarz, 1996). Several nursing homes were constructed using the cluster concept that was also touted in the 1996-1997 Design for Aging Review that is co-sponsored by the American Institute of Architects (AIA) and The American Association of Home and Services for the Aged (AAHSA - Now Leading Age) and occurs biannually (AIA, 1997). Limited evidence in the literature was found to support the claims of efficiency for cluster design concepts beyond some post occupancy analysis results reported to be performed by Hiatt but not published (B. Schwarz, 1996). However, the cluster concept did promote a design concept that was recognizable in the architectural field and it gained traction. The creation of these smaller clusters did offer a more residential imagery which was a desirable trait. The impact of architects and designers working with providers did create a dialogue that served to support the movement towards households.

Households and Houses

Households. Several individuals claim to be the originators of the household model concept and term. For example, LaVrene Norton of ActionPact states the first household model opened In 1997 at Northern Pines (Now Bigfork Valley) in Minnesota, which was developed by

the administrator Linda Bump along with ActionPact (Norton, n.d.). ActionPact continues to promote the Household Model, publish reference guides and provide consulting services often including providers who have experienced the culture change experience (Shields & Norton, 2006). The senior living architect Gaius Nelson also claims ownership for term with the households at Evergreen Retirement Community which opened in 1997 (Nelson, 2008). Four households were opened with bedrooms arranged around a living, dining and kitchen space overlooking an outdoor patio.

However, many long term care providers adopted the concept of dividing their large institutional style buildings into smaller areas as part of culture change (Koren, 2010; Audrey S. Weiner & Judah L. Ronch, 2003). Spatial configurations varied based upon the constraints of renovation and varying approaches to staffing. Although not commonly agreed upon terms, providers would often describe dividing their buildings into either "neighborhoods" or "households" (A. S. Weiner & J. L. Ronch, 2003). Households tended to be a physical division into a group of 25 residents or less, each with its own living, dining area and kitchen for the residents contained within the space (personal communication, 2012). Neighborhoods implied larger divisions with more than 25 residents and/or lacked the critical domestic aspect of dining in a smaller group. An alternative definition for neighborhoods is grouping two or more households that might contain a social space for residents and/or staff spaces that were shared (personal communication, 2012). However, numerous variations could be found in the AIA/Leading Age, Design for Aging Review (Published Bi-Annually since 1991) and the Society for the Advancement of Gerontological Design Showcase (Published yearly since 1996 with various partners).

Meadowlarks Hills is an early example of a renovation into households in the year 2000. The provider converted the traditional halls of a nursing home into 5 households which ranged in size from 13 to 25 residents (Shields & Norton, 2006). Meadowlark Hills emphasized a strong public to private gradient by placing a front door at each household entry in which visitors must ring a bell to gain entry. These front doors led to the living and dining spaces for the households similar to the familiar layout of a house. Adjacent to the dining space each household contained a kitchen where a portion of the meals were prepared. Bedrooms were located down the hall from these social spaces. A self-managed team of staff were assigned to each household to address both clinical and social needs of residents (Shields & Norton, 2006). Each of these households were interconnected in the same building with three located on an upper floor and two located on a lower floor. Resources located outside the households supported the daily operations.

Houses. New construction offered enhanced opportunities to implement the household model with fewer constraints. In the early 2000's, The Eden Alternative introduced their variation of a household model, which is called the Green House™ Model. Dr. Thomas and a team of innovators decided to reinvent long term care after being discouraged with improving quality of life within the limitations of a traditional nursing home. Green Houses were originally conceived as freestanding, small houses for six to ten residents separated by outdoor space (Rabig et al., 2006). Only settings that adhere exactly to the model can be licensed and refer to themselves as a Green House. Each house is designed like a residence with bedrooms surrounding a living /dining space and an open kitchen that overlooks the garden. A new versatile worker staffing model for CNAs is an integral component of the operations. To avoid

stereotypes, these staff members are called "Shahbaz" and take on a broader array of responsibilities compared to a traditional certified nursing assistant, including cooking, light housekeeping, and the management of the house (Ragsdale & McDougall Jr, 2008). However, the Shahbazims' overarching responsibility is to build and foster relationships with and among the elders in the house to foster a family. Clinical care staff, administrative staff, social workers, the dietician, and activity staff are located remotely from the houses and only visit as necessary. Meals are prepared within each house and dining is intended to be a social experience referred to as "convivium" with all residents and staff located at one large table (Ragsdale & McDougall Jr, 2008). The central gathering place includes a fireplace and is referred to as the hearth room. All resident rooms are private with a private bathroom that utilizes a European style shower in which the entire room becomes the shower. Each house has a small den as a quiet space and one small office space. Technology such as ceilings lifts in all resident rooms, electronic records, and wireless nurse call systems are features that support the Shahbazim who work within the house. The houses are intended to be a home for the residents and Green House principles dictate that no more than two short-term residents may be assigned to a house unless there is a house dedicated to short-term residents (Green House Project, 2010).

The first four Green Houses opened in 2003 on an existing retirement community campus in Tupelo, Mississippi, with 20 residents relocating from a locked dementia unit and 20 residents from the general nursing home population (R. A. Kane, Lum, Cutler, Degenholtz, & Yu, 2007). Other Green Houses were built around the country as part of the Robert Wood Johnson rapid replication grant which provides technical and predevelopment financial assistance. In

2016, two hundred Green House homes are reported to be in operation in 30 states (The Green House Project, 2016). In order to be a licensed Green House, organizations must pay annual fees, and adhere fully to the Green House principles. The majority operate from a "mothership" in which the Green Houses are a satellite setting supported by a larger facility such as a retirement community, but a handful make up an entire village-like campus, which is closer to the original vision of a community-based nursing home (Ragsdale & McDougall Jr, 2008). In 2009, the first urban Green House opened with two households for ten residents on each floor of a six-story building (The Green House Project, 2016). However, the majority of the Green Houses are detached residences.

The Small House Model is similar to the Green House concept, but does not involve the prescriptive operations and environment of the trademarked Green House model and therefore offers more flexibility (Rabig, 2009). "Small Houses" is becoming a generic term that is used to refer to care settings designed as separate buildings for a small group of residents, but occasionally the term may also be used when referring to the Household Model.

Household Model Literature

Three Household Model Components

As discussed in chapter one, the household model is comprised of three key components that collectively define the model and set it apart from other culture change strategies. These include the creation of smaller functional groups, the replication of familiar domestic routines and the implementation of some form of decentralized staff who are empowered to make decisions and work as a team. Research findings for these three components are discusses in the following section.

Small Functional Groups. Within the dissertation framework presented in chapter two, smaller functional groups reflect altering the environment and the organization. Although there is no agreed upon appropriate size for a household, a fundamental tenet is the group be smaller than a traditional nursing unit (i.e. 40 to 60 residents). A 2008 published directory of Household Model Nursing Homes in the United States lists 97 operators with Nursing Households which opened from 1997 to 2011 (Mean Year = 2006). This directory provides some indication of typical household sizes which meet all three key criteria (Action Pact, 2008). Household sizes range from nine residents to 30 residents (Mean = 16.2, Median = 15) with 34% of these communities having households for twelve or fewer residents and 29% designed for 20 or more residents.

Theoretical Background of Small Functional Groups. The constructs of decreasing the size of the institutional settings and dividing inhabitants into smaller subgroupings are reflected in elder centric theories that view the environment as a structure which directs behavior. The Ecological Theory of Aging by Nahemow and Lawton (1973) which conceives the environment

as a demand is based upon this premise. This general theory is based upon Environmental Docility Hypothesis by Lawton and Simon (1968) which argues that the environment will have a greater impact on those with less competence; therefore, behavioral adaptations are reduced to docile reactions to the environment. Nahemow and Lawton expanded the theory with the Competence-Press Model to demonstrate the relationship between environmental press and competence levels. Press is being defined as the demand character of the environment and competence is being defined as biological health, sensory-motor functioning, cognitive skill and ego strength. The relationship to an older adult's individual competencies and press is hypothesized to predict outcomes. Reducing the scale of the nursing home is, therefore, hypothesized to reduce negative press demands on the elders that may improve outcomes for those with lower individualized competencies.

Social activity has often served as predictor for successful aging, which has also served as a rationale to reorganize the layout of institutional buildings into smaller groupings of inhabitants to support socialization. Several key theories developed to explain the role of social activity and aging. Following a biomedical approach, Disengagement Theory suggests in old age, the normal process is for people to withdraw from their social worlds in a symbolic preparation for death (Cumming, 1963). In contrast and in reaction, Activity Theorist argues that people do not experience a reduction in the need for social engagement, but social and environmental barriers reduce opportunities for interaction (Bengtson & Dowd, 1980). Continuity Theory applies the construct of time to the Activity Theory of Aging, with the premise that older adults attempt to maintain familiar patterns and use familiar strategies to adapt with changes which include socialization (Atchley, 1989). With the exception of the

disengagement theory, activity and continuity theory suggest that environments should be designed to support socialization.

Environmental correlates for encouraging social activity grew from early studies aimed at re-conceptualizing mental institutions in which the built environment was perceived to be a form of contagion (Cherulnik, 1993; Edington, ND; McClure, 1980; Sommer, 1970). Normative design strategies of decreasing the social distance between residents and creating smaller groups of residents were perceived as a means to enhance privacy, but also encourage socialization (Koncelik, 1976; Pastalan & Carson, 1970). Accordingly, social interaction has frequently been used as a key construct to measure the effectiveness of an environment for the inhabitants of an institution (e.g. Hauge & Heggen, 2008; Sommer, 1970; Verbeek et al., 2010).

Small Functional Groups Research Findings. In 2015, the median size of a nursing home is 120 residents (i.e. beds) (NIC, 2016). From 2009 to 2014 there has been an 1.2% increase in the number of nursing homes for 50 to 99 residents and a 2.9% decrease in nursing homes larger than 200 residents (CMS, 2015). Research studies have considered nursing home size as a predictor of quality. However, few studies were found that compared facilities divided into households (i.e. within the same building) with a traditional nursing home layout. Furthermore, a review of the evidence for the Green House model by Zimmerman and Cohen (2010) found when size was considered in studies of nursing home quality the research did not consider homes with ten or fewer residents. However, Zimmerman and Cohen (2010) noted favorable outcomes associated with smaller nursing homes include "improved psychosocial care, behavioral outcomes and some medical outcomes while larger nursing homes provide more resources, financial stability and improved ADL care" (p. 719). Thus, large nursing homes

are associated with improved financial efficiency although not always with improved quality of care. Because most culture change interventions involve multiple strategies, it is difficult to solely determine the impact of reducing the size of the care setting alone.

As discussed previously, reducing the scale of the institution through the creation of smaller functional groups of residents has been a common strategy for special care units for people with dementia. Alzheimer's care specialists interested in the physical environment call for creating smaller care settings to reduce unnecessary stimuli, limit the number of cognitive decisions being made and to reinforce normal behavior through the recreation of familiar settings (M.P. Calkins et al., 2001). A review of the dementia design literature by Day, Carreon and Stump (2000) found five quasi-experimental studies and two longitudinal studies which compared outcomes for those living in small groups with larger group settings in which size or scale was a primary variable. The authors noted that small group living settings have a therapeutic impact at earlier stages of dementia, and are associated with fewer emotional and cognitive deficits, reduced problem behaviors as well as preserved resident mobility.

The Cluster Concept argues for clustering residents into smaller functional groups based upon staffing patterns. Unlike the Household Model, clusters may not always contain social spaces similar to a home such as a dining room. The concept of clustering has been attributed to the design of acute care settings (B. Schwarz, 1996). No peer reviewed literature or research literature can be found on an evaluation of a cluster concept nursing home design although it is discussed in the "gray" literature (e.g. AIA, 2001; M.A. Proffitt & Yang, 1994; Scott, Townsley, Doig, & Hiatt, 1998). Hiatt (1998) argues in a trade conference paper that with clustering " . . . more attention is given to saving staff steps, separating service areas from social areas,

increasing informal contact of staff and seniors and mitigating the long corridor image (p. 1). Hiatt also suggests that clusters produce outcomes in five key areas: 1) enhance resident's mobility, balance and continence, 2) individual rooms with bathrooms promote better care, 3) enhance working conditions for staff by reducing travel, 4) promotes a homelike setting, 5) improves resident's lifestyle. While Hiatt lists 23 facilities that incorporate cluster design concepts built from 1986 to 1999, there have been no comparative studies of these settings with other nursing homes identified in the literature to verify these suggested resident outcomes and efficiencies. Hiatt states these findings are validated in her post-occupancy work which are referenced in her numerous conference presentations, but not published in journals. Today, the term clusters is less prevalent in the literature and the industry.

Replicating Familiar Patterns of Home. The second component of the household model is an emphasis on replicating familiar patterns of domestic life that reflects altering the activities of the place as well as the attributes of place experience (i.e. the link between people and the environment) on the dissertation framework. A hallmark of the Household Model is the emphasis on the relationships between residents and staff, who are viewed as a pseudo-familial group that spend time together and are empowered to make decisions about daily life. The environment supports this division by requiring that a household be physically defined with some settings installing front doors at the entry requiring visitors to knock and be let in before entering. A household environment must contain a kitchen with food available 24 hours a day and seven days a week, a dining room and a living room (Action Pact, 2008). These features are viewed as essential for creating a familiar backdrop for daily life reflective of a domicile.

Theoretical Background of Familiar Patterns of Home. Similar to the theoretical background for encouraging small groups, reactions to large institutional asylums have also served as an impetus for recreating familiar routines. Within the asylum system there was recognition by some reform movements that these large institutions were the actual cause of some of the mental outcomes (McClure, 1980). Government officials in Sweden and Denmark began to argue that mentally retarded individuals should have the opportunity to live as normal life as possible (Erickson, 1985). From these ideas emerged the normalization principle which was the underpinnings for deinstitutionalization of the mental health system in America (Nirje, 1970). The principle of normalization argues there are therapeutic benefits for providing social and physical environments as close as possible to everyday life settings (Nirje, 1970, p. 181). Most uses of the normalization principle have emphasized domesticity as a goal of the institution (Canter & Canter, 1979). Gradually, the concepts of home and home-like have been synonymous with rethinking institutions for older adults which not only have guided the reform of the nursing home, but also served as creating alternatives such as assisted living.

Familiar Patterns of Home Research Findings. There is substantial literature about the importance of creating familiar settings for people with dementia with an emphasis on domestic life (e.g. M.P. Calkins et al., 2001; Cohen & Weisman, 1991). This goal is based upon the premise that normal environments encourage normal behaviors, which has been validated in research (Day et al., 2000; Sloane et al., 1998; J. Zeisel et al., 2003). The various routines which take place in the household are an essential part of the therapeutic milieu that make it a familiar place (Briller & Calkins, 2000). Meals are a regular routine that are centered around home life. Yet, meals in traditional nursing home environments are often served from a

prepared tray in the company of large groups (Desai, Winter, Young, & Greenwood). In contrast, household residents experience meals prepared or partially prepared in the household kitchens in the company of the household residents. Shifting cooking to the households offers more immediate choices for residents and enhances the sensory stimulation of the sights and smells of food being prepared. Dining in a familiar setting in the company of others has been associated with improved caloric intake as well as staff and resident satisfaction (S. Zimmerman & Cohen, 2010). There have also been trade publications that suggest that there is less waste and use of expensive caloric supplements when food is plated in the dining room and selected by residents compared to traditional tray service which suggests some economic returns (Robinson & Gallagher, 2008).

Other key dimensions of creating a familiar home settings is offering residents choices and control which has been frequently validated for multiple populations and settings (S. Zimmerman & Cohen, 2010). However, studies that have evaluated choice and control in long term care as a discreet variable without other program changes are rare and not conclusive. One randomized trial study compared outcomes for those who had a choice to pick a time to watch a movie with those who were told when the movie would be shown. The former were more likely to attend and reported themselves to be happier and engaged (Rodin & Langer, 1977). In contrast, another study found that predictability of events is more important than having a choice (Schulz, 1976). Another study found residents were more likely to prefer control over interactions with outsiders versus control over daily care routines; however, both were considered important (R.A. Kane et al., 1997).

Related to ideas of choice and control is the importance of social engagement and participation in activities. Residents who reside in a Household Model are expected to have an opportunity to participate in familiar domestic activities. Studies have found that a small percentage of residents participate regularly in activities; however, those who are actively engaged are associated with improved psychosocial factors and mortality rates (S. Zimmerman & Cohen, 2010). Observations from a long term study of the first Green Houses revealed that activity staff did not have a clear understanding of how to perform activities in the decentralized buildings and were uncertain of their roles when activities were expected to be led by the Shahbazim (i.e. empowered, cross-trained front-line staff). Furthermore, because the Shahbazim could not leave the Green House residents unattended (Two per house during the day), it made it difficult for a few residents to attend activities located outside the building (R. A. Kane & Cutler, September, 2008). This may also partially explain why an empirical study of Green Houses in comparison to the traditional large nursing homes did not report any differences in social quality indicators and less participation in activities within the Green House (R. A. Kane et al., 2007).

Decentralized Empowered Staff. Altering the organizational system is key aspect of this component. Staffing patterns for the Household Model are derived from the need for staff to work in self-contained areas in relative isolation from other members and adopt flexible roles. A team based approach with staff cross-trained to perform multiple jobs is rationalized to be more efficient to address the under-populated settings of a household compared to an over-populated large nursing home. Staff should be empowered to make decisions related to daily life in the household with input from the residents.

Theoretical Background of Decentralized, Empowered Staff. In contrast to elder-centric theories prominent in the environmental gerontology literature, organizational contingency theories are based upon the concept that there is no perfect way to structure organizations as they are dependent upon changing external and internal forces (Handy, 1993). A variety of contingency based theories relate to the Household Model. The most fundamental is "Decentralization" which is based upon the principle of dispersing power amongst several individuals versus a single point within the organization (Donaldson, 2001; Mintzberg, 1979a). Mintzberg (1979) argues that as organizations become increasingly complex, the decentralization of decision making is beneficial for a more effective response to change as well as serving as a means to motivate people to strive to perform. Mintzberg also suggests that decentralization can also occur as the labor force becomes skilled or the rise of professionalism because workers will no longer prescribe to following tight rules from the top. Most organizations are comprised of a combination of centralized and decentralized structures and processes (Handy, 1993). A nursing home with a household plan is hypothesized to spread power to the workers who will have increased autonomy.

A second but highly complementary theory to decentralization is socio-technical theory which emerged in the 1940's and 1950's from studies of coal miners who worked in a "short-wall" mine which resulted in workers forming autonomous work groups with individuals taking on interchanged roles under minimal supervisions compared to the bureaucratic, highly supervised "long-wall" mining which replicated an assembly line (Trist, 1982). The improved output and reduced absenteeism of the short wall miners led to a new theory which considered the interchange of the technical work process and the social system to produce improved outcomes (See Chapter 4 for more information on Socio-Technical Theory origins). A balance was sought between the people and the artifacts of work, which included tools, devices, and materials. However, the theory was expanded to also consider the role of the environment (Sundstrom & Sundstrom, 1986; Westbrook et al., 2007). The Household Model reflect socio-technical theory in practice as they reflect the short wall mining group who must work in under-populated settings and therefore must take on a different structure and roles.

More recently Becker (2007) has argued for organizational ecology as a means to think about the complex relationships between social and organizational factors which influence informal interactions and learning patterns. He argues that solely altering the social environment or the physical environment will not produce the desired outcomes for an organization which often thrives on informal learning. Organizational ecology's emphasis on informal learning is a crucial consideration in a nursing home that is embracing culture change as advocates often suggest the need for the nursing home to become a learning organization (e.g. Action Pact, 2008; Hollinger-Smith & Ortigara, 2004). A learning organization is one that continually adapts to the changing needs of its stakeholders by harnessing the collective

knowledge of its members (Senge, 1990). Therefore, organizational ecology's consideration of the environment/organizational fit is particularly relevant to the Household Model which reflects a decentralized social network of people (i.e. including the elders) and a decentralized environment.

Decentralized, Empowered Staff Research Findings. Staff working in these smaller settings which seek to replicate the patterns of home should be consistently assigned, cross-trained and preferably working in teams (Action Pact, 2008; Grant & LaVrene, 2003). The key rationale is staff, if consistently assigned, will foster relationships and have better knowledge of residents. Findings regarding staff preference for consistent assignments are mixed with some studies indicating staff members dislike the practice due to boredom or the heavy care burden of some residents, while other studies found staff prefer consistent staffing due to increased resident knowledge (S. Zimmerman & Cohen, 2010). The authors also state findings from research have not found a clear relationship with consistent assignment and staff turnover, which is a key financial driver in many care communities. Furthermore, consistent assignment does not have strong findings related to positive resident outcomes related to quality of care or resident satisfaction.

Cross-trained staff that adopt versatile roles (i.e. universal workers) working as a team focused upon meeting the holistic needs of the residents are perceived to be the most efficient means of addressing staffing in these decentralized structures, as well as replicating a familiar pattern of a house "mother." The intention is to place decision making in the hands of the resident and those closest to the resident to improve quality while increasing staff satisfaction and retention. A program evaluation of small care settings that utilize versatile workers found

high rates of initial staff turnover and confusion about accountability while cross sectional research has not found universal workers to be associated with positive resident outcomes (Grant, 2002; S. Zimmerman et al., 2005). The involvement of Certified Nursing Assistants (CNAs) in teams has been found to be relatively rare and those teams that are self-managed are even less common (Mukamel, Cai, & Temkin-Greener, 2009). The authors did find that having formal teams to which staff are assigned resulted in a cost savings of $174,000 a year due to medical savings, but these savings did not change significantly when teams were self-managed. In contrast, a study of 3000 CNAs found having staff involved in making decisions was not associated with satisfaction or turnover, while a study of 1500 NH residents found better resident functioning for those requiring frequent care when there are more levels of nursing supervision (Rohrer, Momany, & Chang, 1993; J.M. Wiener, Squillace, Anderson, & Khatutsky, 2009). These results suggest that teams have been found to be cost effective, but a self-directed team does not provide any additional benefits such as reducing turnover and satisfaction or improved care outcomes.

Summary of Household Components Research

Research studies that have looked at the components of the Household Model have mixed conclusions. There are relatively few studies that have examined the primary impact of nursing home size. However, positive evidence for the creation of smaller care settings does exist in the dementia care literature. Evidence for recreating familiar domestic patterns also exists when examining meals settings and offering resident increased choices. Between the three parameters for the Household Model, there is less consistent evidence in the literature

about the benefits and outcomes for a decentralized, empowered staff in the nursing home. The use of teams in nursing homes has been found to have positive social and organizational outcomes; however, the benefits of permanent assignments, self-managed teams and cross-training are inconclusive. Reduced turnover and absenteeism have not been positively associated with staff empowerment in the nursing home. Since culture change and the household model represent a holistic process of change, studying a singular aspect of the model is not always possible or meaningful. This challenge was also evident in the literature (R. A. Kane et al., 2007). The next section; therefore, examines outcomes based upon broader program changes of the household model and culture change.

Outcomes for Culture Change.

Eden Alternative Resident Outcomes. Although the Eden Alternative has been a wide spread culture change movement, research evidence has not been overwhelmingly positive (e.g., Caspar, O'Rourke, & Gutman, 2009; Hill, Kolanowski, Milone-Nuzzo, & Yevchak, 2011). A three year study conducted by Thomas linked the Eden Alternative with reduced medication use, infection rates and mortality (William H Thomas, 1996). In contrast, a two year follow up study in a different care setting found no significant differences in medications and mortality rate, but did find an increase in urinary tract infections and chair bound residents. However, there were reductions in behavior incidents, early stage pressure ulcers, restraint use and bedfast residents (Ransom, 2000). A six-month longitudinal pilot study after implementing Eden principles and introducing plants and animals into the environment had discouraging results. There were no significant impacts on the residents' satisfaction, degree of boredom,

feeling of loneliness or effect on key dimensions of emotional well-being or aggression. Positive engagement was the only measure that was significantly impacted after six months and surprisingly, residents that were cognitively intact reported more helplessness after plants and animals were introduced (Ruckdeschel & Van Haitsma, 2001a). Alternatively, one year after implementing the Eden Alternative, self-reported levels of boredom and helplessness by residents without cognitive impairment were found to be less than a comparable traditional facility; however, no change for feelings of loneliness were detected (Bergman-Evans, 2004). Experts have suggested that part of the challenges of conducting research on the Eden Alternative outcomes is the great deal of variation in which these values can be interpreted into action within the structure of long term care (Caspar, O'Rourke, & Gutman, 2009; Ruckdeschel & Van Haitsma, 2001b; S. Zimmerman & Cohen, 2010).

Culture Change Initiatives Resident Outcomes. The adoption of person centered care approaches has demonstrated positive results in some aspects of resident life. In comparison to a traditional nursing home setting, a two year longitudinal study of three nursing homes that implemented a person-centered care found significant improvements for less forceful behaviors, less physical agitation and a trend for reduced verbal agitation (Burack, Weiner, & Reinhardt, 2012). The person centered care approach was defined by the authors as introducing a community coordinator that oversaw the culture change initiative, staff training, the creation of work teams with enhanced decision making, consistent staffing, a focus on honoring resident choices and minor décor changes. A year longitudinal study of seven for-profit long term care communities engaged in culture change with a resident centered focus compared with 10 traditional care settings, within the same organization, found significantly

higher resident choice and autonomy, but no significant difference in perceptions of dignity (Grant, 2008).

Eden Alternative Staff Outcomes. Similar to the controversial resident outcomes, no change was found for staff satisfaction, or turnover after one organization implemented the Eden Alternative (Brooke & Drew, 1999). However, provider reports of implementing the Eden Alternative published on the Eden website, indicate a reduction in turnover and reduction in the use of agency staff; however, the methodology for determining these results is not shared (Eden Alternative, n.d.) .

Culture Change Initiative Staff Outcomes. A comparative study of different culture change approaches demonstrated that caregivers, who have greater day to day contact with each other, have enhanced perceptions of empowerment and report more individualized care (Caspar, O'Rourke, et al., 2009). The nature of the staff work environment experience also impacts quality of care. Nursing homes with poor staff cohesion (i.e. teamwork, consistent assignment, self-management) have greater odds of residents developing pressure ulcers and are more likely to be incontinent (Temkin-Greener, Cai, Zheng, Zhao, & Mukamel, 2012). The authors also found nursing homes with self-managed teams have reduced risks for pressure ulcers, but no change in levels of incontinence. Consistent assignment, however, was not associated with pressure ulcer risk or incontinence.

David C Grabowski et al. (2014) conducted a pre-post study of a nursing home that adopted culture change in comparison to a nursing home that had not adopted culture change to determine differences in staffing, health-related survey deficiency citations and MDS quality indicators. The authors found a trend in the data for a 14.6% decrease in the health related

deficiencies associated with adopters compared to non-adopters. However, there was not an association of culture change with higher staffing hours or MDS Quality indicators overall, except for a modest improvement in ADL's not declining. The authors believe that these results indicate a potential for culture change to impact the quality of care, but acknowledge that an educated regulator may have impacted the results.

Comparative studies of the methods for implementing culture change have had mixed findings. Caspar, O'Rourke, et al. (2009) reported heightened staff benefits are reported for models developed from within the organization versus a prescriptive program. On the other hand, Munroe, Kaza, and Howard (2011) found formalized methods of training versus informal training methods have yielded better outcomes for culture change. The authors conducted a three year follow up study of 400 nursing staff members engaged in culture change. Formalized training yielded a trend in improvements in leadership practices, depth of culture change, resident autonomy, organizational redesign, empowering supervision, job design, decision making and permanent assignment. Statistically significant differences for formalized training were enhanced resident choices and organizational changes. In contrast, informal training methods trended towards improved decision-making, but this finding is not statistically significant and therefore cannot be ruled out by chance.

Outcomes for the Household Model

This section reports findings for studies that have looked at the overall impact of implementing a household model, Green Houses™ or small house model on resident and staff outcomes.

Household Model Resident Outcomes. Green House residents equaled or exceeded measurements of clinical quality when compared to two traditional nursing homes. Green House residents were also less likely to experience decline in their functional capabilities, such as dressing and eating (Kane, Lum, Cutler, Degenholtz, & Yu, 2007). Green House residents were also significantly more satisfied with four of 11 quality of life measures, which include dignity, privacy, autonomy and food enjoyment. (Kane, Lum, Cutler, Degenholtz, & Yu, 2007). Nonetheless, there are no consistent results related to the health outcomes for Green House elders. Compared to those residents who stayed in the traditional nursing home located on the same campus, Green House residents were more satisfied with their involvement in meaningful activity, sense of individuality and security, and spiritual well-being (Kane, Lum, Cutler, Degenholtz, & Yu, 2007). While no differences are discerned for the social environment of the Green Houses, residents were engaged in more activities outside the nursing home, but participated less in organized activities. Green House staff have anecdotally documented many examples of elders who are eating again, gaining weight, and are becoming less reliant on their wheelchairs after moving into their new environment (March, 2007; Vitez, 2006). Furthermore, families are more are reported to be more satisfied with resident care in a Green House, feel less burdened and demonstrate a trend of being more engaged in a resident's care (Lum, Kane, Cutler, Yu, & Mha, 2008).

One study of a household conversion was found in the recent literature. The conversion of an existing nursing home into a household for 35 residents supported by Eden Alternative training was associated with improved quality indicators on outcomes such as eating, bathing, less daytime sleeping and reduced use of restraints after one year (Chang, Li, & Porock, 2013).

Notably, the authors also found household residents had higher incidences in falls, which have been found by other providers when more independent ambulation is encouraged with dining/activity areas located in propinquity (Personal communication, 2012).

Household Model Staff Outcomes. Green Houses are typically staffed at 5 to 5.2 hours per elder, which account for both nursing and Shabazim time. During the day shift and the evening shift, two Shabazim are located in each house and one is assigned for the night shift. One nurse is shared between two houses during the day shift, but one nurse is assigned to two to three houses during the evening and night shift (Farnan, Kesner, Ortigara, & Spokane, 2010). A follow-up study of the second set of Green Houses built on the Tupelo campus revealed that the ratio was increased to 2.5 Shabazim assigned per house during the day and night shifts resulting in more floating staff than original intended (R. A. Kane & Cutler, September, 2008). A comparative study of staffing time in Green Houses versus traditional nursing homes found overall staffing for Green Houses was 18 minutes (.3 Hours per Resident Day) less compared to a traditional nursing home. There was a difference of 1.7 more hours per resident day for Green Houses for Nursing and 2 hours less for departmental support of housekeeping, laundry, dietary, activities and staff education. Green House residents received 24 more minutes of direct care time with the Shahbazin. Moreover, the Shahbazim spend 23.5 minutes directly engaging with residents outside activities of daily living events compared to Certified Nursing Assistants in traditional nursing homes that spent 5.2 minutes. One third of the Shahbazims' time is spent with residents which includes other activities. The authors conclude that these results indicate staffing efficiencies can be achieved in small care settings and staff can take on additional responsibilities without significantly affecting the quality of care (Sharkey, Hudak,

Horn, James, & Howes, 2011). Evidence indicates that Shahbazim are satisfied with their expanded roles. A comparative study by March (2007) found relative to their counterparts in traditional nursing homes, Shahbazim are much more satisfied with their jobs, believe they know residents under their care better, and are more confident in their abilities to change resident outcomes. A descriptive study based upon interviewing several Shabazim found perceptions of an enabling work environment, enhanced autonomy over time and space, strong relationships, less guilt and reduced stress from work (Loe & Moore, 2012).

The Resource System for Culture Change and the Household Model

Studies that have included some key aspect of costs or monetary benefit related to culture change or the household model are discussed in this section.

Contextual Factors. Nursing homes are obviously impacted by market forces as well as policy decisions specifically related to Medicaid and Medicare. A competing values study of the characteristics of the nursing homes that are engaged in culture change reveals a prevalence of development focused values and all nursing homes surveyed demonstrated a clear focus on market values, which is attributed to the increasing competition and regulatory emphasis within the industry (Jane Banaszak-Holl, Castle, Lin, & Spreitzer, 2013). The selection of culture change strategies have also been attributed to the payer sources of Medicaid and Medicare. Attracting Medicare residents for short term rehabilitation stays has been found to be associated with more environmental changes related to culture change and less emphasis on staff empowerment (Lepore et al., 2015). Environmental changes for attracting short term rehabilitation residents include private rooms, introducing households or neighborhoods, and

introducing kitchens and dining spaces. Qualitative findings by the authors indicate that nursing home administrators are trying to attract short term residents due to higher reimbursement costs from Medicare. No association was found between higher Medicaid Capital reimbursements costs for having a higher number of private rooms or households (Miller, Cohen, et al., 2014). However, the authors did find higher Medicaid rates for a state were associated with a greater likelihood of having more private rooms and for those states with pay for performance there was a greater likelihood of small households.

Costs savings can also be attributed to culture change. A pilot study to examine differences in Medicare and Medicaid costs in Green Houses compared to a traditional nursing home found hospitalization rates are over seven percentage points less in Green House (Horn, Sharkey, Grabowski, & Barrett, 2012). The authors contend that keeping residents in lower acuity payment categories for an extended periods can lead to savings for state Medicaid payments. Savings over a 12-month period in total were estimated to range from $1300 to $2300 per resident depending upon the state reimbursement policies.

Costs to Provide. Costs to implement holistic culture change have also been discussed in the literature. Grant (2008) conducted a longitudinal study of the costs and outcomes for implementing culture change processes in seven for-profit nursing homes compared to eleven traditional nursing homes that did not change (National chain traded on the New York Stock Exchange). While there were significant upfront costs required for staff training, these costs leveled off as the learning curve flattened.

Altering the environment is one of the most significant costs for holistically changing the nursing home and costs tend to be the focus of the trade literature (Shields & Norton, 2006).

Supporters say that construction costs for Green Houses are no more per bed than a new nursing homes and operating costs are also comparable, or less, with medical staff available, as needed, under state law (Vitez, 2006). Depending upon the level of finish, Green House homes cost on average between $1.2 to $1.8 million dollars to construct, which is comparable to Nursing Homes being built with all private rooms and equivalent common space. Location, site conditions and amenities also drive costs as one care community in Massachusetts reported $3.7 million per house versus Redford Michigan costs were about a million and a project in Arkansas was under a million (Abrams, n.d.). Anecdotal evidence reported by various organizations that have implemented Green Houses report either equal costs to traditional care or a savings of $20.00 per day including capital costs or $8.00 to $20.00 less not including capital costs (Farnan et al., 2010). A development consulting firm's newsletter reported that the Household Model was very similar in cost per resident to construct based upon an analysis of twelve nursing homes built or being proposed while inferring the difference in cost is primarily operational (Dickey, 2010).Shields and Slack (2008) prepared a technical brief on the business case for the Household Model which utilizes prospective projections to develop a comparative business pro-forma for different building configurations based upon the number of residents in the households and staffing considerations. However, the authors chose to use the same construction cost parametric for all of the projections which is questionable given the varying scales of construction. Favorable financial outcomes were found for buildings ranging from two houses for 22 residents and up to 7 houses for 10 residents which were sufficient to maintain reasonable debt service coverage ratios of no less than 1.20 if the total source of funds is loans (i.e. assumes no money down). The authors also overlaid their financial findings

with their estimates of which households work best culturally (i.e. socially) with the conclusion that a favorable number ranges from 10 to 20 residents (See Figure 13). These cultural numbers were inferred from a study of the first Green Houses constructed that was led by Kane, et al (2008) and not designed to judge the efficacy of resident numbers , yet the study was utilized by the authors to justify their own arguments. In addition, the authors also relied upon practice based knowledge from operating Meadowlark Hills with households ranging in size from 13 to 25 residents to predict what is an appropriate cultural size for a household which they defined as meeting "the goal of home" (Shields & Slack, 2008, p. 50).

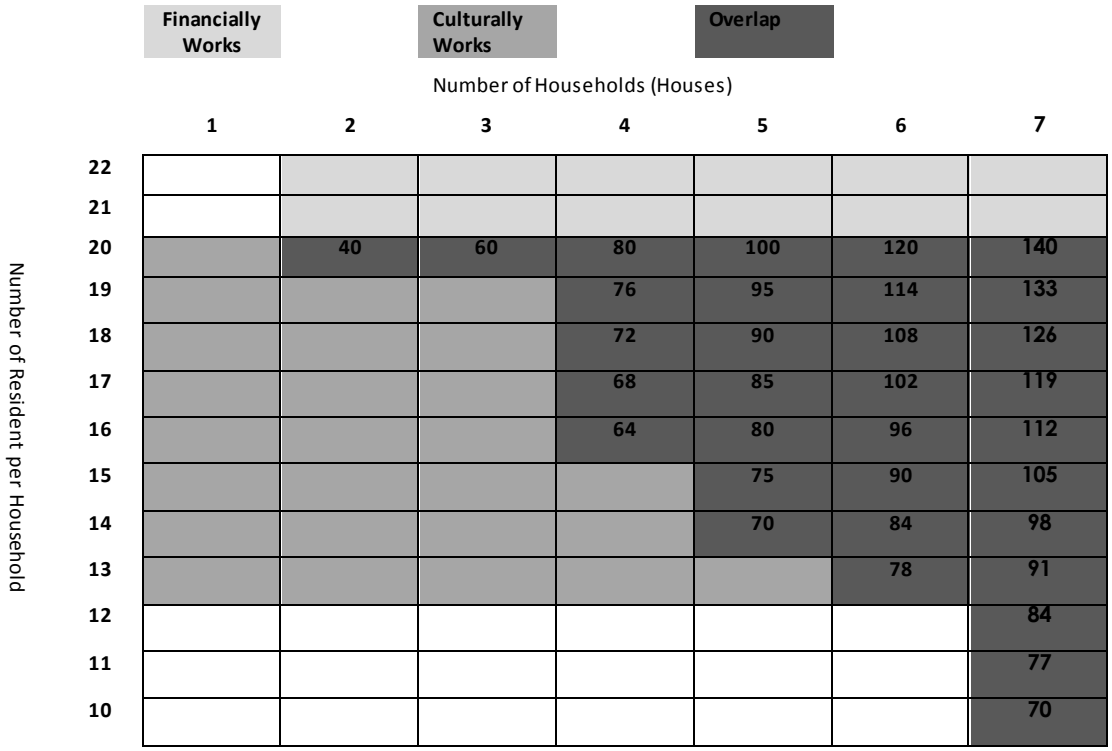


Figure 13. Households sizes that work well culturally and financially, Adapted from *An editorial and technical brief on the household model business case* (p. 52), by S. Shields and D. Slack, 2008, Milwaukee, WI: Action Pact, Inc.

Table 4

Financial Outcomes for Culture Change by Degree of Implementation

	Culture Change Adopters (7 or more Initiatives)	Culture Change Strivers (4 to 6 Initiatives)	Traditional Nursing Home (1 to 3 Initiatives)
Improved Occupancy	60%	57%	44%
Improved Market Perception	78%	73%	54%
Improved Operational Costs	60%	35%	31%
Staff Retention	59%	58%	52%
Staff Absenteeism	50%	40%	35%
Reduced Use of Agency Staff	23%	16%	19%

Note. Adapted from "The Commonwealth Fund 2007 national survey of nursing homes," by M. M. Doty, M. J. Koren and E.L. Sturla, 2007, Retrieved from http://www.commonwealthfund.org/Content/Surveys/2007/The-Commonwealth-Fund-2007-National-Survey-of-Nursing-Homes.aspx

Cost to Operate. There is some evidence to suggest deeper levels of culture change can impact financial outcomes. A 2007 survey of Directors of Nursing found those who embraced culture change by having seven or more initiatives often perceived better financial outcomes over those who were striving for culture change or operating in the standard intuitional manner (Doty et al., 2007). Table 4 outlines several key findings from this survey. The survey found a clear pattern for improved financial indicators for those settings that had a higher number of culture change initiatives. However, this information has limitations as it uses self-reported perceptions and not actual financial numbers. However, when actual numbers are used, corroborating evidence has been found. A study of those nursing homes that were early adopters of culture change from 2004 to 2008 revealed gains in occupancy by three percent compared to matched nursing homes. Those nursing homes that implemented culture change

early also had increased revenue per bed of $11.43 which translated into an additional revenue of $584,072 for a 140 bed nursing home (A. E. Elliot, 2010).

Financially, the original Tupelo Green Houses™ are reported as being "cost neutral, but the administer reports that more is received for the money. In the old model, a large portion of nursing home expenditures supported departments and professionals such as maintenance, nutrition, social work, activities, layers of nursing management, and nurses who were performing largely administrative functions (March, 2007). Tupelo, Green Houses were reported to be operating in the black for three years after opening with 75 percent of residents on Medicaid, and 25 percent paying privately—a ratio common in nursing homes (Vitez, 2006). Although, no follow up data is available for Tupelo, six additional Green Houses were constructed in 2006 for 12 elders each due to financial viability (Cutler & Kane, 2009). Ten is the maximum number of elders who can reside in a single Green House and still be licensed. However, twelve elder houses are permitted when a financial exception is required and several organizations have been granted this exception (Wielawski, 2011).

The Green House staffing model is intended to reduce hours in outside departments (i.e. activities, housekeeping and laundry) and shifts these hours into the responsibilities of the Shahbazim. Shahbazim are paid ten percent higher wage than a traditional certified nursing assistant. Preliminary financial costs based upon a work flow study of Green Houses in comparison to Traditional Nursing Homes reported savings of $2.93 to $24.54 per elders/day by utilizing the hours and five year average salary or median salary ranges for various staff members (Farnan et al., 2010). Subsequent Green Houses continue to tinker with the staffing model to better integrate nursing staff into the house due to concerns of Shahbazim lacking

training for advanced clinical situations or adjusting the ratios for residents with higher care needs (Wielawski, 2011). Based upon the findings of operators and developers, it is very challenging to operate a Green House efficiently without at least two houses due to the efficiencies achieved by sharing staff between houses (R. A. Kane & Cutler, September, 2008).

Key Literature Findings

The amount of empirical evidence is greater for the Green House™ model compared to the household model. The new construction of a Green House with its prescriptive model facilitates comparative studies, which may be more challenging to conduct due to the loosely defined aspects of the household model that takes numerous forms and involves renovation or additions. Finding research for outcomes of the various components of the household model is challenging as most program changes involve multiple strategies. There is positive evidence for resident outcomes to support the creation of smaller functional groups and the replication of familiar domestic routines particularly in the dementia care field. The component of the empowered, decentralized staff working as a team has less conclusive evidence for positive outcomes. However, one wonders if the staff research findings could be potentially different if these changes were concurrent with an environmental change or a change to the overall organizational structure of the nursing home.

While resident and staff outcomes still dominate in the culture change research literature, studies that consider organizational outcomes are increasing. Shier et al. (2013) review of the culture change evidence found that 28 of the included 36 studies focused on resident outcomes, 17 incorporated staff outcomes, but six included organizational outcomes

(i.e. occupancy, revenue, etc.). Notably, Green Houses that were originally studied for resident outcomes are subsequently being reviewed for issues related to operational costs. The original intention of the Green House model to develop remotely located on a campus separated houses staffed primarily by a limited number of staff members with versatile roles has numerous operational concerns. While time studies found the Shahbazim have the time necessary to provide care and take on the additional responsibilities to operate the house, the original provider of Green Houses tweaked the staffing model and increased the capacity of each house due to operational concerns. Furthermore, researchers have also indicated that the small staff number and the remote location may have negatively impacted resident participation in some activities. Currently, no such study of operational efficiency exists in the literature for the interconnected designs of the household model in a long term care setting. While the household model and Green House model share similar components, the household model may have some economic advantages by being in an interconnected building.

Culture change research evidence tends to focus on outcomes. There are very few complete cases illustrating the costs and values associated with a nursing home's culture change process. Shier et al. (2013) also reported a lack of culture change implementation studies in a review of the culture change evidence literature from 2005 to 2012. The use of large datasets to compare nursing homes that have adopted culture change with non-adopters has demonstrated positive economic outcomes for providers in the form of greater occupancy and improved revenues. Studies have also found a trend for the presence of more environmental changes for culture change (i.e. private rooms or households) with more residents receiving short term rehabilitation reimbursed through Medicare and higher Medicaid

rates for the state. These findings demonstrate the economic pressures that nursing homes are facing and the risks that are being taken when adopting a new person centered model. Monetary policies are impacting culture change strategies and reshaping the nursing home into a care setting with a dual population of short and long term residents. Hence, there is a call for more evidence based guidance when resources are a scarcity (Shier et al., 2013). Table 5 summarizes some of the key monetary factors suggested for adopting the household model or culture change from the literature review. These factors were a starting point for further exploring these monetary topics from the perspective of the three cases.

Table 5

Potential Monetary Factors Generated from the Literature Review

Organization	Resident	Staff
Payer Sources	Resident Characteristics	Staff Structure
Private Room Differential	Resident Satisfaction	Full Time Equivalencies
Changes in Capacity	Family Satisfaction	Staff Turnover
Occupancy Rates	Quality Indicators	Staff Retention
Operational Revenue	Re-Hospitalization	Staff Absenteeism
Market Indicators		Staff Satisfaction
Deficiencies and Citations		Use of Agency Staff
Costs of Consultants		
Training Costs		

CHAPTER FOUR - METHODOLOGY

The previous chapters described the challenges of nursing homes and the culture change movement as a response to rethink the place type. The household model was introduced as one example of a comprehensive change for nursing homes that addresses the challenges, as well as the need for more evidence to assist organizations that adopt the model, which often have limited resources. A systemic framework was introduced to study the resource system of innovative, socio-technical systems in which the environment is altered. Next, a summary of the literature related to the household model was presented. This chapter presents the methodology for exploring the resource system of introducing a household model utilizing a pragmatic, comparative case study approach.

Rationale for Epistemology

The research strategy for this inquiry is based upon six primary premises. First, the organization is engaged in a purposeful action to systemically change the nursing home's physical environment, the organization and the operations. The primary goal of these changes is addressing the holistic needs of the residents and not just their medical needs (Koren, 2010). This overarching goal is entrenched in practices of normalization (e.g. Nirje, 1970) in order to replicate the daily life of a home within the household. While this goal has a clear trajectory, the path to reach this goal is extremely malleable. A second premise is that the household model of culture change is primarily being informed through practice-based knowledge (e.g. Wenger & Snyder, 2000). Each organization is making decisions based upon their own conjecture or replicating the practices of other organizations. A third premise is each of the

nursing homes is engaged in a double loop learning cycle (e.g. Argyris, 1977) of trying different practices to achieve their goals and are continually refining their practices. A fourth premise is the household model not only changes the patterns of work in a nursing home, but the model also reframes the staff's social roles and relationships. A fifth premise is that measurement of a culture change value must include all stakeholders including residents, family members, staff as well as the organization. Finally, a sixth premise is the resources systems are not consistent across each nursing home and must be made explicitly described. The following section further discusses the ramifications of these six premises through various methodological approaches.

Pragmatism

Pragmatism is the underlying paradigm for this inquiry in which a postmodernist view of knowledge is considered to be shaped by the "subjective and culture context of the knower" (Fishman, 1999, p. xxi). Building upon pragmatism is neo-pragmatism which considers human beings to have goals and purposes to their actions in which they wish to achieve a desired result. From the pragmatic paradigm, the three organizations in the study have a purpose to change the organization and knowledge about those outcomes is contextual. Costs and values will not be considered absolute truths and require couching findings from within a context. A pragmatic perspective also lends itself to the utility of the research for improving the future actions of other organizations who wish to adopt the household model. This exploratory inquiry is also intended to inform future research inquiries which may offer a targeted inquiry with a finer grain of analysis.

Traditional Program Evaluation Research

Traditional Program Evaluation Research provides a background context for this study. Nursing homes are examples of human service organizations that have been created to achieve societal goals. Fishman (1999) notes that," . . . To conduct an 'evaluation' of a human activity is to study it and come to a judgment about its value" p. 32). Therefore, Fishman (1999) argues that program evaluations of human services organizations are most effective when clear goals are stated in advance (p. 150). Furthermore, program evaluation requires more than just an understanding of goal attainment. Fishman (1999) argues for a broader meaning of program evaluation to also include the conception, planning and the processes involved. Rossi and Freeman (1985) similarly state that, "Evaluation research involves the use of social research methodologies to judge and improve the planning, monitoring, effectiveness, and efficiency of health, education, welfare, and other human services programs" (p. 19). Traditional Program Evaluation supports a rationale to evaluate the value of the household model based upon its goals and to systemically focus on the creation process, the current operation as well as the outcomes.

The Role of Practice Based and Double Loop Learning

Another foundational aspect for this study is the role of practice-based knowledge. There is a long standing divide in field of psychology between the role of practice based knowledge and research based knowledge (Fishman, 1999; Donald E Polkinghorne, 1992). Whereas academic psychologists are often guided to test a theory, practitioners are guided by addressing the needs of a client (Donald E Polkinghorne, 1992). A similar divide has been

argued to exist between researchers (i.e. those who study) and practitioners (i.e. those who design and operate) in the field of environmental gerontology (Kaup, Proffitt, & Abushousheh, 2012; Wahl & Weisman, 2003). One solution to bridge these divides is to recognize the role of practice based knowledge within a framework of double loop learning with a reciprocal application of knowledge which may reframe the issue (Argyris, 1977). For example, Peterson (1991) developed a framework for "professional activity as disciplined inquiry "to describe what a practicing psychologist does (See Chapter 2). Instead of starting with a theory, a practitioner starts by addressing the needs of the client, which is orchestrated by a *Guiding Conception*. This Guiding Conception may be a combined knowledge of epistemology, theory, the program's goals and ethics and past knowledge. After a course of action is formulated and implemented, an evaluation phase begins. The results of the evaluation may inform future practices as well as research development. A similar framework exists for practice based action research in which a researcher is involved in a research process with an organization and reciprocally applies the information gleamed to address the issue (Wahl & Weisman, 2003). Therefore, Action Based Research is viewed as applied research since it is problem focused and has immediate utility (Kaup et al., 2012; McNiff, 2013). However, findings are not always generalizable to other organizations (Sommer, 1997). Understanding the context and the organization is thus a critical aspect of any inquiry or future action (Moore, 2000; Schneekloth & Shibley, 1981).

Practice based knowledge that is situated in this context is considered a useful form of data in this study. This study is a modified example of a disciplined inquiry in which I am engaged in evaluating an organization that has already assessed, formulated and implemented a change process. Thus, I am not taking an action-based approach in which I am engaged with

the entire process of change. However, I am seeking to understand the process of change actions and evaluating the resulting outcomes. Moreover, this study is not designed to test a theory, but it is intended to inform practice and future theoretical development. To facilitate this process, a framework was developed as a guiding conception (See Chapter 2). Intrinsic to this conceptual model is the idea of continued learning from change or a double loop learning cycle. None of the three organizations studied consider the culture change process finished and continue to refine the model as a learning organization.

Organizational Change Theories

A shifting view of the loci of change within organizations is an underlying premise that expands the nature of what is considered an outcome for this inquiry. Traditional organizational change studies were entrenched in the context of an industrial factory that favored centralized designs, standardization and hierarchical accountability structures (Fishman, 1999, p. 255). The focus of change was primarily on the structure of the organization to promote efficiency. Fishman (1999) notes that total quality management views have expanded this focus as decentralized organizational design emphasizes team cooperation and autonomy of the workers. Burke (2013) identified Socio-Technical Theory as a first generational organizational development theory that embraced this expanded vision. Trist (1982) describes the evolution of socio-technical theory arising from studies conducted by the British Tavistock Institute around the 1950's for the coal industry. Long wall coal mining was the favored approach because of the perceived efficiencies of utilizing mechanized equipment and a hierarchical centralized management oversight. Coal could be easily extracted along a long

exposed wall and thus jobs were broken down into single tasks similar to a factory production line. Despite the mechanization and standardization, productivity was low, while worker turnover and absenteeism was high. A new coal seam was found at Haighmoor that could only be mined using short wall techniques which implied the coal could be only reached through narrow openings and long tunnels. The nature of the work resulted in the creation of small autonomous teams who adopted flexible roles to extract their portion of the coal. The research team discovered that despite the lesser degree of mechanization in the short wall system, productivity was high and staff turnover and absenteeism much lower. Trist (1982) suggests that this was the realization of a new paradigm of work in which the worker was a complimentary to the machine and not just an extension. Both technical and social (i.e. human) aspects of work should be considered when designing an organization. Long wall versus short wall coal mining is analogous to a traditional centralized nursing home versus the decentralized household model. The change to a decentralized environment corresponds to the decentralized staffing structure. Furthermore, culture change advocates view positive changes to staff well-being as essential as resident well-being (Abushousheh et al., 2010). Socio-Technical Theory is a guiding conception for this study of costs and values as it provides a lens for understanding outcomes for various stakeholders including the residents, staff and the organization as well as society. Furthermore, socio-technical theory also encourages a micro to macro level of inquiry. According to Trist (1993) three key levels to consider include the primary work system, the whole organizational system and the macro-social context. For this study a rationale was developed to consider each household, the overarching organization and the surrounding context of the industry in the inquiry.

Case Study Method

The methodology chosen for this inquiry is a comparative case study with a longitudinal design. While definitions for a case study often relate to the topics a study addresses, Yin (1989) argues for a technical based definition:

> A case study is an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident: and in which multiple sources of evidence are used (p. 23).

A longitudinal design of the cases provides an opportunity to compare outcomes before and after the household model is adopted, both quantitatively and qualitatively. The rationale for a longitudinal approach is based upon the challenges of comparing different nursing home budgets since there is no exact standard; therefore, using cost data from the same setting is one means to mitigate these effects. Moreover, qualitative findings can include participants' perceptions of the reasons behind changing outcomes. Drawing from Polkinghorne's (1992) argument for a new epistemology of practice, Weisman (1998) argues that there is utility in environmental design research that impacts real world decision making by shifting the emphasis from "knowing that" to "knowing how" (p. 15). Accordingly, case studies are often employed in pragmatic research paradigms because they offer contextual based knowledge to understand the results of purposeful actions (Fishman, 1999). Fishman argues for implementing a systemic, holistic approach to describing and evaluating these model programs in which socio-political goals are measured. Thus, studying a well-functioning model program within a local context is a useful approach to "improve the lives of particular individuals, groups, communities, and societies within specific historical and cultural contexts" (Fishman,

1999, pp. 131-132). This research study also employs a multiple case study strategy, which Fishman (1999) suggests provides opportunities to identify variability and similarity within the bounds of the guiding conception (e.g. Household Model). Finally, the use of more cases increases the capacity to transfer findings to other organizations compared to presenting only one case study.

Mixed Methods Approach

Both qualitative and quantitative measures were utilized in this study. The use of mixed methods fits within the pragmatic paradigm as well as the case study approach. For this exploratory study of three cases, quantitative data is intended to be descriptive versus inferential (e.g. cost reports, occupancy rates, turnover, etc.). Fishman (1999) argues that pragmatic studies "place high value on standardized, quantitative, measures which can descriptively document relevant base rates in the larger context in which the case studies take place" (p 171). Mixed methods are often encouraged in pragmatic research designs which utilize both objective and subjective knowledge sources (Morgan, 2007). Therefore, subjective knowledge sources such as interviews and observation are other key sources of information. Yin argues that multiple data sources serve to triangulate findings. Furthermore, a mix of both qualitative and quantitative methods have been argued by Parmelee and Lawton (1990) to "move the field of environmental gerontology beyond it languishing state (p. 483). These authors are not alone. Since 1996, the use of mixed methods in National Institutes of Health funded studies has steadily increased (Clark Plano, 2010). Cresswell, Klassen, Plano Clark and

Smith (2011) highlight the benefits of mixed measures in health science research in the following statement:

> For example, quantitative outcome measures may be comprehensible using qualitative data. Alternatively, qualitative exploration may usefully occur prior to development of an adequate instrument for measurement. By including qualitative research in mixed methods, health science investigators can study new questions and initiatives, complex phenomena, hard-to-measure constructs, and interactions in specific, everyday settings, in addition to experimental settings (p. 6).

As the household model is a relatively new and complex phenomenon with uncertain outcomes, the mixed methods approach is a relevant approach to explore the topic of costs. New uses of mixed methods encourage a purposeful research design that supports the science and the need of the study (John W Creswell et al., 2011). For this study, quantitative data was sought for each case that is further explained by qualitative findings. In the absence of the availability of quantitative data, only qualitative data will be presented. Due to the exploratory nature of the study an emergent design is planned in which decisions about the use of the data are not pre-determined (J. W. Creswell, 2014). Both quantitative and qualitative data will be concurrently gathered and the point of interface between the two data source will be primarily during the data analysis period; however, some clarification of quantitative findings will occur during the data collection phase with key informants.

Values and Costs as Evidence

Teedie and Tashakkori (2009) argue that pragmatism accepts that knowledge gained through research may identify causal relationships: however such associations are transient and difficult to identify. Gillham (2000) suggests that case study research is quasi-judicial in which evidence is within the case, and must be uncovered and tested against a reasonable argument. Hence, a case study inquiry should illuminate: the meaning of the process that generated outcomes, the meaning of changes that occurred, consider the generalizability of data as suspect outside of the context, and emphasize the importance of context for evidence (Gillham, 2000, p. 8). The goal for this study is to produce evidence that is anchored within the context of each case, but illuminate any consistent patterns found among the three cases. The context for each case will contain longitudinal evidence from the organization before and after the household model was adopted.

The Household Model in long term care is a human service organization, but outcomes such as quality of life or quality of care are complex and difficult to associate with numerical or monetary outcomes (e.g. Capitman et al., 2005b; Mary L Fennell & Ann B Flood, 1998). Similarly, Fishman (1999) argues that costs are single dimensional elements, but cost effectiveness requires multiple dimensions. Therefore, a broad range of financial indicators will be considered in the study. As an exploratory study the intention is to illuminate areas of monetary differences and not derive an exact dollar amount of cost differences. Such calculations would be difficult to provide objectively and are highly contextual driven. Fishman (1999) further suggests that indicators of effectiveness should be grouped into process indicators or how the system works internally and outcomes for how well the system is

accomplishing the goals externally. Internal process will be primarily based upon how the three organizations met their intended goals for culture change. External system outcomes will be useful to benchmark outcomes to other nursing homes as well as other nursing homes embracing culture change.

Methodology

The previous section discussed the underlying rationale for the pragmatic, comparative case study approach for this inquiry. The next section will provide a detailed description of the methodology.

Case Selection

Inclusion of a nursing home as a case for this study was based upon three criteria. The first criterion was each nursing home had to reflect the three parameters of the Household Model stated previously: 1) Small functional groups of residents, 2) Replicate familiar patterns of home which includes dining in the household and 3) Decentralized staff working in teams (See Chapter 1 for household definition). A second criterion was the nursing home needed to be operating in the new Household Model for a minimum of three years to allow time for the operators to adapt to the model. A third criterion was the nursing home needed to be open to the idea of research and willing to share financial information.

The three nursing homes selected for the study represent a convenience sample of early, exemplary household models as part of a culture change process. Representatives from two of the case settings participated in a Think Tank to help define the households, which

occurred in 2010 that was partially cohosted by myself. At that time, I introduced the study to these representatives and worked with them to receive permission to conduct the study at their corresponding organizations. Initial conversations were used to confirm that the nursing home met the three criteria and were an exemplary example of the household model. The third case study was identified from a common association among the three cases with the Association of Household Households International (AHHI); a support group that was being formed to promote the household model. Permission to use the third case study occurred by conversations with the community leader and the culture change coordinator. To protect the anonymity of those who participated in this research, pseudonyms are used for each organization and exact locations are not disclosed.

Table 6

Descriptors of the Three Cases and Key Timelines

	Case 1	Case 2	Case 3
Pseudonym	Prairie Town Home	Franklin Village	Five Sisters Home
Organization Type	Hospital Attached	CCRC	CCRC
Environs	Rural Town	Ex-Urban	Suburban
State	Minnesota	Pennsylvania	North Carolina
Number of Households	6	4	6
Size of Households	15-17	16-21	17-23
Culture Change Initiation	2001	2004	2003
Initial Household Opening	2005	2006	2007
Construction Completed	2006	2007	2009
Site Visit Date	March 2012	June 2012	September 2012

The three nursing homes included in the sample are all part of larger organizations, and each is located in a different state with dissimilar environs (See Table 6). As each nursing home

is part of a larger organization, the boundaries of the case studies will fall primarily at the nursing home; however, the broader context of the organization will be considered. All three cases initiated their major culture change processes and completed construction within three years of each other. At the time of the site visit in 2012, the cases had been operating in their new environments from three to six years. However, all three began transferring their organizational culture at a much earlier date.

Case Study Activities

A variety of data sources were consulted to generate each case. Information was compiled using published data sources, the archival records of the community, interviews with key informants, observations of routines and floor plan analysis (See Data Sources Below for More Details). These sources generated both qualitative and quantitative data primarily aimed at answering the research questions through the completion of a comprehensive questionnaire to build each case. This questionnaire was based partially upon a preliminary literature review conducted to ascertain areas where cost and value outcomes most likely would occur while providing opportunities for emerging ideas from the informants and information sources. The majority of the information collected was during a four to five day site visit to each provider.

Pre-Site Visit Activities. Before conducting the site visits, the study was reviewed by the Institutional Review Board of the University of Wisconsin-Milwaukee and granted approval under the category of Exempt from a full board review. Initial organizational data was compiled from publically available government data sources such as CMS Nursing Home Compare website's archival records, CMS Nursing Home Cost Reports as well as the Brown University LTC Focus website which provides archived summary statistics (LTCFocus, n.d.). The intent for collecting this information prior to the site visit was to provide the participants with contextual data to react to during the interviews. The key informants were also notified of the types of information that were being requested for the study in advance of the site visit. One key issue that was clarified in advance was the emphasis on costs and the outcomes for staff and the organization. While the study was interested in general resident outcomes due to adopting the household model, an IRB approval for interviewing residents was not obtained due to the time constraints of the site visit and the emphasis on the resource system. A household affordance survey was generated from the literature review to ascertain what environmental elements would be representative of an ideal household design. The affordance survey provided an opportunity to compare the environmental features of each household. Floor plans of each case were obtained from public sources (i.e. design competition entries) and initially analyzed and benchmarked using the affordance survey. Potential participants were notified in advance of the study by the key informant who was provided an information sheet. Whenever possible, interview participants were notified of the upcoming site visit by telephone or email and an appointment was scheduled. The architects for each of the projects were contacted and an in-person interview was requested during the time of the site visit.

Site Visit Activities. At each site visit, I worked with a key informant who coordinated the research activities and provided an introduction to the staff members as well assisted with determining which staff would be the best sources of information. In order to maximize the time spent at the organization, guest accommodations were found on the campus, which provided 24-hour access to the nursing home for the purposes of informal observation. Key initial activities involved photo documenting the households and annotating floor plans for any variations and clarifications. In addition to a main interview with a key informant and a member of leadership, seven interviews were planned with those staff members who oversee key cost areas as well as the leadership of the new households (See Data Sources below for more information). However, the number of interviews expanded depending upon the nature of each case and the knowledge of the individuals (See Table 7). For example, several of the cases preferred that I speak to more than one household coordinator to provide a broader perspective. During the interviews, archival records of various data sources were requested and either obtained during the site visit or afterward. Finally, time was spent on the households at various times of the day observing the daily routines and activities whenever possible. During these observations, informal conversations would frequently occur with the household staff members as well as with the residents. Throughout the visit, the key informant served as a source of clarification for observations or any questions about the data gathered. More detailed information about the types and amount of information collected are discussed in the following section.

Data Sources

As discussed previously, five key types of information were consulted to generate the content for each case (See *Figure 14*). The following section will describe each data source in detail and the rationale for its analysis.

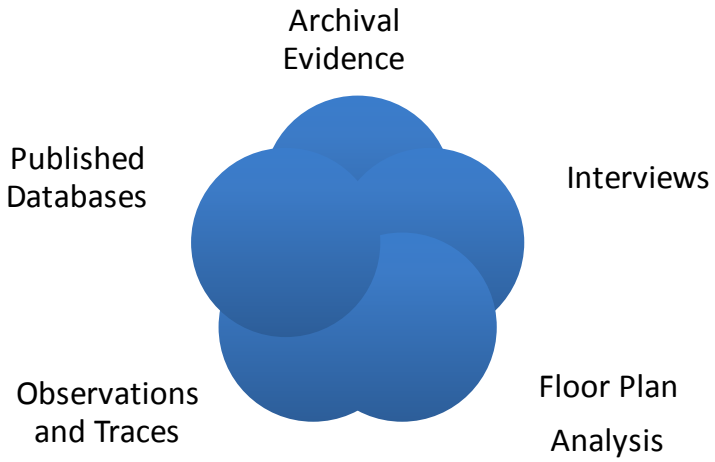


Figure 14. Primary Data Sources

Table 7

Interviews Counts

	Number of People	Time Recorded
Prairie Town Home	13	15 HR / 1 MIN
Franklin Village	14	12 HR / 46 MIN
Five Sisters	13	17 HR / 31 MIN
Total	40	46 HR / 18 MIN
Architects	2	2 HR 17 MIN
Total Interview Subjects	42	48 / 35 MIN

Interviews

A total of 42 interviews were conducted for this study (See *Table 7)*: 1), which included three types of people: 1) Key informants, 2) departmental cost center informants and 3) architects.

Key Informant and Executive Interviews. For each case, one person at the organization served as a key informant. This key informant was typically a member or former member of the nursing home's administrative staff and was significantly involved in the nursing home's culture change process. As stated previously, the key informant was also relied upon to identify which members of the organization would be the most knowledgeable about the impact of households on the organization and financial outcomes. In addition to the key informant, an interview with the chief executive officer was also requested. Both the key informant and the executive officer were essential for completing the facility portion of the questionnaire, which included descriptions of the organization, the change process, the impact of the change process, the cost of changes and any indicators of financial differences after the household model. The key informants and executive officers were also asked to comment upon data collected from publically available sources and provide reasons behind the data. In some instances, leadership would refer me to other individuals within the organizations for detailed records or more information. At the end of the site visit, the key informant helped to clarify any concerns and served as an occasional resource as I further analyzed the data or questions arose from other interviews. These interviews were recorded and transcribed into Microsoft OneNote 2010, a note taking software that links recordings to the text. Interview questions were both closed ended and open-ended. Closed-ended questions had a specific answer

needed (e.g. how many independent living cottages are on campus?), while open-ended questions gave the participant significant leeway to respond (e.g. What costs have increased with the households model?). Closed-ended questions served as the basis for the descriptions of each case before and after households. Open-ended questions served as the basis for uncovering outcomes for the household model or defining the context for outcomes. Open-ended responses to questions were thematically analyzed by applying tags in OneNote to identify and group similar thoughts (Braun & Clarke, 2006; Mostyn, 1985). Each of these tagging exercises was conducted a minimum of three times to ensure the credibility and dependability of the findings (Lincoln & Guba, 1985).

Cost Center Interviews. To ensure that the case studies were comparable, interview subjects were originally sought who represented a key departmental focus. The departmental organizational system of a nursing home is well documented in the literature. Traditional nursing homes operate in a hierarchical organizational structure with most departments having several levels of authority (See *Figure 15*) under the nursing home administrator. Each department is typically responsible for some aspect of the nursing home operation and thus are referred to as a cost center. These cost centers include:

- Administrative – Responsible for the management of overall nursing home and business aspects.
- Social Services – Responsible for the social welfare of residents, coordination of services as well as admission and discharge.
- Activity – Responsible for the coordination of resident recreational activities
- Nursing – Responsible for the medical care of residents
- Dietary – Responsible for food service

- Environmental Services – Responsible for maintaining the building, grounds, laundry and housekeeping

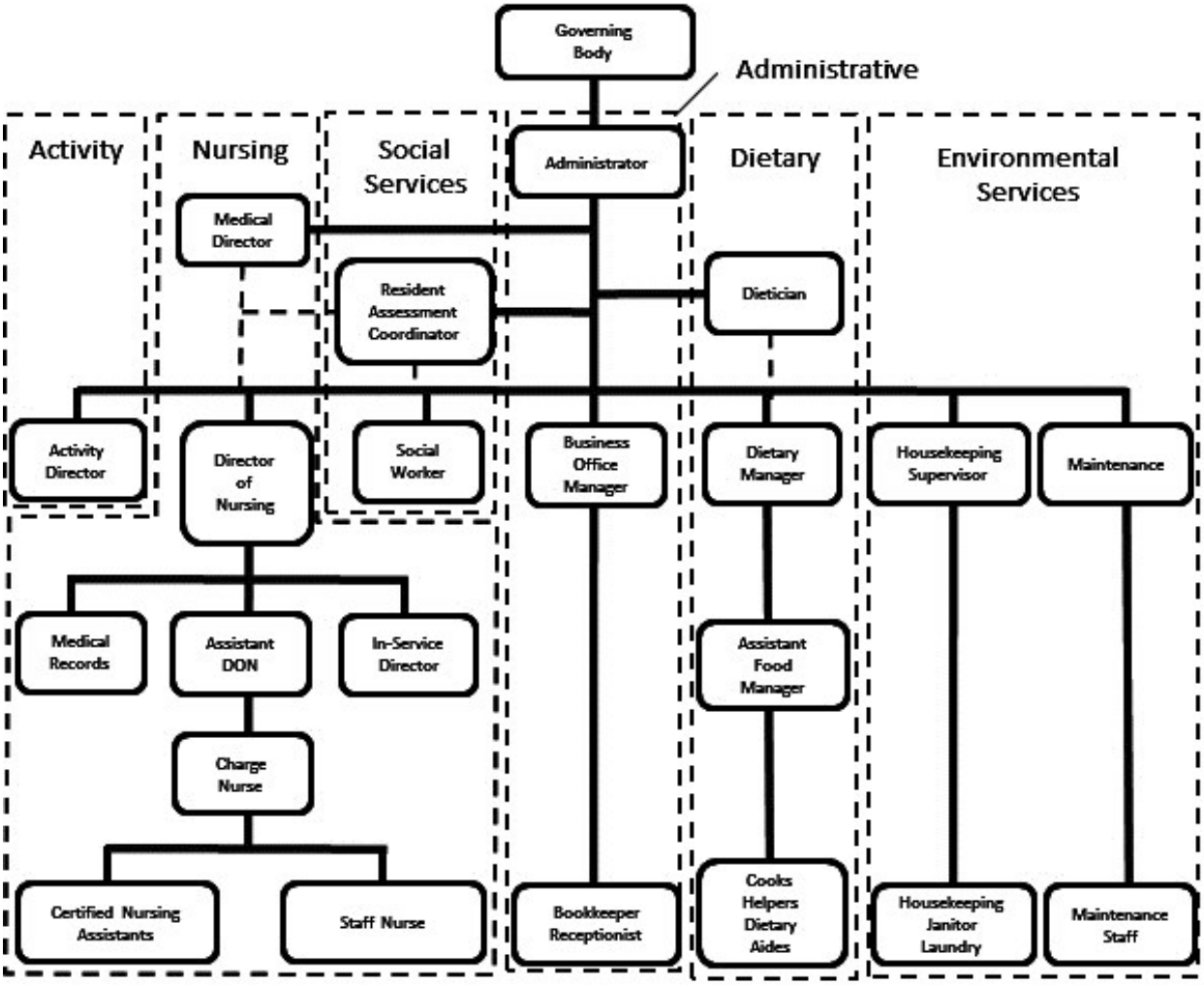


Figure 15. Organizational Chart of Typical Nursing Home with Key Cost Centers, Adapted from *Effective management of long-term care facilities* (p. 247), by D. A. Singh, 2010, Sudbury, MA: Jones and Bartlett Publishers.

These departments and their associated costs were a starting point for the comparative case studies. Because these nursing homes were not freestanding facilities, some differences in departmental structures were anticipated. It was further anticipated that moving from a

traditional nursing home organization to a Household Model would most likely result in alterations to the departmental structure, and that some department roles would change or be eliminated. However, these essential cost centers would still remain and would be useful for making resource comparisons within the cases over the course of culture change and between cases for across case comparisons. Household coordinators were added to the interview list as these individuals represented unique social roles in each household that were not reflected in the traditional nursing home organization. For each of these cost centers, key organizational dimensions were assessed based upon a framework developed by Sundstrom and Sundstrom (1986) to organize literature related to workplaces. These key dimensions included:

- Size of the Organization – spatially and people
- Centralization of people decision-making, authority and control, environment
- Configuration of roles and work units including the number and size of subdivisions and subgroups
- Formalization of roles
- Specialization or number of jobs
- Standardization of procedures and specialization of tasks
- Interdependence of organization among tasks

Interview subjects were also asked how the department changed or did the role of the department change due to culture change and the household model. Finally, subjects were asked to discuss how they felt these changes impacted the effectiveness and efficiency of the department (or there focus). A total of 40 staff members were interviewed at the three organizations (See Table 7). Similar to the key informant interviews, these interviews were recorded and transcribed into Microsoft OneNote 2010 and thematically analyzed to identify

patterns (Braun & Clarke, 2006; Mostyn, 1985). This thematic analysis was guided by the conceptual framework presented in chapter three with a focus on identifying the impact of the household model on the resource system.

Architect Interviews. Before the site visit to Case One, representatives of the provider suggested that I speak to the design architect in order to get a comprehensive view of the construction process and the intentions behind the household design that occurred over six years prior. This interview proved invaluable to uncovering the intentions behind the design decisions, the constraints on the project and how the design process dovetailed with the culture change process. Based upon the experience with the first site visit, the architect for the other two nursing home transformations was added to the study. By coincidence, the design architect for Case Two was also the architect for Case Three. Both architects work in the healthcare/senior living field and provided helpful information about not only the case study projects, but also the costs involved in constructing the household model. Both architect interviews were recorded and transcribed into Microsoft OneNote. Patterns were identified using thematic analysis to illuminate how costs differ for constructing the household model (Braun & Clarke, 2006; Fishman, 1999). These interviews also clarified the process of change, the goals of change and the intentions behind the design of the physical environment. The architects also shared their involvement with the providers' overall culture change process.

Public Databases

Due to the broad exploratory nature of the case studies, only databases that were free of charge, stripped of any resident identifiers and publically available were utilized. A key

source of descriptive statistical information about each case were the published Centers for Medicare and Medicaid Services (CMS) records that are required of all Nursing Homes that receive Medicaid and Medicare funding (P. Smith, Mossialos, Papanicolas, & Leatherman, 2009). These records are primarily available on the CMS website and some data is available at the facility level instead of aggregate form for the regions or state. A second public database utilized for this study was public statistics for nursing homes available at state websites. Finally, a third form of nursing home data at the facility level was extracted from the Brown University, School of Public LTC Focus website that currently summarizes several sources of nursing home facility and resident information in a consistent method and format for the years 2000-2014 (LTCFocus, n.d.). The database file is available for download in a spreadsheet form, but statistics can also be compiled using the graphical interface on the website. The sources of the data include the Minimum Data Set (MDS), Medicare Denominator, Residential History File, CMS's Online Survey, Certification and Reporting (OSCAR), Area Resource Files for County and Characteristics, and State Policy Surveys.

Archival Records of the Organization

The review of literature revealed areas were process indicators and outcomes for culture change have been suggested by other providers and researchers (See Table 5). Before and during the site visit, records were requested for a period before adopting the household model and a period after adopting the household model. If detailed records were available and applicable, information for three years prior to the household model and three years after were collected (See Table 6 for time periods). Table 8 provides an overview of the types of archival

records gathered for the three cases based upon the conceptual framework components. If actual records were not available, then this information was discussed during the interviews and when possible the data was recreated from these discussions.

Table 8

Archival Records Gathered from Three Organizations

Organization	Before HH	After HH
Organizational charts for providers entire organization	◆	◆
Organizational chart for nursing home	◆	◆
Organizational leadership committee and purposes		◆
Nursing Staffing Pattern for Day, Evening and Night Shift	◆	◆
Full Time Equivalent staff (FTE's)	◆	◆
Use of Agency Staff	◆	◆
Staff Job Descriptions		◆
Resident Characteristics	◆	◆
Environment	Before HH	After HH
Number of Beds (Residents)	◆	◆
Number of Privates and Semi-Private Rooms	◆	◆
Square footage	◆	◆
Objectives	Before HH	After HH
Timeline of culture change and construction		
Goals and intentions for culture change	◆	
Artifacts of culture change surveys	◆	◆
Activities	Before HH	After HH
Operational routines	◆	◆
Culture change tourism and consulting		◆
Context	Before HH	After HH
Market Indicators for the area		◆
Competitors with and without culture change in the area		◆
Resource	Before HH	After HH
Culture change process costs		◆
Construction/renovation costs		◆
Salaries for Nursing Staff and Support Staff		◆
Agency Staff Costs	◆	◆
Cost report information before and after culture change	◆	◆
Operational Costs and budgets	◆	◆
Daily room rates and private room differential		◆
Process Indicators and Outcomes	Before HH	After HH
Staff Turnover	◆	◆
Staff Longevity	◆	◆
Staff Satisfaction Surveys	◆	◆
Resident/Family Member Satisfaction Surveys	◆	◆
Resident Quality Indicators	◆	◆
Occupancy	◆	◆
Philanthropy and Fundraising	◆	◆
Volunteerism	◆	◆
Re-Hospitalization Rates	◆	◆
Citations and Deficiencies	◆	◆

Floor Plan Analysis

Floor plans were gathered for the three nursing homes before and after culture change. Since these drawings were not always to scale, square footage numbers were drawn from archival records. Floorplans were used to confirm the construction process and understand the daily routines of the household. Floor plans were analyzed using a Household Affordance instrument developed for this dissertation. The purpose of the Instrument is to judge the qualities of the physical environment for each of the 16 households included in the study. These qualities reflect the essential elements of the household model which include: Smallness, Household identity, Familiar patterns, Community connections, and Seamless service (See Chapter 7 for more information). The before and after floorplans were also analyzed using space syntax type graphs using a NodeXL network graphing plug in for Microsoft Excel (Hansen, Shneiderman, & Smith, 2009; Hillier & Hanson, 1984; Socialmedia Research Foundation, 2014). Social Network graphs of nodes and edges were prepared to document the spatial arrangement of the floorplans before and after the household model. Each primary space in the nursing home is conceived as a node (dot) and the spatial connections between nodes are diagramed with a line (Hansen et al., 2009) (See Appendix A for Diagrams). The utility of such a diagram is a topological understanding of the properties of space as connected pieces without reference to their shape or size (Ratti, 2003). The changing qualities of depth and centrality in the underlying floorplan structures were the focus of the analysis.

Observation and Photographic Traces

A final supportive source of data was informal observations, which occurred in the households at different times of day. Due to the limited time spent at each case study site, the sampling of these observation times was not systematic, but when time was available I would observe the routines of the households, and speak to staff and residents informally. These observations were occasionally discussed with key informants to triangulate findings and formulate additional questions (John Zeisel, 1981). Photographs of the campus and the nursing homes were also taken to document the setting after the household model was adopted. Photographs were also used to document traces of daily routines or potential outcomes (John Zeisel, 1981). These observations and photographs served to provide a deeper understanding of each case. Each of the cases has developed a unique language when referring to culture change and their organization that was made obvious during these interviews. Spending time in each care setting provided much needed contextual information when interpreting the qualitative data.

Chapter Summary

This chapter began with a discussion of the six underlying premises for the research approach. These premises are followed by a rationale for the epistemology which includes a discussion of pragmatism, program evaluation research, practice based and double loop learning and organizational change theories. An introduction of the case study method and mixed methods inquires is then presented. Next, the actual methodology for this study is presented including the case selection, case boundaries and the tactics to gather information.

This is followed by a description of the five primary sources of data utilized for developing each case. The next chapter is the start of the case study descriptions beginning with the social, cultural, political and economic context.

CHAPTER FIVE - CONTEXT DESCRIPTIONS OF THE THREE CASE STUDIES

The conceptual framework presented in chapter two will serve as the guide for presenting the information for the three case studies. The focus of the inquiry is upon the three nursing homes that underwent a culture change process. The key components of the conceptual framework used to describe each case include: the context for each case, the resource system, the environment system and the organizational system. Each case is first described in detail. These descriptions are then followed by a comparison discussion of all three cases.

Context for the Three Cases

In order to evaluate the costs and values of implementing the household model in each of the three nursing homes, it is crucial to understand the context of the nursing home nationally as well as regionally and locally. Each case study is a nursing home with a shared cultural role of providing 24 hour nursing care overseen by providers who operate within a set of rules and regulations prescribed by various government entities. While there is a mutual understanding for what a nursing home is in this country, all three nursing homes have different social, cultural, political, and economic contexts that influence their resources and values. Nursing homes are subject to both federal and state policies, rules and regulations in the United States. Policy makers and constituencies have concerns for defining and maintaining quality in nursing homes as well as concerns for limiting costs (Capitman et al., 2005b). Market forces and the economy also impact the business of operating a nursing home. Accordingly, the following section first addresses the national context for nursing homes utilizing a policy and

economic lens, as well as an overview of the U.S. economy during the household conversions. This discussion is followed by a brief overview of the state policies for nursing homes in which the cases reside. Next, the regional and organizational contexts for the three nursing homes are summarized. Finally, this section concludes with a comparative summary in which unique differences or similarities between the three cases are highlighted.

National Nursing Home Context

Nursing homes that receive federal funds are overseen by the Centers for Medicare and Medicaid Services (CMS); a federal agency located within the United States, Department of Health and Human Services. CMS (2005) classifies nursing homes as either a skilled nursing facility or a nursing facility, which are defined as the following:

> "Skilled nursing facility" is defined as an institution (or a distinct part of an institution) which is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care, or rehabilitation services for the rehabilitation of injured, disabled, or sick persons, and is not primarily for the care and treatment of mental diseases . . . .
>
> "Nursing facility" is defined as an institution (or a distinct part of an institution) which is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care, rehabilitation services for the rehabilitation of injured, disabled, or sick persons, or on a regular basis, health-related care and services to individuals who because of their mental or physical condition require care and services (above the level of room and board) which can be made available to them only through institutional facilities, and is not primarily for the care and treatment of mental diseases . . . (pp. 5–6).

Based upon these definitions, nursing homes are in existence to provide medical services for those in need (i.e. Primary mental health care needs are to be addressed by other institutions). In the United States, access to healthcare for the elderly is one of the few entitlement programs that exist, and thus the political context for nursing homes is substantial. The government has an interest in policy decisions, which impact the funding of nursing home services, policies that regulate and control access, the services that can be provided, and policies that set expectations for quality and performance (Capitman et al., 2005b).

Medicare and Medicaid. The federal and state governments pay for nursing home services primarily through Medicare and Medicaid programs. Medicare and Medicaid, Title 18 and Tile 19 respectively, were created as amendments to the Social Security Act of 1965. Once these programs were in place, nursing home utilization and government expenditures grew exponentially. The federally funded Medicare program is an insurance program for people 65 and older, some people with disabilities, and those with end stage renal failure. In brief, Medicare pays for nursing home services primarily for rehabilitative purposes, for relatively short periods (less than 100 days), and after a three day hospital stay. Medicare will pay fully for the first 20 days in a skilled nursing facility if deemed necessary by a physician and if the stay is related to recovery after the three-day hospital visit. Afterwards from day 21 to 100, the Medicare recipient is responsible for a copayment.

In contrast, Medicaid is jointly funded by state and federal budgets. Medicaid is a public insurance program that provides health coverage for low-income families and individuals, which includes seniors. Each state operates its own Medicaid program that must adhere to federal guidelines to qualify for matching funds from the federal budget. The amount of

matching, known as the Federal Medical Assistance Percentage, is adjusted based upon the income level of the state with poorer states receiving a more favorable percentage (Center on Budget and Policy Priorities, 2013). States have a great deal of flexibility to design and administer their own programs due to the broad nature of the federal guidelines; therefore, Medicaid benefits vary by state. In some states, Medicaid coverage includes the "Medically Needy" in addition to the indigent population. Unlike Medicare, Medicaid is a comprehensive health care program without a limit on the number of days. About one quarter of the residents who enter a nursing home paying privately eventually move to the Medicaid welfare program after exhausting their own funds (Singh, 2010). The resource limits that a person is allowed to keep and still qualify for Medicaid varies from between $2000 and $3000, but those with married spouses are permitted more resources to avoid impoverishment (Singh, 2010). Nursing home residents may also be Dual-Eligibles, who are individuals enrolled in both Medicare and Medicaid, such as low income seniors or people with long term disabilities.

Table 9

Medicare / Medicaid Usage and Expenditures for Long Term Care by State

	USA	MN	PA	NC
HEALTHCARE EXPENDITURES				
2010 - Private and Public (In Millions)	$2,089,862	$38,994	$97,414	$60,297
Percent Spent on Nursing Home Care	6.55%	7.25%	9.05%	6.99%
MEDICARE				
FY 2011 Total Medicare Spending (In Millions)	$471,260	$6,856	$23,771	$14,105
2011 Medicare Spending per Enrollee by Residence	$10,365	$8,941	$10,555	$9,741
2010 Total Number of Covered Admissions to Skilled Nursing Facilities per 1,000 Part A Enrollees	73	98	84	60
MEDICAID				
FY 2012 Total Medicaid Spending (In Million	$415,154	$8,893,	$20,393	$12,282,
2010 Medicaid Payments per Aged Enrollee		$16,709	$16,687	$9,973
FY 2012 Percent Spent on Nursing Facilities	41.10%	24.30%	40.70%	49.80%
State Share of Medicaid Spending vs Federal	36.30%	43.70%	37.80%	29.60%
FY 2011 Percent of State Budgets spent on Medicaid	16.70%	18.70%	22.70%	13.30%
FY 2011 Federal Medical Assistance Percentage (Matching Funds Percentage Adjusted for State Wealth)		50.00%	55.64%	64.71%
DUAL ELIGIBLES				
2009 All duals as a Percent of Medicare Beneficiaries	21%	18%	18%	22%
2009 All duals as a Percent of Medicaid Beneficiaries	15%	16%	18%	17%
2009 Medicaid Spending per Dual Eligible per Year		$26,195	$26,767	$13,379

Note. Compiled and Adapted from "State Health Facts," by The Henry J. Kaiser Family Foundation, 2013, Retrieved from http://kff.org/statedata/.

Spending on healthcare by both public and private sources is increasing with total expenditures estimated to be $2.09 trillion in 2010 (See Table 9). Nearly seven percent of these

funds were spent on nursing home care alone. The government is the primary payer of long term care services (Kaiser Foundation, 2013). In 2011, 63% of all nursing home services were financed by Medicaid funds, and 14% were derived from Medicare. Private pay accounted for 22% of the funding. In 2011, the Federal government spent $471.26 Billion on Medicare with 7.3% of all Part A Medicare Enrollees experiencing nursing home admission. From 1990 to 2012, the percent of the Federal Budget spent on Medicare and Medicaid increased by 423%. Total spending on both Medicare and Medicaid in the year 2012 was 31.8% of the federal budget. Medicare represented 20.7% of expenditures, while the expense of matching state funded Medicaid equated to 11.1%. State budgets are significantly impacted by the Medicaid program, which will be further discussed in the state context section.

Social and Quality Based Policies. Government policies for nursing homes fall into two broad categories of either costs or quality. However, some policies are not mutually exclusive and reflect both categories. The nursing home industry grew directly from social policy decisions to assist older adults who were impacted by the Great Depression through the creation of Social Security, Medicare and Medicaid (Vladeck, 1980). With growing government expenditures for nursing home care, policies were further issued to regulate the industry to eliminate fraud and promote quality. What constitutes society's view of quality has shifted over the years. Quality can be deemed an elusive concept for nursing homes due to their hybrid nature of providing both a welfare service and a health care service (M. L. Fennell & A. B. Flood, 1998). Early nursing home regulations focused on structural issues of creating a safe and appropriate setting with the capacity to delivery mostly custodial care, that was distinct from the poorhouses or mental asylums of the past (Capitman et al., 2005b). By the 1960's,

regulations focused heavily on elders being cared for by a professional staff and the provision of medical care to further justify the expense of nursing home expenditures (Capitman et al., 2005b; Vladeck, 1980). Reactions to the medical emphasis of nursing homes led to OBRA 87, in which regulations decreed that residents must be provided with services to attain and maintain physical, mental as well as psychosocial well-being (Koren, 2010). OBRA 87 also laid the foundation for outcomes to become the new focus on quality through the creation of a standard resident assessment instrument and the use of a Minimum Data Set (MDS), which is a record of each resident's condition (Winzelberg, 2003). Embedded in the MDS were 24 quality indicators to aide in identifying potential problems and assess possible quality issues (Capitman et al., 2005b). Furthermore, standardized nursing home survey procedures and deficiency tags allow for quality comparisons. For the first time a deficiency tag in one state would theoretically be the same all over the country (Mor, 2007). In 2005, the Centers for Medicare and Medicaid Services began publicly reporting the quality of nursing homes nationally on the Nursing Home Compare Website. Consumers are now provided with access to outcomes data for individual facilities and can compare results for different nursing homes within the county, across the state and the United States (N. G. Castle, 2005).

Economic Policies. Government spending on nursing homes is a direct and indirect result of policy decisions. Significant policies that have increased government spending on nursing homes include the 1960's Kerr Mills Act in which states were permitted to decide who qualified for medical assistance and the choice of receiving federal matching funds for their care, as well as the 1965 passage of Medicare and Medicaid (Capitman et al., 2005b). By the 1980's, concerns for the increase in healthcare entitlement expenditures led to federal policies

that attempted to curtail costs. As part of the Omnibus Budget Reconciliation Act of 1980, the Boren Amendments required that states insure Medicaid nursing home rates are reasonable and adequate to meet the costs to maintain standards set by federal and state laws. Effectively, the states were being held responsible for validating compliance with federal requirements (Harkins III, 2001). Also in 1981, Medicaid waiver programs were put in place to provide home and community based service alternatives for long-term care to be received in other care settings besides expensive nursing homes (Shirk, 2006). Changes to reimbursements for acute care settings resulted in a new nursing home revenue stream from Medicare. In 1983, acute care hospitals shifted from a retrospective reimbursement for Medicare services that paid for actual costs to a prospective payment system that provides a fixed dollar amount per episode. This fixed amount puts the onus on the hospital to be efficient with its resources. As a result of this reimbursement policy change, hospitals found it more cost effective for patients to recover in a nursing home versus an extended hospital stay. Thus nursing homes began to receive more Medicare dollars to care for short term rehabilitation residents. In 1997, the Boren Amendments were repealed and the Balanced Budget Act of 1997 was passed, which gave states more discretion at setting reimbursement rates for Medicaid. The Balanced Budget Act of 1997 also brought the Prospective Payment System to the Nursing Homes. In mid-year 1998, Medicare reimbursement changed from reasonable cost to a case-mix adjusted payment under the Medicare Prospective Payment System (PPS) (Singh, 2010). Case mix ratios are based upon the intensity of care needed as well as the number of anticipated days of care multiplied by a rate factor derived from historic costs in the geographic area. Intensity of care is determined by the Resource Utilization Group classification System (RUGS) that is based upon

the anticipated level of resource use, which is then used to calculate a per-diem reimbursement rate. In contrast, states have flexibility to determine reimbursement methods for Medicaid that varies by state. Most states have adopted a PPS reimbursement strategy for Medicaid that utilizes a RUGS approach or a case mix approach. States also offer varying degrees of incentives to reward quality, encourage efficiency, or promote access (See Table 13) (Rudder, Mollot, & Mathuria, 2009). The impact of the 1997 Balanced Budget Act was controversial with some critics indicating the act was responsible for nursing home bankruptcies, restricted access to healthcare and regulatory deficiencies while proponents believed the act promoted efficiency (Konetzka, Yi, Norton, & Kilpatrick, 2004). In 1999 and 2000, additional acts were passed to offset the severe effects of the Balanced Budget Act through temporary payment increases (Singh, 2010). Medicare payment rates and the PPS system continue to be altered. In the fiscal year 2011, Medicare spending on nursing homes services increased by 17%, which was attributed to providers offering more Medicare therapy services (SEIU Healthcare, 2013). In fiscal year 2012, CMS cut Medicare reimbursements by 11.1% which was partially due to these expenditures (MEDPAC, March 2012). Changes to payment policies were subsequently made to pay an overall rate instead of rewarding providers with high therapy provisions (MEDPAC, March 2012). From 2000 to 2012, Medicare payments have outpaced providers' costs with margins of over 10 percent (MEDPAC, March 2012). In 2010, the average margin for freestanding nursing facilities was 18.5%.

National Economic Context. Nursing homes are increasingly subject to market based forces in which they must compete for residents (N. G. Castle, Engberg, Lave, & Fisher, 2009). The economy influences not only the market, but also the pool of potential employees, as well

as favorable funding streams for capital improvements and state polices for reimbursements. All three case studies completed their conversion to households from 2006 to 2009. The economic outlook for this period was marked by a slowdown in economic growth, the end of a major housing boom, severe unemployment, a credit crunch and the greatest recession since the Great Depression (Bordo, 2008). The gross domestic product growth rate fell to 4.10% in June of 2009, which was the lowest point since 1948 (U.S. Bureau of Labor Statistics, 2013a). During the years 2006 and 2007, unemployment fell to 4.4% for several months, which was the lowest point since the previous recession in the year 2000 (U.S. Bureau of Labor Statistics, 2013b). The years 2005 and 2006 were the peak of a real estate market bubble that burst with home values sharply falling back to values from the past decade (Parsons, 2013). For those wishing to use the equity in their home to pay for long-term care or a move to a retirement setting, selling a home and getting top dollar became increasingly difficult.

Notably, state incomes suffered from the loss of employment and tax revenues resulting in reduced increases in Medicaid payment rates for long term care providers and in some instances restrictions to services (V. K. Smith, Gifford, Ellis, Rudowitz, & Snyder, 2013). State budget shortfalls would have had a more devastating impact if it was not for increased federal matching funds for Medicaid received as part of the American Recovery & Reinvestment Act of 2009 (Eljay, 2010). The number of states that have implemented provider tax programs on nursing homes to fund rate increases for Medicaid have doubled since 2004 from 20 to 40 (Eljay, 2010). In some instances, states use the tax to increase the cost of nursing home services with the intention of drawing more Federal matching funds (NC Division of Medical Assistance, n.d.).

Conversely, the long-term care industry is a direct contributor to the economy by providing jobs and tax revenue (See Table 10). An estimated 1.8% of the workforce is employed directly by the long-term care industry and 3.2% of the labor force is employed indirectly or by a stakeholder for the industry. The industry pays over 60 Billion a year in combined Federal, State and Local taxes.

Table 10

Economic Impact of Long Term Care

Jan 2011	United States	Minnesota	Pennsylvania	North Carolina
Jobs - Direct	3,121,960 1.8%	97,860 2.9%	192,730 2.7%	102,190 2.0%
Job – Total	5,445,420 3.2%	136,200 4.0%	282,690 4.0%	139,730 2.7%
Job Industry Rank	10	8	8	11
Labor Income – Direct	$102.5 Billion 1.3%	$2.7 Billion 1.8 %	$6.7 Billion 2.1%	$3.0 Billion 1.4%
Labor Income - Total	$205.2 Billion 2.6%	$4.3 Billion 2.9%	$10.5 Billion 3.3%	4.3% 2.0%
Labor Income Industry Rank	16	10	10	12
Economic Activity – Direct	$183.5 Billion 1.3%	$5.0 Billon 1.9%	$11.8 Billion 2.1%	$5.5 Billion 1.4%
Economic Activity – Indirect	$529.0 Billion 3.7%	$10.0 Billon 3.8%	$23.5 Billion 4.2%	$10.0 Billion 2.5%
Economic Activity – Industry Rank	27	21	20	21
State/ Local Taxes	$22.2 Billion	$299.3 Million	$779.0 Million	$347.6 Million
Federal Tax Revenue	$38.6 Billion	$818.0 Million	$1,968.5 Million	$749.8 Million

Note. Long Term Care Defined as nursing homes, assisted living, and residential care and do not include government owned or hospital based facilities. Adapted and Compiled from "Economic Impact of Long term Care," by American Health Care Association, Retrieved from http://tour.mapsalive.com/21847/page1.htm

State Nursing Home Context

As mentioned previously, Medicaid is the primary payer source of nursing homes services, which is a joint program between the federal government and the states. States have discretion to operate and fund their own Medicaid program. Each state determines who qualifies for Medicaid services, the method and rate it will use to reimburse the organization, and any program incentives it wishes to implement to encourage access for certain individuals, promote quality or encourage efficiency. While there are federal regulations, each state also has different nursing home rules and regulations that dictate the operations and the design of the physical plant. The following section briefly describes the state context for each case.

Prairie Town Home - State of Minnesota. Case one, Prairie Home, is located in the State of Minnesota. In 2010, Prairie Home was one of the states' 385 Nursing Facilities in which 55.7% of the residents were served by Medicaid (AHCA, 2011). The 385 nursing facilities have a total of 32,334 beds that equates to one bed for every 20.7 persons, 65 years or older (AHCA, 2011). A national survey found that Minnesota's Medicaid system serves both the categorically needy (i.e. fits specific criteria) and medically needy, as well participants in a few specialized programs (Rudder et al., 2009) (See Table 13). The program reimburses a nursing home to hold a room for hospitalization or therapeutic purposes, and also pays for physical, occupational and speech therapy after a specific number of treatments have occurred. From the years 2006-2007, Minnesota offered quality incentives based upon specific measures such as staff turnover, retention of staffing levels, and quality indicators. During 2008-2009, the state also rewarded quality and efficiency efforts based upon a competitive process of applying for specific improvement funds. Currently, Minnesota rewards efficiency by allowing the facility to

keep the difference of the cost and the cost ceiling (up to $3.00 per resident per day) for all cost centers except direct care (See Chapter 4 for more information on cost centers).

Reimbursement rates for nursing homes have been controversial in the Minnesota legislature. A 2009 national survey of Medicaid rates reported Minnesota's average per diem for reimbursement, after being adjusted for wage differences, ranked 26th out 34 for the 40 states that responded to the survey (i.e. 10 States had the same rates) (MEDPAC, March 2012). Minnesota's wage adjusted per Diem rate of $153 is slightly below the median rate of $165 in 2009. Nearly $8.9 billion dollars were spent in the fiscal year 2012 on Medicaid, which was nearly 19% of the state's entire budget. A PPS system of reimbursement was implemented in 1995. This system is referred to as the Alternative Payment System, which is based upon contractual arrangements between the facility and the State Department of Human Services. Per diem reimbursements are based upon the resident case mix care needs and the facilities historical costs. Although contractual arrangements were to be adjusted annually for inflation, this has not always occurred (Punelli, 2013). Authorization to rebase the rates was passed by legislature in 2007, but the policy was suspended during the phase in period and eventually prohibited in 2011 (Punelli, 2013). A report generated on behalf of the American Health Care Association estimated the difference between Minnesota's nursing home per diem costs and the per diem Medicaid rate to be $21.24 in 2009 and projected a difference of $28.30 in the year 2011 (Eljay, 2010). The authors also pointed out that these differences would be two to three percent higher if all costs of operations were considered and not just Medicaid allowable costs (Eljay, 2010).

Compared to other states, Minnesota has a few unique policies that directly affect nursing home funding. Minnesota is one of two states that utilizes rate equalization in which facilities must charge a private pay resident the same rate or less than a person on Medicaid pays (Punelli, 2013). In other states, private pay rates are typically higher as Medicaid reimbursements rarely cover costs. Nursing facilities in Minnesota are allowed to charge more for a private room or special services not included in the daily rate. This policy encourages the creation of more private rooms (Punelli, 2013). Standards of care may also contribute to costs. Minnesota nursing home rules and regulations exceed Federal Standards in several areas. Notably, there is a nursing staff ratio of two hours per resident which surpasses the requirement of a "sufficient number of staff" and greater scrutiny for pre-screening admissions (NH Regs Plus, n.d.). In 1994, a comparative study of nursing home costs in the upper Midwest found Minnesota to have higher rates due to labor rates, hours of care, provider surcharges, licensing fees and pre-admission screening fees as well as several items included in the rate not found in other states (Von Mosch, Jebnes-Singh, & Frankamp, 1997). Higher reimbursement limits to hospital attached nursing homes were also considered a contributor (Von Mosch et al., 1997). Hospital based nursing homes such as Prairie Town Home represented 13% of the state's 385 nursing homes in the year 2010.

Franklin Village - State of Pennsylvania. The second case is a nursing home that is a part of a continuing care retirement community located in the state of Pennsylvania. In 2010, there were 710 nursing facilities in the state and Medicaid was the payer source of services for 62.2% of the residents (AHCA, 2011). Pennsylvania nursing facilities contain a total of 88,829 beds which equates to one nursing home bed for every 22 persons, 65 years or older in the

state. According to a national survey (Rudder et al., 2009), Pennsylvania's Medicaid program serves those who are categorically needy or medically needy (See Table 13). The state's program will pay one third of the nursing facilities rate for hospitalization for 15 days and the full rate for up to 30 days for a therapeutic leave day. Pennsylvania does not pay for any therapies for Medicaid participants. The program does offer access incentives for facilities with 80% Medicaid and quality incentives through the subsidization of durable medical equipment. Efficiency incentives exist by capping the reimbursement for administration costs and resident care costs.

Pennsylvania has higher Medicaid per diem reimbursement rates compared to other states. A national survey of 2009 Medicaid rates reported Pennsylvania's average per diem after being adjusted for wage differences ranked 4th highest out of the 34 rates reported for the 40 states that responded (MEDPAC, March 2012). In fiscal year 2012, over $20 billion dollars was spent on Medicaid in Pennsylvania, which was nearly 23% of the state's budget (The Henry J. Kaiser Family Foundation, 2013). Pennsylvania was one of the last states to move from a retrospective payment method to a case-mix prospective payment methodology, which occurred in 1996 (Pennsylvania Bulletin, 2013). Reimbursement rates are tied to resident acuity levels that are adjusted quarterly. Costs are based on audited cost reports that are several years old. This methodology has been questioned during times of volatility. In 2005, a Budget Adjustment Factor (BAF) was added to curb growing expenditures. The BAF caps costs through legislature approval of the budget in which case mix rates are adjusted by a factor. The use of the BAF continued in 2007, 2008, 2011 and was extended into law from the year 2013 to 2016 (Pennsylvania Bulletin, 2013). The American Healthcare Association report estimated the

difference between the Pennsylvania Medicaid per diem rate versus cost to be $23.26 in 2009 and projected a margin of $19.24 in the year 2011 (Eljay, 2010). Standards of care may also contribute to costs. Pennsylvania nursing home rules and regulations exceed Federal Standards in a several areas. For example, the minimum number of nursing hours per resident in a 24-hour period is 2.7 hours.

Five Sisters Home - State of North Carolina. The third case is also a nursing home that is a part of a continuing care retirement setting located in the state of North Carolina. In 2010, there were 424 nursing facilities in the state, and 66.6% of the residents were served by Medicaid (AHCA, 2011). A total of 44,392 beds were available in the state, which amounts to one nursing home bed per every 26 persons, 65 years or older. North Carolina's Medicaid program serves those who are categorically needy or medically needy (Rudder et al., 2009) (See Table 13). The program does not pay to hold a bed in the nursing home for a hospital stay, but covers 15 consecutive therapeutic leave days. Medicaid in North Carolina does not reimburse for therapeutic services. Access incentives exist for nursing homes that accept either residents with head injuries or those who are ventilator dependent. Quality incentives are provided by increasing funds for facilities that honor religious dietary needs and allowing a higher ceiling for direct care costs compared to the other cost centers. Efficiency incentives exist by giving a percentage of the difference between the cost and ceiling for the direct care case-mix adjusted cost center. Another efficiency incentive in the state is capping indirect care costs to a percentage of the statewide median cost.

North Carolina's Medicaid reimbursement rate after being adjusted for wage differences is seven dollars above the median compared to 40 other states who responded to a survey in

2009 (MEDPAC, March 2012). This per diem rate ranked 14th highest out of the 34 other rates reported. North Carolina spent 13.3% of the state budget on Medicaid in the fiscal year 2012 which amounted to over $12 billion dollars (The Henry J. Kaiser Family Foundation, 2013). Nearly half of the state's Medicaid funds went to nursing facilities in North Carolina during this period. The North Carolina nursing facility reimbursement method changed from a retrospective cost basis to a prospective case-mixed methodology in 2004 (NC Division of Medical Assistance, n.d.). In 1990, the Medicaid program of North Carolina introduced managed care initiatives to help control costs and promote quality which came into full fruition in 2003 (NC Division of Medical Assistance, n.d.). From fiscal years 2002 to 2013, ten state budgets have either directly reduced rates for service providers or reduced reimbursement rates that were automatically tied to inflation (Balfour, 2012). Since North Carolina did not respond to the AHCA 2011 survey, comparable data to the other two states is not available to determine the Medicaid shortfall. In 2009, Actual average per diem rates compared to projected operating costs were anticipated to be $1.47 more (Eljay, 2009). North Carolina nursing home regulations exceed federal standards in a few areas. For example, the state sets a minimum standard of 2.1 total hours of nursing staff per resident per day.

Table 11

2010 Census Data for the Three Case Studies County Populations

	Prairie Town Home	Franklin Village	Five Sisters Home
Type	Rural Town	Exurban Borough	Suburb of City
Environs Population	2985	5188	104,371
State	MN	PA	NC
County Persons per Square Mile	29.1	550.4	756.4
Total County Population	57,303	519,445	488,406
AGE			
Age 59 or Under	71.9%	79.5%	82.3%
Age 60 or Over	28.1%	20.5%	17.7%
Age 50 to 59	16.2%	13.7%	13.1%
Age 60 to 69	13.1%	9.6%	9.2%
Age 70 to 79	8.5%	6.0%	5.0%
Age 80 and Over	6.4%	4.8%	3.5%
RACE			
White	96.1%	88.6%	57.0%
Black or African American	0.8%	3.7%	32.5%
American Indian / Alaska Native	0.5%	0.2%	0.5%
Asian	0.5%	1.9%	3.9%
Native Hawaiian/ Pacific Islander	0.1%	0.03%	0.05%
Other Race	0.9%	3.6%	3.6%
Two or More Races	1.2%	2.0%	2.3%
Hispanic / Latino Origin*	2.6%	8.6%	7.4%
INCOME 2006 - 2010			
Median Household Income	$43,478	$54,765	$45,676
Persons Below Poverty Line	12.9%	9.70%	15.90%
MEDICARE COVERAGE			
Less than Age 65	2.4%	1..9%	2.5%
65 and over	19.8%	14.0%	11.8%
MEDICAID/MEANS TESTED			
Less than Age 65	14.4%	13.0%	15.0%
65 and Over	2.2%	1.3%	1.3%

Note. Adapted and Compiled from "State & County Quickfacts," by U.S. Census Bureau, Retrieved November 28, 2012 from http://quickfacts.census.gov. *Hispanic / Latino is not considered a race as members identify with other races in the census: therefore, all percentages shown will not add to 100 percent.

Local and Organizational Context

The previous section presented a policy and economic context for nursing homes at the national and state levels for each case. The next section describes the local and organizational context for the three nursing homes. Local culture focuses on presenting an overview of the immediate environs for each of the three case study nursing homes. The organizational context for the three cases reflects the larger, overarching organizations of which each of these nursing homes is a part.

Prairie Town Local and Organizational Context. The first case, Prairie Town Home, is a nursing home that is part of a 25 bed hospital located within a rural town in Minnesota, population 2985 (See Table 11). The rural town is located in a county with a population of 57,303 people with 29.1 people per square mile (U.S. Department of Commerce, 2010). A little over 28% of the county's population is 60 years or older and the majority are white. The median household income is $43,478 and slightly less than 13% of the population falls below the poverty line.

The hospital and nursing home are a public, non-profit organization that currently serves as a hospital district. A group of Franciscan Sisters originally founded the hospital in 1902, but operations were assumed by a non-religious based organization in 1968. A new hospital building was constructed through the help of Hill-Burton funds, which opened in 1959. The original hospital building was then converted into a home for the aged. In 1969, a nursing home was added to the new hospital to increase the range of services. In 1979, the capacity of the nursing wing expanded with a new addition. In the early 1990's, the home for aged was razed to expand the hospital. In 2012, a new hospital building was constructed that effectively

created two campuses for the organization: the hospital with a key designation for health on a 12 acre campus, and the original 60 campus that provides more living based services such as the nursing home and senior housing apartments.

The hospital and nursing home were designated as a Hospital District in 1976, with the intention of creating a formal governmental taxing organization that aides in providing and funding healthcare for rural areas through the voluntary banding together of municipalities. The hospital district of Prairie Town Home serves three small municipalities and ten rural townships. While Prairie Town Home can tax individuals who reside within the hospital district to raise funds, the primary source of funds is operations. The nursing home and hospital have over a 100-year association with the rural town and hold a position of pride and loyalty for the residents. The nearest tertiary center (Level 2 Trauma Center) is located 70 miles from the town, but three other small hospitals are less than 50 miles distant. Approximately 15,000 people are served by the district within an area that covers 180 square miles. However, the organization estimates that an additional 10,000 people are serviced by the organization. In addition to the hospital and nursing home, Prairie Town Hospital District also operates three primary care clinics, a retail pharmacy, a home health agency and a market rate senior housing building. The district also manages ambulance services and a low-income senior housing building. These various services are not marketed as a CCRC or continuum of care, but the market rate senior housing building is on the same campus connected by an indoor pedestrian passage. Due to the complicated nature of healthcare, an outside healthcare management organization has managed the district since 1985. The Chief Executive Officer and the leadership team are employed by the management organization and by contract must

represent the best interests of the hospital district in a managerial role. A governance role is held by Prairie Town's 14-member board of trustees who represent the different municipalities that comprise the hospital district.

In fiscal year 2012, Prairie Town Home and Hospital Prairie generated $37.36 million dollars in revenue and had $38.40 million dollars in expenses with a net loss of $1.36 million. Non-revenue income such as a tax levy and investment income in addition to grants and contributions offset this difference, which resulted in a positive change in net assets of $1.35 million at the end of the year (Prairie Town Home's Financial Statement, 2012).

Prairie Town Home was one of the early adopters of deep culture change in the country as well as the state, and thus has some political cache. Prairie Town Home started its culture change movement in 1999. While the organization found one other household type model to emulate in the state and did use a culture change agent known nationally, the model of care developed and the resulting physical design was unique for the time period. The organization has received national and international interest for the model and one of the leaders provides consulting and training services to other organizations. Furthermore, Prairie Town Home is a founding member of an international organization that supports the household model.

Franklin Village Local and Organizational Context. The second nursing home is part of the continuing care retirement campus (CCRC) of Franklin Village, located in an exurban Pennsylvania borough, with a population of 5378 (See Table 11). The county in which the borough is located has a total population of 518, 445 with 550.5 persons per square mile (U.S. Department of Commerce, 2010). Just over 20% of population is 60 years or older and the

majority are white. Median household income for the county is $54,765 and slightly less than 10% of the population falls below the poverty line.

Two Christian Brothers of the Mennonite Church founded the non-profit CCRC of Franklin Village in 1990, but the first residents did not move in until 1996. The campus was built in several phases, beginning with the independent living residences. The nursing level of care was added in 2001 to address the growing, aging population on campus who were experiencing increasing health needs. Today, the 104-acre campus includes independent living, assisted living, assisted living for people with dementia, adult day care and an outpatient clinic in addition to the nursing home. Franklin Village is a fee per service CCRC with no pre-paid nursing home services provided as part of the entry or monthly fee. However, serving campus residents is a paramount part of their mission and thus a priority. While no contract exists that guarantees CCRC residents will be accommodated in the nursing home, Franklin Village considers the practice a mission obligation. Consequently, the nursing home rarely admits anyone from outside the CCRC. Since opening, the nursing home has been licensed for short-term Medicare stays, but not Medicaid to support those who are impoverished. The organization established a benevolent fund to pay for nursing home care for those residents who have exhausted their funds. In 2009, Franklin Village purchased a second nursing home building to obtain Medicaid licensed beds for the existing campus. It is anticipated Medicaid funding for residents will offset some costs assumed by the benevolent fund. The second nursing home is located on a separate 64 acre campus that also has revenue potential through expansion. Today, Franklin Village is overseen by an 11 member board of trustees. The

organization is affiliated with several Mennonite organizations and is associated with other Anabaptist Communities.

For fiscal year 2012, Franklin Village reported total unrestricted revenues for the entire organization of $31.84 million and total expenses of $31.28 million resulting in a positive difference of over half a million (Franklin Village Bond Issue. 2013). However, other incomes and losses resulted in a negative change in assets for the year with a total loss of $2.54 million. The fiscal year 2012 is unique; as this loss primarily reflects changes due to acquiring and renovating a second nursing home, and in how income was reported for investments. For fiscal years 2010 and 2011, the change in net assets for Franklin Village has been positive with margins in excess of $1.46 million and $3.21 million respectively.

As an early leader in the culture change movement, Franklin Village has some political cache. The organization started its culture change process in 2004 as part of a much needed expansion of the nursing home. The organization was one of the first nursing homes to adopt the household model in the state of Pennsylvania. The organization was also one of the first in the state to create decentralized kitchens with open cooking areas near the dining room in a nursing setting. Franklin Village is a founding member of a group that supports and educates others about the household model. The organization has received both national and international visitors to tour the households.

Five Sisters Home Local and Organizational Context. The third and final nursing home is also a part of a non-profit CCRC located in the suburbs of a city with a population of 104,371 (See Table 11). The city is located within a county with 488,406 people with 756.5 people per square mile (U.S. Department of Commerce, 2010). Slightly less than 18% of the county's

population is 65 years or older. Fifty-seven percent of the population is white; 32.5% is black/African-American, while other races represent a total of 10.5%. The median household income for the county is $45,676 with slightly less than 16% of the population below the poverty line.

Currently Five Sisters is a CCRC, but historically it operated as a nursing home that was first incorporated in 1950 by a small Catholic congregation of sisters who arrived from Europe in 1947 at the invitation of the bishop. Notably, the sisters selected a growing Piedmont Triad City in the state of North Carolina based upon its need for healthcare after World War II and not for a predominate Catholic population. Due to post war restrictions, the five Catholic sisters that emigrated from Great Britain were only allowed to take £500 apiece to start their new endeavors, which equates to approximately $105,300 in today's money[1]. The group depended heavily on charitable contributions from outside and inside the Catholic Church to support and grow the organization. The sisters initially took care of residents inside a rented mansion that also served as their convent. Three years later the group arranged to purchase the mansion and grounds for well below the market rate. The sisters established a 22-bed nursing home in the building and cared for approximately 20 residents annually from 1947 to 1965. Originally, the sisters had hoped to construct a hospital, but abandoned the idea upon receiving Hill-Burton funds to construct a 60-bed nursing home that was dedicated in 1965. Capacity increased to 125 beds after an addition in 1973. In 1979, the beginning of a continuum of care occurred with the construction of independent living cottage homes on the

[1] A discrepancy exists between two sources on the sum of money the government allowed the immigrating sisters were allowed to take from Great Britain. One recorded interview with a sister stated 500 pounds sterling apiece per sister, but a published book stated 500 pounds sterling total for the five sisters.

71 acre campus. Starting in 2007, the continuum of care was expanded into a formal CCRC organization with additional cottages, independent living apartments, assisted living, assisted living for people with dementia, common space amenities, and the renovation of the original nursing home. The CCRC has a modified contract of services in which entrance fees cover room and board costs in the nursing home for up to 14 days per year, which can accumulate to a maximum of 45 days. The nursing home is licensed for both Medicare and Medicaid. Currently, the nursing home still continues to admit residents from outside the campus and holds 10 beds for the exclusive use of CCRC residents. Similar to Franklin Village, this CCRC has also established a fund to offset costs for residents who have exhausted their own personal funds.

Contained within the Five Sisters Home history are references to the Hill Burton Act as an "albatross around their necks" because in exchange for construction funds of approximately $700,000, free medical care for a period of 20 years was expected to be offered, which amounted to roughly $70,000 per year. Although the sisters regularly offered charitable care, it took several years to document that the debt had been paid to satisfy the terms of the agreement. The Five Sisters Home has a long-standing reputation and much of the growth of the organization is attributed to the generous contributions and support of the surrounding region. Since 1963, The Five Sisters has been a separate non-profit from the Catholic Sisters and is overseen by a 24-member board in which the Catholic Sisters are prominently represented including the position of chairperson. Initially the by-laws of the organization only permitted the sisters to serve on the board, but these rules were revised in 1987 to include lay people, both Catholic and non-Catholic. In addition to their board involvement, the sisters continue to work daily within the nursing home and provide spiritual leadership. A chapel for

Perpetual Eucharist Adoration was established in 1994 on the campus to offer 24 hour, seven days a week, continuous prayer by Catholic clergy, the Catholic Sisters, and laypersons. The sisters still reside at the original mansion on the campus, which now serves exclusively as their convent.

The Five Sisters CCRC reported total revenue at the end of September 2012 for the year to be $23.56 million and operating expenses of $24.26 resulting in an operating loss of nearly $700,000 (Source: Disclosure Statement). However, investment income, other assets and interest from a perpetual trust provided additional funds that resulted in a positive change in net assets of nearly $66,000.

The organization started its culture change journey around 2003. Five Sisters Home was an early example of deep culture change to the organization accompanied by substantial building renovation. The home is also the first to offer decentralized food service for skilled nursing residents in the state with substantial cooking occurring in each household. Today, Five Sisters Home has frequent visitors who are interested in culture change, it hosts culture change training sessions, and offers culture change consulting services. The organization is also a founding member of an education support group for the Household Model.

Comparison of Local and Organizational Context for Three Cases

All three nursing homes are a part of larger non-profit organizations that offer a scope of services beyond nursing care (See Table 12). Two of the nursing homes are part of CCRCs and one exists within a public hospital district. Of the three organizations, Prairie Town Home is predominantly skewed towards offering acute medical care due to operating clinics and a

hospital. Prairie Town Home is also the oldest organization, which has been in operation for over 100 years while the youngest organization is Franklin Village, which has been occupied for 17 years. The two cases with the oldest buildings are relatively contemporaries of one another with one being constructed in 1965 and the other in 1969. All three organizations have religious roots and two were founded by Catholic congregations of sisters. The strong Catholic affiliation has remained at the Five Sisters Home, while Prairie Town no longer reflects a strong Catholic affinity due to a change in ownership. Each of the three organizations is a separate non-profit, 501c3, that is no longer directly owned by the religious organizations and all three organizations serve people of all faiths.

While these three nursing homes provide services primarily for older adults, each case has a different market profile. The Prairie Town Hospital District is intended to serve the constituency of the rural area, but the nursing home accepts residents from outside the district. However, it is evident that most of the residents are from the general vicinity. For example, when the high school football team came to visit the nursing home before a big game with a rival town, several students gave out hugs to familiar faces and called residents by name. Compared to the other nursing homes, the county in which the Prairie Town Home is located has the lowest population density, the least diversity for race, the lowest median household income and the highest percentage of people aged 60 and older.

Table 12

Scope of Services offered by Three Case Studies

	Prairie Town Home	Franklin Village	Five Sisters Home
Organization Type	Public Hospital District	Non-Profit CCRC	Non-Profit CCRC
Payer Sources	Medicare/Medicaid/ Private	Medicare/Private (Recently Medicaid)	Medicare/Medicaid/Private CCRC Contract
Campuses	(2) 60 Acres / 12 Acres	(2) 104 Acres / 65 Acres	(1) 71 Acres
Independent Living	28 Market Rate Apts 24 Subsidized Apts	262 Cottages 280 Apts	49 Cottages 151 Apts
Assisted Living		65 Units	12 Units
Assisted Living Memory Care		21 Units	24 Units
Skilled Nursing	96 Beds Total	73 Beds Total	125 Beds Total
Skilled Nursing Memory Care	Not Designated	Not Designated	17 Beds
Short Term Rehab Care Unit	15 Beds	Not Designated	19 Beds
Acute Care	25 Beds		
Clinic	3 Clinics	1 Outpatient Clinic	
Adult Day Care		15-20 Clients/Day	
Home Health	Serves Community	Serves Community & Campus	Serves Campus

Note. Compiled from Interviews

Both of the CCRCs are located in more densely populated areas and have a larger regional draw for their residents. For these two cases, the length of operation, size and to a lesser degree the contractual agreement significantly influences who these nursing homes serve. The ratio of independent living units to nursing home beds at Franklin Village is 7.42, compared to a ratio 1.6 at Five Sisters Home. This difference indicates that Franklin Village has significantly fewer nursing home beds per independent living unit while Five Sisters has a clear preponderance of nursing home beds. These ratios also reflect their different heritages of being founded as a nursing home versus an independent living community. Although Franklin

Village is located within a small borough, the campus is adjacent to heavily populated areas and the region is a retirement destination with several other CCRCs in the vicinity. Amongst the three cases, the county in which Franklin Village is located has the highest Median Household Income and the lowest percentage of people below the poverty line. Franklin Village has been in operation for 17 years; therefore, the CCRC residents have had more of an opportunity to age in place and potentially demand more nursing home services. Accordingly, Franklin Village primarily serves its own residents, and will rarely admit someone to the nursing home from outside unless there is a connection to the organization. Movement to the nursing home is primarily motivated by health conditions towards the end of life or short term stays for health recovery. Being a resident of Franklin Village CCRC provides preferred access, but not guaranteed access to the nursing home. Even though there is no contractual obligation, most residents prefer to stay on the CCRC campus among friends, and there is some financial benefit as a benevolent fund is available to pay for care when funds are exhausted. While the nursing home has always accepted Medicare, only recently has Franklin Village been able to obtain access to Medicaid funds by purchasing another nursing home's beds in the county and reallocating some of the beds to the Franklin Village campus.

In contrast to Franklin Village, Five Sisters Home is a newer, expanded CCRC with younger residents and a large number of nursing home beds to fill. Therefore, the nursing home is currently serving a greater proportion of the communities' population within the nearby vicinity. The high ratio of nursing home beds is unique as CCRCs rarely have such large nursing homes in comparison to the number of independent living units. The Five Sisters Home is home is located in the suburbs of a medium size city with several other nursing homes and

retirement centers nearby. Compared to the other case studies, the county has the highest density of people, the greatest race diversity, the lowest proportion of adults 60 years and over, and the highest number of people below the poverty line. Since, the organization originated as a nursing home, both Medicare and Medicaid funds are available to pay for services. The CCRC contractual agreement of Five Sisters does offer some nursing home benefits for a resident who may be recovering from acute care needs in addition utilizing Medicare funds. Currently, only 10 nursing home beds are kept open for CCRC residents, but the organization anticipates this policy may change as residents' age in place.

Monetarily these organizations have some differences and similarities. All three organizations are non-profit organizations, and have expectations for positive margins to sustain the operations. The average yearly revenue for 2012 for the three cases was approximately $31 million dollars. Five Sisters has the lowest revenue at $23.5 million and Prairie Town Home has the highest at $37.3 million, which is accounted for by the acute care hospital and clinics. Revenues for the two CCRCs are approximately $8.3 million apart. The higher revenue for Franklin Village is anticipated due to it being the larger of the two CCRCs with nearly 2.7 times more independent living units and 2.3 times more assisted living units. Furthermore, Franklin Village has been operating as a CCRC for over ten years longer than Five Sisters.

Expenditures for the three cases average around $31.2 million. Similar to revenue, Prairie Town Home has the highest operating cost reported, which would be expected of a hospital. The case with the least operating costs is Five Sisters Home, which is the smaller CCRC. Only Franklin Village reported revenue to be above operating costs in 2012, which

reflected a margin of approximately half a million dollars. The organization with the greatest short fall was Prairie Town Home, which reported a loss of over $1 million. Five Sisters had the smallest shortfall at around $700.000. Two of the three organizations had a positive net change in assets at the end of the year due to other investments, revenue sources and losses. In 2012, Franklin Village reported a negative change in total net assets of over $2.5 million, which is partially attributed to purchasing another nursing home, renovation costs and new ways of allocating expenditures. Franklin Village is financially healthy as other years show a strong trend of a positive change in net assets that can easily absorb 2012's losses. Prairie Town was the organization with the greatest increase in assets for 2012 at over $1.3 million, and the least was Five Sisters with a net change of $66,000. Notably, Prairie Town as a hospital district does have property tax revenue, which is a unique source of revenue that the other two organizations cannot draw upon. These numbers clearly indicate Prairie Town Home operates with financial numbers that are in the upper 30 million dollar range, which is the highest of the three cases. Franklin Village is clearly in the middle of the three cases for finances and similar to Prairie Town also operates in the $30 million dollar range. Financially Five Sisters has the smallest budget of the three organizations, which falls in the lower $20 million dollar range.

All three case study organizations were early pioneers in their states for adopting deep culture change activities that significantly altered not only their organizations, but their buildings as well. However, initiation of these changes was not concurrent. Prairie Town was the first amongst three, which stated its culture change journey around 1999. Five Sisters started its culture change journey around 2003, while Franklin Village started around 2004. All three organizations are involved in aiding others with culture change and the household model,

through a variety of means including advocacy, education, training, consulting and hosting tours.

Table 13

Comparison of State Medicaid Benefits for Nursing Facility Services

	Minnesota	Pennsylvania	North Carolina
Population Covered	Categorically Needy Medically Needy and MinnesotaCare & TWWIIA options	Categorically Needy Medically Needy	Categorically Needy Medically Needy
Reimbursement Methodology	Prospective per diem based on cost, with limits; quarterly adjustment based on facility case mix index	Per diem using case-mix payment systemic, hosp. leave days paid at 1/3 of nursing facility's rate and therapeutic leave days paid at full rate	Prospective per diem based on cost, with limits; quarterly adjustment based on facility case mix index
Case-Mix	RUGs III 34 Groups	RUGs III 44 Groups	RUGs III 34 Groups
Coverage Limitations	18 hosp. leave days/hospitalization, 36 therapeutic leave days/year	15 hosp. leave days/hospitalization, 30 therapeutic leave days/year	Hosp. leave days not covered, 15 consecutive therapeutic leave days up to 60 days/year
Occupational Therapy	Covered after specific number of previous treatments	Not covered	Not covered
Physical Therapy	Covered after specific number of previous treatments	Not covered	Not covered
Speech, Hearing & Language	Covered after specific number of previous treatments	Not covered	Not covered
Prescription Drugs	Covered within limits and a $1 to $3 / RX copayments	Covered within limits and a $1 to $3/ RX copayment	Covered within limits and a $3/RX copayment
Cost Components	Nursing Services Other Care Related Services Other Operating External Fixed Property	Resident Care Other Resident Related Administrative Capital: Fair Rental System	Direct Care Case-Mix Adjusted Direct Care Non-Case-Mix Adjusted Indirect Care
Incentives	Quality Incentives – Rate Increase Efficiency Incentives – Cost margin refunds	Access Incentives – 80% Medicaid Quality Incentives – Durable Medical Equipment Efficiency Incentives – Cost caps for administration and resident care	Access Incentives – head injury, ventilator dependent Quality Incentives – religious dietary needs increase Efficiency Incentives – Direct care case mix and Indirect care is based upon a percentage of the statewide median cost

Note. Adapted from "State Health Facts," by The Henry J. Kaiser Family Foundation, Retrieved from http://kff.org/statedata/. and "Modifying the case-mix Medicaid nursing home system to encourage quality, access and efficiency," by C. Rudder, R. Mollot and B. Mathuria, 2009, Retrieved from http://www.nursinghome411.org/documents/finalreportnycolor_000.pdf

Table 14

Comparison of State Context for the Three Cases

	Minnesota	Pennsylvania	North Carolina
Number of Nursing Homes	385	710	424
Number of NH Beds	32,334	88,829	44,392
Beds per Persons Age 65 +	20.7	22	26
Percent NH paid by Medicaid	55.7%	62.2%	66.6%
Medicaid's Percentage of State Budget	19%	23%	13.3%
2009 Avg. per Diem Rate –Wage Adjusted	$153	$199	$172
2009 National Rank of Per Diem Costs	26th	4th	14th
2009 Medicaid Shortfall	$21.24	$23.26	$1.47*
Rate Equalization	Yes	No	No
Medicaid Rates altered by Legislature	Yes	Yes	No

Note. Adapted and compiled from "The state long-term health care sector: Characteristics, utilization, and government funding; 2011 update" by American Healthcare Association, 2011, Retrieved from http://www.ahcancal.org/research_data/trends_statistics/Pages/default.aspx, and "A report on shortfalls in Medicaid funding for nursing home care 2009, by L. Eljay, 2009, Retrieved from http://www.ahcancal.org%2Fresearch_data%2Ffunding%2FDocuments%2F2009%2520Medicaid%2520Shortfall%2520Report.pdf&ei=YxCxUo_cCcnlyAG6_4DgAQ&usg=AFQjCNFjoV4gWokb-CwfQto1szuxN0FPTw, and "A report on shortfalls in Medicaid funding for nursing home care, 2010," by L. Eljay, 2010, Retrieved from http://www.ahcancal.org/research_data/funding/Documents/2012%20Report%20on%20Shortfalls%20in%20Medicaid%20Funding%20for%20Nursing%20Home%20Care.pdf, and "Report to congress: Medicare payment policy," by Medicare Payment Advisory Commission (MEDPAC), Retrieved from http://www.medpac.gov/documents/Mar12_EntireReport.pdf. *North Carolina's shortfall is a projected weighted amount as actual operating costs were not available in 2009 at the time of the report and the state did not respond to the survey 2011.

State Context Comparison for the Three Cases

Each of these organizations operates nursing homes in different states, which have different Medicaid Programs, which determine benefits, rates and reimbursements (See Table 13). Until 2012, Franklin Village in Pennsylvania did not accept Medicaid; therefore, the program had less influence over the organization until recently. Among the three states, Minnesota has the widest population covered by the program and the most generous program of benefits. For example, Minnesota will pay for some therapies after a certain number of treatments have been covered by the individual. North Carolina and Pennsylvania's Medicaid benefits are the most similar to one another.

All states use a PPS system to reimburse nursing home costs with per diem rates based upon the region and case mix. Each state has different access incentives, quality incentives and efficiency incentives for Medicaid providers. Minnesota was the most progressive with incentives based upon quality factors such as reduced staff turnover or other measurements; however, these incentives were only offered for a few years. North Carolina and Pennsylvania offer quality incentives for only special needs such as religious dietary meals or durable equipment. Minnesota is also the most progressive with efficiency incentives by allowing the provider to keep a portion of any cost savings. In contrast, the other two states encourage efficiency in the form of a retroactive penalty by capping costs based upon state based indices. Therefore, the facility is rewarded for being below the index, but penalized if it is significantly above.

The three states have differing nursing home exposures that impact their budgets as well. Pennsylvania has the highest number of nursing home beds while Minnesota has the least

which reflects these states' differing populations. Comparing the number of nursing home beds to the number of people 65 years or older in the state revealed that North Carolina had the highest saturation of nursing home beds in the state, while Minnesota had the least. Furthermore, North Carolina also had the greatest percentage of residents on Medicaid, and Minnesota had the least. Nevertheless, Pennsylvania spent the greatest portion of the state's budget on Medicaid. The least was spent by North Carolina.

Different nursing home rates account for the difference in expenditures. In 2009, Pennsylvania had the fourth highest average per diem rate of reimbursement. Minnesota's rate fell below the median and ranked at 26th. In addition to a low rate of reimbursement, Minnesota is also one of two states that has rate equalization in which providers cannot charge a private pay resident a higher rate than a person on medical assistance. Typically, the per diem rate of reimbursement does not cover a nursing homes costs, which is referred to as the Medicaid shortfall. In 2009, the average shortfall was around 22 dollars for both Minnesota and Pennsylvania. The least shortfall was identified in North Carolina; however, the costs were based upon projections since the state did not respond to the follow-up survey. Nursing home operators also cannot always depend upon reimbursement strategies in the legislature being realized or based upon a consistent index for inflation. Two of the states use legislature approval of the state's budget to modify the reimbursement rates as deemed necessary for the fiscal period.

A different business climate exists for each nursing home based upon the states' Medicaid program. While Minnesota's Medicaid program has a more generous program of benefits, it also has fewer nursing home beds per elderly person suggesting a favorable market.

However, the rate of reimbursement for nursing home providers is relatively low and capped for rate equalization, which makes efficiency paramount for providers, as well as seeking other sources of revenue such as Medicare. Notably, Minnesota is the one state that has experimented with payment for performance initiatives. Pennsylvania has a less generous Medicaid program, and a larger number of nursing homes providing services. These providers benefit from one of the highest average reimbursement rates in the nation, but still operate with one of the highest shortfalls. However, providers can charge private pay residents a higher rate compared to Medicaid. Compared to the other two states budgets, Pennsylvania spends the highest percentage on Medicaid dollars. North Carolina has the most nursing home beds per elder and a program that provides a typical range of benefits. A higher number proportion of nursing home residents are served by Medicaid. Average per diem rates fell around the average of the nation in 2009 with one the lowest projected shortfalls among the three states. However, North Carolina spends a smaller portion of the state's budget on Medicaid.

Chapter Summary

This chapter begins with a discussion of what defines the nursing home in American culture. An overview of national economic and social policy is a part of this discussion. This is followed by a description of state policies for nursing homes in the state of Minnesota, Pennsylvania and North Carolina. Next, the local context for the three cases is described using census and economic data. The overarching organization of the three cases is also presented. Finally, comparisons are drawn between the cases. There are clearly some key differences for each of the organization including differing contexts, policies and the types of organizations of

which these nursing homes are a part. The next chapter discusses the Resource and Objective Systems of the three cases. This discussion also includes an overview of the processes of culture change for each case.

CHAPTER SIX – DESCRIPTION OF THE RESOURCE & OBJECTIVE SYSTEM OF THE THREE CASES

The previous chapter presented the shared social, economic, cultural, political, and temporal context for the three nursing homes. The following chapter will discuss the resource and objective system of the three cases. Per the organizational framework presented in chapter two, resources are investments in time, funds and efforts to achieve their desired stated goals and objectives. The focus of this section will be an overview of the three nursing homes culture change processes that is preceded by a description of the nursing home before changes were adopted. Following the individual descriptions for the three cases is a comparative summary that highlights key similarities and differences. In order to provide a comparative benchmark summary for the three nursing homes' culture change process, the results of an Artifacts of Culture Change survey are shared. More detailed descriptions of changes for the environment and organization are discussed in future sections per the conceptual framework introduced in chapter two.

Prairie Town Home's Culture Change Resource System

Prairie Town Home was originally constructed in 1969 as an addition to the hospital. The nursing home expanded to a capacity of 98 beds in 1979. The nursing home was divided into three nursing units with approximately 32 residents each. Two large dining spaces also served as the primary activity spaces. The majority of the resident rooms were shared with only four private rooms. The traditional hierarchical structure of a nursing home organization prevailed with some staff being shared between the nursing home and the attached hospital. Prior to culture change, the organization had a few resident quality of life innovations such as

serving from steam tables in the dining room in the early 1990's and storing medications in the resident room in the early 2000's. Prior to pursuing culture change, the CFO indicated, "…we had high resident satisfaction, good quality scores, we were joint commission surveyed at the time--which is a national accreditation. . . . all of those kinds of things [and] employee satisfaction was high." One interview participant described the nursing home as busy place with a heavy cross traffic from the hospital and a general feeling of stress. According to this staff member, "If something didn't go right first thing in the morning then everybody was playing catch up."

Prairie Town Home's Culture Change Process

Around the year 2000, the organization began its culture change journey. The Chief Financial Officer (CFO) described the impetus for change as more of a "gut reaction" than one of logic. One administrative staff member indicated that her dissatisfaction came to the forefront after personally experiencing her own mother's reaction to the inflexible routines of the nursing home. She felt the need to leave the industry if it could not change. At that same time, discussions with other staff members during strategic planning sessions revealed, no one wanted to live in the nursing home. While attending an aging conference in the state to accept an award, a few Prairie Town staff members were first exposed to the household model during an educational session. This session featured Big Fork, a nursing home in the State of Minnesota that had begun culture change in 1999 with the goal of creating a nursing home that honors resident choices and recreates home. One of the presenters of the section was LaVrene Norton of ActionPact, a national culture change agent organization headquartered in

Milwaukee, Wisconsin. This presentation energized the attending Prairie Home Staff who saw a solution to their dissatisfaction. Previously, the plan had been to redecorate the existing nursing home with a budget earmark of three million dollars. The group now realized that funds would be better spent in adopting a new model of care. The changes at Big Fork reminded the Chief Executive Officer (CEO) of the "Choice Program" that he had witnessed in a previous nursing home affiliated with the Lutheran Health System during the late 1980's and 1990's.

In 2001, Prairie Town Home made the strategic planning decision to redesign the culture of care and construct a new building around it. Although the CEO was under pressure to first improve the older hospital building, he felt it was imperative to start with the nursing home, else no changes would ever be considered. The group did consider adopting a specific culture change models such as the hospital focused Planetree Model (i.e. hospital based at that time but currently does apply to long term care), and the Service House Model, but believed these programs were too prescriptive. Instead, the administrative team decided they would take the best of these ideas and develop their own unique product. LaVrene Norton of ActionPact was subsequently hired to facilitate the culture change process for key selected events.

An early event in the process was "Emersion" in which 45 members of the community, board members, staff and residents gathered for three days to discuss, " what does home mean" for the people locally. In addition to the emersion process, a survey was issued to the broader community to capture a collective vision of "what is home" and the preferred future of a nursing home in the community. Around 250 surveys were returned. Because Big Fork was within a day's drive, Prairie Town home took approximately ten bus trips to visit the care

community. Prairie Town Home used its own 15 person bus for these trips which included residents, staff, and board members. These trips were considered essential to the culture change process. One staff member stated, "While LaVrene introduced us to the household model; Big Fork demonstrated it to us." In addition to trips to Big Fork, the group also visited two other innovative communities in the state, but only once. In addition to touring, the group tried to attend aging services conferences, but found very little information in their state and had difficulty finding conferences with relevant information. One source of inspiration was ActionPact's, Meeting of the Minds conferences where like-minded organizations could gather and learn from one another.

Internally, Prairie Town Home created two primary groups to facilitate the culture change process. The Nursing Home Administrator headed up the organizational redesign group and the Chief Executive Officer headed up a building design group. Some people served on both teams to facilitate an operational and organizational fit. Both teams included residents and family members. Attempts were made to involve residents as much as possible in the process, but the group found that the residents had difficulty tracking information when it became too detailed. During the process, the Nursing Home Administrator realized that staying on the organizational redesign group was becoming an issue. The group had become too accustomed to waiting for her to make the decisions, and thus was not working collaboratively as intended. Instead, they were waiting for her to make a suggestion or approve the decisions. She felt leaving the group was necessary to encourage teamwork and buy-in. Originally, the organizational redesign group had rejected the idea of cross training staff, but quickly

recognized to achieve the appropriate number of staff hours in each household required flexible staffing roles to remain budget neutral.

Training and Education was a significant cost item for culture change that occurred from 2002 to 2004. Seventeen persons on staff received Eden Associate Training. Every person on the campus was trained in *Person First*, an eight-hour train the trainer program developed by ActionPact, which emphasizes putting residents' holistic needs first and a focus on relationships. It took nearly a year for all staff to be trained in *Person First*. All staff assigned to work in the households went through eight hours of cross training in roles such as activities, dining, social services and housekeeping. The facility asked each department to develop their own training materials. Cross training took approximately a year to complete. All staff working in the households were trained as Certified Nursing Assistants (CNAs) if not already licensed to work directly with the residents. Specialized training occurred for select roles, such as some CNAs who became Trained Medication Aides (TMA). The organization also learned by pilot testing the model in 2004 for six months by dividing a 32 resident nursing unit into two 16 resident households which utilized a consistently assigned, cross-trained staff team. An open breakfast was available until 10:00 a.m. and the residents could decide when to arise in the morning. During the pilot, household residents ate together in one area of the main dining rooms. Although no significant physical changes were made to the building, staff felt there was an immediate positive difference for the residents and the overall atmosphere was calmer.

Prairie Town Home's Culture Change Objectives

Key objectives for Prairie Town Home culture change were not documented during the process, but interviews with key staff members suggest that there was a strong emphasis on recreating a familiar home in multiple senses of the word. The group sought to empower residents, offer and honor choices and seek ways for the residents to grow. The shared vision of the household borrowed from ActionPact language was a "a small number of residents, their families and a small number of permanently assigned staff-sitting down as equals, planning, deciding, doing, working, enjoying life together" (Personal communication, 2012).

Prairie Town Home's Monetary Costs for Culture Change

Specific monetary amounts spent during the culture change process were not tracked as a separate line item in the organization's budget. The cost for hiring ActionPact as a culture change agent was not available. However, the organization did not have a long-term contract with ActionPact, which was only used to coordinate a few select events and provide some training resources. Prairie Town was fortunate to have a similar organization experiencing culture change within a day's drive that they could experience and use their own bus for transportation. Training costs for the organization were significant, for not only the direct cost of materials or the program, but also the time taken away from other duties. The Chief Executive Officer suggested culture change education could cost $150,000 to $200,000 in addition to the normal training activities.

Franklin Village's Culture Change Resource System

The nursing home wing at Franklin Village was added five years after the CCRC initially opened. Although the nursing wing was constructed in 2001, staff considered the design thinking to be "several decades old" with mostly shared rooms. The original 42-bed nursing home was divided into two 21-bed nursing units without a clear boundary separating the two units. Primary social spaces for both nursing units included one large dining room and one large lounge overlooked by a large nurse station. The nursing home staff were organized in a traditional hierarchical fashion, but the small number of residents resulted in teamwork with the administrative staff often pitching in to help particularly around meal times, which were described as chaotic. Overall, the nursing home was known to provide "great care" and administrative staff were described as being very "hands-on."

Franklin Village's Culture Change Process

When the nursing home first opened, the 42 beds were more than adequate to serve the relatively young CCRC population, and therefore the organization would occasionally admit residents from outside the CCRC directly to the nursing home. After a new apartment building was added to the campus in 2003, the organization was beginning to find it difficult to accommodate their residents' nursing home needs. Lack of beds and no contractual obligation as part of the fee per service CCRC, often led to residents seeking care in other nursing homes or some residents remaining in assisted living longer than desirable. By 2004, the organization knew they had to add additional nursing beds to serve their residents, and the leadership felt it was an opportunity to "get it right" and "create an environment that would meet their mission

of enriching the lives of older adults." Seeing an opportunity for change, the CEO began looking at new models of care and subsequently discovered culture change and the household model while attending the national American Association of Housing and Services for the Aging Meeting (AAHSA) in Baltimore, Maryland (i.e. now referred to as Leading Age since 2011). Excited by what he heard, he returned to Franklin Village and shared these ideas with key staff members. The emphasis on resident quality of life immediately resonated with the CEO partially due to his social services background. While talking to different people about the movement, the CEO learned about ActionPact and LaVrene Norton from a conversation with an architect. The CEO's first phone call to LaVrene one evening lasted 45 minutes. By the end of the call, he had asked ActionPact to guide the culture change process. The CEO preferred LaVrene's approach to culture change, which is to guide the organization to create something unique that fits their own communities' culture instead of offering an off the shelf solution. LaVrene suggested it takes three years to change the culture of a nursing home; but the CEO gave her 18 months. During that same 18 months, the new building was to be planned, programmed and constructed.

One of the early events in the process was a road trip to two care communities. The CEO, Administrator and Director of Nursing and one other person toured Meadowlark Hills in Manhattan, Kansas and one quasi-household organization in Michigan (i.e. name not recalled by informant). The team garnered quite a few ideas from the trips, but came away with the thought that they would do something different. Looking for innovative ideas led them to the Green House project that had just opened in Tupelo, Mississippi. Due to a mix up in schedules, a visit to see the Green Houses never occurred. While the group was intrigued by the Green

House concept, staff were concerned for how it would function in a colder Pennsylvania climate. Some staff felt the resident rooms of the Green House lacked privacy due to their location directly off a central living space (e.g. referred to as the hearth room). Furthermore, the group wanted to set their own direction for staffing, which is not permitted under the Green House licensure.

A steering committee was formed to lead the culture change process. All committee meetings occurred at Franklin Village, so the group could pull in individuals from various roles whenever needed to broaden the group's perspective. The committee met with ActionPact about once a month. The steering committee also developed various task force groups that focused on specific topics. The steering team also generated an education team who were responsible for informing others about culture change. Twenty individuals were initially trained in the *Person First* education program from ActionPact. These 20 individuals subsequently trained the other 350-375 employees who worked throughout the entire CCRC campus.

Getting buy in to culture change by various stakeholders was part of the process through various meetings. Initially the Administrator was immediately on board with the ideas, whereas the Director of Nursing (DON) was a bit more hesitant about how to make it work and still provide good care. Her initial perspective was culture change was an overlay program instead of a complete shift in culture. One person described her "ah-ha" moment, which occurred during a meeting, as throwing her hands up and shouting, "I now get it." The DON also acknowledges that her views also changed as she witnessed staff's acceptance and excitement over the new ideas. Convincing the board and family members also took some work. The board had to accept a mission motivation to renovate and add to the existing

nursing home building that was only four years old and still carried a significant debt load. However, the board agreed and gave significant latitude for the team to pursue changes. Family members and residents proved to be some of the biggest hurdles. Both groups felt the "care was good" and questioned why the need for change. One person could not understand why they would change the nursing home to be so nice that was "just for old people." One resident told the CFO at an early presentation the following:

> I listened to what you had to say and I have tell you that is the dumbest idea you have ever come up with. I don't know why you feel the need to do this. It's a waste of money. We get great care. We have a nice place. There is no reason to do anything like that. It's just one of the stupider things you have come up with.
> Upon moving into a household, the resident pulled the CFO aside and said, Remember how I told you that was the dumbest idea you ever had. I came up here to prove to you this was a bad idea and here's what I discovered. I didn't realize at the time, in the old nursing home, we got great care, but I was just a body requiring care. Since I have come to the Households, I've gotten myself back (personal communication, 2012).

As the first use of the household model in Pennsylvania for nursing care, the organization was conscious of the need to work with various regulatory agencies and explain their vision. Therefore, no mentions were made of any regularly hurdles to overcome during the staff interviews.

The staff retreated to the DON's home to generate the new organizational structure for the households. While the nursing home was being expanded in capacity, the organization wanted to keep the staffing pattern fairly cost neutral. They starting by writing down every full time equivalency staff member associated with skilled care. One card equaled one full time

equivalent and they worked hard not to exceed the number as they reshuffled staff. Responsibilities were spread among several staff members who took on various roles. The organization did pilot test the consistent staffing model in the old nursing home. During the pilot more flexibility for arising in the morning was offered to residents by preparing breakfast in the dining room instead of trays, and residents in households were grouped socially for meals.

Franklin Village's Culture Change Objectives

Key culture change objectives for the organization were based upon the desire for "it to be home." The group wanted an environment that would "facilitate relationships and connections" inside the nursing home and the broader community. Monetarily, the organization also strove not to increase the residents' daily rate by moving to the household model. The culture change process and expansion were strongly mission driven, so the nursing home could care for their own CCRC residents on campus. Most importantly, Franklin Village saw it as an opportunity to realign the nursing home with the organization's mission of enriching residents' lives.

Franklin Village's Monetary Costs for Culture Change

All investments into the culture change process were not tracked by the organization. The cost of hiring ActionPact and purchasing the train the trainer, *Person First* program was estimated to be $75,000. Four persons from the organization took a trip to Manhattan Kansas to visit Meadowlark Hills and another trip to Michigan. The group invested significant time

resources to train every employee on the CCRC with *Person First* regardless of their involvement with the nursing home. Over the 18 month planning period, monthly meetings with ActionPact, steering committee meetings and task force meetings took time away from other responsibilities and were a significant investment of resources. Moreover, staff became emotionally invested in the process and the excitement of working with the residents. One dietary staff member expressed the enjoyment of actually getting to know the residents during this planning period for culture change. However, other homemakers took over her role after the households opened and she now misses that same level of engagement with the residents.

Five Sisters Home Culture Change Resource and Objective System

While Five Sisters Home is currently a CCRC with multiple levels of care, the organization predominantly provided nursing care during its 66 year history. From 1947 to 1965, the sisters cared for residents in the home that also served as their convent. One sister described the care as having a "family feel." with approximately 20 people being served at the same time. In 1965, the 60 bed traditional nursing home building opened on the campus through the assistance of Hill-Burton funds. The organization had at total of 115 licensed beds after an addition in 1973. Ten Home for the Aged beds that essentially served as assisted living were also in the building, but these beds were treated similar to nursing care. The 115 beds were organized into three nursing units, but most staff were also assigned to work on specific halls which were labeled A, B, C and D (One nursing unit had two halls). Residents ate in three dining areas referred to as the general dining room, assisted feeders group and total feeders group. In addition to board oversight, the Catholic Sisters served as RNs, Administrative Staff and Support Staff throughout

the organization. At the time of change, the staff described the nursing home as a traditional organization with a hierarchical arrangement of staff that provided "good care," but "not much else." One interview participant described the nursing home as having strictly defined roles with an attitude of, "this is not your job, so stay away from it." Another person stated that the hallmark of good care was being "deficiency free", which the organization enjoyed for many years. However this same individual acknowledged, "regulations become the focus and not the person" when one emphasizes avoiding deficiencies.

Five Sisters' Culture Change Process

During the first 32 years, the historic mansion, converted to a convent, and the nursing home were the two main buildings on the campus. In 1979, a few independent living cottages were constructed along with a small social building for meals, which expanded the continuum of care on the campus. The president described these cottages as the best kept health secret in town since the organization was primarily known as a nursing home throughout the community. Sometime around the year 2000, the organization made a strategic plan to expand the continuum to increase revenue stream options. A master plan was developed that called for additional independent living cottages and the development of an independent living apartment complex with substantial social spaces. An assisted living building that would also provide memory care and adult day care was included adjacent to this new apartment complex. The nursing home was to remain on the campus and be minimally redecorated. The campus was to be rebranded as a CCRC with a full continuum of care.

The organizations initial exposure to culture change was through Eden Alternative in which leadership stated they "were doing it." While attending a pre-conference intensive at the 2002 AAHSA Meeting in Baltimore, Five Sisters' leadership first learned about deep culture change and the household model from Steve Shields, the administrator of Meadowlark Hills in Manhattan, Kansas, which was an early adopter of the model. According to one attendee, "the whole idea of being able to have home in the nursing home; we didn't even know that existed." One thought that resonated with the president was how Steve Shields stopped construction at Meadowlark Hills in Kansas, to first rethink the culture of the organization before changing the environment. While the Five Sisters' CCRC expansion was not under construction, substantial planning was complete and plans were already in place. Taking a close look at their own organization, leadership began to realize they did not have a "home" but a "well-run institution." Approximately six months later, a group from Five Sisters attended the International Eden Alternative conference and heard more from Steve Shields as well as LaVrene Norton of ActionPact, the same culture change agent used by Prairie Town Home. On the drive back from the conference, the Board Chairmen Sister and the President decided they could no longer just "redecorate" the nursing home as part of the master plan for the CCRC. They needed to made substantial changes to the nursing home organization as well as the building and "take it as far as they could go." The president called LaVrene on that subsequent Saturday morning and found that they could work with ActionPact and have an opportunity to engage Steve Shields in their culture change process. Leadership recognized the kindred spirit of Steve who reflected their own mission to provide the very best for the elders whom they served.

Five Sisters started its strategic culture change journey around 2003. One of the first tasks was attending a Meeting of the Minds event hosted by ActionPact, to hear more about groups who were engaged in process. They also toured Meadowlark Hills to see the household model in action. Once they had a clear vision for the direction they wish to pursue, they went to the board and stated they had "a pretty big change to make to the master plan." Fortunately, the board accepted almost immediately. The first task was to find at least five million dollars in the master plan budget to renovate the nursing home. This was accomplished through value engineering as well as eliminating the intergenerational adult day care and altering the assisted living building, so it became an addition to the nursing home instead of a separate building. The new plan for the nursing home was to renovate the existing 1960's building with minimal new construction while remaining in operation. The group also engaged in a capital campaign to help fund the remainder of the renovation costs.

Internally, one of the first activities the group engaged in was hosting a meeting with residents and family members and other staff members to understand "what is home to us." This meeting lasted two days and included about 100 people. During the planning period, the Five Sister's Home abandoned the regular departmental meetings of the organization's management and adopted a new leadership team comprised of 20 individuals. These individuals represented both formal leaders who were department heads as well as informal leaders such as nurses, CNAs and housekeeping staff. The leadership team led the culture change activities, but also the overarching organization during this period. There were regular meetings with residents and other staff members to introduce the new concepts, disseminate information and garner input. One staff member felt one of the worst things were the

meetings which discussed the same ideas over and over, and left one with great anticipation for what was to come. The organization hired temporarily an administrator who had a record of accomplishment with deep culture change in another care community during the planning process. Steve Shields served as a mentor to the president during the process, and the two met monthly during the planning period in either Kansas or North Carolina.

Over a three-year period, several people went to Meadowlark Hills to experience the household model first hand. Three main airplane trips occurred with about 15 persons per trip, which included nurses, housekeepers and CNAs. Those who went to see the household model in action often came back as cheerleaders for the concept. In addition to trips to Kansas, the group also toured Eden facilities locally and took an overnight road trip by bus to view two organizations in South Carolina that had person-centered views (i.e. name not recalled by informant). At the time of their transition, the organization had 20 Eden Associates and hosted Eden Associate Training sessions on the campus. The president referred to Eden Alternative as being in the "DNA of their culture change" development.

Education and pilot testing were also part of the process and continue to this day. ActionPact's *Person First*, train the trainer educational program was utilized during the culture change process to establish a baseline for introducing person-centered, holistic views of the residents. A 20 person team of direct caregivers educated all staff members, board members and even some family members in *Person First*. Some staff assumed new roles in the organization which required training and licensure. One staff member in a leadership role trained as a CNA, so she could be empathetic to their needs. The group had opportunities to pilot test organizational ideas over the three-year planning period and during the three years of

building renovation. The original A, B, C, D halls were treated as de facto households with staff being consistently assigned to work with residents utilizing flexible roles. Breakfast times and arising times were made more flexible by creating makeshift cooking areas in each hall area wherever possible. Four phases of construction in three years resulted in some households opening before others, and some households were temporally relocated to the assisted living while their space was renovated. At least four of the household teams were primarily formed from staff members assigned to the original halls.

Five Sisters' Culture Change Objectives

Key goals for the culture change movement at Five Sisters focused on resident quality of life. They wanted an organization that would enhance quality of life and be a home for their residents. At the same time, the organization wanted to empower staff members and promote a rewarding experience in the workforce. Five Sisters Home also wanted to create a unique place in the community that would honor the original mission of the Catholic Sisters.

Five Sister's Monetary Costs for Culture Change

Some specific line items for the organization's culture change process were tracked over the five year period from 2003-2008. The CFO estimates a total of $570,000 was spent on the ActionPact Contract and trips to Meadowlark Hills. Approximately $71,000 of this amount was allocated to staff travel time. While leadership admits the number of trips to Meadowlark and monthly meetings may seem excessive, he views it, "as money well spent." He considered culture change to be a vague construct, but seeing household environments as concrete

examples and in action aided the process. Other costs included hiring an administrator with a culture change background that came at a cost premium. There were also significant resources spent by the community by investing in the collaborative process of culture change, as well as having every staff member receive the eight-hour *Person First* training.

Comparison of the Culture Change Resource and Objective System for the Three Cases

The following section discusses key differences and similarities in the culture change process, resources consumed as well as key objectives for three case studies. All three case studies' initial exposure to deep culture change and the household model occurred at educational conference sessions. Both Prairie Town Home and Five Sister's Home had some initial exposure to resident centered views prior to the conference. Five Sisters had Eden Alternative Associates while the CEO of Prairie Town Home had experienced a resident choice program in a previous nursing home. The educational conference sessions featured nursing homes that had embraced culture change presented by administrators as well as culture change agents. Both Five Sisters and Franklin Village mentioned the AAHSA Meeting which occurred in Baltimore in 2002 as their initial exposure to deep culture change. Prairie Town's exposure was through a state based conference in Minnesota that is affiliated with AAHSA.

Participant interviews at all three case studies revealed a mission or moral reason for embarking on culture change. For Prairie Town Home, there were also some personal motivators by staff members who were disenchanted with their role in long-term care. Two of the case studies, Prairie Town Home and Five Sister's Home describe it as a "gut reaction" with a cause for introspection, while Franklin Village referred to culture change as a direct reflection

of the organization's mission. Neither, Prairie Town Home or Five Sisters indicated they were intentionally looking for new ideas to implement while attending the conference, whereas Franklin Village was looking for new ideas.

Table 15

Comparison of Three Cases Culture Change Process

	Prairie Town Home	Franklin Village	Five Sister's Home
Culture Change Agent	♦	♦	♦
Culture Change Mentor			♦
Hired Culture Change Administrator			♦
Emersion Meeting with Stakeholders	♦	♦	♦
Community Survey	♦		
Culture Change Tours - Leadership		♦	
Culture Change Tours - Stakeholders	♦		♦
National Tours		♦	♦
State Tour	♦		♦
Local Tour	♦	♦	♦
Create Change Team - Primary Leadership		♦	
Create Change Team - Stakeholders	♦		♦
Create Work Groups for Specific Tasks	♦	♦	♦
Stakeholder Meetings	♦	♦	♦
Person First Training	♦	♦	♦
Eden Associate Training	♦		♦
Cross-Train Staff	♦		♦
Training for New Positions	♦	♦	♦
Conference Attendance - Leadership			
Conference Attendance - Stakeholders	♦	♦	♦
Meeting of the Minds Conference	♦		♦
Pilot Testing the Model	♦	♦	♦
Total Strategies Used	16	12	18

All three nursing homes were considering environmental changes to varying degrees, which also played a role in the motivation for change. Between the three organizations, environmental changes at Prairie Town Home played the least role in initiating culture change.

While the nursing home was anticipating a minor interior refurbishment, this plan was abandoned after adopting a strategic plan to first reorganize their model of care around person-centered values and to subsequently create an environment that supports this model. Franklin Village's need for additional beds in the nursing home led the CEO to explore conference presentations to tap into new ideas for nursing home environments. However, the recognition that a new environment with households should complement a very different nursing home organization reflected a deeper commitment to culture change. Five Sister's was engaged in a strategic plan to reorganize into CCRC with a full continuum care, but essentially was only making minor alterations to the nursing home's appearance. After exposure to culture change, Five Sister's leadership changed their course and decided to completely renovate their nursing home into households and reorganize their staff to support a person centered focus.

The culture change process for the three organizations shares some similarities due to their involvement with ActionPact, a culture change consulting firm led by LaVrene Norton (See Table 15). Prairie Town Home and Five Sisters Home were exposed to Laverne Norton initially at conference presentations, while the CEO of Franklin Village was referred to Norton by a colleague. Prairie Town Home hired ActionPact to assist with specific events and meetings while Franklin Village and Five Sisters had longer-term contracts. Five Sister's Home felt that ActionPact and the consultant Steve Shields resonated with their mission and did not mention exploring various options for culture change guidance during interviews. In contrast, Prairie Town Home and Franklin Village indicated a period of exploring other models to adopt. Both decided to utilize ActionPact to create a unique model that reflected their own community,

instead of adopting a prescriptive solution. Two of the nursing homes also utilized existing household models at other organizations as a pattern for culture change. The households at Big Fork in Minnesota served as a muse of sorts for Prairie Town Home's own culture change process, while Five Sister's drew heavily from Meadowlark Hills in Kansas.

The organized culture change process for the three cases often started with touring other care settings by leadership initially in order to generate a clear vision for the direction in which the organization wished to proceed. All three organizations indicated that these early tours were useful to start rethinking the culture of the organization and share that vision with others. These tours were a means for stakeholder to see the tangible artifacts of culture change. Prairie Town Home only toured organizations within their own state, while Franklin Village and Five Sisters visited other states. Another early internal event for the cases was Emersion in which each case study organization defined what is home to them guided by an ActionPact facilitator. All three hosted meetings with a variety of stakeholders including resident's family members and staff. Prairie Town Home took these explorations of defining home into the community by issuing a survey and speaking to local groups, which is reflective of the organization position in the rural society it serves.

Culture Change tourism involving stakeholders such as board members, direct caregivers, and residents occurred at Prairie Town Home and Five Sisters Home. Prairie Town Home was fortunate to have Big Fork within a day's drive and could utilize their own 15 person bus to transport people for a day trip. Five Sister's Home flew nearly 45 people from North Carolina to Manhattan, Kansas to visit Meadowlark Hills. In contrast, Franklin Village only took

one trip with four people in leadership roles to observe culture change in action in the early part of their quick 18 month process.

All three organizations described the creation of culture change teams made up of various stakeholders who led the process and were the primary conduits of disseminating information and garnering input from others. In the case of Five Sisters Home, the traditional departmental meetings were temporarily abandoned, and all organizational business now met through a leadership team including the culture change activities. Participation on these teams often revealed a process of discovery and the challenges of altering ingrained culture. For example, one leader stated she recognized the need to remove herself from the team, to encourage more group decision making. Another individual revealed how it took her a while to recognize how person centered care differed from what was already being done.

Educational resources were a key part of the process. Externally, all three organizations spoke about the challenges of finding conferences to attend to inform the process. After being exposed to the initial spark of culture change at a conference, their educational needs changed to seeking more detailed specifics and tactics for change. Therefore, ActionPact's *Meeting of the Minds* was a useful event for two of the organizations to attend. All three organizations used ActionPact's, *Person First* Training as an educational resource, and all three chose to educate a broad range of people in their organization by not limiting training to just the staff of the nursing home. Prairie Town Home and Five Sisters Home also generated their own training materials to cross-train staff to take on new roles and responsibilities in the households such as social services, dining, activities, housekeeping, laundry, etc. With the restructuring of the organization, some staff members needed to be trained to take on new licensed roles.

ActionPact and LaVrene Norton served as a primary guide for the three organizations during the culture change process. ActionPact often utilizes the expertise of various consultants who participate in culture change activities as needed for the short term. In the case of Five Sisters, ActionPact also engaged other consultants who assisted with the process for longer periods. Steve Shields of Meadowlark Hills worked with Five Sister's through ActionPact to serve as a culture change mentor for the president. Mentorship involved monthly meetings with the president to discuss and strategize about the best culture change process. Through ActionPact, Five Sisters Home also temporarily hired an administrator with a background in culture change and The Eden Alternative to support the transition, which came at a premium cost. While all three case studies talked about getting buy in for people within the organization, Franklin Village was the one that spoke of the challenges of garnering residents and family acceptance of change when beliefs in what a nursing home should be were enculturated. Nothing would have occurred at this nursing home if leadership had just listened to the residents and family members--an often-repeated mantra of some culture change advocates. Part of the culture change process is recognizing the need to educate all stakeholders that life can be different in a nursing home.

The timing of the culture change activities significantly differed for the three organizations. In the case of Franklin Village, the CEO had 18 months to engage in culture change activities and create a new building to expand the existing nursing home. This compressed period may have created a greater need to focus on internal activities and less on touring. Franklin Village was able to pilot test some ideas in the existing nursing home before the new addition opened. In contrast, Prairie Town Home had nearly three years of culture

change activities before pilot testing the model in the existing nursing home by dividing one nursing unit in half. The first new households opened about a year later and construction and renovation were finished two years later. A total of nearly six years were involved from the initial planning stages to the grand opening at Prairie Town Home. Five Sisters had about three years of planning before starting renovation of the nursing home, which took nearly three years to complete. Over the six-year period, there were opportunities to pilot test the model and the original four halls created a natural building division similar to the future households.

All cases emphasized there was a strong moral objective which motivated the changes. When asked about their culture change objectives, all three nursing homes emphasized recreating home. All indicated a desire to improve the residents' quality of life through offering choices and flexibility in daily life schedules. Five Sisters also specifically mentioned empowering staff and creating something unique in the community. When prompted, Franklin Village's CFO did mention a goal of creating a model of care that was not more expensive than the current model. Key informants often were reluctant to discuss financial goals for the projects during interviews.

Artifacts of Culture Change for Three Cases

The Artifacts of Culture Change is an instrument created for CMS to provide organizations with a means to assess an organization's culture change progress and readiness for change (Bowman & Schoeneman, 2006). The instrument is widely available through the Pioneer Network and offers an opportunity to benchmark culture change within a nursing home organization and compare progress with other nursing homes. The artifacts tool is based

upon the work of organizational culture consultant of Schein (1992) who argues organizational culture is comprised of beliefs and values, basic underlying assumptions, behaviors and artifacts. Artifacts are the tangible, physical evidence that are observable such as the structures for living and working, objects of daily use, ritual and activities, the ways we dress and interact with others. The Artifacts of Culture Change Instrument evaluates the presence of various culture change strategies and outcomes. More progressive culture change trends receive higher scores. Most items are readily observable; however, some require knowledge of staffing patterns and history. Only Five Sisters Home had an Artifacts of Culture Change survey partially completed as part of their own benchmarking activities after households were created. For all three organizations, an Artifacts of Culture Change survey was completed retrospectively as part of this research study using information gathered during the site visit and utilizing organizational records. Table 16 provides a summary of the Artifacts of Culture Change results for each case benchmarked with other nursing homes.

There were differences between the three cases. Prairie Town Home ranked the highest, and Franklin Village ranked the lowest. Key differences in scoring areas between Franklin Village's and Prairie Town Home include the environment category (101 points) and the workplace practices category (20 points). Five Sister's scores fell close to Prairie Town Home in four of the six categories. Substantial point differences occurred in the environment category (62 points) and the staffing outcomes and occupancy category (21 points). These differences do highlight the environmental challenges of renovation, different reorganizational strategies for staff, and to some degree the context for the three organizations as well as the timing of the artifacts survey. Comparatively, Five Sisters Home was being studied within three

years of having finished construction while Prairie Town Home was visited after nearly six years of operation after major milestones in culture changes had been reached. Furthermore, each organization might disagree with the relevance of some of the points raised by the tool or the application to a CCRC. Nevertheless, the Artifacts tool provides a benchmarking score for measuring culture change progress with others. The average Artifacts of Culture Change score from 339 nursing homes submitted to the Pioneer Network from 2010 to 2011 was calculated to be 241 points or a 42% implementation rate (Pioneer Network, 2011). All three case study organizations fell above this national average and demonstrated a clear advantage for having renovated into households (See Table 16). Only Five Sister's score for the Staffing Outcomes and Occupancy category fell below the national average, which is partially explained by the turnover that occurs with culture change and the different needs in occupancy for a CCRC, which keeps some nursing home beds open for its residents.

Table 16

Artifacts of Culture Change Survey - Comparison Summary

Category	Prairie Town Home	Franklin Village	Five Sisters Home	Benchmark Avg*
Care Practices (70 pts)	53	44	52	35
Environment (320 pts)	228	127	166	102
Family and Community (30 pts)	28	25	15	15
Leadership (25 pts)	25	10	20	9
Workplace Practice (70 pts)	55	35	53	32
Staffing Outcomes and Occupancy (65 pts)	62	50	41	48
Total Artifacts of Culture Change (580)	451	291	347	241
Implementation Rate	78%	50%	60%	42%

Note: See Appendix B for Complete Artifacts of Culture Change Survey. * Benchmark average compiled from Pioneer Network, 2011.

Comparison of Culture Change Process Costs

All three organizations did not fully track the costs for culture change as a specific line item in their budget. As all three nursing homes are part of larger organizations with budgets in excess of $25 million, tracking such costs does not appear to be relevant. One person interviewed suggested a smaller, standalone nursing home would be more likely to monitor such costs. Monetary figures for the culture change process gathered from records and interviews are not comparable for the three cases. Only Five Sisters was able to provide a number of $570,000 for culture change activities, training, travel, and staff time which occurred over a five year period. Franklin Village provided the amount spent on the ActionPact contract and Person First training to be around $75,000, which occurred over a compressed 18 month period. Compared to the other cases less travel costs were involved for this organization and limited to just four people. Prairie Town Home was not able to offer any monetary amounts spent specifically on culture change over the three year period. The CEO estimated training costs alone for an organization to be around $175,000 for culture change beyond typical training.

Cost differences for culture change involvement would differ by the unique situation for each organization. Travel costs to visit case study examples vary significantly by proximity to the exemplary organizations, as well as the number of participants. As culture change spreads, more examples to visit may become readily available. ActionPact often recommends a three-year process to change the culture of the organization, which is a significant investment of time and resources. Notably, each organization also chose to create their own unique approach to culture change and the household model instead of selecting a prescriptive approach such as

the Green House model. This exploratory approach does take more time and investment to come to group consensus. Development of training materials for culture change within the organization is another expense of time resources. All three used *Person First*, the ActionPact, Train the Trainer educational resource to provide a foundation for culture change knowledge, but all three had to develop their own means to cross train staff who took on new roles within the organization. There were some instances of training being readily available for some roles such as CNAs or Certified Dietary Assistants or Trained Medication Aides but not for all roles.

Chapter Summary

This chapter presented the resource and objective systems. The primary focus is the culture change process for the three cases. The purposes for culture change and the development of the household model had several key similarities as each was trying to replicate the familiar place of home. The next chapter discusses the environmental system for the three cases including a description of the building before households and after households. Summary construction costs are included at the end of this section.

CHAPTER SEVEN - DESCRIPTIONS OF THE ENVIRONMENT SYSTEM OF THE THREE CASES

The Environment System is comprised of physical properties and spatial properties. Each case study organization sought to modify their existing nursing home building through a process of renovation and new construction to alter the properties of the space. The intent of these changes was to change the attributes of the place known as a nursing home, but also to tap into environmental affordances to support the new model of care. The subsequent section provides a description of the nursing home environment before and after culture change. These environmental descriptions are followed by a summary of the resources allocated by the three organizations to change the environment. Finally, this section ends with a comparison of the environments for all three cases and the resources utilized.

Prairie Town Home Environment System

The original Prairie Town nursing home was a wing of an acute care hospital constructed through Hill Burton funds in 1959. The buildings were brick, one-story structures with flat roofs, typical of 1960's healthcare architecture. The original nursing home wing was comprised of 33,000 square feet with 60 nursing home beds (See *Figure 16*). This wing was predominantly L shaped with a main dining area in the center. In 1973, a 55 bed addition was attached to the bottom of L shaped wing with a separate large dining/activity area. At the time of culture change, Prairie Town had 115 beds organized into three nursing units. The exact number of residents per nursing unit could not be recalled during interviews, but were approximately 30 to 32 residents each. Two of the nursing units operated from one shared nurse station resulting in two main nurse stations. Resident rooms were located along double loaded

corridors in shared rooms with beds located side by side. Most of the rooms had a shared toilet room located between the rooms. Only four rooms were private. Dining and most activities occurred in the two large spaces in the nursing home wing. Nursing unit one and two shared a large dining space and nursing unit three primarily utilized the second dining space. Underneath the nursing home wing was a large basement with the main kitchens, laundry as well as a large chapel/activity space. The hospital portion of the campus was also served by this lower level through the use of a service hallway and an elevator. According to one staff member, the building was starting to show its age after two decades of operation, appeared "beat-up" and in need of refurbishment.

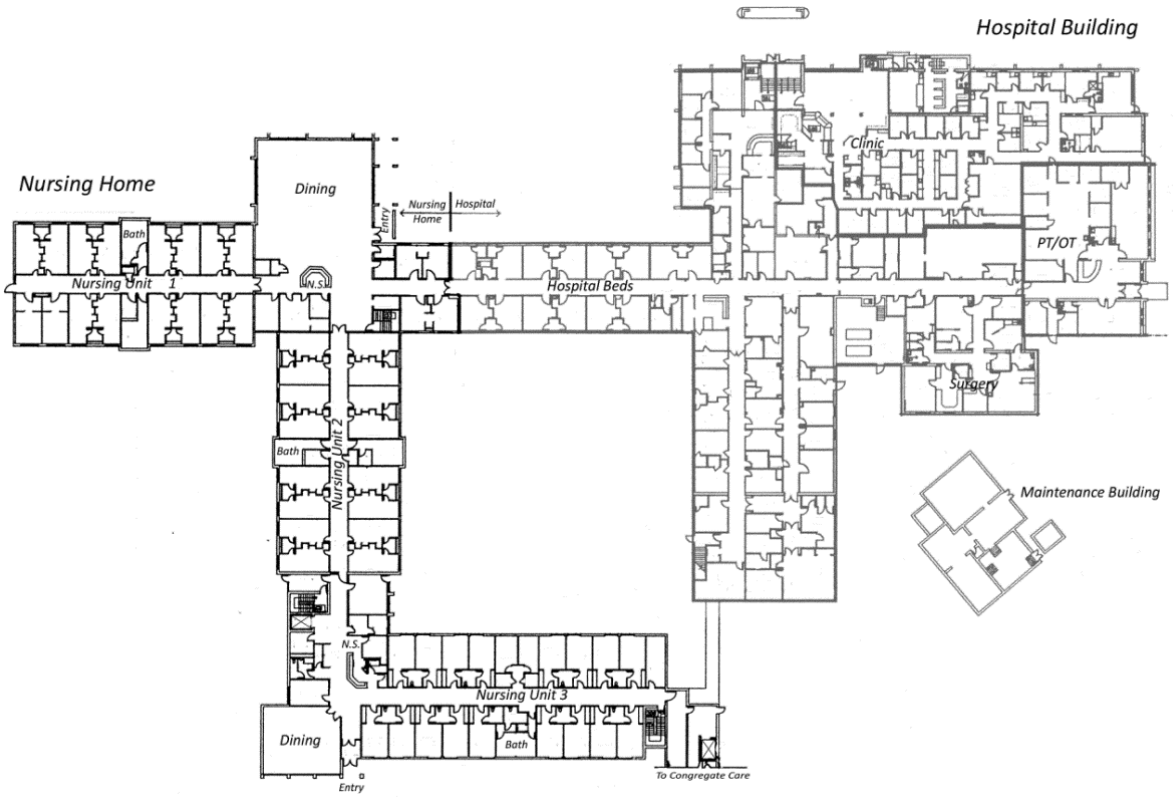


Figure 16. Prairie Town Home - Pre-Household Floor Plan

Prairie Town Home Environmental Change Process.

As discussed previously, Prairie Town Home's strategic plan included the creation of a new environment to support the newly developed model of care. The organization had opportunities to learn about households through conference presentations, discussions with ActionPact and visits to a nursing home operating under the model (See Culture Change Resource Section). Prairie Town Home made the decision to hire a local architectural firm to lead the changes of the building due to the preference of having someone local during the construction phase. However, the local firm hired lacked experience in healthcare. At Prairie Town Home's request, the local firm made a search for a Minnesota based design firm to collaborate with on the project. Several firms were short-listed, but the final firm was selected due to an extensive healthcare focus. During the interviews, Prairie Town also recognized the firm's familiarity with culture change and an ability for representatives to "talk that language." The CEO of Prairie Town stated the following:

> They had started to go down that road already in certain places, so it was their knowledge of long-term care in particular and the way the future was headed. They seem to be on the same philosophy as us (personal communication, 2013).

The design firm worked collaboratively with Prairie Town Home and ActionPact to generate the key goals and objectives for the project and an architectural space program. Within Prairie Town Home, the CEO led discussions regarding environmental changes along with a multidepartment team. Input was also sought from various stakeholders including the culture change organizational team throughout the design process. As part of their culture change process, Prairie Town garnered substantial input from the community to define what "home"

should be. One person interviewed captured the uncertainty by stating, "while we knew we wanted households and culture change, we didn't know what that meant." A key goal for the project recalled by Prairie Town Home leadership was the desire for "healthcare to take kind of a backseat. Not in the delivery of care, but in the look . . . ." Other key goals presented during interviews with the architect and staff members included the following:

- "We wanted almost to be like five or six small nursing homes all by themselves."
- "Each household [was to] to have an access to the street."
- "The idea of home . . . that you come into those common areas like you would your house."
- "We didn't want a nurses' station when you walked in and that's the first thing you saw."
- "We wanted a living room and a kitchen just like you would have at home."
- "The porch was a very important . . . as an icon of home."
- "Maximize the number of private rooms and reduce the number of shared toilets to a maximum of two persons instead of four."
- "Hide the services such as laundry, dietary and trash and housekeeping."
- "Create common spaces that are accessed first before transitioning and entering households where residents live."

The narrowness of the site area on the campus for expansion restricted some design concepts. Attempts to lay out the building with all households having access to the street in a one story building resulted in a very institutional building with long wings and numerous compromises. Eventually, the organization gained some additional lot area by requesting that the city grant permission to narrow an existing street. The final master plan for the project involved the creation of a new two story building in a compact X configuration containing four new households, and the renovation of the existing nursing home into two households and a town

center for activities (See *Figure 17*). The four new households in the new building are located two per floor and are mirror images of each other with a service core in the middle. Each of the new households serves 16 residents. The second floor essentially repeats the design concept of the first floor. The two renovated households have unique floor plans with one being designated for short-term stay rehab for 15 residents. The second renovated household serves 17 long-term residents. Both renovated households have some rooms that continue to share a toilet room between rooms. The town center is located in between the two renovated households and is connected via a pedestrian link to the new building.

The design and approval process from the Department of Health and Human Services took approximately a year and a half to complete. Construction was phased in order for the campus to remain in operation throughout the process. An initial phase of construction involved updating the infrastructure of the campus. Phase One involved constructing the new 64 person nursing home with four households. Ground broke for this new building on October 2003, and it was initially occupied in mid-year 2005. After moving some residents into the new building, Phase Two commenced, which included the renovation of the two existing nursing home wings into households. Renovations were completed in June 2006 and resident moved into the newly refurbished areas. Phase Three involved the renovation of the existing nursing home wing into the central Town Square, which was completed in October 2006. In total, the campus experienced three years of construction interruption.

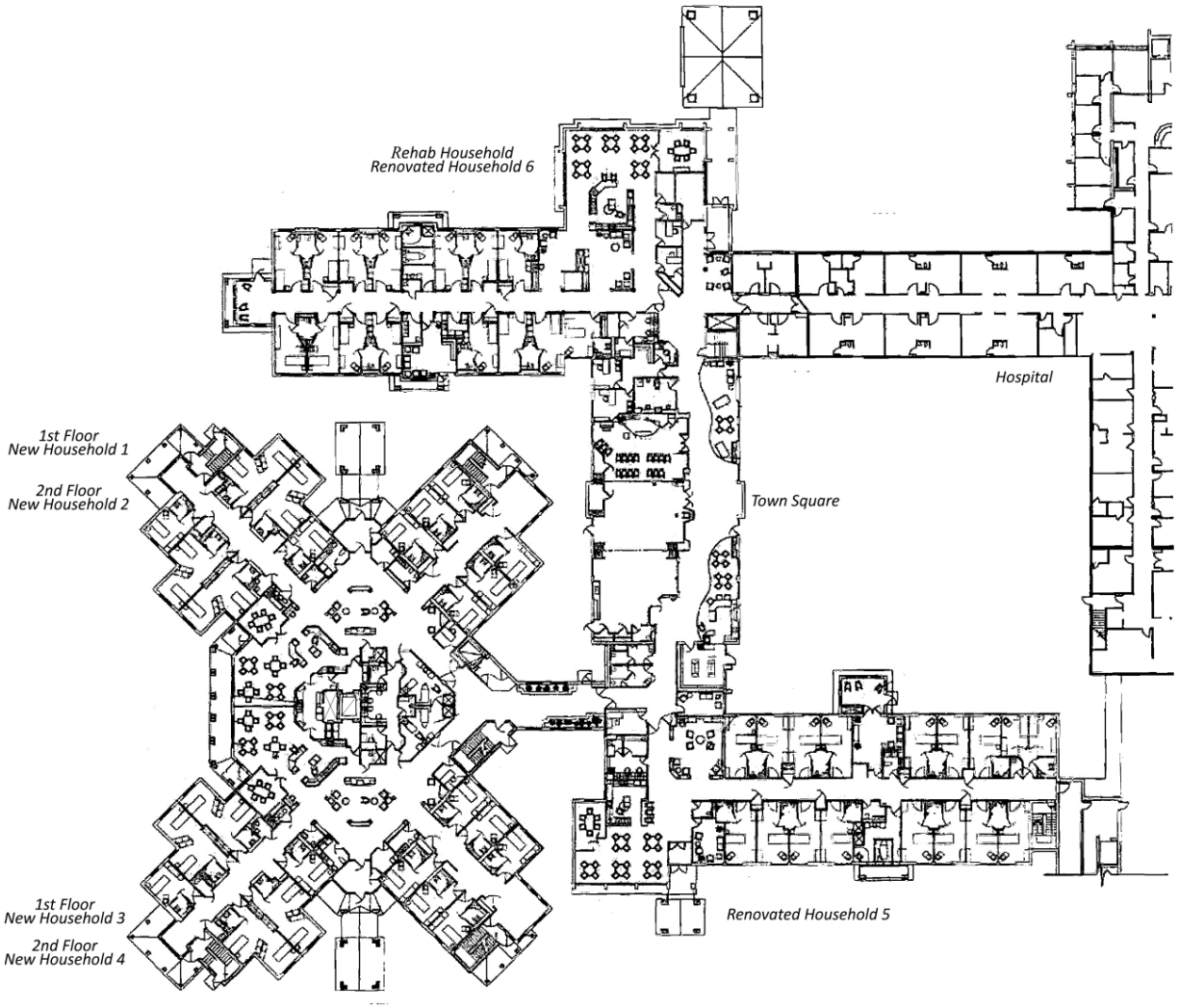


Figure 17. Prairie Town Home After Household First Floor Plan

All households at Prairie Town Home have similar characteristics. Each household is entered by a double door that leads directly to the primary living space in the household, which is filled with residential style furniture, a fireplace and a large television. The double doors have windows with mullions and panels to mitigate the institutional character. The kitchen and dining room are located adjacent to the living space. Each household has a private room with a large table that can be used for special private meals or conferences. There are also a few

alcoves off the living spaces that contain one or two chairs that are more intimate for quiet conversations or to observe activities without joining. Similar to a residence, the resident bedrooms are located down a hall away from the public areas. In the new households, rooms are accessed from two short hallways while the renovated households have one long hall, which is a vestige of the old nursing wings. All but one renovated household contains a small living space at the end of each bedroom hallway that has some familiar residential furniture and windows to the exterior. A living space that is located towards the middle of the hallway is available in the one renovated housed without an end living space. For this household, the end of the hall contains a doorway leading to a pedestrian link for the congregate care building on campus. However, pedestrian traffic from the congregate care building is minimal and rarely intrudes upon this household. Resident rooms in the new households are mostly private, and shared rooms are L shaped with each person having a distinct territory. Renovated households have private rooms, but most rooms share a toilet room with a neighbor. Other than isolation rooms, none of the resident rooms have a shower. Bathing spas are located off the living room in the new households, while in the renovated households spas are located midway down the bedroom halls. All households have a unique name and a different decorating theme. Attempts to promote wayfinding occur by the use of objects or décor that reinforces the names of the households. The Town Square contains destination spaces and is decorated with themed areas such as a chapel, movie theater, and a soda fountain complete with a jukebox. The Town Square rooms can be combined into one space to host large events or separated to host smaller activities. A small wellness center has a few pieces of fitness equipment. A gift shop run by volunteers also serves as a coffee shop with a small selection of food and drink. The Town

Center also contains the barber/beauty shop and a few administrative offices and the main reception area for the nursing home. Off the Town Center is a large enclosed courtyard with walking paths and a gazebo.

Staff and service spaces in the new households are concentrated near the center. Shared between the two new households is a space referred to as the den that functions similar to a nurse station but is out of sight of the residents. Only one nurse is typically located in the space, but it is used occasionally for shift change reporting meetings. An enclosed medication room, nurse office, and staff toilet are located off the den. In addition to the den, each household has an office space for the household coordinator, who oversees the social life of the house located near the living room. There is a small open computer desk in the household that could serve as a nurse substation, but is intended for both staff and residents to use. Most charting is done using laptops or a *CareTracker* kiosk (i.e. graphic electronic charting system for CNAs) mounted to the wall. On the upper floors of the new building, a small lounge in each household has a roll top desk, which is used by some staff members for reporting during shift change. A double-sided service elevator provides access to serving pantries in each household located adjacent to each kitchen. Each kitchen is open to the dining space with a stove, sink, refrigerator and dishwasher as well as steam wells for food service. In the new households, there is also a cooking area, which services each dining room primarily for breakfast through a roll up door. The renovated households do not have this back up service area and utilize their kitchens for all meal preparation. Each household has an enclosed laundry space, clean and soiled utility area, and janitor's closet. The exterior of the new two-story building is brick and siding with both pitched and flat roofs. Multiple stakeholders in the culture change process

indicated porches were a key element that defined home for the community. Consequently, a prominent porch is featured on the first floor off the dining room. To enhance the architecture of the old building, porch elements with pitched roofs were also placed along the linear façades.

The design architect described a few of the challenges and compromises made during the design process. One of the initial goals was for all households to have an outside entrance, which had to be abandoned for the two households on the upper level. A second floor balcony was created as a consolation for these two households. All households have an interior main public entry with a clearly defined entry portal, which is accessed from public spaces near the Town Square. Thus, all households are designed such that no household serves as a pass through to reach public spaces or another household (i.e one household does serve as a passageway for independent living residents occasionally). This privacy gradient effectively creates the feeling of six separate nursing homes internally, but not externally from the street. Some of the exterior entrances on the first floor are not obvious from the street and are tucked out of sight. This was a second design compromise made due to the limited site area available, even after the city granted permission to narrow the street. The wings of the new households where the bedrooms are located are not symmetrical resulting in one hall having four residents more than the other hall. These differences result in some consideration for how to assign staff to work on specific halls within the new household. However, the relatively small 16 resident households and team organization of the staff have worked to overcome this concern. A third compromise was not being able to eliminate all shared toilet rooms between resident rooms in the renovated households due to space constraints. Shared toilets between rooms now only

occur between two residents and do offer a different price point option. Limited site space also resulted in the new building having more shared rooms (4 per Household) than preferred by the organization in each household. Finally, some of the useable porches for the households had to be removed from the project due to varying code interpretations. Therefore only two households have useable porches on the first floor.

During the site visit, two key environmental changes were noted in the building, which significantly affect the households. The first change was made at the request of staff working in the new households. The dining rooms in two households per floor backed up to one another and are serviced from a pantry with two serving windows during breakfast. Staff felt isolated in the households and felt it would be helpful to create a doorway between the two spaces at the dining room. The door is often kept open, but it is closed for some events such as when one household is enjoying a special meal and the other one is not. The second change occurred a few years after the households opened to generate more Medicare income. One household was designated exclusively for short-term rehabilitation and has a higher staffing ratio and some of the social spaces within the household were converted into therapy spaces. These therapy spaces are somewhat limited in size and appear to be crowded since they were not part of the original design concept.

Prairie Town Home Renovation and Construction Costs

Costs to change the environment at Prairie Town Home include the construction of a new building, and renovation of the existing nursing home. Total costs to renovate the nursing home building are reported as $12.5 million or $130,208 per bed. The cost of constructing the

new 47,966 square foot building is estimated to be $6.4 million or $134 per square foot. The original nursing home building was approximately 60,059 square feet, but approximately 31,912 square feet was renovated with resident rooms not being significantly altered. Renovation costs of the existing nursing home building are listed around $3.5 million or $111 per square foot. Prairie Town Home used bank qualified tax-exempt bonds to assist with funding the project.

Franklin Village Environment System

The nursing home wing was added to the CCRC in 2001 with a total of 42 beds. The nursing home was a one-story structure with a façade comprised of synthetic stucco and stone veneer with a pitched asphalt shingle roof, which complimented the architecture of the existing CCRC buildings. All primary buildings on the CCRC campus are directly connected except for the independent living cottages. The nursing home is located at one end of the campus adjacent to the assisted living wing and memory care assisted living wing. The original floor plan of the nursing wing was roughly O-shaped with the center occupied by a triangular shaped courtyard (See *Figure 18*). Two main entrances existed to the nursing home. There was an exterior entrance under a portico that provided access from the exterior and the parking lot. A second access to the nursing home was off the main corridor that linked the primary common spaces throughout the CCRC. Before entering the healthcare area of the campus, one passed through a set of double doors along the corridor that served as an entry portal. The nursing home was originally divided into two nursing units for 21 residents; however, these units were not architecturally delineated. Each unit occupied approximately one half of the bedroom wings

with a separation that occurred near the exterior entrance and lobby. A looping double loaded corridor connected the resident bedrooms to the one primary social area for the nursing home, which was located near the main entry to the nursing unit from the CCRC corridor. This social area included both living and dining spaces for all 42 residents. The dining room was enclosed with an adjacent serving pantry that was rarely used since meals were served from tray carts. One large lounge space outside the dining room was also located in the main social area. A small lobby area for the exterior entrance was the remainder of the resident common spaces within the nursing unit. A large nurse station overlooked the main living area near the entrance to the nursing home entrance from the CCRC Hallway, and a small nursing substation overlooked the lobby for the exterior entrance. The substation also included a door to the enclosed courtyard. Staff offices were primarily clustered by the main nurse station. At the time of culture change, the main living room was also used for dining due to the limited amount of space in the dining room and a desire by some residents not to eat with those who had memory impairment or required significant assistance. An activity and separate therapy space are located outside the two nursing units directly across the main CCRC corridor. The main kitchen that serves the health care portion of the campus is also located across the hall. The majority of the bedrooms were shared with beds located side by side separated by a privacy curtain. Shared rooms included a bathroom with a sink and toilet for the occupants of the room. Only seven of the 42 beds in the nursing home were located in private rooms, and two of these rooms included a private shower for isolation cases.

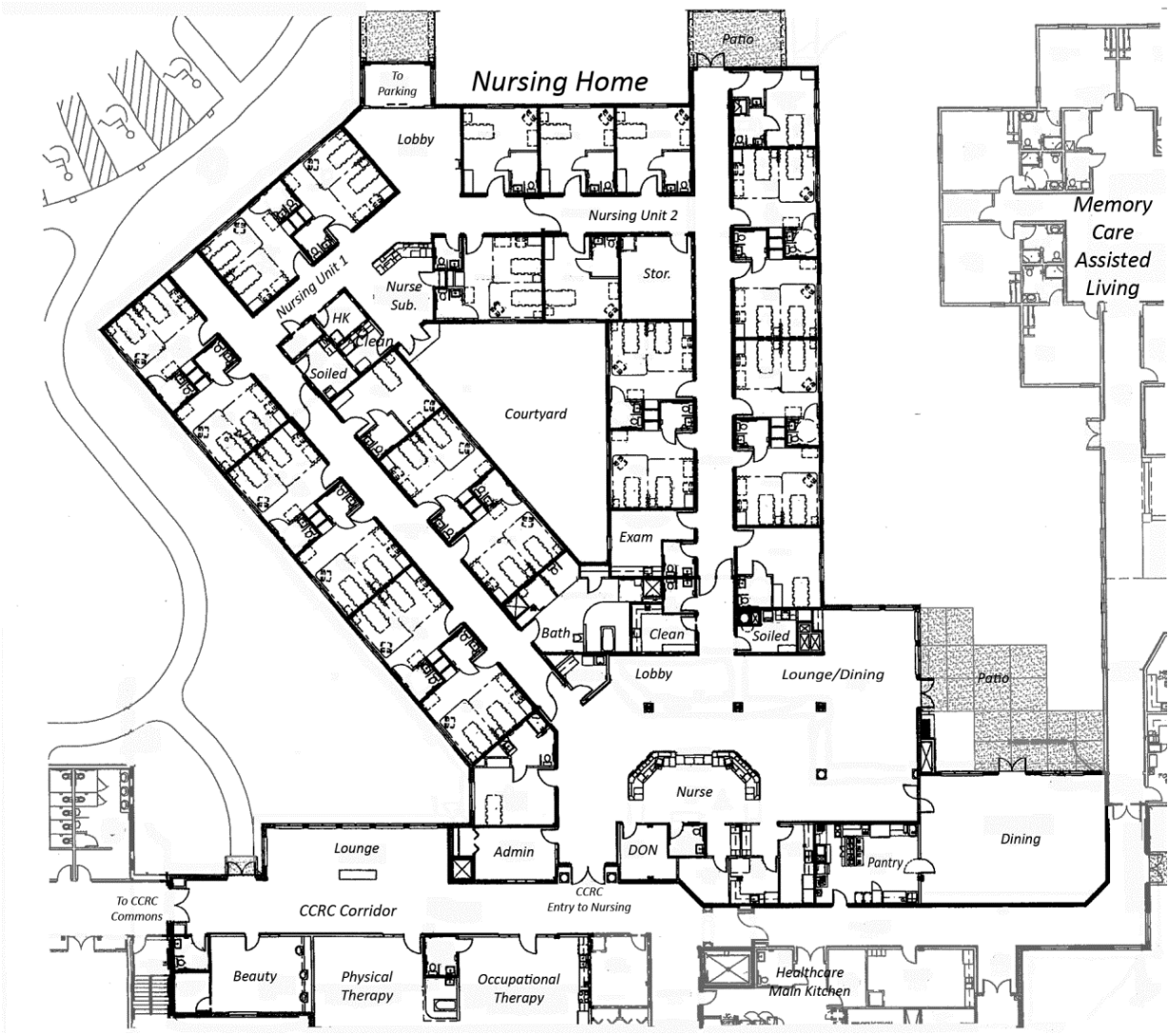


Figure 18. Franklin Village's Nursing Home Wing - Pre-Household

Franklin Village Environmental Change Process

After constructing a new apartment building in 2003, Franklin Village realized the need for more nursing home beds due to an increase in demand. By 2004, they had concurrently started their culture change process to change the organization, as well as the design process to expand the nursing home based upon the new model of care. They had opportunities to learn about households and Green Houses from conference presentations and leadership had visited

Meadowlark Hills. Franklin Village did interview a few architectural firms in the region, but in the end went with a firm that the CEO had a previous positive experience with on a different campus. Additionally, this firm had provided Franklin Village with a Master Plan to expand the campus before discussions of Culture Change had even begun.

The key qualifications the CEO was looking for in an architectural firm were an architect that "got the budget," and was "responsive to customer input." The CEO also wanted to use a regional architecture firm only for its programming and design expertise in senior living. A local architectural firm produced the construction documents and provided construction administration services for the building. This local architectural firm was also affiliated with the contractor who was preselected based upon past work on the campus. With only 18 months designated for the project, this modified design-build delivery process for the job was clearly warranted and supportive of providing cost savings.

The design firm worked collaboratively with Franklin Village to generate the goals for the project and to develop an architectural space program. Notably, the design was generated concurrently with the culture change process. The architect stated that while Franklin Village was "new to culture change they got it right away" that helped to expedite the design process. Within Franklin Village, most design meetings occurred with leadership staff, but additional stakeholder input was sought whenever necessary. No written programming document stating the goals of the project was found during the site visit or available from the architect. The initial focus of the design team was on the creation of new building wing and not changing the existing nursing home, which had only been in operation for five years. One person interviewed summed up the vision for the project by stating, "we kind of worked off the

assumption that it should be home. We spent some time developing a list of the icons of institutional life and then what are the indicators of home." Other key goals mentioned by the architect and staff members during the interviews include the following:

- Thirty-two additional residents arranged in two households of 16 with all private rooms.
- "We knew we really wanted a front door. Had to have its own entrance with the front door."
- "We knew that we wanted the layout to be similar to a ranch house. So with the layers of privacy. One of the things that---when we talked about the Green House model we felt uncomfortable was having the bedrooms open into the hearth room space. . . . We knew we wanted some degree of privacy going back through the house.
- "An open floor plan with having kind of some smaller safe places---like the parlors just a nice little room where you can sit in and that is smaller."
- "We clearly wanted the open kitchen. Absolutely, when we talked about life at home that idea that life revolves around the kitchen was one of the driving design factors." . . . Having the kitchens open so it is not just the smells coming through but human contact come through those areas.
- "Having the outdoor spaces where everyone can pile on the porch and throw something on the grill and reminisce about their family time."
- "We wanted connection to the rest of the community. Um, so we wanted everyone to have access without going out in the elements in the winter or the summer."
- "Not going through the public area to get to the bathing."
- "Med. servers [Medicine Servers] in the rooms . . . to eliminate the med. cart [Medicine Cart]."

- "We wanted to deal with storage and hallway clutter as best we could. To not have the lifts sitting out in the hallway all day. To not have the linen cart sitting out in the hallway all day."
- "The building to blend in with the existing architecture."

Expanding the nursing home within the confines of the available site area adjacent to the nursing home was a design challenge. The site was narrow and confined with the existing nursing home building located on one side and a retaining wall for a road on the opposite side. In order to maximize the number of private rooms, a two-story addition with two stacked households was planned. Another key consideration was how to service or access the new story wing without disrupting the existing nursing home since it was being added to one end of the building. There were some initial explorations to create a second story link overtop the existing nursing home to service the households that was abandoned immediately due to costs. The conceptual plan for the new addition was arrived at fairly quickly due to the "lay of the land," but was further refined during the design process. The architect described the design process as being quick, day long charrettes and meetings. The CEO emphasized the role of function in the design by stating the following:

> We would come up with something that we thought was a good iteration and then we would do a functional assessment. Where are the staff at 6:00AM, 7:00AM, and 8:00AM? Where are they moving to what are they doing? --what's the function? How's it operating? So credit to them, they were as much focused on creating a functional space as a beautiful space. So, as a result of that, I think the flow of the space and the way the building operates is very, very effective (personal communication, 2012).

The architectural firm worked with CNAs to refine bathrooms by experiencing using a lift first hand. Mock-ups of some spaces were utilized to refine the design with staff input, and some spaces were taped out on the floor to ensure adequate space for furniture and wheelchairs.

Once the CEO had more exposure to culture change and its benefits, he eventually decided to add to the project the renovation of the existing nursing home into households. He describes a moment of walking through the nursing home and finding the residents completely disengaged in front of a turned off television, which motivated his desire to not leave the existing nursing home building untouched. Cost effective, targeted renovation was sought to convert the existing nursing home wings into two separate households with most resident rooms not being altered. Once preliminary estimates demonstrated that the renovation project would not add significantly to the budget, the scope of work was expanded. The final project included the creation of four households. Two of these households were located in a new two-story building located at one end of the nursing home (See *Figure 19*). Each floor of the new building has a similar plan configuration with one household per floor for 16 residents. The other two households were created by renovating the existing nursing home by creating two separate living and dining spaces with attached kitchens. A few resident rooms were relocated as part of the renovation, but most of the renovation occurred in the public spaces. The two renovated households have more residents compared to the new households (i.e. 20 and 21 residents).

The organization worked with various regulatory agencies early in the process to avoid any issues. They were fortunate to have a life-safety plan review conducted by a soon to retire reviewer, who felt the idea of having meals prepared in an open kitchen for the benefit of

residents “made sense.” Approval was immediate, even though these were the first open kitchens with regular cooking being utilized in skilled nursing for the state. A waiver was obtained for using cameras in the hallways instead of direct nurse supervision from a nurse station. Another waiver was granted to avoid placing call lights outside the resident room doors to reduce institutional icons. Phase One of the project included construction of the new wing, which opened in September of 2006. Residents were offered a choice of households when moving to the new building, and surprisingly many of them preferred the upper floor due to the view. Renovations of the existing nursing home started soon after the new building opened and were complete by June of 2007. The nursing home experienced nearly two years of construction disruption, but remained in operation throughout the entire process.

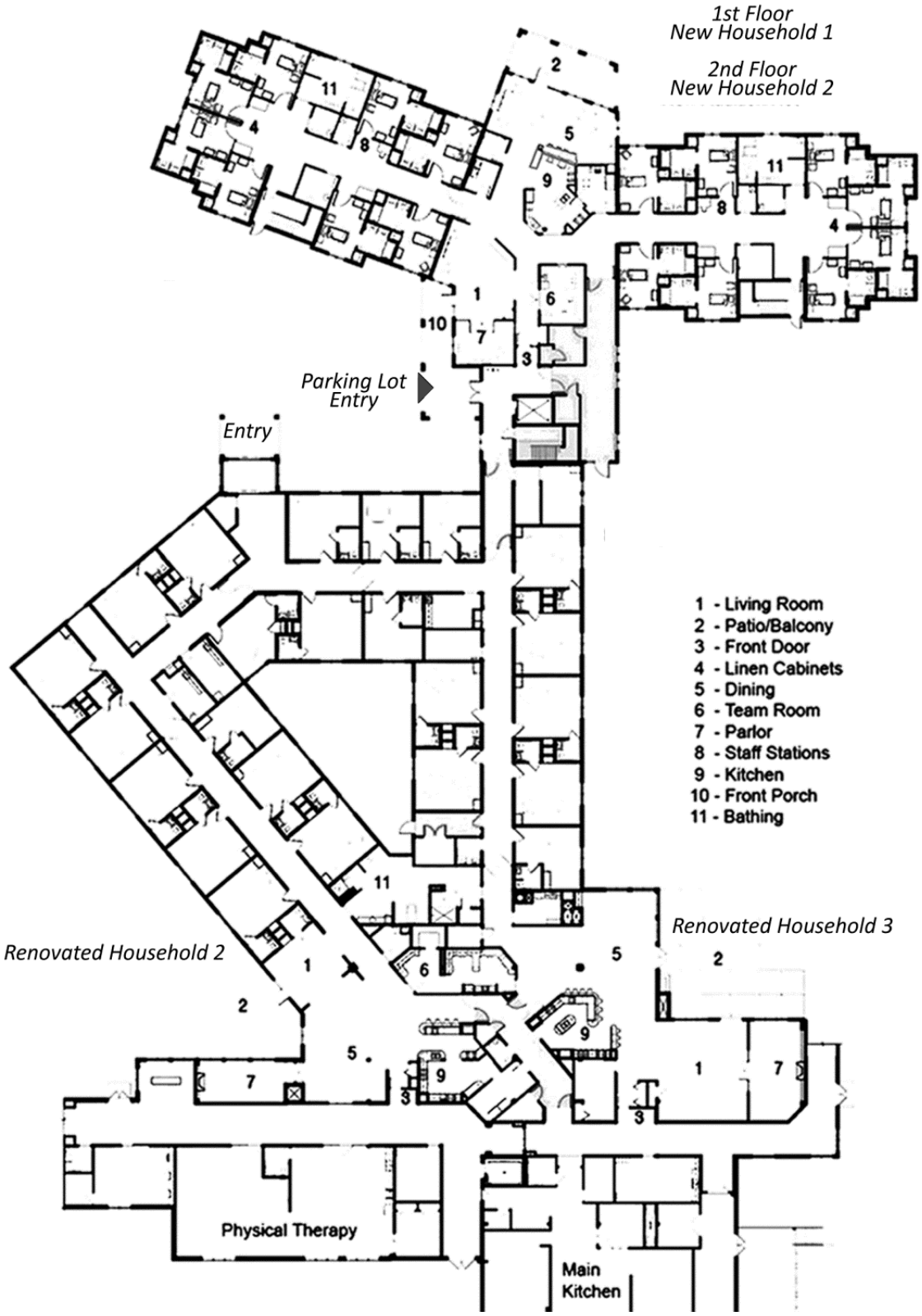


Figure 19. Franklin Village - After Households First Floor Plan

The two new households at Franklin Village are essentially the same. Both households are accessed from a circulation space, which links the old building to the new building on the first floor and serves as the public entrance for the new households from the parking lot. The elevator for the new households is also located in this circulation space. A short service corridor for discreetly servicing the new households via a path through an outdoor courtyard is also located in the link between the old and new buildings. Residents and visitors enter each household via a prominent front door that is always kept closed. Upon entering the new households, an enclosed staff team room is found on one side of the hall and the living room is located opposite. Low walls surround the living room to separate it from the circulation area. The living room contains a corner fireplace and the main television in the household. Directly adjacent to the living room is a space labeled as the parlor, which is used primarily by residents for reserved functions, or private meetings and conversations. One resident kept her computer in a household's parlor. The circulation pattern for the new households is essentially cruciform with all social spaces located along the short axis and resident rooms located along a crossing long axis. At the juncture of these two axes is the kitchen space, which is partially visible through a pass-through from the corridor. To reach the dining room requires walking down a short hall past the open half of the kitchen area. Each kitchen contains two magnetic induction stoves, sink, refrigerator, dishwasher and serving steam wells. A large counter separates the kitchen from the dining space, and one stove is strategically positioned for a staff member to easily engage with residents in the dining room while cooking. The dining room is the largest public space in the new households with windows that overlook a covered porch. The two bedroom wings are laid out as mirror images of one another, and each contains eight private

rooms. The corridors are relatively short and the ends broaden to reduce the corridor feel. Plans indicate staff sub stations in both hallways, but these were never installed. Both bedroom corridors lack natural light from exterior windows. Large cabinets effectively hide large equipment and conceal linen carts at the ends of each bedroom hall. One wing contains the bathing spa for the household and the other wing contains a staff break area and storage room. The initial design thought was to have two spas in each hall to promote resident privacy, but this was deemed excessive. All bedrooms in the new households are private with bathrooms, which include a toilet, sink, and shower. All new rooms also contain a cabinet for storing medications in the rooms. The service corridor for the households dead-ends at the main household hallway across from the service pantry for the household kitchen. Each household has a clean and soiled utility room, and a janitor's closet. The new two-story building's architecture compliments the original nursing home by utilizing the same synthetic stucco and veneer stone façade elements with pitched roof. Prominent balconies and porches break down the building's mass and interject an element of human scale.

The renovated households have different floor plans, but are based upon the same design premise as the new households. The original large social area for the two nursing units was divided in half to create two separate living and dining spaces. Each of these spaces is accessed from the main CCRC corridor using a front door that is kept closed. The living space in one renovated household is much larger than the other. Both living rooms contain a large television and a corner fireplace. Both households also contain an enclosed parlor space adjacent to the living room for private meetings or events. Visible almost immediately from the front door is a prominent open kitchen area, which is separated from the dining room by a low

counter. Stoves are also strategically positioned, so a staff member can cook and speak to the residents. Both kitchens back up to a service corridor for discreet servicing. A shared staff team room with large windows is centrally located to overlook both households. A centralized spa area was reconfigured to provide access from each household. The bedrooms remain in the same locations along the looping circulation corridor. After the conversion, each half of the loop became a household. Each household now has an L shaped bedroom corridor with a small staff substation located at the juncture. A double set of doors creates a division between the two households along the corridor. The existing parking lot entry remains near the bedroom corridor. A new exterior entry between old and new households provides a second exterior access point near the bedrooms as well. In order to reach the new households from the main CCRC corridor without going outside requires walking through the public areas and bedroom corridors of a household. Some servicing of the new households also occurs along this path, if the outdoor access is not utilized. Attractive patio spaces filled with garden furniture are available off the living spaces for both households. Staff spaces are more disbursed in the new design with the administrator's office located near the entry of one household and the nursing office located near the link between the old and new wings. Bedrooms remained untouched during the renovation process except for three rooms that were relocated or reassigned from a private room to a shared room. Community spaces were not altered during the household conversion. Therapy and an activity space remain outside the households, directly across the main CCRC corridor. Renovated household members can walk across the hall to access these spaces, while new household members must walk through one of the renovated households to reach the area. Residents in the nursing home often utilize the social spaces throughout the

CCRC such as the dining room to share a meal with family, or the chapel to attend services. The long distance to reach these spaces from the households may require assistance for some residents, or the use of a powered wheelchair.

The design architect and staff members, while being interviewed, identified a few design compromises. The limited site area and existing configuration of the nursing home made it impossible to add a reasonable number of beds without a two-story addition. Franklin Village would have preferred a one-story structure, but did not want to create a remote nursing home similar to the Green House concept. During the initial occupancy stages, the organization let the residents select the household of their choice and found some residents actually preferred the upper household because of the view. Notably, the dining room and some resident rooms on the lower level have shorter views that are somewhat reduced by a large rock retaining wall that supports the campuses main ring road. Having a new, two story structure located remotely from the main CCRC building results in some servicing and access issues. One of the renovated household has more pass through pedestrian traffic, which occurs outside resident bedrooms. While outdoor spaces can be used to mitigate the effect of the service traffic on the renovated household, the practice is not always feasible. Interviewed staff indicated some residents thrived on the activity, but also acknowledged that some residents would be better suited to a quieter household. The architect and one staff member also felt the narrow site made it difficult to create a residential quality for the new households. Both mentioned reducing the bedroom corridor lengths and one suggested visually connecting the living and dining spaces together instead of pulling the two spaces apart. While bedroom corridors are comparatively shorter with only eight residents, both hallways are aligned which elongates the

perspective. The corridors are widened at the ends, but lack furniture or windows to distract the view. One person interviewed suggested the living and dining spaces were separated to reduce noise. Another challenge with the renovated and new households is the differences in the number of residents per household. Renovated households have 20 and 21 residents each, while both new households have 16 residents. However, all households are staffed similarly, which increases the workload for the staff in the renovated households. Administrative staff acknowledges the issue and work to mitigate the impact whenever possible. No changes to the environment after construction were found during the site visit or raised during the interviews. Staff did indicate Franklin Village would like to improve the existing resident rooms in the renovated households in the near future.

Franklin Village's Renovation and Construction Costs

Conversion to households at Franklin Village resulted in both the construction of a new addition and renovations of the existing nursing home. Total costs for the project $4.88 million or $66,301 per bed. The 25,380 square foot, 32 bed addition to the nursing home cost $3.9 million. The cost to renovate the existing nursing home into households was $875,000. Renovation primarily occurred in the public space and involved roughly 16,552 square feet. Franklin Village funded the project by floating a series of bonds to fund healthcare construction, and utilized some cash reserves.

Five Sisters Environment System

Through Hill Burton Funds, the Catholic Sisters were able to construct the first modern nursing home building on the campus. This 33,000 square foot building had a capacity for 60 residents. In 1973, the building was expanded to provide an additional 50 beds. The building was a one-story structure with red brick and concrete panel facades with either flat roofs or shallow pitched roofs. Over the years, several additions and renovations occurred to the nursing home. In 1996, a larger chapel was added to the nursing home, which included a chapel of perpetual adoration which started in 1994. Adding a group of independent living cottages and a small dining hall was the beginning of a retirement community on the campus in 1979. At some point, 10 beds were added to the nursing home that were licensed as Homes for the Aged, which was an early form of assisted living for North Carolina. The floor plan of the nursing home was irregular with several nursing wings extending from a central pavilion that contained the main living and dining areas for residents, administrative offices and supportive services (See *Figure 20*). There were three main nursing units. One nursing unit, located south of the center pavilion, was L-shaped with two halls labeled B and C. The second and third nursing units were located north of the main pavilion in a U-shaped wing. One nursing unit in the U-shaped wing was L-shaped with two main halls labeled A and D. The third nursing unit occupied the remainder of the U with 10 of the rooms designated as Home for Aged. Very few small social spaces were located in the nursing wings. Most social spaces were large and located in the center pavilion. Dining occurred in a variety of places in the building. Breakfast trays were delivered to the halls at 7:00, but residents had the option of eating in their rooms or coming out to the large central dining area located in the central pavilion. Other than the

large main dining room, two other rooms were utilized for dining. One room was designated for those who needed some assistance with dining and a second space was assigned for those who needed complete assistance. A large solarium overlooking a patio with raised planting beds was located at one end of the central pavilion. The other end of the central pavilion was dominated by the main chapel near the front entry. An administrative wing for the organization was also located near the front of the building opposite the chapel wing. Detailed floor plans of the original nursing home were not available; therefore, it is difficult to determine the number of private or shared rooms in the original nursing home. However, the one available floor plan provides strong indicators that shared rooms predominated in the building. Interior images of the nursing home show long hallways dominated by shiny floor surfaces.

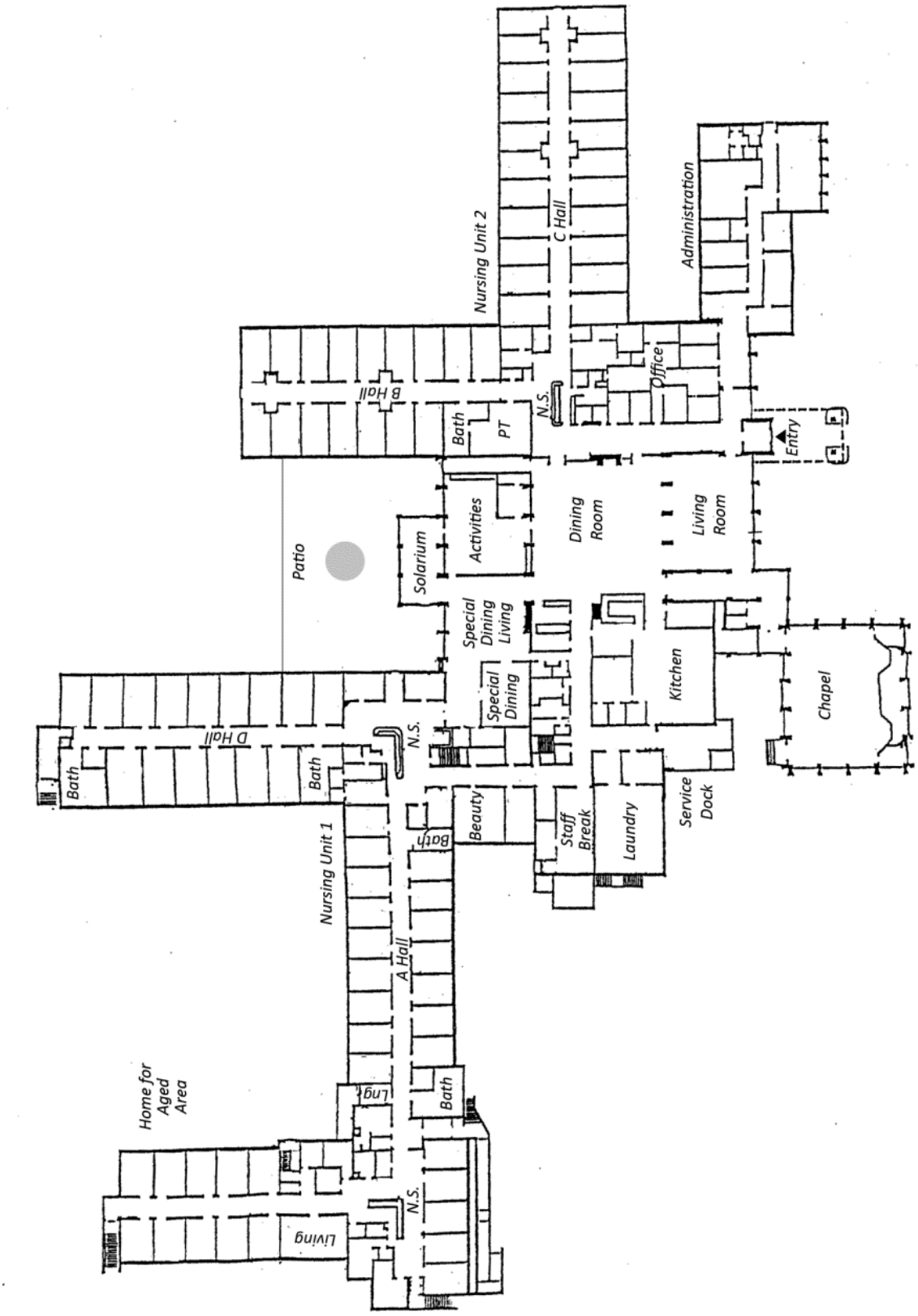


Figure 20. Five Sisters Pre-Household Floor Plan

Five Sisters Home Environmental Change Process

Before contemplating culture change, Five Sisters Home was in the process of expanding the services on campus to create a full continuum of care. Design development plans were created to construct an independent living apartment building and an assisted living building on the campus, which would be remotely located from the nursing home. Initial plans for the nursing home only included minor refurbishment of the décor. After hearing of deep culture change and the household model, leadership decided to alter their plans. The nursing home was to be substantially renovated into households and assisted living was to be added to the back of the existing building to share resources. The new independent living building remained remotely located. Franklin Village was already working with a senior living architectural firm who had developed a master plan for the new campus and was now generating design development drawings for the new CCRC buildings. The firm was now given the task of designing the household within the confines of the nursing home footprint. According to the architect, the design firm had been involved with some Eden Alternative Projects, but this was the first project that involved deep culture change. Some initial conceptual thoughts for the design were generated "on a napkin" during a meeting between the president and Steve Shields of Meadowlark Hill, who had also renovated a building into households. The architectural firm also participated in the tours of Meadowlark Hills in Kansas to see households in operation. The Immersion meeting also provided the design team with ideas of what the residents, staff, family members and other stakeholders would prefer in the new design. According to the architect, the design process proceeded rapidly because the rest of the campus was under design development and the renovation project needed to be included in

the construction drawing set in order to be priced for inclusion in the same financing bond. ActionPact was involved in the providing input into the design process and at least one meeting was hosted in the dining room to garner resident feedback on the plans.

Key goals for the project gathered while interviewing staff and the architect include the following:

- "Take this 125 beds and create smaller households. The desire would be to create smaller Households than we ended up with. We actually spent a fair amount of time trying to figure out how we could get another household added to this thing."
- "As many private rooms as they could get."
- "Back door service in every [household] . . . and the front door. There's no reason for carts to go through [the] living room and dining space [of the household]."
- "The open kitchen was a desire." The organization was committed to cooking and dining on each household.
- Create a town square for large groups that provides a sense of community outside of the households.

The geometry of the existing building dictated the design and size of each household. The group would have liked to created smaller households with shorter distances to the central town square, but it was not feasible. Five Sisters wanted an open kitchen concept where meals would be prepared adjacent to the dining area. However, they encountered regulatory hurdles since this was one of the first open kitchens in a North Carolina nursing home. Fire protection codes were written to allow limited cooking on nursing units; however, code officials have leeway for interpreting what this implies. The architect described the challenges of differing interpretations of the National Fire Protection Association code and standards that permit limited cooking in open areas in nursing homes by stating the following:

> . . . that is always open to interpretation--What is limited cooking? They [Fire Safety] kind of took the attitude--if you are not doing all of the production on these stoves --you can have it open and use it for limited cooking. North Carolina's [Department of Health] attitude is if you are cooking anything for the residents--anything at all—it's got to be on a commercial appliances. If it's on commercial appliances you have to have Type One hoods and then it's got to be separated . . . It does not say that in the code (personal communication, 2012).

As this was the first nursing home that stretched the open kitchen cooking regulations in North Carolina, the group experienced some challenges with differing interpretations from the reviewing regulatory agencies. To satisfy the Life Safety Reviewers and Department of Health officials, three different cooking areas had to be created on each household with the stove being separated by a fire shutter during an emergency. Resident room renovations were intended to be minimal, but some bathrooms were expanded to create showers and improve accessibility. However, surprises occurred during the renovation that required more construction and repairs. Because of the amount of new construction in the building, some reviewers insisted on bringing the building up to current codes and standards, which incurred more costs. Leadership described the chaos by stating the following:

> Every time we had a new house [hold] open or a new phase---we would get sometimes the same person from the state or a different person who would have a different set of viewpoints. And, their interpretations were different from the state. Sometime we would get the city inspector and we would have to change something and change it back by the time the state people came (personal communication, 2012).

The final design for the building included six households (See *Figure 21*). One household was all new construction, which replaced an administrative wing that was demolished. The remaining

five households were carved out within the existing nursing home footprint by converting the original halls into households. Bedroom hallways remained largely the same during the renovation process. Due to the CCRC expansion, the main kitchen for the campus and some administrative areas were relocated to the new independent living building. The 10 Home for Aged Beds were converted to nursing home beds, but were kept closed for only CCRC residents and therefore not licensed.

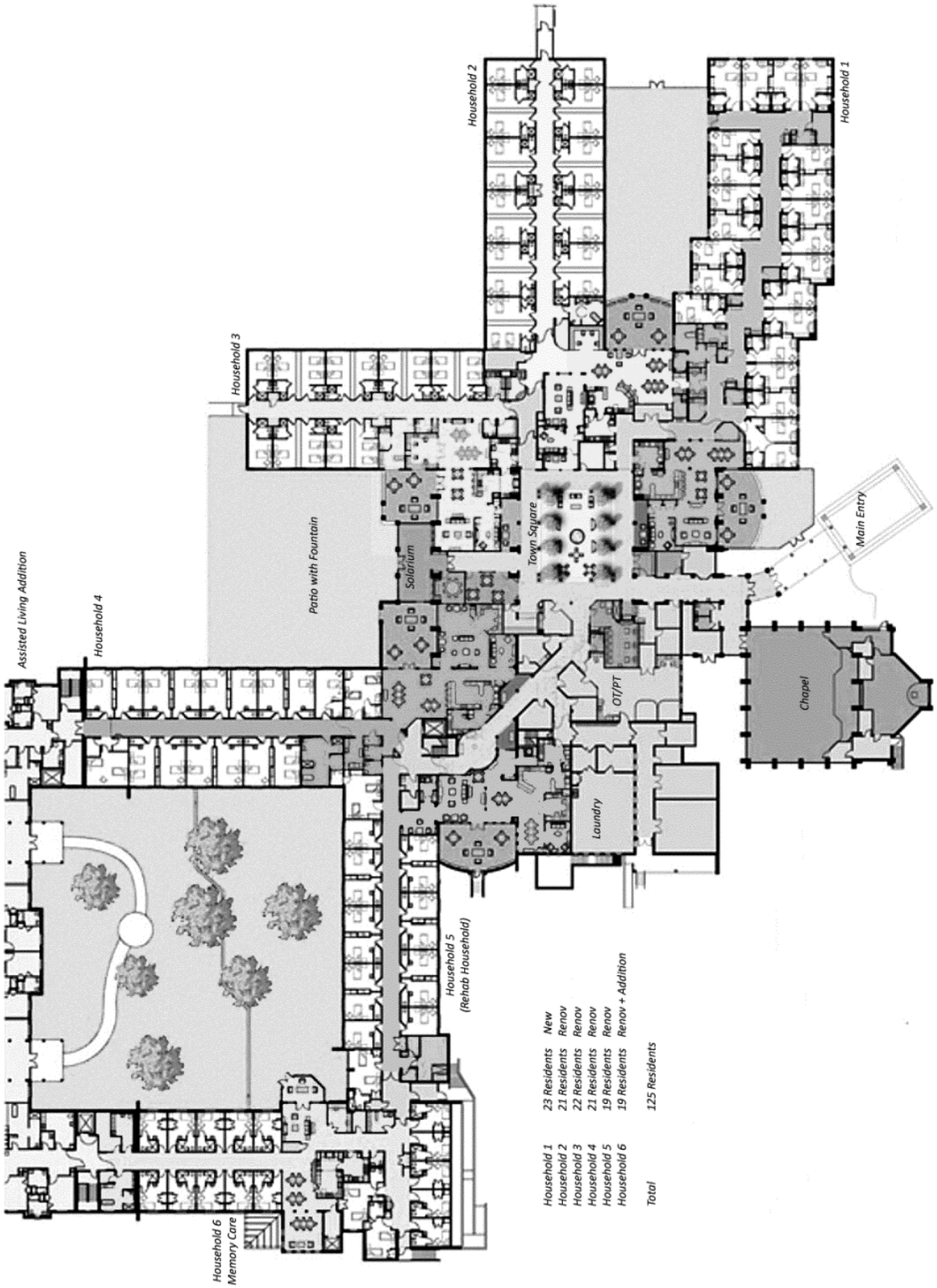


Figure 21. Five Sisters Post Household Floor Plan

The project was phased in order for the nursing home to remain in operation while converting to households. According to leadership, Five Sisters Home never reduced the number of beds throughout the construction process. Construction started in March of 2006 with the first phase of the project involving the demolition of the existing administrative wing, and the construction of a new household (Household 1 on *Figure 21*) as well as an assisted living building that was built to nursing home standards. In August 2007, residents moved into the first new household and the assisted living building which permitted renovation to commence on two other households. In May 2008, these two households were completed and occupied. Phase Three was completed in September of 2008, which opened two additional households. In 2009 the fourth and final phase was completed, which included the last household and the town square. Five Sisters Home experienced over three years of construction interruption. With nearly two years between the first and last household opening, the last household temporarily located in the assisted living building was described as, "chomping at the bit" to get into their new space.

The six households at Five Sisters are all accessed from interior public corridors except for the one household designated for memory care. Three of the households are arranged around the town square, an open area intended for community activities and events. Each household around the square has a front door with a front porch that overlooks the square. One of these households was created by new construction for 23 residents while the other two households are for 22 and 21 residents. The two other similar households in the building have front doors at a round node along the main corridor that connects to the town square. These households also have front porches located along the halls to signify an entrance. One of these

households is designated for short-term rehabilitation for 19 residents. The other household located across the node serves 21 long term residents. The sixth household serves 19 residents who require memory care and visitors can use an elevator to access this household from its own exterior entrance on the lower level. To reach the town square from the memory care household, one has to walk through the short-term rehab bedroom corridor before accessing the main public corridor. Since the memory care unit is a secure unit, most residents tend to be escorted by staff and family members while attending events in the town square.

The five non-memory care households have unique floor plans, but each share similar characteristics. Each household has a unique interior architecture and décor based upon a theme (e.g. Victorian, Arts and Crafts, Coastal), that distinguishes it from the others. All households have three primary entries that serve different purposes. The front door serves as the symbolic public entry to the household, which opens into the primary social space. These front doors are paneled single doors, similar to exterior doors found in residential architecture. All households also included a service door for discreetly servicing the preparation kitchen, which is also located off the main public halls. Finally, all households have a set of double doors leadings to the bedrooms halls. These doors are the original smoke or fire partition doors that satisfy code requirements for separation, as well as provide the necessary large doors for moving furniture and residents during an emergency. These double doors are mostly used by staff while servicing the households and are visually downplayed by a neutral paint color. Most household's front doors lead directly to an open living room that is adjacent to an open dining room. Dining rooms are typically a series of alcoves for a few tables and not one large rectangular space. Located by the entry is a small room enclosed with French doors that serves

as the formal parlor for each household. The room is comfortably furnished with a couch and armchairs and is used for private meetings or social events by both residents and staff. This parlor room harkens back to the familiar tradition of having a formal living space in a home that is reserved for company or special family events. Near the living and dining space is a door that leads to the household's outdoor patio with comfortable outdoor furniture.

Kitchens in the households are comprised of three key areas. A residential style counter with a breakfast bar separates the front kitchen from the dining room. The front kitchen contains cabinets, a sink, a residential style refrigerator, microwave and a coffee maker. Residents and family members are welcome to use the front kitchen to assess the refrigerator and snacks. The back kitchen is separated from the front kitchen by a counter with low swinging door. The back kitchen typically contains the serving wells, the main stove with a hood and a few other pieces of equipment which were deemed a safety concern. A fire shutter is located above the stove area to create a separation between the front and back kitchens in an emergency. A staff person working in the back kitchen at the stove can still see and talk to residents in the dining room, but there is a bit of a distance to overcome. Finally, there is the preparation kitchen, which is completely enclosed and accessed from a door in the back kitchen. The preparation kitchen has warming and cooking ovens, dishwashers, refrigerators and freezers that support meal preparation for the household.

Each household has an enclosed staff team room and most have lockable desks for staff scattered throughout the house for paperwork. Charting by CNAs is done through an electronic kiosk mounted on the wall with stations located in the bedroom halls and near the dining

rooms. A small laundry room is used by staff to clean the household's laundry, but the room is also accessible for residents and family members.

Bedrooms are accessed from the original hallways of the nursing home that connect to the living and dining spaces. Each of the non-memory support households has a single main bedroom corridor. These long eight-foot wide hallways are a sharp visual contrast to the residential feeling present in the living spaces. However, the design of the new household wing incorporates a staggered hallway configuration that reduces this hallway presence. Along the bedroom hallways are bathing spas, utility spaces and janitor closets which vary in location based upon the original nursing home's design. The new household wing has all private rooms with a shower in the bathroom, except for one shared room with a shower. All households have a mix of private and shared rooms with private rooms representing 72% of the 125 beds. Floor plans indicate four of the six households include a shower in the resident's bathroom. Showers were not included on the 19 resident short-term rehab household as well as the 22 resident long-term household, which only shows two rooms with a shower on the floor plan. The reason for not including showers in these resident rooms was not uncovered during the interviews. Renovation floor plans or detailed plans before households were not available; therefore, it is difficult to determine how many rooms were converted to include a shower.

The memory care household has a unique design due to it being a secure unit (Household 6 on *Figure 21*). As mentioned previously, this household can be accessed from its own exterior entrance from a lower level entry adjacent to a parking area. Visitors arrive from an elevator that opens into a vestibule with a locked door for the household. This vestibule opens into a dining space that wraps around an enclosed kitchen with a pass through window.

Across from the dining room is a living room with a door to sunroom, which leads to a large enclosed courtyard space. There are two main bedroom corridors in the memory care household. One bedroom area is part of corridor loop that connects back to the social spaces; the other bedroom area is arranged along a straight corridor, which juts off from the dining room. Accessing the other parts of the nursing home from memory care requires exiting a locked door near one bedroom hallway, which leads to the short-term household's bedroom corridor. After walking though the short-term rehab bedroom corridor, a public corridor leading to the town square can be reached by exiting through a set of double doors. Consequently, the social spaces of the short-term rehab house are not impacted by this traffic. The new assisted living building does back up to two of the new households with fire separation doors located at the ends of bedrooms. Currently, there is minimal pedestrian traffic through these areas and service traffic has the option of using a basement level.

The Town Square of Five Sisters is a large sky lit space overlooked by the interior porches of three of the six households. Large stone pillars frame a central vaulted space. The room is furnished with outdoor patio style furniture, as well as piano and a sound system. Movies are shown from a drop down screen after closing the shades on the skylights. Along one edge is a small kitchenette with a coffee machine open to staff and visitors, which is a popular spot. The Town Square also includes a small room for visiting children, and the barber/beauty shop as well as a large private dining room that can also be used for staff meetings. A small gift shop was planned, but has since been converted to an office. A prominent post-office façade with an unknown purpose is currently being used as a resource room by staff. Two key social spaces from the past remain. The solarium overlooking the patio

with the fountain was preserved during the building changes. Two of the household patios now overlook the main patio area. The chapel was not touched during the renovation project for households and is still located at the front of the building with one end containing the Chapel for Perpetual Adoration. An outside entrance to this chapel provides access 24 hours a day. A large therapy area was developed off the main corridor near the short-term rehabilitation household.

Other than a small addition for the new entry to the memory care household, the new household wing was the only major new construction for the nursing home. The new wing is a red brick façade that blends with the architecture of the existing building with a pitched roof. A porte-cochere was developed to create a covered drop off at the front of the building. The architecture of the assisted living building is a brick two-story building assessed from the opposite side of the nursing home. One of the floors in assisted living is designated for memory support with social spaces arranged in an open plan.

Service and support areas did change with the expanded CCRC. The main kitchens for the entire campus were relocated to the main CCRC building, with the nursing home now using the loading dock area for food deliveries. Most laundry is done in the households, but the central laundry remains in the nursing home building for flat linens and heavily soiled items. Some housekeeping and storage areas remain in the basement. The basement also includes a staff training area and break area. However, the break area is rarely used since most staff dine in the households with the residents.

Renovation often results in compromises and Five Sisters did have to make allowances for utilizing the existing building footprint and remaining in operation throughout the process.

First, not all households are assessed by walking through public spaces and some are a long distance from the Town Hall. The design team employed a rational strategy of creating a locked memory care unit for the most remotely located household, and only compromising the short-term rehab house with some pass-through traffic. One long-term household has the potential for some assisted living pedestrian traffic if residents attend events in the town square or utilize the chapel. Since memory care residents attend events at the Town Square, assistance is needed to help escort or transport residents due to the need to pass through secure doors and the distance involved. One staff member felt her entire day was spent walking back and forth. However, other staff members did not find the pass through household to create a significant challenge. Sizes of the households were larger than preferred and not balanced, but the geometry of the building drove these decisions. Some staff felt the some of the social spaces in the households were cramped, but it did lend a residential quality to the spaces. In contrast, the long bedroom corridors remained in place resulting in an institutional visual presence. Carpeting and interior decor have helped, but the spatial volume of these halls has a distinctive quality found in traditional healthcare architecture which is difficult to overcome. This feeling is more prominent in three of the six households with longer corridors. Cooking and preparing foods in the household resulted in a maelstrom of code issues. The staff would have preferred to have a residential stove in the kitchen and not the commercial stove with a hood and fire shutter. The use of the front and back kitchens is a workable solution, but it does create an institutional presence and further separates residents from the cooking activity. Conversely, front kitchens do appear residential and residents and family members were often found in these areas during the site visit. The kitchens in each household are a separately licensed food

service operation overseen by a certified dietary manager. These managers work hard to make meals an event in each household along with other household team members.

Five Sisters Home Renovation and Construction Costs

Total costs to renovate the nursing home into households are estimated to be $12.2 million or approximately $97,000 per bed. The cost of new construction of the nursing wing versus renovation was not broken out. The nursing home building is reported to be 67,462 square feet. Some of these construction costs may have been offset by having a larger construction project occurring on the campus. However, the organization did experience several renovation surprises and incurred costs while addressing the copious and conflicting code interpretations by various regulatory agencies. Construction was funded at Five Sisters Home through a $7 million capital campaign, tax-exempt bonds, cash reserves, and new CCRC entrance fees.

Comparison of the Environment System for Three Cases

The following section compares the three cases environment system by highlighting key variances and parallels for the campuses, original buildings, change process, the design of the new households and construction costs.

Transformation of the Built Environment

All three cases at the time of culture change occupied campuses that contain other services than nursing. Both Franklin Village and Five Sisters Home are retirement communities.

Franklin Village's buildings are interconnected except for the independent living cottages. The nursing home is a wing off the main corridor and is located near the other wings that provide assisted living services for the campus. Five Sisters Home, at the time of culture change, had a few independent living cottages on the campus besides the nursing home. After culture change, the campus expanded into a full CCRC, but most of the new campus buildings are located remotely from the nursing home except for the assisted living building that was added on to the rear, but utilizes a separate entrance. Prairie Town Home is a nursing home attached to a hospital at the time of culture change. Both the hospital and nursing home have separate entries and parking areas. There is also a congregate care building on campus with an enclosed walkway that connects to the nursing home.

Original Buildings. The original nursing buildings were constructed at different times for each case. Five Sisters and Prairie Town Home were both built with the aid of Hill Burton funds in the 1960's and expanded in the 1970's. Five Sisters is the slightly older building that opened in 1965, while Prairie Town Home opened in 1969. Franklin Village's nursing home was added to the CCRC in 2001, over 30 years after the other two cases. The capacity of the three case studies did vary by a difference of 83 beds at the time of culture change. Franklin Village had the smallest capacity with a total of 42 beds, whereas Five Sisters had the largest with 125 beds (10 licensed as Home for the Aged). Prairie Town Home had over double the capacity of Franklin Village with 98 beds.

Table 17

Comparison of Original Nursing Home Buildings

	Prairie Town Home	Franklin Village	Five Sisters Home
Initial Year of Construction	1969	2001	1965
Year of Additions	1973	-	1973, 1996
Capacity at Culture Change	83	42	125
Square Foot	60,059	19,404	67,462
Square Foot per Bed	613	462	586

Additionally, Prairie Town Home had predominantly shared rooms with a shared toilet room between each room. The square footage of the original buildings reflects their capacity, the services of the campus and accessibility code standards at the time of construction. Nursing units in the old buildings ranged from 21 residents at Franklin Village to around 40 residents at Five Sisters Home. These buildings differ in size by 48,058 square feet, with Franklin Village being the smallest (19,404 sq. ft.) and Five Sisters being the largest (67,462 sq. ft.). Square footage per bed provides a useful comparison with a range of 151 square feet per bed between the three cases. Franklin Village still is the smallest at 462 square feet per bed, but Prairie Town Home is the largest at 613 square feet per bed. The case with the greatest bed capacity, Five Sisters, falls in the middle at 586 square feet per bed (i.e. utilizing the 115 bed capacity).

Planning and Design Process. The planning and design process for converting to households were similar for the three cases. A key difference was the length of time involved. Franklin Village compressed the design and delivery of the new building into a short 18-month period. In contrast, Prairie Town Home was planning for households for two years and under construction for nearly three years. Five Sisters also had a long period of planning which lasted

three years, but the design process was relatively quick since they needed to get the renovations into a bid set that was already underway for the CCRC's expansion. Renovations at Five Sisters took nearly three years to complete.

Stakeholders involved in the design process were slightly different. Both Prairie Town Home and Franklin Village hired a firm with senior living experience to do the design for the project, but utilized a local firm to provide construction drawings and construction administration. Franklin Village was also the only firm that had a pre-selected contractor. Five Sisters Home utilized the same architectural firm for the entire project delivery, which included the CCRC expansion. All three case studies describe a design process of conducting short charrettes to generate the conceptual plans and involving residents, staff and family members to a degree in the process. The architects also toured some household examples during the process. The architects generated no formal descriptive programs for the three cases. Programming documents were described as being mostly space programs with a list of spaces and square footage. Project goals recalled by participants from various interviews were similar across all three case studies with most reinforcing the ideas of home or describing aspects of households seen during the tours such as the front door concept. All three case studies also involved ActionPact to a degree in the design process. Five Sisters had the heaviest involvement with Steve Shields and the leadership creating a napkin sketch concept for renovating the nursing home into households.

Design Solutions and Obstacles. Two of the design solutions for implementing households (i.e. Prairie Town Home and Franklin Village) involved expanding the nursing home building with a new addition and renovating the existing nursing home. Both expansion

projects had to make some compromises due to limited site area adjacent to the existing building. To provide the necessary number of new beds, these cases had to accept a two-story addition to a one story building. At Prairie Town Home, bedroom wings could not be balanced for similar staffing ratios, while Franklin Village had to accept walking through the renovated households to reach the new household. All three organizations also had to accept some compromises when renovating the existing buildings. Five Sisters Home, which predominantly renovated into households, had to accept the limitations of the existing nursing home configuration when creating households. Some households are remotely located from the Town Center and one household serves as a pass through space. Both Franklin Village and Five Sisters tried to limit the amount of renovation that occurred in resident rooms and focus on the public spaces. Franklin Village did relocate a few resident rooms, but left most rooms untouched during the household conversion. Five Sisters planned to only make improvements to some of the resident bathrooms, but had to renovate more areas for code compliance, or to address repairs to the structure.

Regulatory barriers for creating the new household environments were minimal for Franklin Village and Prairie Town Home. Prairie Town Home did not mention any key regulatory conflicts that occurred during the process. Franklin Village was fortunate to experience a sympathetic reviewer for the first open kitchens in Pennsylvania for the households. In contrast, Five Sisters had significant regulatory hurdles to overcome in the State of North Carolina for the open kitchens and had to create three cooking areas with a fire shutter for the stove. Different reviewers had varying interpretations of codes, which had to be re-addressed as each new phase of the project opened. Furthermore, the amount of

renovation at Five Sisters opened up questions about how much of the 1960's-1970's era construction should be brought up to current codes.

All three organizations remained in operation during the conversion process to households by phasing the construction process. Franklin Village was expanded and renovated in two main phases. In contrast Prairie Town Home had three main phases with the first phase being expansion, the second phase being renovation of the resident wings and the third phase being the town center renovation project. Five Sisters had the most complicated phasing plan with four main phases of renovation, which also involved temporarily relocating residents to an assisted living building constructed to skilled nursing standards. At the time of household renovation, the campus was also experiencing conversion to a full scale CCRC. The other two cases did not have any other major construction concurrently occurring at the time of conversion to households.

Environmental Affordances of the New Households

James J. Gibson (1979) conceived the environment from a functional view point by coining the term "affordances," which is defined as what the environment provides or furnishes either for the better or worse. Lang (1987) expanded this construct into a design theory in which affordances also provide aesthetic qualities and meaning for the human experience through the environment. Accordingly, the households for the three cases offer varying degrees of environmental affordances, which are compared in the following section.

Household Conceptual Designs. All three case studies borrowed heavily from the pioneering work of others in recreating home environments such as Meadowlark Hills. At

Meadowlark, each household emphasizes the use of a primary front door as a public entry similar to a home. This door is kept closed and in some instances entry requires ringing a doorbell for visitors. Emulating this idea, Five Sisters and Franklin Village use a single door recessed into a porch area as their public entry. Prairie Town Home's design utilizes two swinging doors that are upgraded to appear more residential with divided light windows and wood grain finishes. All three cases also contain the familiar living spaces found in an American house such as a living room, dining room and kitchen. All three also recreate an "away" space for special events or private meetings within the household. The distinct qualities of an "away" space are enclosure on all four sides and the option to close the door to achieve maximum privacy. Prairie Home's "away" spaces resemble formal dining rooms, but Five Sisters created formal parlor spaces. Franklin Village' away spaces have a mix of furniture for both living and dining. Size of the households varies among the three projects. The two new household buildings all used 16 as the maximum number of residents per households. The exception is the new wing at Five Sisters with 23 residents. Renovated households range in size from 15 to 22. The smallest households of the three cases existed at Prairie Town Home while larger households predominate at Five Sisters. Franklin Villages has the greatest range of household sizes within a single case (16-22); while the other cases have household sizes with a smaller range of sizes (15-17 & 19-23). Both Five Sisters Home and Prairie Town Home created a designated rehabilitation unit for short-term residents with slightly higher staffing ratios. Franklin Village is the only case that did not create designated rehab households, which is attributed to the flexibility needed when the nursing home has limited beds and a high demand. However, staff indicated there are some social benefits for integrating short and long-

term residents who already may have friendships within the CCRC or form friendships because of their shared time in the nursing home. Five Sisters is the only case that created a designated memory support household as a secured unit. The other two cases integrate memory care into all long-term households. Both Prairie Town Home and Five Sisters created a destination space for community interaction between households, which is referred to as the Town Center. Franklin Village does have an activity room and therapy area directly outside the nursing home wing, but uses the common areas of the CCRC as its community Town Center. **Household Affordances Survey.** Currently, there is no known instrument to rate household environments in long term care settings. While the Artifacts of Culture Change tool has a 25-question section, which addresses the environment, this tool is not specific to the household model, nor does it offer a fine grain level of analysis. Therefore, a separate Household Affordance survey instrument was developed to evaluate the environments of the three households in greater detail. Key constructs and goals of the household model were gleamed from a literature review, a Delphi survey and a think tank convened in 2010 (Abushousheh et al., 2010; M. A. Proffitt et al., 2010). Based upon these constructs a series of questions were developed to rate the household environments, which were further refined after each site visit. The current survey instrument contains 50 questions in five key categories that include: Small Size, Household Identity, Familiar Patterns of Home, Community Connectedness, and Seamless Service. Unlike the Artifacts of Culture Change survey which is completed at the facility level, the Household Affordance survey is conducted at the household level. The category of Smallness looks at environmental issues that relate to the scale of the household and numbers of residents. Household Identity refers to the elements of the household that make it

Table 18

Summary of Household Affordances for Three Cases

Community / Household	Smallness	HH Identity	Familiar Patterns	Comm. Connect	Seamless Service	Total
Prairie Town Home						
Renovated Household	50.00%	61.11%	66.67%	88.89%	66.67%	67.35%
Renovated Household	50.00%	66.67%	73.02%	88.89%	68.75%	71.43%
New Household 1st Fl.	91.67%	66.67%	74.60%	88.89%	87.50%	81.63%
New Household 1st Fl.	91.67%	66.67%	74.60%	88.89%	87.50%	81.63%
New Household 2nd Fl.	91.67%	72.22%	73.02%	77.78%	87.50%	80.95%
New Household 2nd Fl.	91.67%	72.22%	73.02%	77.78%	87.50%	80.95%
Prairie Town Home Avg.	77.78%	67.59%	72.49%	85.19%	80.90%	77.32%
Franklin Village						
Renovated Household	41.67%	61.11%	71.43%	77.78%	64.58%	66.00%
Renovated Household	33.33%	66.67%	74.60%	77.78%	68.75%	68.67%
New Household 1st Fl.	75.00%	66.67%	82.54%	66.67%	91.67%	82.00%
New Household 2nd Fl.	75.00%	66.67%	82.54%	55.56%	91.67%	81.33%
Franklin Village Avg.	56.25%	65.28%	77.78%	69.44%	79.17%	74.50%
Five Sisters Home						
Renovated Household	66.67%	38.89%	77.78%	55.56%	81.25%	73.47%
Renovated Household	58.33%	61.11%	82.54%	77.78%	81.25%	78.91%
Renovated Household	41.67%	66.67%	74.60%	77.78%	83.33%	75.51%
Renovated Household	50.00%	72.22%	76.19%	100.00%	83.33%	78.91%
Renovated Household	58.33%	77.78%	77.78%	100.00%	83.33%	80.95%
New Household	58.33%	72.22%	79.63%	100.00%	83.33%	85.03%
Five Sisters Avg.	55.56%	64.81%	79.63%	85.19%	82.64%	78.80%

Note. Results are a percentage of possible points in each category.

distinctive or unique from other households in the community. Familiar Patterns of Home concerns replicating familiar elements and arrangements and places within a home such as

cooking in the kitchen. Community Connectedness relates to environmental qualities that encourage interactions between households as well as the outside community. Finally, Seamless Service addresses how the household functions for staff and servicing while reducing institutional icons whenever possible. Summary scores for three cases are provided in Table 18 as well as an average score for each category (See Appendix C for Complete Survey). The percent scores reflect the households tally out of possible number of points.

For smallness, higher scores are achieved by Prairie Town Home which has smaller household sizes in general. Household Identity scores are very close among the three cases when comparing the averages. These scores range from a low of 39% to a high of 78%, and the extremes both occurred at Five Sisters. Low scores for identity relate strongly to the pass through households, while stronger scores are generated for households that have clearly defined boundaries. Familiar Patterns of Home ratings were also somewhat similar with a few households in two cases receiving the highest score of 82.54%. These households are arranged more like a home and utilize the environment in a similar pattern found in a residence. Community Connections has a wider range of scores with Franklin Village scoring the lowest. The lower scores in Franklin Village are attributed to the long distances that residents have to walk to reach community spaces particularly from the new households. The other two cases have a large community spaces that hosted events for all households to enjoy. This type of space was absent at Franklin Village. The activity room is used for some events, but does not have quite the same community presence as the other two cases. The substantial social spaces of the CCRC could be considered a form of a Town Center, but the distance to traverse to reach these spaces does require assistance, hence the lower score. Five Sisters with three households

arranged directly around a Town Square received a score of a perfect 100% for some households. Seamless Service scores are very similar across the three cases for the overall average, but there is a considerable range across households (65% to 92%). Some of the differences in numbers reflect service corridors and elevators that are present in some households or a reduced presence of institutional icons such as visible staff team rooms. Average total scores are within two percentage points for Prairie Home and Five Sisters with Five Sisters having a slightly higher score. Overall scores for the 16 households reviewed ranged from 66% to 85%. Lower scores overall occurred with Franklin Village, which is reflective of some of the compromises made due to the site area as well as the limited renovation of the existing building. Higher scores are found for new construction in which fewer compromises were made.

Table 19

Space Syntax Summary Findings

	Prairie Town Home		Franklin Village		Five Sisters Home	
	Pre-HH	Post-HH	Pre-HH	Post HH	Pre-HH	Post-HH
Degree Maximum Space	Large DR/Activity	Town Center	Lounge Social	CCRC Corridor	Living Dining	Town Center
Degree Maximum (#)	5	11	4	5	5	9
Between Centrality	34	321.5	29.5	64	66.5	476
Maximum Geodesic Distance (Diam.)	5	7	2.578512	8	7	15
Average Geodesic Distance	2.41	3.70	.2	3.75	2.98	5.39

Space Syntax Analysis

The longitudinal design of the cases of before and after households generated six floor plans, with two floor plans per case. Space syntax analysis provided an opportunity to use network graphs to topographically analyze these six floor plans to ascertain changes in the connectivity, depth and centrality of the spatial arrangements (See Appendix A for Drawings). Summary findings from the analysis are presented in Table 19.

The degree of maximum spaces reflects the node with the greatest number of edges (i.e. connections) (Grimes, 2015). Both Prairie and Franklin Village featured spaces that coincided with the placement of the nursing station, while Five Sisters primarily connected to a large living and dining space. After Households, there was an encouraging trend that more connections occurred to social hubs such as the Town Center at Prairie Town (11) and Five Sisters (9). Between centrality is a measure of "a node's centrality in the network equal to the number of shortest paths from all other vertices to all others that pass through that node" (Grimes, 2015, Let's start exploring the results, para. 1). The analysis demonstrates that the number of paths through these central areas increased with the development of the household model as would be expected with a decentralization organization. Geodesic distance is metric for the number of edges (i.e. linkages) in the shortest possible walk from one (node) vertex to another (Grimes, 2015). It is useful to determine the depth of spaces from the entry. The greatest depth is found at the Household Model for Five Sisters which has a fairly complicated spatial arrangement. The least depth is found at Franklin Village's old building which had a simple race track design. After adopting the household model, all three cases had an increase in depth (i.e. Geodesic Distance) due to a spatial arrangement that decentralized spatial arrangements. Therefore, the spatial syntax analysis does demonstrate that the adoption of

the household model tends to refocus spatial arrangements away from traditional, large multi-purpose spaces found in nursing homes, and introduce greater distances with decentralized household spaces. Community Spaces tend to become centralizing elements in the household building design. Introducing greater depth to these buildings also provides greater privacy gradients for residents as they move from community spaces, to household public spaces to their more private rooms (Lang, 1987). These findings reinforce that the objectives for these new buildings are being met and reflect the underlying concept of decentralization.

Construction Costs

The cost to make changes to the physical environment for the three cases involved both renovation and new construction. The amount of renovation and new construction significantly differed between each case, thereby making it difficult to determine a meaningful average cost to construct households by comparing these households. Table 20 provides the range of costs reported for construction. For the purposes of comparison, the cost numbers have been adjusted for inflation and regional factors using RS Means 2012 factors (RS Means Company, 2012).

Among the cases, Prairie Town Home had the highest construction cost per household and bed, which can be attributed to the greater amounts of new construction, as well as the amount of renovation which occurred for the project. Franklin Village was the least expensive project due to the smaller amount of new construction and the targeted renovation of the common areas (i.e. avoided resident rooms). Compared to new construction for traditional nursing home, which is suggested to be $200,000 per bed, these costs are less (Semuels, 2015).

Prairie Town Home has nearly double the cost for Franklin Village. While Five Sisters Home falls in the middle, the total construction cost is closer in line with Franklin Village. Five Sisters is a much larger renovation project with five of the six households being renovated in the existing nursing home while remaining in operation. New construction involved only two additions, which included a new household wing that replaced an administration wing and a small addition to provide a new entry area for the memory support household. To pay for construction all three case study organizations used bond financing as a key source of funds. Only Five Sisters Home utilized a capital campaign to offset the construction costs for the households.

Table 20

Comparison of Construction Costs for the Three Cases

	Prairie Town Home	Franklin Village	Five Sisters Home
New Sq. Ft.	47,966	25,380	9,709
Renovated Sq. Ft.	31,912	16,552	57,753
New vs. Renovation Sq. Ft. Estimate	60% New / 40% Ren.	61% New / 39% Ren.	14% New / 86% Ren.
New vs Renovated Households	4 New / 2 Ren.	2 New / 2 Ren.	1 New / 5 Ren.
Households/Beds	6 HH / 96 Beds	4 HH / 73 Beds	6 HH / 125 Beds
Date of Construction Completion	2006	2007	2009
Total Construction Cost Reported	$12,500,000	$4,840,000	$12,200,000
2012 Regional and Historical Cost Adjustment	$15,015,432	$5,131,880	$10,097,589
Cost per Household	$2,502,570	$1,282,970	$1,682,932
Cost per Bed	$156,411	$70,300	$80,781

Chapter Summary

This chapter provides an overview of the changes made to the environment as part of culture change and documents the overall process. While there were several similarities for the household designs, each was constrained by contextual factors such as site availability or considerations for remaining in operations. Construction costs varied based upon the degree of renovation or new construction which occurred. The next chapter discusses the alterations to the organizational system of staff.

CHAPTER EIGHT– DESCRIPTION OF THE ORGANIZATIONAL SYSTEMS OF THE THREE CASES

The organizational system for the three cases was altered as a key element of the culture change process. However, the focus of the major organizational changes was centered on the nursing home, with some cases keeping the structure of the overall organization in a similar state (i.e. CCRC or Hospital). In the case of Five Sisters, the culture change process coincided with the expansion into a CCRC, which resulted in organizational changes not related to culture change. The following section describes the changes made to the organizational structure for the three cases. This description is followed by a comparison discussion of all three organizations. The focus is on the overall structure, more detailed information related to costs and numbers of staff are presented in the outcomes section in chapter nine.

Prairie Town Home's Organizational System

Prairie Town Home is a non-profit organization, which serves as hospital district and offers a range of healthcare and living services.

Pre-Household Organization. The pre-household organizational chart reflects the complexity of this organization (See *Figure 22*). The organization has a hierarchical arrangement of staff with several tiers of coordinators and directors. At the apex of the organization are the Board of Directors, the Chief Executive Officer, and a health care management group. The management group is unique to this case, which is a contractual relationship that is reviewed periodically by the board. There were five key individuals who headed up key departments organized by task that fell below the apex. One of these is the

Senior Director of Long Term Care Services, who served as the nursing home's Director of Nursing. Below the Director of Nursing were three Unit Managers who oversaw the three nursing units that existed prior to culture change. Technically, the Chief Executive Officer also served as the Nursing Home Administrator, but the Senior Director of Long Term Care Services often fulfilled the duties of both DON and Administrator. The Director of Long Term Care Services also oversaw the dietary, activities and social services. Support for the nursing home function was provided through other departments such as the business office and environmental services. Since some staff members had shared roles between the nursing home and the hospital, a coordination of efforts occurred across several departments. For example, not having a nurse stationed in the nursing home at night because one was always on duty in the hospital. Another example is having one quality assurance team which reviewed both acute and long-term care.

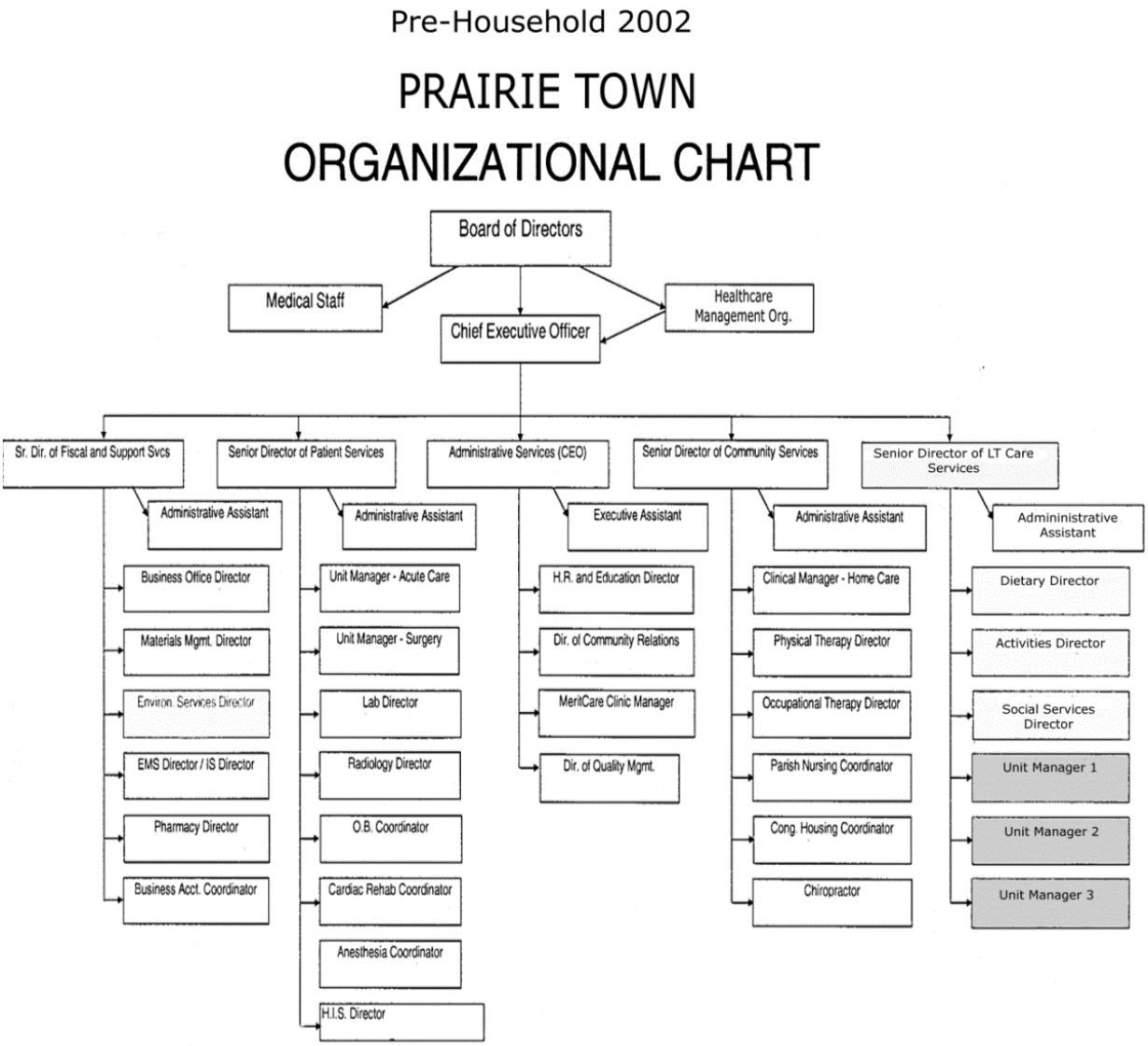


Figure 22. Prairie Town Home - Pre-Household Organizational Chart Overall

Post Household Organization. Culture change brought about a significant change to the nursing home's organizational structure, but not a significant change to the overarching organizational structure. Nevertheless, the hospital was relocated to another campus six years

after adopting culture change, which decentralized the organization into two campuses. Therefore, some shuffling of departments and roles occurred due to the new campuses not related to culture change (See *Figure 23*).

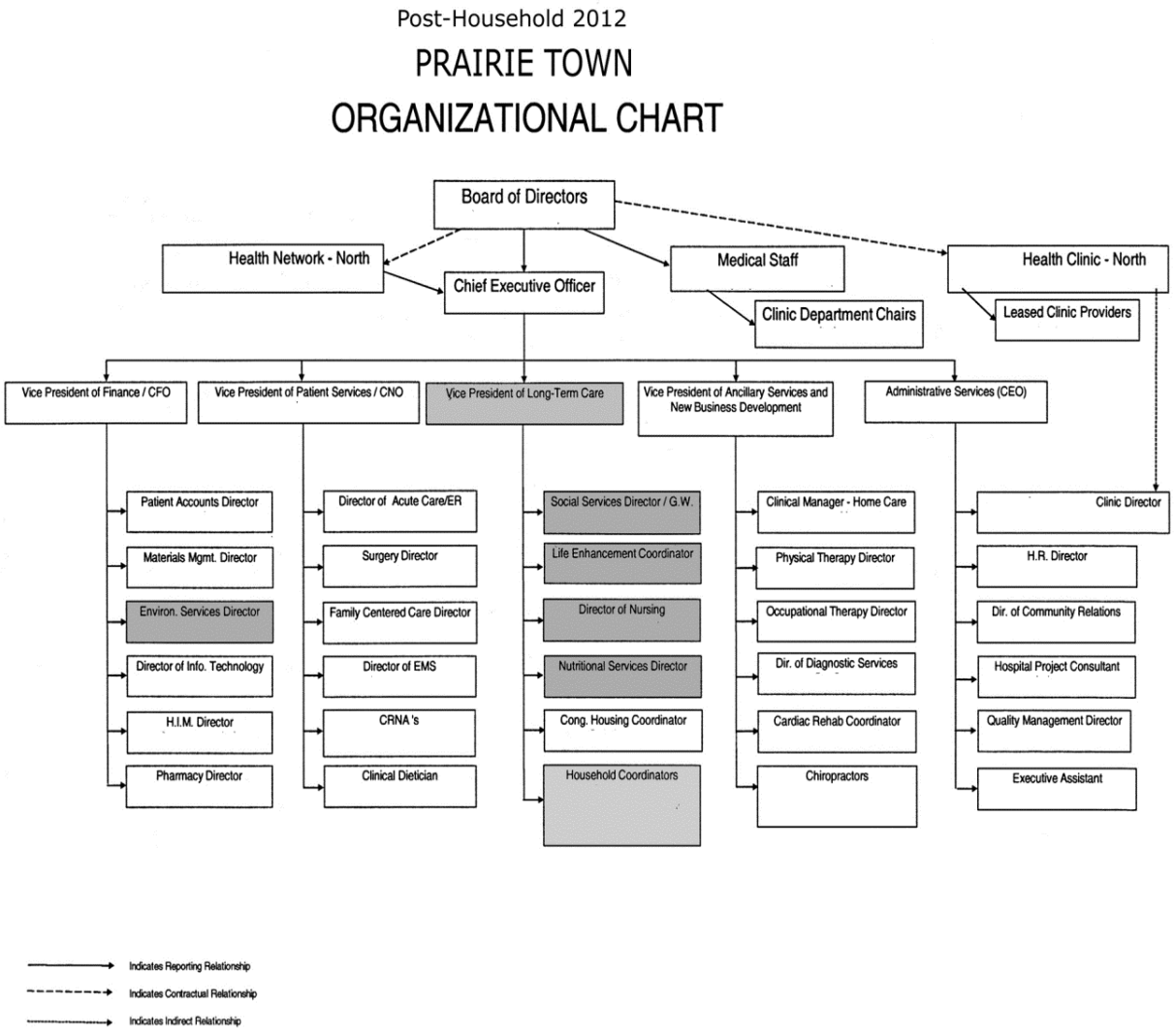


Figure 23. Prairie Town Home - Post Household Organization Overall

Key changes in the nursing home leadership include changing the title of the Director of Long Term Services to the Vice President of Long Term Care, who now formally assumed the administrator role. A separate director of nursing is now shown on the chart as well as the five household coordinators. The roles and names for some positions were altered during the culture change process. For example, the Activities Director's title was changed to Life Enhancement Coordinator. This individual now focuses primarily on large group activities hosted in the town square.

The organization of the nursing home received the most structural alterations due to culture change (See *Figure 24*). Traditional outside roles such as dining services, housekeeping, laundry, social services, activities and human resources are now partially assumed by a team of staff permanently assigned to each household. All non-nursing staff who work in the households are trained as Certified Nursing Assistants. While the staff work as a collaborative team there is a report structure in place for accountability. Each household has a Coordinator who leads the non-clinical staff members. The Coordinator is a new position which is a blended role of activities and social services. Household Coordinators often refer to their role as being the "mother" in the family who is responsible for the social life of the residents and the overall household well-being. CNAs are to report to the household coordinator for social responsibilities with the residents. For example, a coordinator may advise a new CNA to provide choices for residents instead of making choices for them. The household coordinator's position is a part time role of 50%, and most Coordinators serve as part-time homemakers in order to be full time employees. A Homemaker is another new, blended role with primary duties in both housekeeping and dietary services in the household. Homemakers are

responsible for preparing meals and more extensive cleaning throughout the household. Instead of being a Homemaker, one Household Coordinator also serves as a Social Worker for the entire nursing home and performs services that a licensed professional must provide.

Clinical staff in the household are overseen by a Registered Nurse Clinical Coordinator (RNCC), who is shared between two households. RNCC's refer to their role in the household as the "father" who focuses on medical care. The family nature of the household structure was described by one nurse interviewed as the following:

> . . . this sounds really structured. I look at a family. To me, the household coordinator has the role of the mother and I have the role of the father. But, you need a leader, we all need leadership in a family. The two parents work with the rest of the family to make sure things go well---that's kind of how we do things here. You need someone to make sure the wheels are greased and everybody's contributing . . . (personal communication, 2012).

Each household has either a Licensed Practical Nurse or a Trained Medication Aide who provide clinical treatments and dispenses medications. CNAs are rounding out the nursing team, who report to the nursing staff for clinical duties. Regardless of their role, household staff members are expected to keep the household clean, help with meals, assist with doing laundry and engage residents in activities. All household staff are also engaged in care planning for residents and the scheduling of the household as well as hiring new team members. The short-term rehabilitation household has a slightly different configuration with one additional RN, but no household coordinator. The Administrator has other duties to oversee on the campus, but does participate in a regular "stand-up" meeting that occurs each morning to share key events

of the day across households. However, the presence of this administrator is less apparent in the daily lives of the household.

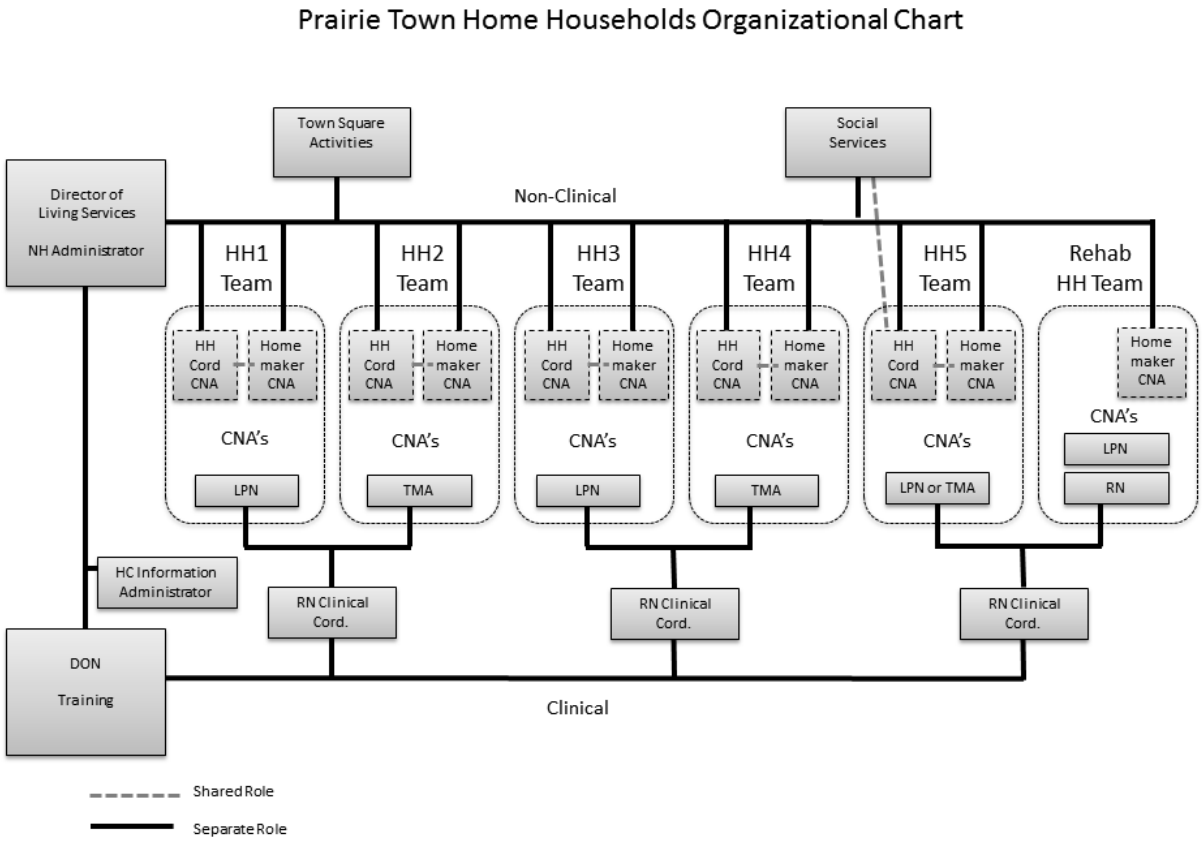


Figure 24. Prairie Town Home - Household Organization and Report Structure

There are several councils and committees that oversee various aspects of the care community overall (See *Figure 25*). The purpose of these groups is to ensure the needs and wishes of residents, families and staff are always being addressed. Each of the six households at Prairie Town Home has a Household Council comprised of residents and staff who oversee the activities of the house. These Household Councils also collectively meet to form a Community Council to address community wide concerns. The Community Council also serves as a forum

for other councils to report. These reporting councils include a Family Council, Resident Steering Councils, Quality of Care Council, as well as teams comprised of staff members with similar roles.

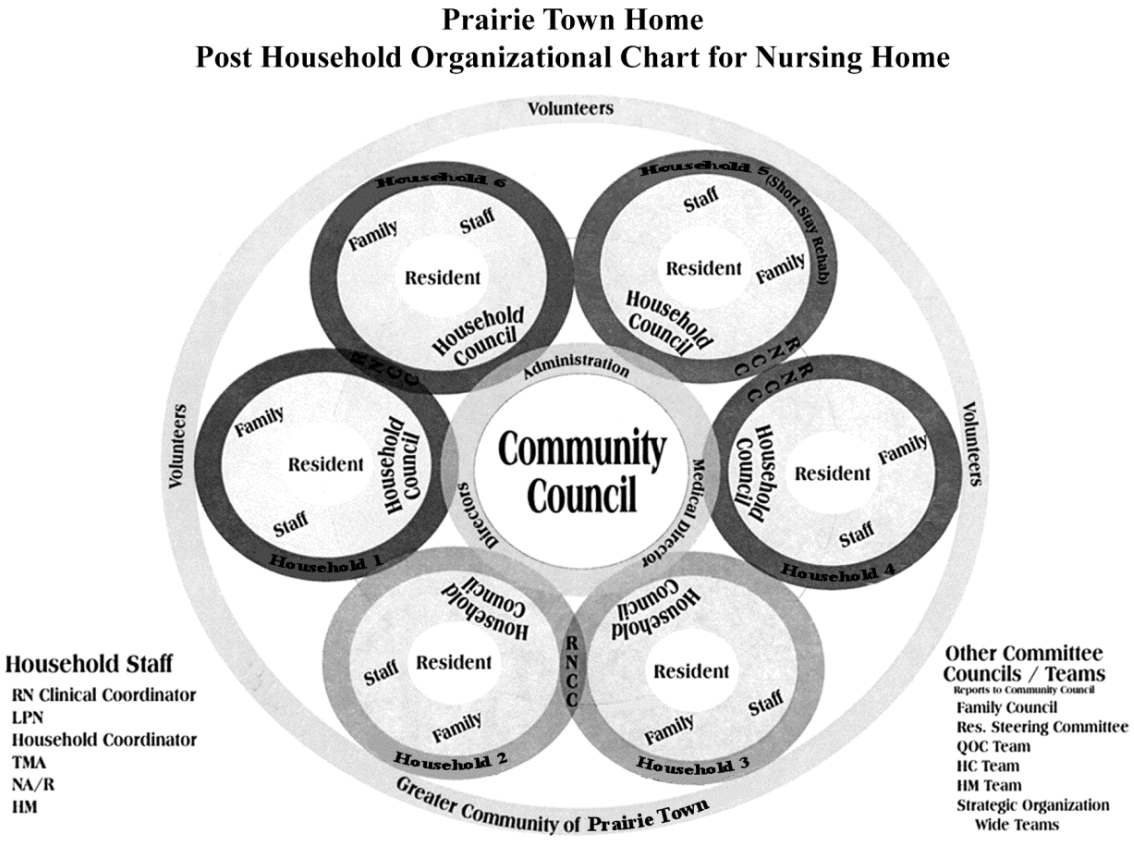


Figure 25. Prairie Town Home - Post Household Community Organization

Franklin Village Organization System

Franklin Village is a non-profit CCRC with multiple levels of care on campus. This non-profit is overseen by a board of directors and the chief executive officer who are located at the apex of the organizational chart (See *Figure 26*). There are seven key areas separated by function in the middle line underneath the apex. One of these areas focuses specifically on

healthcare services within the CCRC and is led by the nursing home administrator who also oversees assisted living and a memory support unit licensed as assisted living.

Pre-Household Organization. Within the nursing home, the administrator worked with the DON who supervised a traditional hierarchy of RNs overseeing LPNs, and LPNs overseeing CNAs. The nursing home Administrator also oversaw activities staff and Social Services staff for the nursing home. Outside departments that supported the nursing home were under the direction of the Chief Operating Officer (e.g. Dining Services, Facility Services).

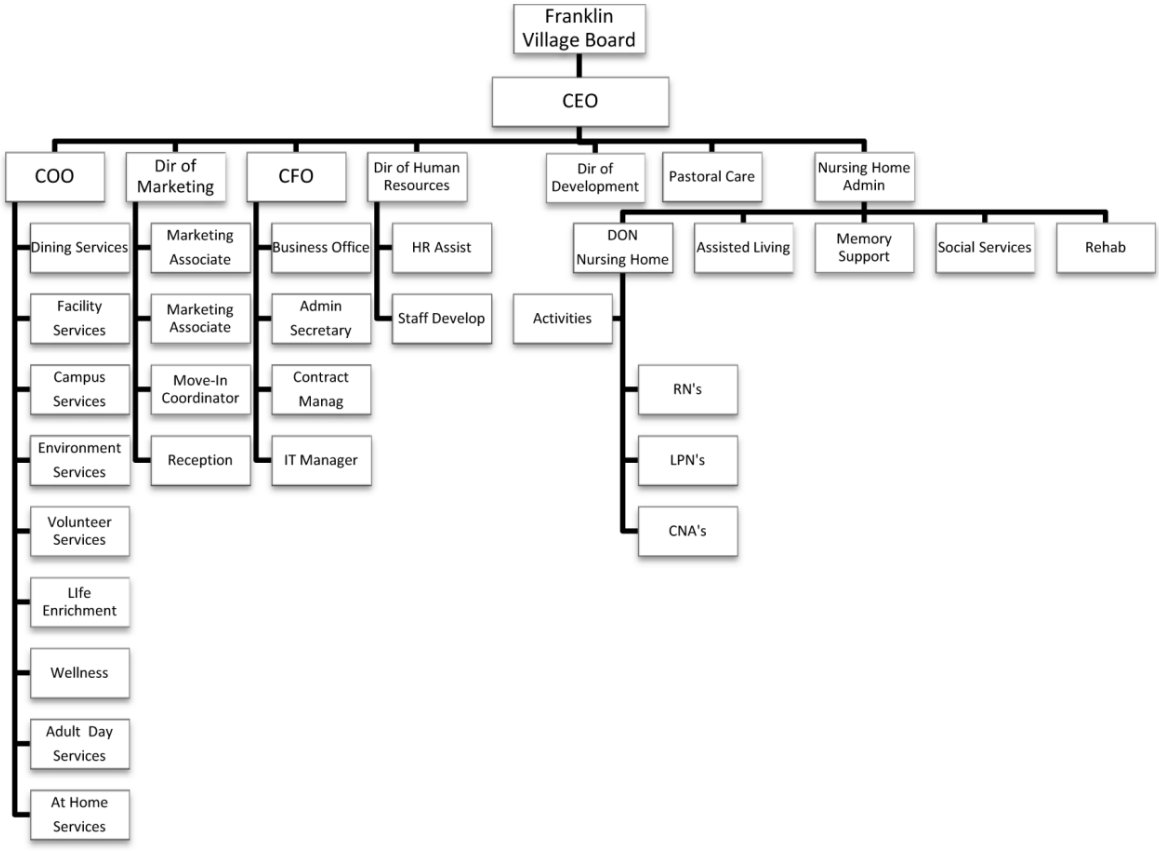


Figure 26. Franklin Village - Organization Chart Overall

Post-Household Organization. After Franklin Village embraced culture change for the nursing home, the overall organizational structure of the CCRC did not change significantly. A similar departmental structure remained in place. However, the organization did re-conceptualize the image of the overall organizational chart by putting all residents in the center (See *Figure 27*). Outside the nursing home, Facility Services and Dining Services were two departments that changed their relationship with the nursing home. Housekeeping and meal preparation are now the responsibilities of the household staff.

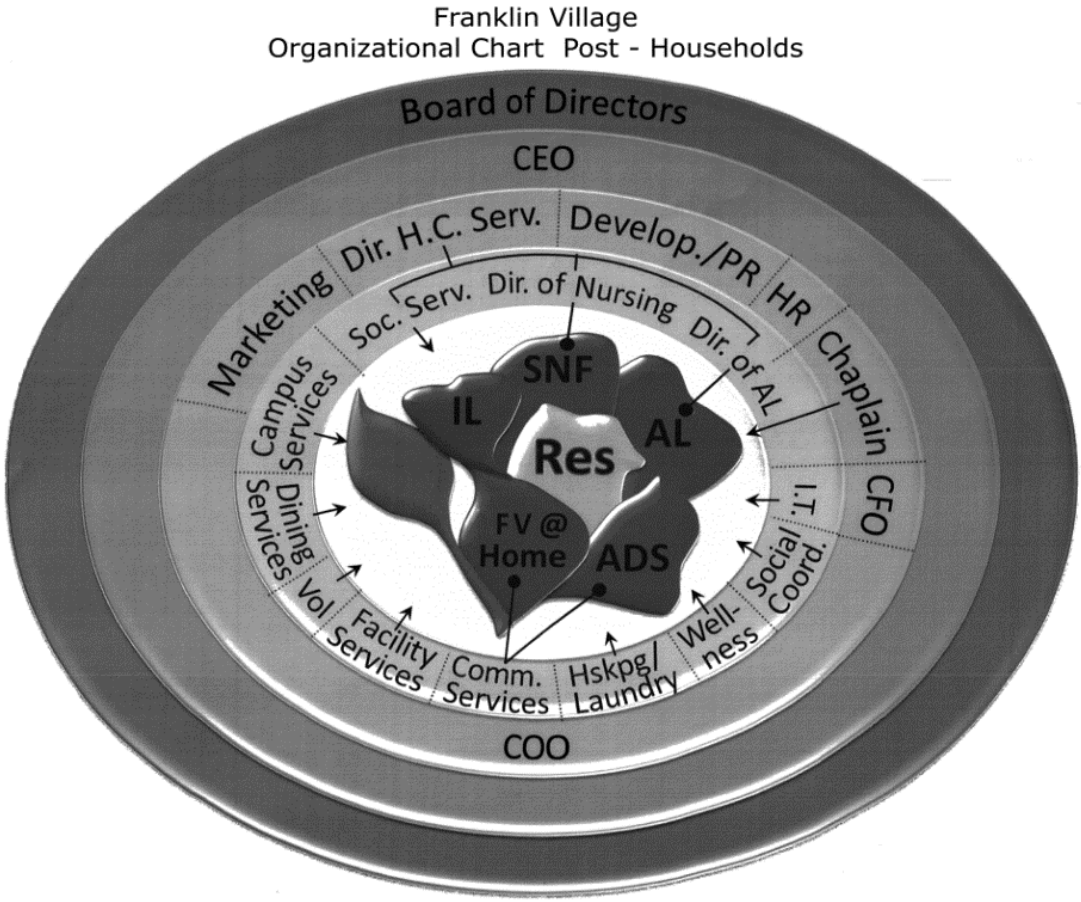


Figure 27. Franklin Village Revised Organization Chart Overall

After households were created, the organizational structure of the nursing home changed with some staff stepping into new roles or having expanded responsibilities (See Figure 7). These changes were not only necessitated by culture change, but also the expansion of the nursing home by 32 additional residents located in a new two-story addition. The four households of the nursing home have a similar staffing structure comprised of clinical and non-clinical roles. The clinical side of the household reports back to the DON and non-clinical staff report to the nursing home Administrator. The Household Coordinator is the key non-clinical role, but this is a 20% position with the other 80% spent on other duties. Two of the Household Coordinators serve as Homemakers with cooking and cleaning responsibilities within the household. The other two Coordinators have outside household responsibilities that include the lead Therapeutic Recreation Director (i.e. activities), and the primary Social Worker for the nursing home. Household Coordinators supervise the Homemakers of the household and are expected to fill in for hours if staff call off without a replacement. Household Coordinators also oversee CNAs for non-clinical duties. Similar to Prairie Town Home, Household Coordinators at Franklin Village referred to their role as the "Mom." One Household Coordinator described her job as the following:

> We put out fires. We are the house mom. That is our job. Just like your normal every day house or home. You have the father, the mother, [and] maybe a baby sitter. Mine [*sic*] is the Mom. I do the cooking. I am also a homemaker, so part of my job as a Household Coordinator and part of it is a Homemaker. So I cook [and] clean just like any other homemaker would do. But on top of that I do family events and liaison between family, the staff, and the residents (Personal communication, 2012).

While Homemakers are the lead cooks, all members of the household assist with serving meals and cleaning up the kitchen area after meals. It was not uncommon to find nurses, emptying and loading dishwashers during the site visit to the community.

On the clinical side, two Registered Nurse Clinical Coordinators (RNCCs) oversee two households apiece. Within each Household, clinical staff include CNAs and one LPN who provides treatments and dispenses medications. One CNA floats between households to provide relief as needed. Homemakers and CNAs are expected to engage with one-on-one resident activities each day. All members of the staff participate in care planning for residents and have expectations for cleaning the household. Non-clinical staff members are not trained as CNAs, but may receive training in assisting residents to eat as required by law. Non-CNA staff may still answer call bells and provide basic assistance for residents, but are expected to summon other staff members if the need is beyond the license of their abilities. Both the Administrator and the DON have offices in the households and remain very actively engaged in the daily routines and operations of the nursing home.

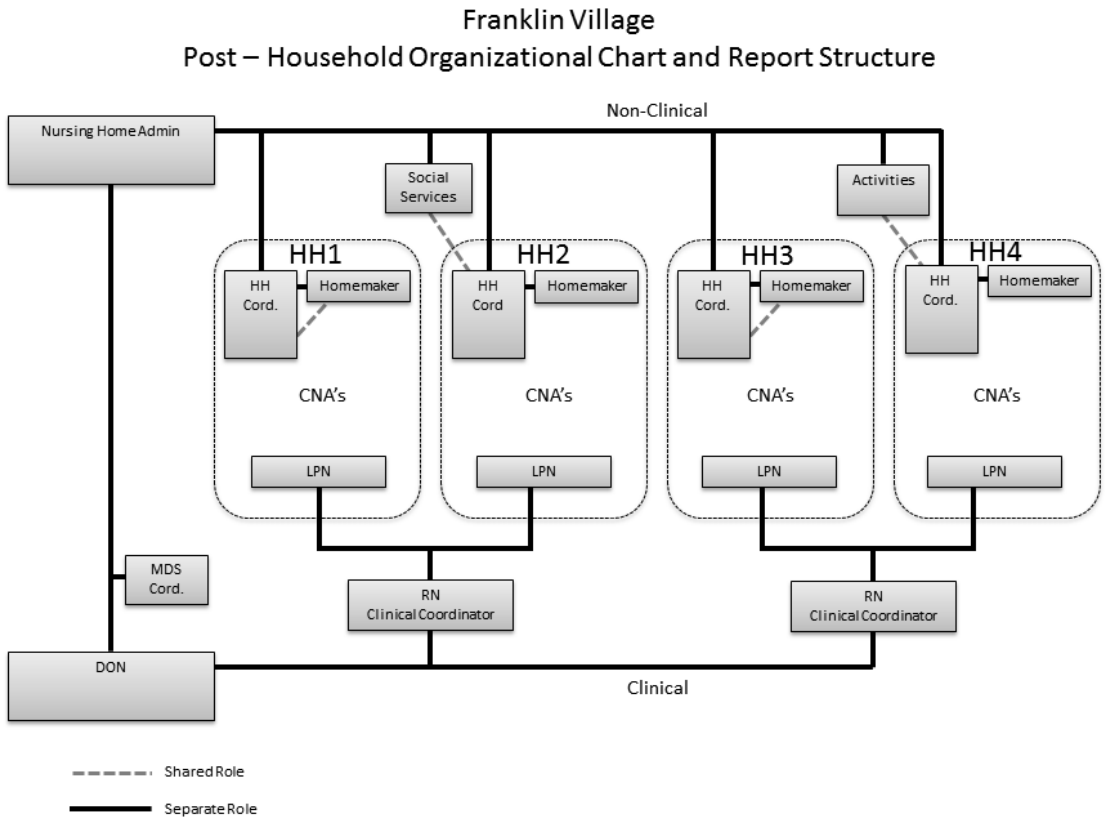


Figure 28. Franklin Village Household Report Structure

Outside the nursing home, the environment services department supports the households by providing laundry, floor cleaning, and deep cleaning as necessary. The facility services department provides maintenance services in the nursing home. Dining Services for the healthcare portion of the CCRC is provided through a separate kitchen from the main kitchen. Dining services staff support the households by creating menus, ordering food, prepping some meal items which are reheated in the households or parceling out meal ingredients for cooking in the household. Household Coordinators and Homemakers regularly "shop" in the kitchen for staples and other ingredients as needed. A member of dining services

also provides dietician services to ensure that residents' needs are met and to help with planning any special meal events. This staff member regularly attends a daily meeting with key staff members to be aware of any concerns or possible events that may impact dining services. However, this individual serves as a consultant instead of a person with oversight authority.

Five Sisters Organizational System

Five Sisters Home is one of 36 convent venues that comprise an international congregation of catholic sisters with a motherhouse located in Rome. These venues include schools, hospitals, nursing homes, social service organizations and pastoral ministries. Five Sisters is the only venue located in the United States. As a nonprofit, Five Sisters Home is overseen by a board of directors, with the Catholic Sisters being prominently represented. The chair position of the board has always been held by one of the Catholic Sisters. The Catholic sisters also work in the nursing home as either nurses or administrative staff. At the time of culture change, Five Sisters was predominantly a nursing home with the president of the organization also serving as the nursing home administrator.

Pre Household Organization. The leadership of Five Sisters did not create an organizational chart prior to culture change; however, interviews with key informants revealed a traditional hierarchical structure comprised of separate departments arranged by function (See *Figure 29*). Nursing staff were organized into two nursing units that contained two hallways. A third nursing unit functioned as a home for aged but essentially was operated and staffed similar to nursing. Registered Nurses oversaw each nursing unit. While LPNs and CNAs

were consistently assigned to the same hallways or the same nursing unit, staff rotated resident assignments on a regular basis.

Post Household Organization. At the time of culture change, the organization also expanded its operation into a CCRC with a full continuum of care. During the culture change process, a leadership committee was established comprised of multiple staff members from various roles. The department structure remained, but the report structure was through the overarching leadership committee. After culture change and the opening of the CCRC, a new organizational system occurred with some staff members taking on new roles. Several key members of the leadership committee took on leadership roles such as household coordinator positions. Departmental structures were significantly reconfigured and in some instances staff moved from an oversight role to a mentorship role for those who worked in the households.

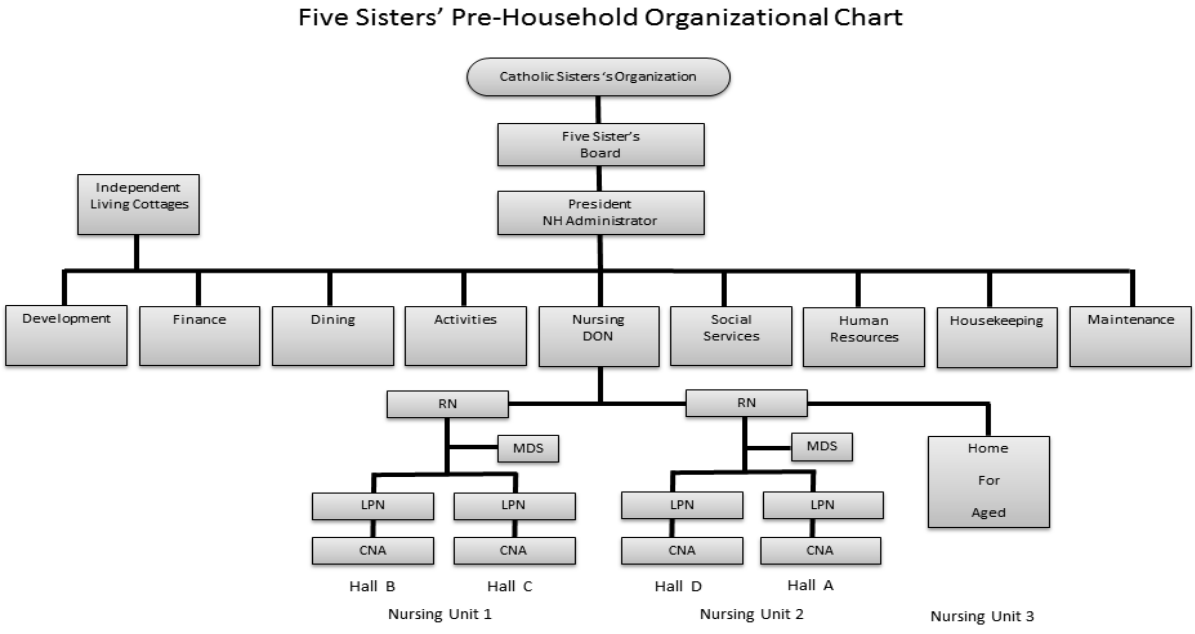


Figure 29. Five Sisters Pre-Household Organizational Chart

The apex of Five Sisters organizational chart remained in place with a Board of Directors, the Chairmen of the Board and a President (See Figure 30. The chairmen of the board is still a representative of the Catholic Sisters, who also has the title of Mission Leader. The president is now referred to as the Community Leader. One addition to the apex of the organization is a Strategic Committee. Underneath the apex are five key functional areas of the organization that include: Development, Facility Services, Operations, Finance and Human Resources. These five key areas support and provide mentorship for three key teams described as the Operations Team, The Health Services Team, and the Household Teams. The Operations team is comprised of the supportive functions of maintenance, housekeeping, laundry, dining, security and transportation. The health services team focuses on clinical aspects of the community. Households are the teams that make up the non-independent living environments on the campus (i.e. Assisted Living and Nursing). Each household has assumed the roles of food preparation and finishing, housekeeping, and laundry. The Operations Leader has a mentorship role to support the households, but not an oversight role. This individual prepares the menus for the households and oversees the main meal preparations for the households which occur at a central kitchen. The food is quick chilled and transported to the nursing home daily. Depending upon the day's menu, transported food is re-thermed in the household kitchens, but some food is completely prepared in the household kitchens (i.e. breakfast to order, pasta). Housekeeping, except for deep cleaning, is the responsibility of everyone in household. Housekeeping staff make sure supplies are available for the households. Flat laundry is still done centrally, while personal laundry is completed by the household staff unless items are heavily soiled or contaminated.

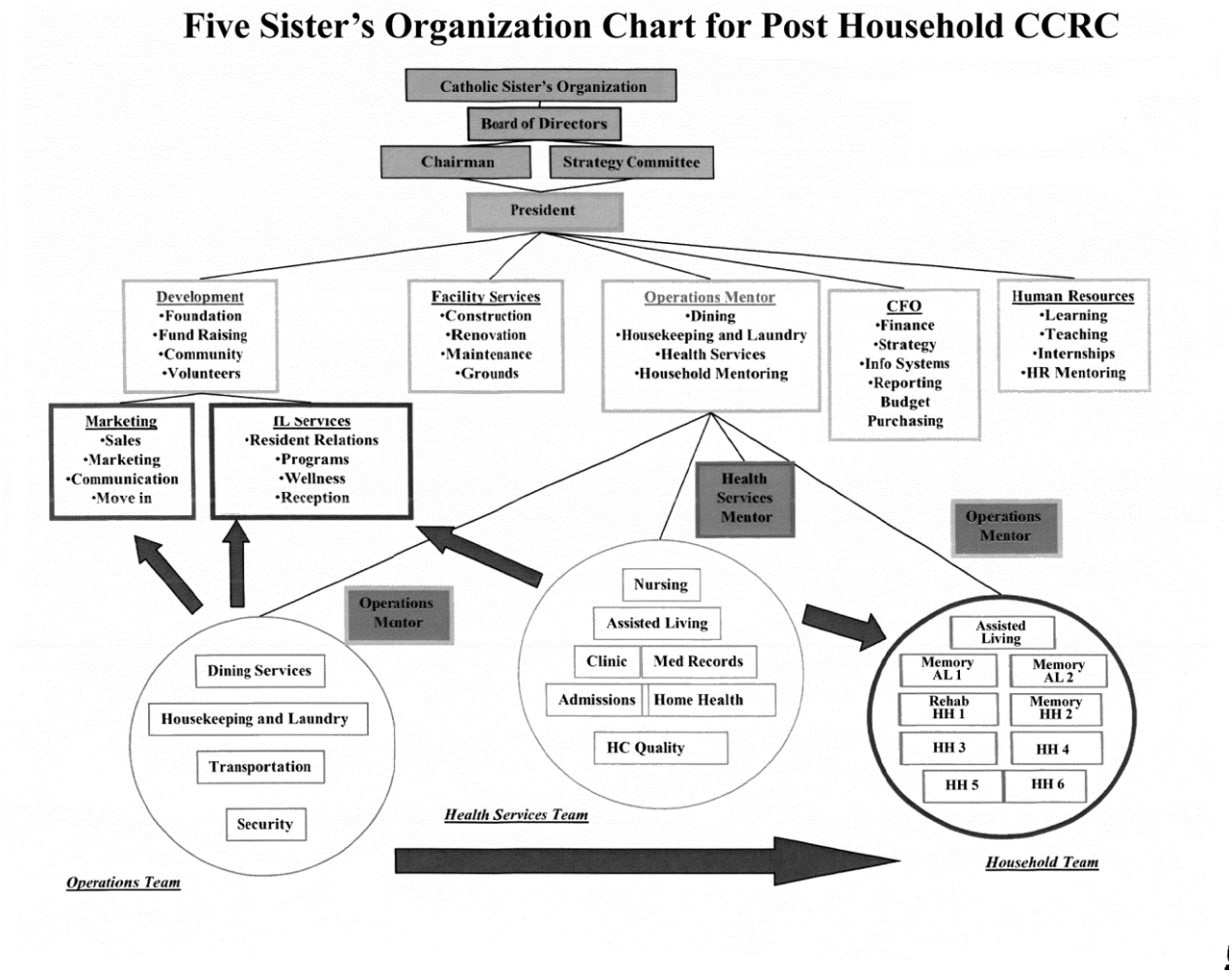


Figure 30. Five Sisters - Organizational Chart Post Household and Expanded CCRC

Each nursing household has a similar team organizational structure. This team has both clinical and non-clinical functions. While the team works collaboratively together, there is an underlying report and accountability structure. The Household Coordinator, who is also a CNA, leads each household. Household Coordinators schedule and oversee the CNAs. Household Coordinators also oversee the social life of the residents and focus on encouraging teamwork. Coordinators also monitor the budget of the household for staff scheduling, overtime, and general expenditures for special events. Each of the household's kitchens is licensed as a

separated food service operation that is overseen by Certified Dietary Managers. These managers supervise the homemakers in the household who have blended roles of providing housekeeping and dietary services. Households also have a part time position that is referred to as Life Enhancement with a blended role of activities and social services. These individuals also have various roles throughout the community including social work, activities coordinator for the Town Square or serving as CNAs.

On the clinical side, households have a Nurse Mentor assigned to the house who oversees the LPNs and the clinical duties of the CNAs. One nurse mentor also serves as the Director of Nursing for the organization. Regardless of a staff member's primary role in the household, all are expected to engage in expanded roles to support the holistic needs of the residents and the team of the household. Leadership described this goal during one interview as, "eighty percent in your specialty and twenty percent doing something else--whatever you like to do."

Teamwork in each household is very evident at mealtime with every member engaged in serving the residents and helping to clean up the dining area. In addition to the Household Team, there is also a Neighborhood Council that addresses concerns of the larger care community. This council is comprised of the Household Coordinators, the Director of Nursing, the Nursing Home Administrator, the lead Social Worker and the Nurse Mentors in the houses. There are a total of two full time Social Workers and one part time Social Worker. One full time Social Worker is not assigned to a household and primarily deals with new admissions. The part time Social Worker mostly serves assisted living. The remaining Social Worker serves as a Life Enhancement Coordinator in one house, but also focuses on completing resident assessments

and backs up the other Social Workers when needed. One Life Enhancement Coordinator also schedules large group activities and entertainment in the Town Square. The Administrator also serves as the Human Resources Director in the community. The Administrator strongly supports the autonomy and accountability of each household and the role of the household coordinator. While she recognizes she still has responsibility, she tries to mentor staff to assume leadership roles and solve issues by working through the household team. While the Administrator is aware of the nursing home activities, she is not a predominate presence within each household's daily life. However, her open door policy and office location right outside the town square does encourage her engagement with a variety of residents and staff members at a community level. This type of engagement, she believes, is essential for any Administrator who is involved with culture change.

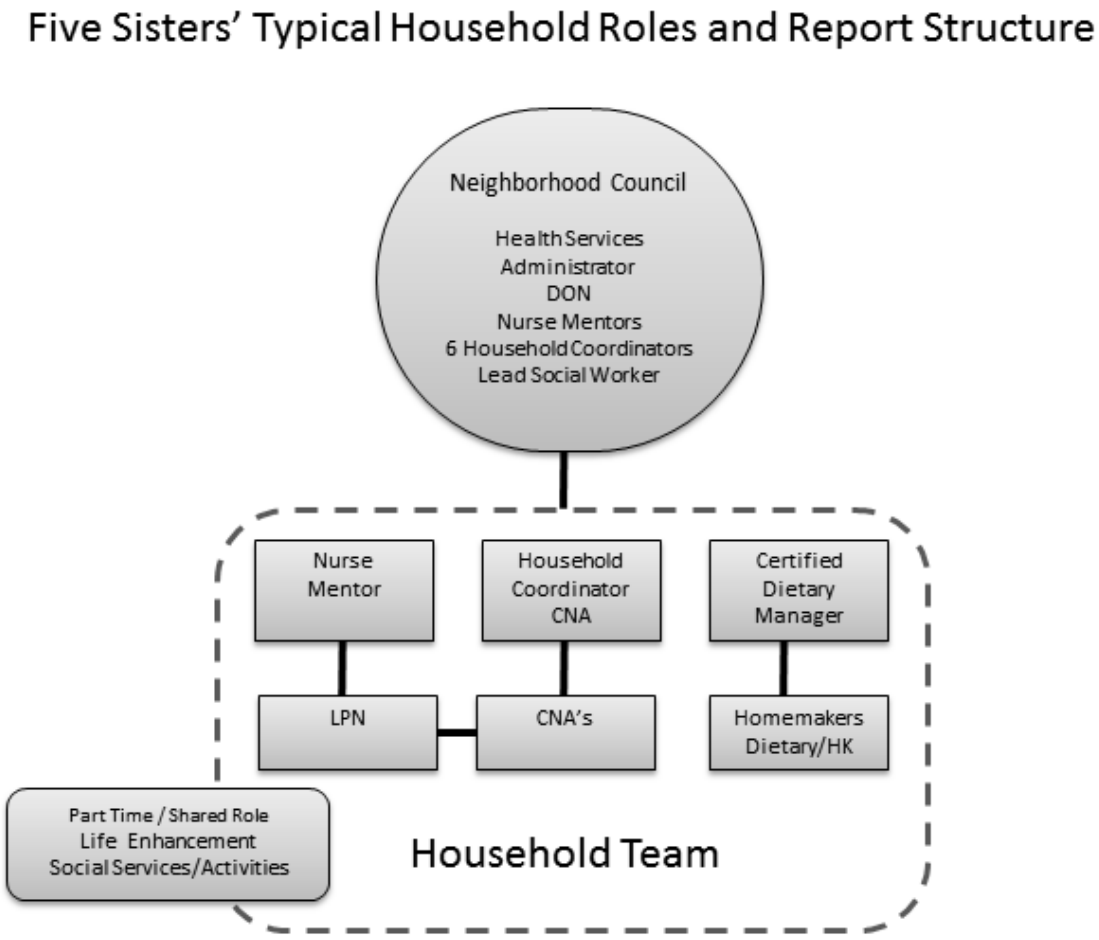


Figure 31. Five Sisters Typical Household Organization

Comparison of the Organizational Systems for Three Cases

The organizational systems pre and post households share some similarities and differences (See Table 21 and *Figure 32*). The following section will compare the strategic apex, middle line and operating core for the three cases (Mintzberg, 1979b). The strategic apex includes administrative managers at the top of the organization. Middle line staff are managers that are not in the strategic apex and are located within the operating core which carries out

the basic work of the organization. All three organizations altered their organizational system as part of culture change; however, the locus of these changes differed among the three cases.

Strategic Apex. The strategic apex for the three cases share similarities due to each being a non-profit organization overseen by a board of directors. Unique to Prairie Town is the presence of a healthcare management group in the strategic apex of this hospital district. As a Catholic venue of an international congregation of sisters, Five Sisters Home also places this group above the board of directors as an influencing presence. The strategic apex remains essentially the same in all three cases after culture change. The static nature of the apex is due to the nursing home reflecting only a part of the overall organization. Five Sisters conversion to household coincided with the expansion into a CCRC, which did result in changes to the organizational structure. Pre culture change, the president of the organization also served as the nursing home administrator. During culture change, the organization was led by a multi-disciplinary leadership team. This team is now on the organizational chart as a strategic team to encourage interdisciplinary views. Titles were also altered at Five Sisters in attempt to change the language found in long-term care. The president is now referred to as the Community Leader who oversees the entire CCRC, while a new individual assumed the role of nursing home administrator. Similar to Five Sisters, Prairie Town Home's CEO also served as the nursing home's administrator prior to culture change. However, these duties were mostly performed by the DON in the middle-line of the organization. As the organization grew in complexity, the administrator's role was completely removed from the strategic apex of the organization.

Middle Line. The middle line of the three cases before culture change was a traditional hierarchical structure organized by tasks. Departmental leaders occupied the top of the middle-line of each organization. The nursing home administrator was represented in the middle line for Franklin Village; while both Five Sisters and Prairie Town Home had administrators that served dual roles within the organization. Beneath the administrator was the DON that also was a member of the middle line. The DON supervised the nursing staff in the nursing units who comprise the operating core. The middle-line of all three organizations also contains the oversight for the supportive services departments for the nursing home such as dietary services, laundry, maintenance, housekeeping, activities and social work. These departments either reported back through the nursing home administrator or directly to the president or CEO.

More significant changes were made to the middle line of the three cases due to culture change. These changes did not necessarily eliminate the department or departmental structure from the organization, but rather changes were made to the relationship of the department to the nursing home. The Administrator's traditional role has shifted towards being a mentor from the traditional role as a supervisor, disciplinarian or problem solver. One Administrator described this shift as "less of my role is about problem solving and more of my role is about bringing resources and facilitating for these folks to do the problem solving." Administrators in the three cases had different roles in the households. Prairie Town Home's Administrator had greater overarching responsibilities for the campus, and was rarely found within the households during the site visit. She did host a regular stand up meeting with key individuals from the households in the Town Square. The Administrator's office is located at one end of

the Town Square, within an inside office with a reception area at the front. The previous Administrator (due to taking on a new role) stated her view of the residents by stating, "well, we know them. I'm out there all the time. You know -- you hope. You want that closeness to happen in the Household." Franklin Village's Administrator had her office directly inside the door of one household and was a constant presence. She was found regularly engaged with the residents, families and staff members, as well as providing back-up support for staff whenever needed. Her views on the administrator's office location as being essential to the household model were reflected in the following statement:

> I would never want to be down the hall and behind closed doors or something. I think this is the smartest thing we ever did to be right in the middle of the action---I do know people that are not in the middle of the action that are working in the Household model and it does not work as well (personal communication, 2012).

Five Sister's Administrator's office was located outside the households, but near the Town Square. The Administrator was not frequently found in the households during the site visit, but she was regularly engaged with residents and staff due to her open door policy. This Administrator emphasized the personal nature of how she chooses to engage with residents and the role of the environment in the following statement:

> I just think I am much more connected, but part of that is my personality too. I just love residents. I just love the people I work with so that's easy. It's not something that I say, okay, because we are in a culture change world now that I have to touch somebody every day. That is just who I am. . . . I think your expectation should be that your Administrator is very connected to the residents. One, they should be accessible. So, Gerald comes in here. I could not find my fingernail clippers, but I cut his fingernails every week. That is something that I do because. And, I would never have had the

> opportunity to do that in the old world because we would have been behind glass doors in the administration wing. So just by being in close proximity to where they are and no barriers are between us creates opportunity for you to be closer to the residents (Personal communication, 2012).

A culture of inclusion or exclusion of the administrator into the daily life of the households reflected different views. At one end, an administrator felt households were the key organizational unit and did not intrude unless needed. On the other hand, some administrators purposefully engaged in the household or care community to reduce barriers or for personal satisfaction reasons. These differing views were reflected in the environment by the office locations or how they chose to use the spaces.

Departments traditionally located outside the nursing home that support the daily activities were also a focus for changes for the middle-line. Dining was the key area that changed with more cooking or food finishing occurring in the households. Staff in the households assumed roles to help with meal preparation, serving and cleanup. The dietary department was described as having a strong mentorship role for the households at Franklin Village and Five Sisters Home, which do more extensive cooking within the households. Prairie Town Home uses mostly steam wells, but does prepare some items in the house such as breakfast items. All three cases moved housekeeping duties into the household except for heavy floor cleaning. The Housekeeping department, that provides support as well as cleaning services in the public areas of the nursing home, remains in the organization. Prairie Town Home and Five Sisters also do residents' personal laundry in the households, while flat laundry is done in a central location. Only Franklin Village continues to do all laundry centrally outside the household.

The middle line of the activities and social services departments were altered in different ways for the three cases. All three organizations moved some responsibility for resident activities into the household. Both Prairie Town Home and Five Sisters have a Town Square, which provides large group community based activities and entertainment that is overseen by a leader from the activities department. This is a full time role for the person at Prairie Town Home, in addition to supervising the activities that occur in the households. For Five Sisters Home, this person also serves as a life enhancement coordinator within two of the households. Franklin Village had first thought it could eliminate activities, but recognized the need to have one person take a lead role. Therefore, the household coordinator also serves as the Therapeutic Recreation Director for the entire nursing home. This individual coordinates activities throughout the households, schedules outings and hosts events in an activity space located near the nursing home. Social services duties were spread to a range of staff in the operating core of the household for all three cases. However, all have at least one social worker who is located in the middle line outside the household to oversee the department. All three cases had one social worker who worked in one household in a blended role in the operating core (e.g. Household Coordinator, Life Enhancement Coordinator). Those Social Workers with blended roles within the operating core must frequently step out to the middle line to provide services throughout the nursing home.

Two out of the three case studies have overlaid formal community councils into the middle line of the organizational structure. Prairie Town Home has a community council, which serves as a reporting format for various committees concerned with the nursing home as well as residents and family members. Five Sisters has a Neighborhood Council that addresses

affairs for the entire nursing home. Franklin Village did not adopt a new council as part of culture change; however, a resident council is indicated on their Nursing Home Compare webpage. A regular meeting with key staff members occurs daily to share information across households. Both the Administrator and DON indicated they regularly meet with groups of staff on a quarterly basis to share information or address concerns.

Operating Core. In comparison to the apex and middle line of the three organizations, the operating core changed the most with the conversion to households. Prior to culture change, all three nursing homes described a traditional hierarchal arrangement of staff with RNs, LPNs and CNAs who worked on nursing units. These nursing units ranged in size from 21 residents up to 60 residents. Before the nursing home was expanded at Franklin Village, the small size of the nursing home (i.e. 42 residents) resulted in the administrator and DON often engaging in the daily activities of the operating core. The nursing home activities of the three cases were supported by other non-clinical workers who also fell in the operating core of other departments such dietary services workers who prepared meals, housekeeping staff who cleaned, laundry staff who washed some clothes and linens, and activities staff who engaged residents in activities. After culture change, staff members within the household assumed some of these duties. The organizational structure of the operating core shifted from arrangement by task to arrangement by location and persons—the households. Consequently, household team members in all three cases assumed roles such as assisting with meal service, housekeeping duties, and engaging in activities with residents. Prairie Town Home and Five Sisters took on resident personal laundry duties, while Franklin Village did not assign this duty to household members.

All three cases added a new position of household coordinator who is assigned to each household with a blended role of providing activities and social services. All household coordinators are part time positions that focus on the social life of the house for both residents and staff. All household coordinators serve as CNAs at Five Sisters Home, while household coordinators receive training to fill in as CNAs at Prairie Town Home. Half of Franklin Village's household coordinators and most household coordinators at Prairie Town Home serve as part-time homemakers to create a full time position. As stated previously some household coordinators at Prairie Town Home and Franklin Village serve as household coordinators in the operating core, but have positions in the middle line outside the household (Social Services and Activities Director). All three cases utilize homemakers who are assigned housekeeping and meal preparation duties. Homemakers are also responsible for engaging residents in activities as part of their duties. One unique position among the cases identified at Five Sisters Home was a part time position entitled Life Enhancement, which is a blend of social services and activities. Life enhancement coordinators were assigned to each household, but often had responsibilities in the household or in the community. The other two cases utilized household coordinators for this role.

Household clinical staff in all three cases is led by a Registered Nurse Clinical Coordinator who was typically shared between households. All households have LPNs to administrator treatments and medications. Though, Prairie Town Home utilized a Trained Medication Aide as an alternative to a LPN for some shifts and in some households. CNAs were typically assigned to each household and had clinical and non-clinical responsibilities. There

were CNAs that floated between households for relief or were assigned to more than one house in a part time role.

A typical household team in the three cases is comprised of both clinical and non-clinical staff. While the expectation is the group will work as a team, there are accountability structures in place that reflect an underlying structure. One person from leadership at Five Sisters Home described the nature of this structure in the following statement:

> . . . it is about who is your team. So for example, the Household Coordinators technically report to me but they have accountability---just as much accountability if not more to the nurse mentor in their house. That's their teammate. That is the two leadership positions in that house that are equally responsible for making sure that house runs really well. So, they have responsibility for that--the nurse mentor. They have responsibility to me. They have responsibility to the team of Household Coordinators. If they are a CNA, they have responsibilities to that team. It really is about where you connect and you might connect to multiple areas. And, you are responsible for whatever role you play in that team. And so, it's not about who do you report too and who is your boss--we are all in this together. That is really much more of the structure (Personal communication, 2012).

Two of the cases specifically made analogies with a nuclear family for the structure of the households with a nurse serving as the father role, and the household coordinator replicating the mother role. As evident from the interviews and site visit, Households teams have a great deal of leeway to set the schedule for each household within a set of parameters.

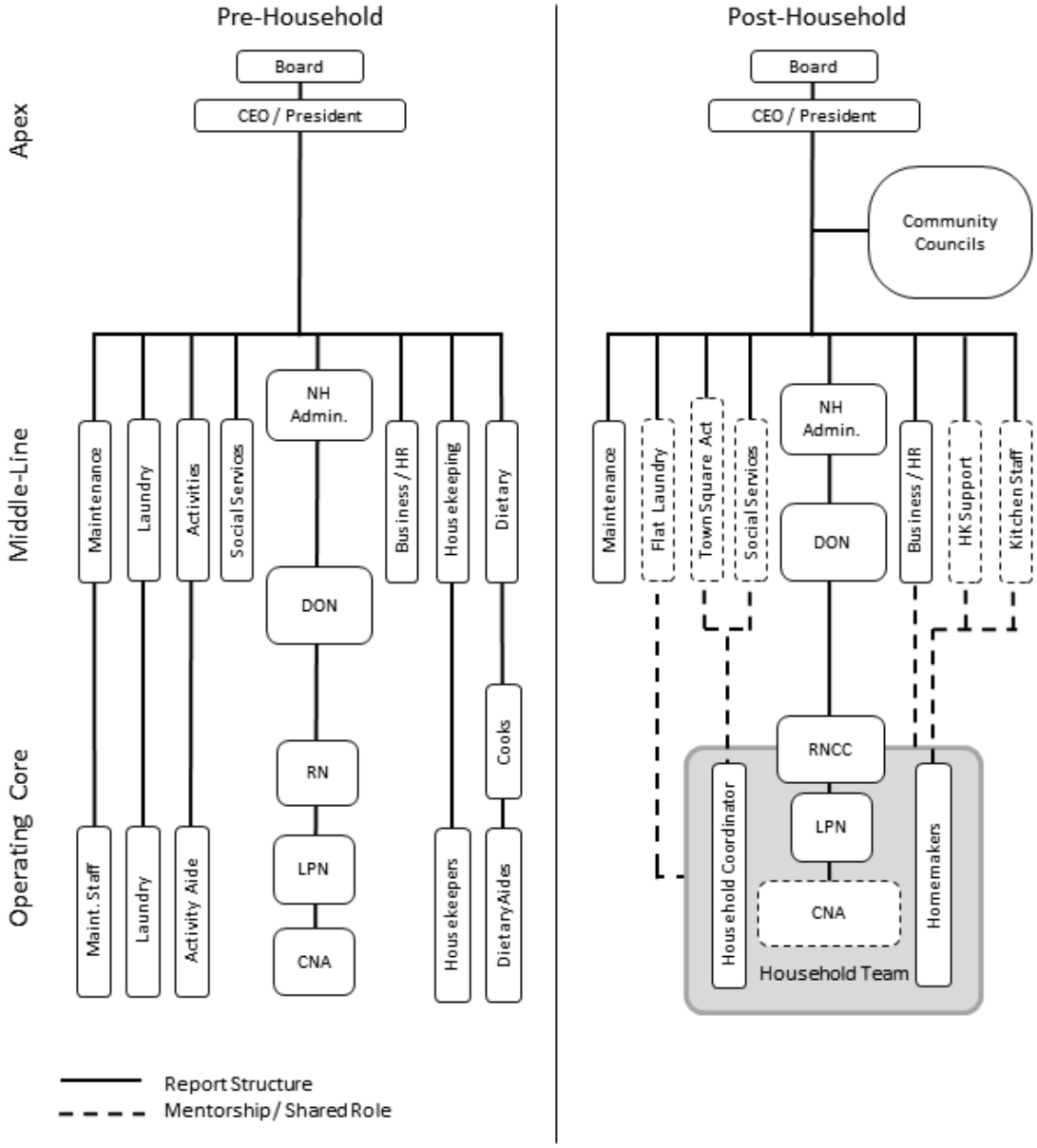


Figure 32. Conceptual Change to Organizational Structure for Households

Table 21

Comparison of Organizational Changes to Three Cases

	Prairie Town Home	Franklin Village	Five Sisters Home
HOUSEHOLD SUPPORT			
Other Departments			
Dining Services	Bulk Meal Preparation	Ingredient Preparation	Entrée Preparation
Activities	Town Square	Nursing Home Has part time HH Coordinator Role	Town Square
Laundry Services	Flat Laundry Only	All Laundry	Flat Laundry
Housekeeping	Deep Cleaning	Floor Cleaning	Deep Cleaning
Maintenance	Engage male residents in activities /cookouts	No change	No change
Social Services	Oversees Departments	Oversees Department	Oversees Department Admissions
Nursing			
Administrator	Oversees Senior Living Campus	Oversees CCRC Healthcare & Non-Clinical HH Staff	Serves as HR Director & NH Administrator
DON	Oversees Training	Oversees Clinical HH Staff	Part Time RNCC in HH
HOUSEHOLD STAFF			
Non-Clinical Staff			
Household Coordinator	50% Role or 20 Hrs. / Wk. All Trained as CNAs Blend of Activities and Social Services	20% or 8 Hrs. / Wk. None are CNAs Blend of Activities and Social Services Oversees Homemakers	40% or 4 Hrs. / Wk. All are CNAs Blend of Activities and Social Services Oversees CNAs
Certified Dietary Managers			Oversees Kitchen
Homemakers	Blend of dining and housekeeping	Blend of dining and housekeeping and activities 2 are Part Time HH Coordinators	Blend of dining and housekeeping
Life Enhancement Coordinator			Blend of Activities and Social Services
Social Services	Has Part time Household Coordinator Role	Has part-time Household Coordinator Role	Has part-time Life Enhancement Role
Pantry Person	Assists with breakfast and dinner		
Clinical Staff			
RN Clinical Coordinator (RNCC)	Shared role between Households	Shared role between Households	
Licensed Practical Nurse (LPN)	Assigned to Household	Assigned to Household	Assigned to Household
Trained Medication Aide (TMA)	Alternative to LPN		Alternative to LPN
Certified Nurse Aides (CNA)	Cross Trained Dining Light Housekeeping Laundry Activities	Dining Light Housekeeping Activities	Cross Trained Dining Light Housekeeping Laundry Activities
All Staff Trained as CNAs in HH	Yes	No	No

Chapter Summary

This chapter describes the organizational changes to three cases. A summary of the key role shifts and procedures is shared in Table 21 and *Figure 32*. Organizational structure shifted to the households versus being organized by tasks. However, there was typically some type of outside department influence. All three households often adopted similar flexible roles for staff members such as Homemakers who are a combination of housekeeping and dietary services. Household Coordinators were a new role that was introduced to provide further structure for the house and in some cases they had further responsibilities such as staff scheduling. A frequent analogy was given that this was the "mom" of the house, while a nursing person served as the "dad." As a mom role, the Household Coordinators focus on the resident quality of life and social aspects of resident lives. The next chapter discusses the values of the outcomes for holistically changing the environment and the organization within the context of the objectives and the context.

CHAPTER NINE - VALUES

The previous chapters have described the objectives, the context, the environment and the organization of the three cases. Changing the place of the nursing home to household also requires a change in activities (See Framework in Chapter 2) (Chapin, 2010; Weisman, 1998). Since a change in the activities (i.e. what occurs) in a place is not a key element of this dissertation which focuses on the resource system, this dimension is not being described in greater detail than already provided. Routines changed from the traditional model to the household model. Specifically, meals, activities, laundry and housekeeping were typically shifted into the household's staff main responsibilities. Previously these responsibilities were typically addressed by an outside department (See Table 21 for more Information).

This chapter describes the values for the household model. Values are the process indicators and outcome results for the adoption of the household model by the nursing homes. Values for this study are perceived as positive, negative or neutral. This chapter is organized into three key sections: 1) resident outcomes, 2) staff outcomes and 3) organizational outcomes. While there are potential overlaps between this typology, outcomes will be placed in the most prominent category for the sake of clarity.

Resident Outcomes

Culture Change and the Household Model redirect the nursing home towards a holistic focus on residents' needs instead of a traditional medical focus. Therefore, adopting the model has the potential to improve resident outcomes by direct or indirect means. To assess this possibility, the characteristics of residents for each case were collected from Brown University's

LTCFocus.org website and discussed with a key informant during the site visit for accuracy or explanations for key differences. During the site visit, any de-identifiable evidence available that would reflect changes in the residents' condition before and after households was requested. Information from the CMS website and the nursing home compare website and states websites were also utilized to supplement the gathered information. A second key outcome was measurements of a resident's satisfaction or well-being. Any available resident surveys generated before and after households were collected during the site visit. All key interview participants were also asked if the household model impacted the residents' satisfaction, and if so, how. A third resident outcome of resident centeredness is the re-hospitalization statistics, which were also gathered from Brown University's LTCFocus. org website. While one may argue, that this is a cost saving for society with reduced hospitalization cost, residents ultimately may suffer by being needless transferred in an out of care settings. The following section presents the findings from the evidence gathered for resident outcomes.

Resident Characteristics

The collected resident demographic information demonstrated that resident characteristics are changing pre-post household. These changes reflect a fluctuating population that the nursing home is serving, due to the availability of care alternatives and the increased use of the nursing home for acute care recovery. Some demographic changes may also reflect the impact of the household model on residents. For example, changes in cognitive performance scores may be impacted by the positive environment of the household. The following section discusses the resident characteristics for all three cases.

Table 22

Resident Characteristics – Average Age

	Prairie Town Home		Franklin Village		Five Sisters Home	
	Year	Avg. Age	Year	Avg. Age	Year	Avg. Age
Pre HH	2002	86.1	2003	84.7	2004	83.8
	2003	86.6	2004	85.1	2005	84.5
	2004	87.1	2005	85.2	2006	84.7
Post HH	2006	86.9	2008	86.3	2009	85.9
	2007	88.0	2009	85.9	2010	86.8
	2008	87.7	2010	87.6	2011	86.4

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Average Age. Resident average ages were collected three years before households and approximately three years after the households opened. The average age for all three cases ranged from a low of 83.8 years to a high of 88.0 years. All three cases experienced an increase in average ages for residents after households (See *Figure 33*). Prairie Town Home was the case with the least change over the period; however, it also served the oldest residents before households. Both Franklin Village and Five Sisters had slight increases in age. The youngest residents were found at the case of Five Sisters. Franklin Village residents fell in the middle for age, but shared a similar average age with Five Sisters in 2009 and with Prairie Town in 2010. Some differences in the ages reflect the regional context of the markets served. Franklin Village only accepts CCRC residents who may age in place before entering the nursing home except for short-term stays or for a short period before end of life. The large nursing home at Five Sisters accepts outside residents and has a short-term rehabilitation unit that may keep the average

age lower. These increases in age demonstrate that any impact of household model on resident outcomes may be somewhat mitigated by an older population with increased health needs.

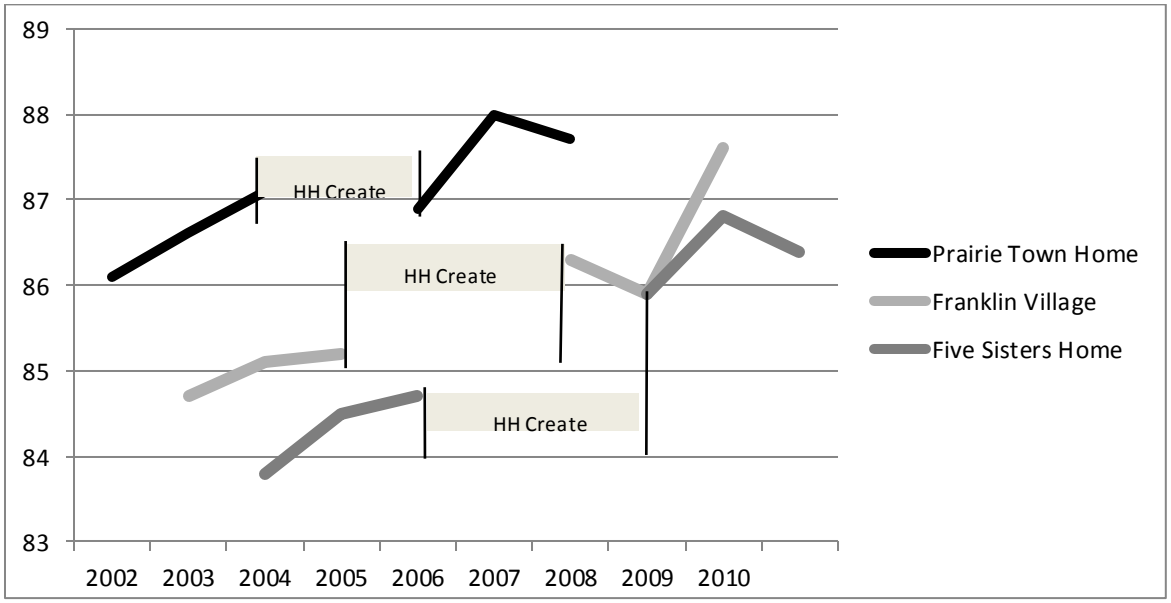


Figure 33. Average Age of Resident Comparison. Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Gender. Gender characteristics for all three cases reflected the typical greater proportion of women in the nursing home (See Table 23). However, Franklin Village did have a single year before households with a greater proportion of men. Prairie Town is showing a slight increase in the number of men post households, while both Franklin Village and Five Sisters are demonstrating an increase in women.

Table 23

Resident Characteristics – Gender

	Prairie Town Home			Franklin Village			Five Sisters Home		
Period	Year	Male	Female	Year	Male	Female	Year	Male	Female
Pre HH	2002	30.60%	69.40%	2003	36.60%	63.40%	2004	39.10%	61.00%
	2003	43.00%	57.00%	2004	37.90%	62.10%	2005	30.30%	69.70%
	2004	23.70%	76.30%	2005	52.70%	47.30%	2006	30.10%	69.90%
Post HH	2006	38.70%	61.30%	2008	30.00%	70.00%	2009	21.30%	78.70%
	2007	41.20%	58.80%	2009	23.73%	76.27%	2010	18.89%	81.11%
	2008	36.40%	63.60%	2010	40.00%	60.00%	2011	19.60%	80.40%

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Table 24

Resident Characteristics – Racial Diversity

	Prairie Town Home		Franklin Village		Five Sisters Home	
	Year	White	Year	White	Year	White
Pre HH	2002	100%	2003	100%	2004	95.00%
	2003	100%	2004	100%	2005	94.00%
	2004	100%	2005	100%	2006	97.00%
Post HH	2006	100%	2008	100%	2009	96.30%
	2007	100%	2009	100%	2010	98.89%
	2008	100%	2010	100%	2011	NA

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Race. Racial characteristics of the three cases are reflective of the external populations served (See Table 24). Prairie Town Home reported a population of 100 percent white for all years,

which reflects the local region's census. The CCRC of Franklin Village also reported a 100 percent white population, which is not unusual for a CCRC. The greatest racial diversity occurs at Five Sisters, which accepts residents from outside the CCRC and is located in a region populated with a greater diversity of races. However, races other than white typically reflected less than five percent of the nursing home residents, and this number had a trend of decreasing after households were constructed.

Acuity. Measures of the acuity of residents in three cases were gathered from two measures on the Brown University's LTCFocus.org website. The first measure is an average acuity index, which is a measurement of average daily care needs of residents. The index is based upon the number of residents needing assistance with daily living, the number of residents receiving special treatments, and the number of residents with certain diagnosis divided by the total number of residents as extracted on the first Thursday in April (LTCFocus, n.d.). Higher care needs reflect a larger number. The second measure is the Resource Utilization Group Nursing Care Mix Index (RUGS NCMI), which is a measure of the intensity of care present on the first Thursday in April. The index is calculated based upon the Resource Utilization Groups, version III resident classification system currently in use by CMS to adjust Medicare payments based upon resident acuity. Case Mix Weights are based upon a projected time spent with residents for categorized care conditions. Higher index numbers are an indicator of heavier care and a more severe resident acuity.

Table 25, Table 26 and Table 27 summarizes the findings for the resident acuity profiles for the three cases in comparison to national and state averages. Compared to the average in Minnesota, Prairie Town Home had more severe acuity before households residents, and less

severe after households. Average acuity indexes for the cases were higher than the state before households and lower after households. However, the RUGS case mix has always been less than the state. Prairie Town Home data demonstrates a reduction in resident acuity after households and a reduction in the case mix index. Furthermore, the lowest case mix among all three cases occurred in 2008 at Prairie Town. Compared to the other two cases, Prairie Town Home also has the lowest resident acuity levels. The rural nature of the area and the hospital district may encourage more use of the nursing home for various needs. However, the trend of lower acuity is also reflected in the state's numbers, which tend to be lower compared to North Carolina and Pennsylvania. These numbers may have shifted after the organization made an effort to create a short-term rehabilitation household, which occurred in 2011.

Table 25

Prairie Town Home Resident Characteristics – Acuity and RUGS

	Year	Average Acuity Index	USA	MN	Average RUGS-NCMI	USA	MN
Pre HH	2002	10.181	9.78	9.96	0.75	0.77	0.78
	2003	10.064	9.91	10.02	0.76	0.76	0.79
	2004	10.064	9.71	9.92	0.76	0.75	0.79
Post HH	2006	9.337	9.68	9.95	0.74	0.76	0.8
	2007	9.313	9.66	9.98	0.73	0.77	0.81
	2008	7.895	9.62	9.93	0.75	0.79	0.77

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Franklin Village's average acuity ratings tend to be lower than the state's average. Resident acuity has a trend of decreasingly after households, except in the last available year of 2010, which had the highest acuity average. Case Mix Indices were often above the state's average before households, but are now below. While there is no rehabilitation unit, Franklin Village does care for short-term residents who reside in the CCRC and only accepted Medicare funding subsidies during the reported period. Notably, Pennsylvania has the highest case mix index number among the three states compared. Similar to the facilities average case mix, the states average also increased to the highest among the three states during the years of 2009 and 2010. These numbers indicate nursing home residents are increasing in care levels needs after households.

Table 26

Franklin Village Resident Characteristics – Acuity and RUGS

	Year	Average Acuity Index	USA	PA	Average RUGS-NCMI	USA	PA
Pre HH	2003	11.264	10.75	11.33	0.87	0.83	0.87
	2004	11.256	10.70	11.38	0.82	0.83	0.88
	2005	11.585	10.55	11.30	0.81	0.84	0.89
Post HH	2008	10.58	9.62	11.20	0.91	0.89	0.84
	2009	10.914	10.62	11.36	1.05	0.89	1.11
	2010	11.709	10.94	11.33	1.01	1.08	1.11

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Five Sisters Home acuity averages typically fall below the state average. Notably, North Carolina has the highest acuity averages among the three states. After households, there was a decrease in the facilities acuity average except for the last year. The Average Case Mix Index has typically been lower than the state average. For the last two years after households the acuity index has increased which may be partially attributed to the opening of the short term rehabilitation household. These numbers are reflecting a trend towards increase residents requiring more care.

Table 27

Five Sisters Resident Characteristics – Acuity and RUGS

	Year	Average Acuity Index	USA	NC	Average RUGS-NCMI	USA	NC
Pre HH	2004	11.364	11.80	11.97	0.81	0.84	0.84
	2005	12.118	12.06	11.96	0.78	0.84	0.85
	2006	11.349	11.59	11.7	0.80	0.84	0.85
Post HH	2009	11.3	9.62	12.0	0.82	0.89	0.86
	2010	11.6	10.62	11.9	.80	0.89	0.87
	2011	12.2	NA	12.6	NA	NA	NA

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Table 28

Prairie Town Home Resident Characteristics – Cognitive Impairment

	Year	Low	Moderate	Severe
Pre HH	2002	29.20%	52.10%	18.80%
	2003	31.50%	51.10%	17.40%
	2004	46.90%	41.70%	11.50%
Post HH	2006	45.70%	46.70%	<1.0%
	2007	44.40%	48.90%	<1.0%
	2008	42.70%	53.10%	<1.0%

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Table 29

Franklin Village Resident Characteristics – Cognitive Impairment

	Year	Low	Moderate	Severe
Pre HH	2003	53.90%	28.20%	<1.0%
	2004	32.60%	46.50%	<1.0%
	2005	<1.0%	61.90%	<1.0%
Post HH	2008	36.10%	50.00%	<1.0%
	2009	31.03%	55.17%	<1.0%
	2010	21.74%	57.97%	20.29

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Table 30

Five Sisters Resident Characteristics – Cognitive Impairment

	Year	Low	Moderate	Severe
Pre HH	2004	34.60%	44.60%	20.90%
	2005	31.20%	42.20%	26.60%
	2006	29.00%	45.80%	25.20%
Post HH	2009	42.59%	25.00%	<1.0%
	2010	41.11%	27.78%	20.29%
	2011	NA	NA	31.11%

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

In regards to resident acuity, the evidence suggests that resident acuity is more severe in the three cases after households. These numbers may be partially attributed to the population entering the nursing home and the presence of short-term rehabilitation residents. These numbers also suggest that any changes to resident outcomes due to households will be moderated by the increasing resident acuity similar to resident age findings.

Cognitive Impairment. In addition to the acuity index and case mix, resident cognitive characteristics of the three case studies were retrieved from Brown University's LTCFocus.org. The data available is from the first Thursday in April for the years 2002-2010. LTCFocus.org uses the most recent MDS assessment for each resident to calculate the Cognitive Performance Scale. Those residents receiving a one or two are categorized as low cognitive impairment; a three or four are considered moderate; and five or six are listed as severe. The data presents the percentage of the residents that have low, moderate and severe cognitive performance for

each case. Table 28, Table 29, and Table 30 summarize the findings cognitive performance for the three cases.

The resident cognitive abilities show positive trends in two of the cases. The cognitive performance data for Prairie Town Home reveals an overall trend of lower cognitive impairment. There is a decrease in severe cognitive impairment and an increase in low cognitive impairment. Five Sisters' data reflects an increase in low cognitive impairment, but a decreasing trend in moderate to severe. Franklin Village data for cognitive performance did not reflect a clear trend for low cognitive impairment due to wide range of averages. Moderately severe cognitive impairment remained somewhat consistent before and after households with about half the resident population. Severe cognitive impairment remained low for every year except the last year. Notably, Franklin Village has an assisted living wing devoted to memory care on the campus, which may mitigate the amount of low and moderate dementia in the nursing home. Overall, positive trends in cognitive impairment may also be the result of the household model which offers a calmer more familiar environment which is considered appropriate for people with dementia (e.g. M.P. Calkins et al., 2001). However, the household model may also lead to staff becoming more accepting or accommodating of dementia as relationships form. Consequently, staff may be less likely to document cognitive issues.

Table 31

Resident Characteristics – Average Length of Stay in Days

	Prairie Town Home			Franklin Village			Five Sisters Home		
	Year	Avg. Stay	XVIII Stay	Year	Avg. Stay	XVIII Stay	Year	Avg. Stay	XVIII Stay
Pre HH	2002	NA	NA	2003	132	17	2004	243	69
	2003	NA	NA	2004	196	32	2005	271	61
	2004	NA	NA	2005	179	21	2006	494	63
Post HH	2006	NA	NA	2008	125	45	2009	193	50
	2007	NA	NA	2009	446	44	2010	180	56
	2008	NA	NA	2010	257	42	2011	198	42

Note. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Length of Stay. A final resident characteristic is the average length of stay for nursing home residents, which is an indicator of whether the facility is caring for short-term or long term residents. The only public available source for average length of stay is the annual nursing home cost reports that request the statistic for the entire facility, as well as for those on Medicare Assistance as part of Worksheet S-3 Part I of Form HCFA 2540-96. Hospital attached nursing homes report cost information on Form CMS-2552-96, which does not request the average of number of days and is therefore unavailable for Prairie Town Home. Table 31 summarizes the available findings for the average length of stay for the facility, as well as for those receiving Medicare for short term stays (Title XVIII).

Franklin Village is demonstrating a trend of residents staying for longer periods of time after households. Pre-households, the organizations accepted more outside residents

compared to post-households, which may have resulted in more turnover. From 2003-2010, Franklin Village only accepted Medicare assistance, but subsidized residents who had exhausted their funds in the nursing home from a benevolent fund (i.e. comprised of donations). An aging CCRC population may result in longer stays and more extensive rehabilitation needs. Furthermore, 2003 represents only one year since the nursing home opened which would impact the statistic. In contrast, Five Sisters is demonstrating a trend towards shorter nursing homes stays. This nursing home continues to accept residents from outside the community and has a short-term rehab unit, which may have the combined effect of drawing the average down. When comparing the two cases with available data before households, the Five Sisters population averaged higher longer stays. After households, Franklin Village demonstrated a trend for two years of having a higher average for average number of days overall, but a lower average than Five Sisters for those on Medicare.

During the period before and after households, resident characteristics changed in all three cases. The average age and acuity are showing trends of increasing in most cases. Changes in cognitive performance reflect a reduction in the severity of dementia in at least two of the cases. Length of stay had different trends for two of the cases, which may reflect the different contexts for the organizations. These changing characteristics may mitigate the impact of the households on residents. The next section will discuss available resident outcomes in the form of the CMS quality indicators.

Resident Quality Indicators

One of the tools OBRA 87 created to promote nursing home quality was the creation of a standardized resident assessment instrument and record system which is referred to as the Minimum Data Set (MDS) (Winzelberg, 2003). Embedded in the MDS are 24 quality indicators, generated from pilot studies, to aide in identifying potential problems and assess possible quality issues (See Appendix D for List of Indicators). These quality indicators are risk adjusted to reflect the characteristics of the residents who may need more intensive care (Capitman et al., 2005a; Mukamel & Spector, 2003). Quality Indicators are used by providers to access changes in resident conditions after interventions and are a source of data in research studies (e.g. Anderson et al., 2003; Harrington, Woolhandler, Mullan, Carrillo, & Himmelstein, 2001; Schnelle et al., 2004). However, some researchers have argued that the use of the Quality Indicators may not be an effective measure. Fennel and Flood (1998) argue that using only outcomes for a chronically ill person may not capture quality concerns due to the eventual trajectory of the disease. While the 24 quality outcomes are intended to capture quality of life and care, an emphasis on medical care remains as demonstrated by the 22 out of the 24 which reflect medical issues. Eaton (2000) argues that studies have found this be an issue as residents rarely identify clinical care as the most important factor. Rather residents tend to focus on relationships, individualization and personalization, which are not reflected on the list. Furthermore, there is considerable disagreement amongst researchers that these 24 quality indicators actually reflect a nursing home's quality since the measures are self-reported and are now part of reimbursement triggers (David C. Grabowski & Castle, 2004; Mukamel & Spector, 2003). Kane et al (2003) have also argued that the quality indicators do not touch upon quality

of life measures which is more challenging to assess. Capitman et al (2005) reported several studies that failed to link outcomes with care processes. A consistent average for quality among states has not been found and there is significant variability which suggests the states have different interpretations of federal standards (Pear, 2008).

Given the exploratory nature of this study, quality indicator information was not initially sought from CMS due to the time restriction of assembling de-identified database and the expense of obtaining the data. However while visiting Prairie Town Home, I discovered that a administrator had pulled average quality indicator data every six months for a period before and after households for the facility, state and nation. During the two subsequent site visits, similar summary information was requested. Franklin Village had not historically documented its quality indicators and could no longer access their records due to the recent transition to MDS 3.0 at the time of visit. Five Sisters was able to find some pre-post quality indicator data it had previously pulled for a few years during the pre and post households. When data was lacking, alternative public sources were used to obtain data. Historical data was available for some quality indicators on the CMS website as part of the nursing home compare website until 2010 when MDS 3.0 was adopted. Brown University LTCFocus. Org provided some quality indicator measures up until 2008 and more recently updated their database to 2010.

The proceeding figures demonstrate the change in the quality indicators for the data available. A period of three years before and after households is presented when the data was available. Facility information is compared to state and national averages. The period in which substantial construction or renovation on the campus occurs is marked on each figure by a dashed rectangle.

Prairie Town Home Quality Indicators. Prairie Town Home's Quality Indicator Data was the most complete among the three cases. The organization showed some clear trends after households for improvement in several measures. Furthermore, the facility often falls below the state for several indicators. The prevalence of behavior symptoms affecting others is less than the state average and shows a strong trend for diminishing after households. Notably, this reduction in behavior symptoms concurrently occurred with an increase in low cognitive impairment but a decrease in moderate to severe. One staff member attributed the household model to the change by stating the following:

> . . . . and part of that, I think that, not that it is decreasing, but we manage that differently. So, we don't call it severe dementia anymore. We just don't see people in the very end stages of dementia like we use to when they are in a vegetative state-- Not responding to their environment-that what I consider late dementia. . . . We see even with severe dementia people do pretty well in the Households until that last point and they have dropped off very quickly. And, part of this managing the environment is just a better environment for people with dementia, so we don't' see what is typical been seen as the symptoms of the significant behavior issues. All of that stuff, we don't' see as much of as we did. And, part of that is the environment and the impact of the environment, and allowing people to have flexible schedules and eat when they want (personal communication, 2012).

Other encouraging mental outcomes include a reduction in the use of psychotic medications, and a reduction in antianxiety or hypnotic use, as well as a smaller portion of residents who become anxious or depressed. Physical health indicators have mixed results. There is an increase in the decline of the range of motion, but a decline in little or no activity.

Documentation issues may have impacted some of these findings. One member of the administrative staff stated the following:

> This one is little or no activity. This blip here. [Quality Indicator Decrease] Is that was when we were just starting to train the household coordinators how to document and they did not realize the nuances of the documentation in the MDS. So, it was a documentation blip, than an actual practice blip. And then since then, we don't see. It is rare that we don't have a resident that can't be active in some way. Even if they can't be out bed much or in the chair, the staff do activities and those activities count . . . .(personal communication, 2012).

Falls have a parallel trend before and after households, but remain above state and national averages. Smaller household sizes that promote walking without assistance may impact the prevalence of falls versus environments that promote total dependence on staff members. One staff member suggested when residents are more active or "feeling better," exposure to falls may increase. Quality indicators show a decline in high weight loss, which is a positive trend that may reflect the impact of the household kitchens and the quality of meals. There is an increase in urinary tract infection and slight increase in high risk pressure ulcers. Per one staff member these ulcers tend to be small and the residents often arrive with them in place. The prevalence of nine or more medications remains around the state average. According to one staff member, the physicians feel the number of medications the residents are taking are reasonable for their health conditions. One administrative staff disagreed with the nine medications as a target and felt the number was "arbitrary" and "never ever substantiated."

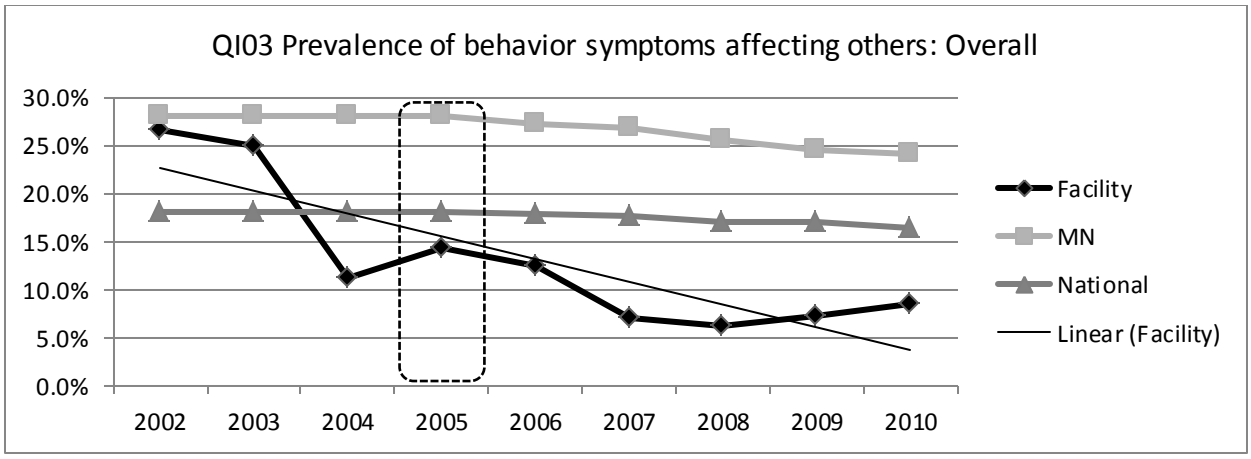


Figure 34. Prairie Town Home - QI Behavior Symptoms

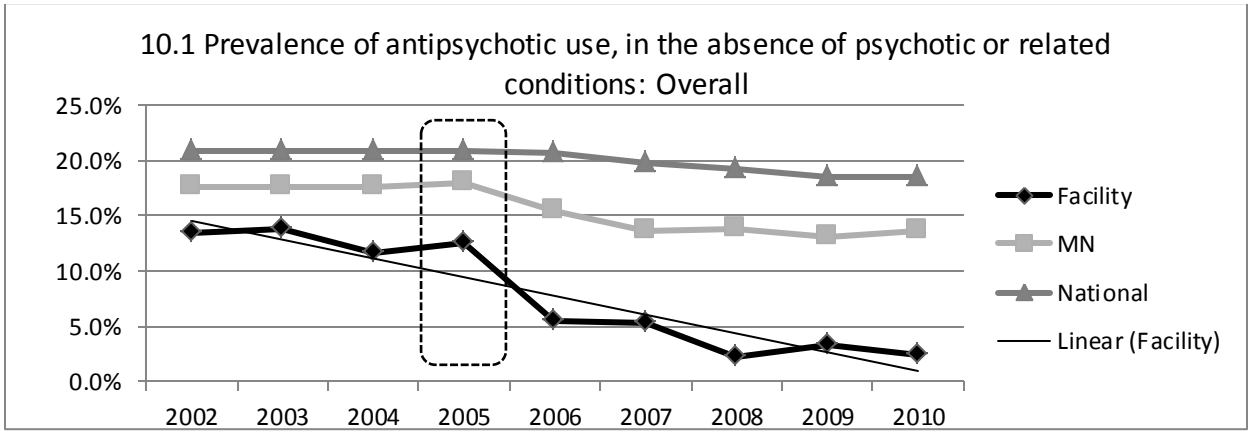


Figure 35. Prairie Town Home QI - Antipsychotic Use

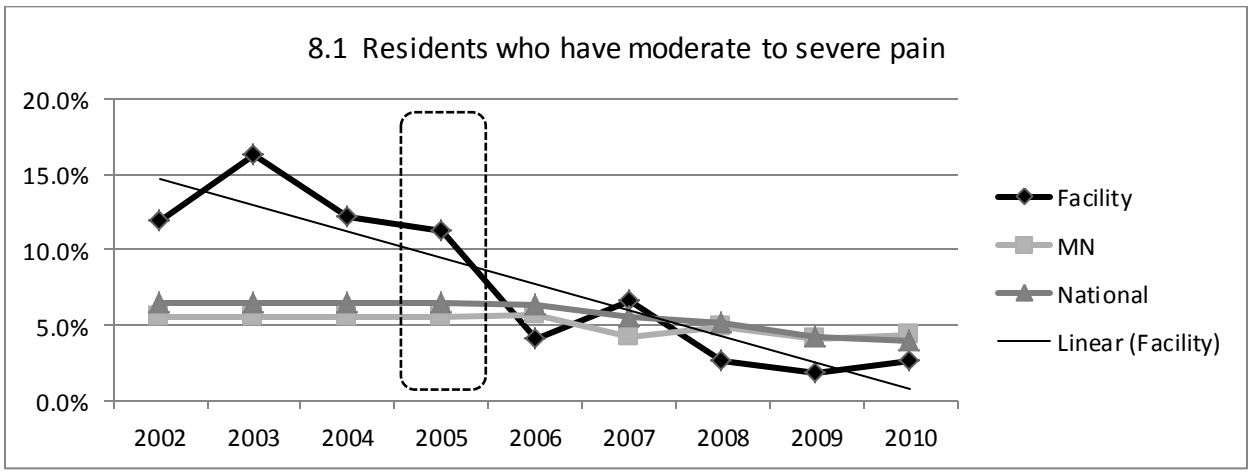


Figure 36. Prairie Town Home QI - Moderate to Severe Pain

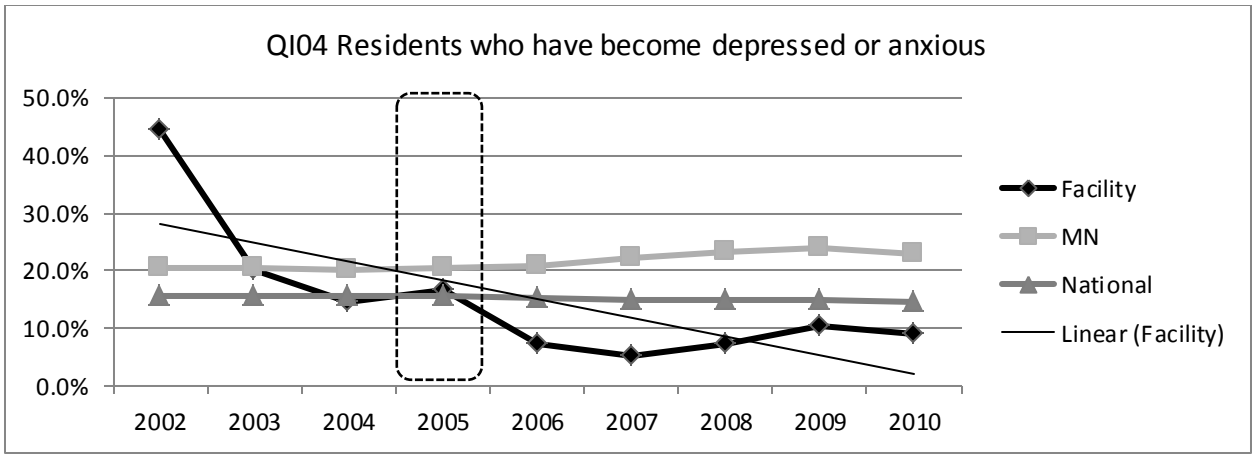


Figure 37. Prairie Town Home QI - Depression or Anxiety

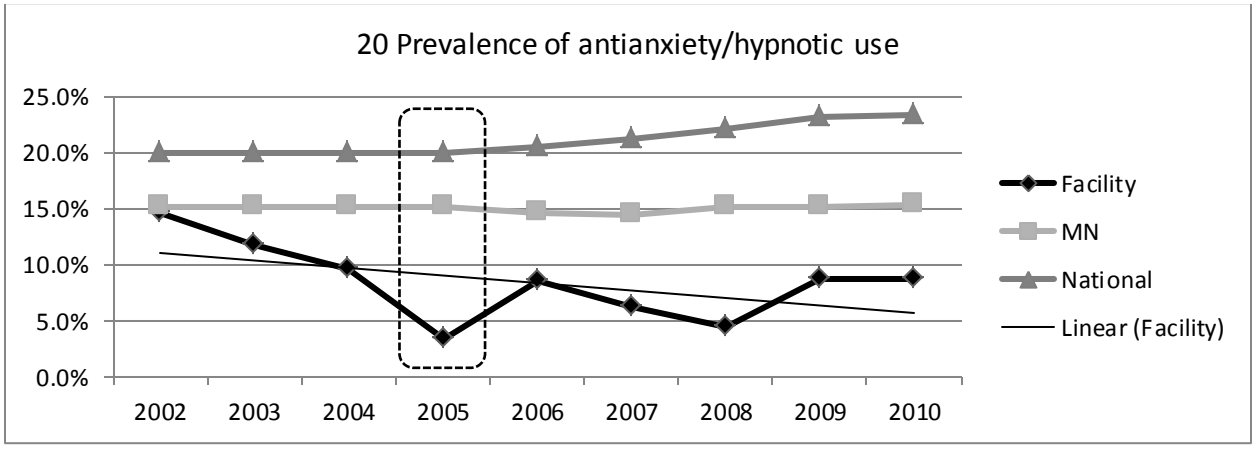


Figure 38. Prairie Town Home QI - Antianxiety/Hypnotic Use

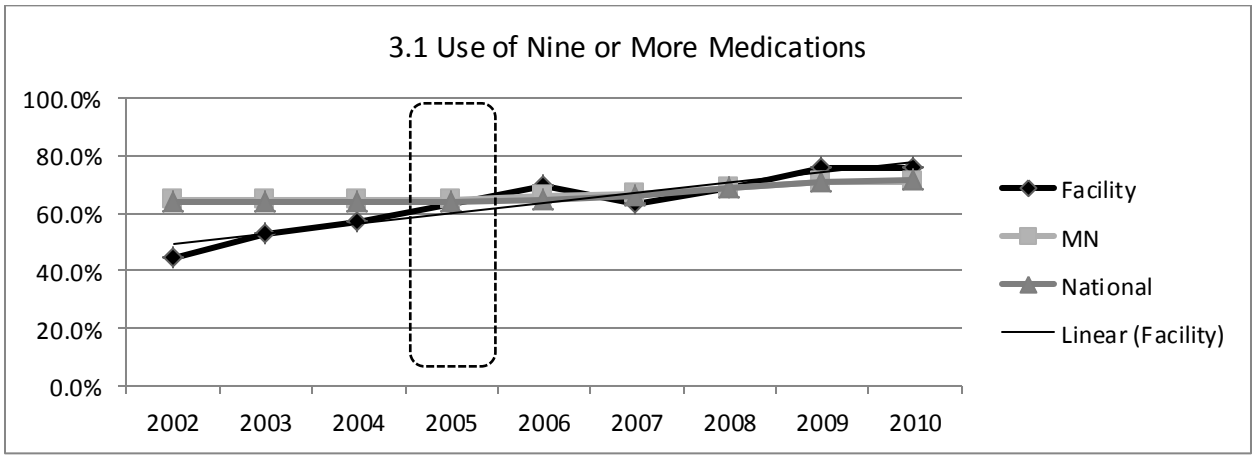


Figure 39. Prairie Town Home QI – Nine or More Medications

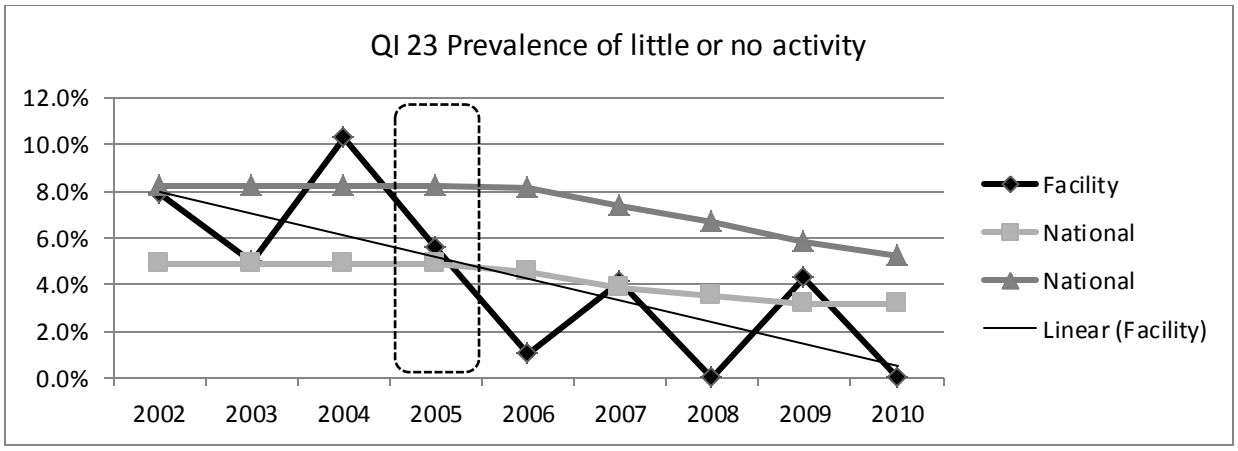


Figure 40. Prairie Town Home QI - Little or No Activity

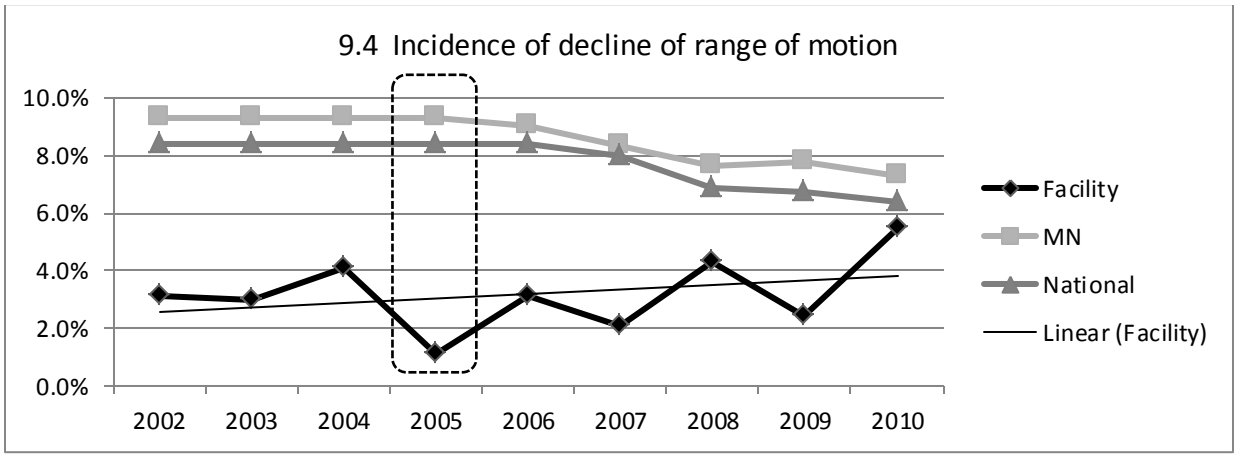


Figure 41. Prairie Town Home QI - Decline in Range of Motion

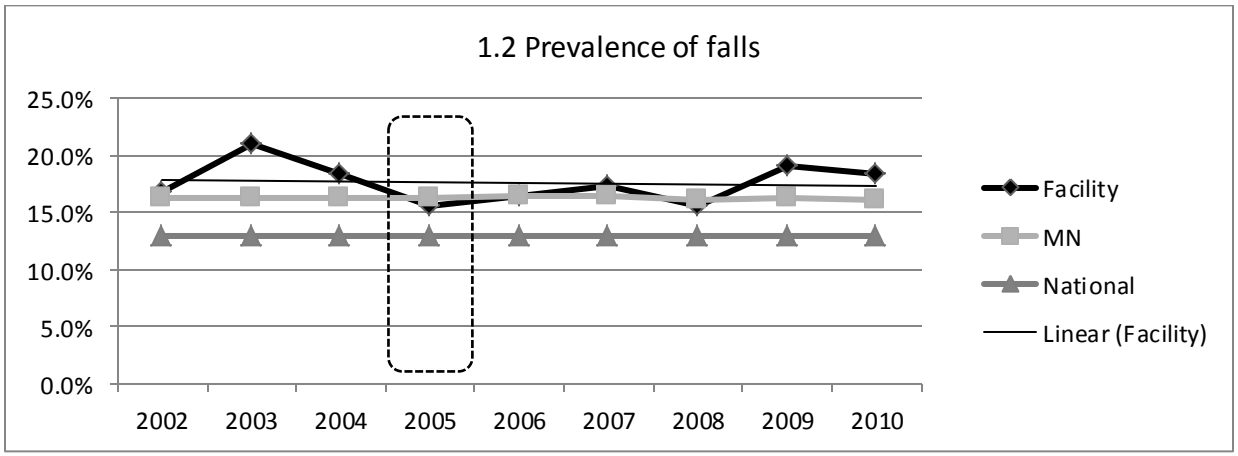


Figure 42. Prairie Town Home QI - Falls

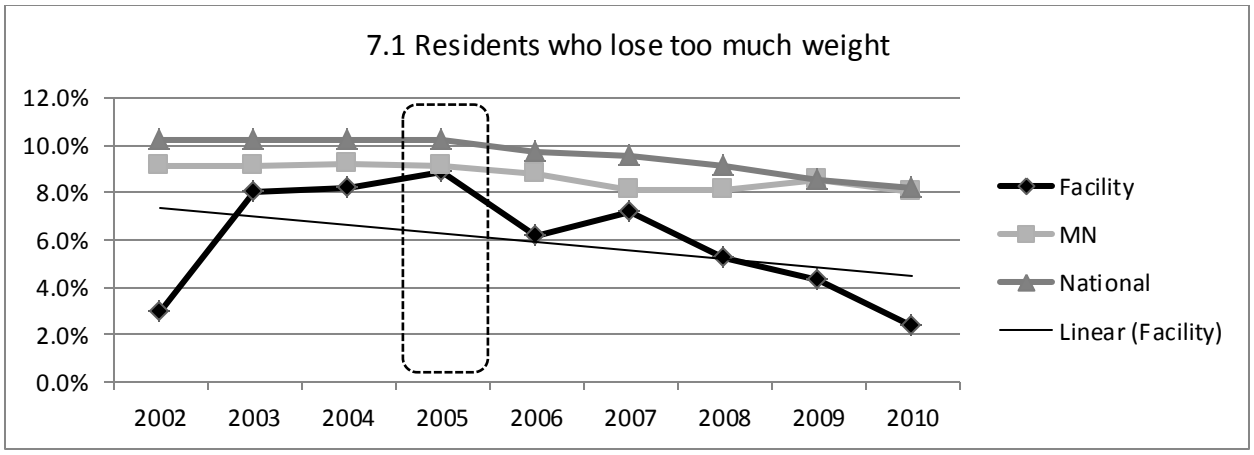


Figure 43. Prairie Town Home QI - Weight Loss

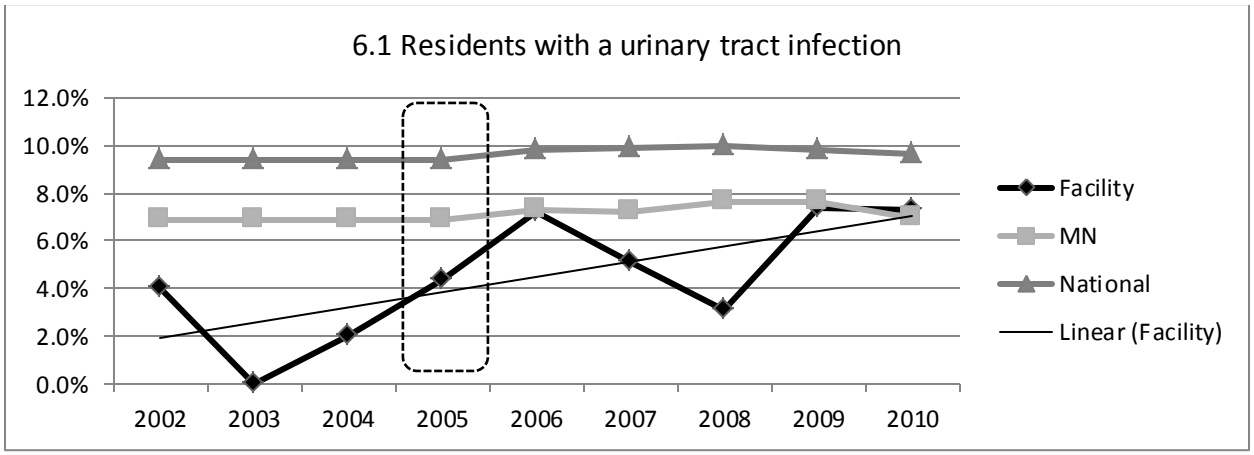


Figure 44. Prairie Town Home - Urinary Tract Infection

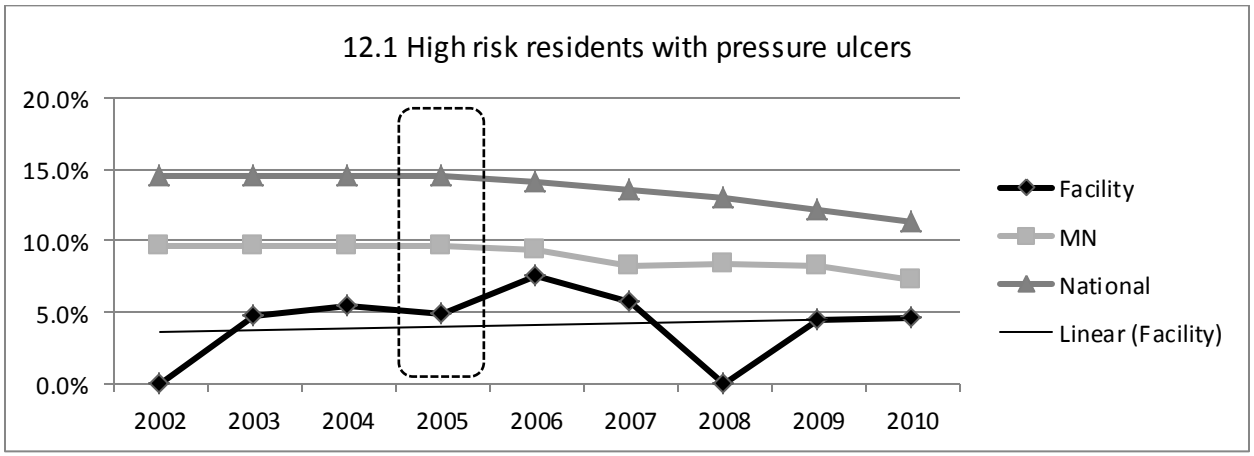


Figure 45. Prairie Town Home - High Risk Pressure Ulcers

Franklin Village Quality Indicators At the time of the site visit, Franklin Village was unable to access their quality indicator data historically; therefore, all quality indicators presented were obtained from public sources. Some quality indicators are not available from public sources and substitutions were used, which are noted. In comparison to before households, Franklin Village had only one quality measure with a positive trend after households. Urinary tract infections are declining; however, this measure is still above the state average after households. Several measures are also showing positive reductions below the state average during the last available year for 2010. For example, this is being seen in residents who have moderate to severe pain, high risk pressure ulcers and long stay residents' mobility in the room. The data for residents who lose too much weight is trending below the state average after households and in 2010 was below the facilities average before households.

Some quality indicators are above the state average during the last year available (2010), such as the prevalence of Anti-Psychotics and the Use of Anti-Depressants. One staff member felt the household model would have little impact on these drugs by stating:

> I don't think the Household model would affect that too much we do see a lot of people who come in on a lot of drugs. . . . No--I think it changed with the population. I really -- think people are taking those drugs more and doctors are prescribing to be very honest (Personal Communicatin,2012).

The indicator for residents who have become depressed or anxious is slightly above the state average. The measurement of long stay residents who spend more time in a bed or chair was showing a downward trend below the state after households, but increased during 2010. Falls were below the state average before households, but are not above the state average after households. This may indicate the general trend of enhanced fall exposure due to the smaller

households, which encourage movement instead of staff reliance. One staff member stated that encouraging movement was their philosophy:

> Certainly, when I talk to family members, I tell them---I never can guarantee that your loved one won't fall. I say that's, just something that happens. We want to keep people as functional as possible for as long as possible. And, that means they have to do some ambulation (personal communication, 2012).

One staff member felt some high numbers for falls relate to the resident's condition and not the household environment by stating the following:

> We have falls --- sometimes we have really good months and sometimes we have really bad months. We don't use alarms either. We took those away two years ago in September. And we use a couple of motion sensors and that's it--- two merry walkers you have noticed. So those are the two restraints. I don't think we are exceptionally high for falls. Occasionally we get a resident---usually what happens is we have one or two residents that are frequent fallers that inflate your numbers. . . . we consider (merry walkers) a restraint. As far as for these ladies, they both allow them a lot of mobility. They are taken out of the merry walker at times and they have to be released. And, someone will walk with them, but it does keep them really independent. We would have a lot of falls with those two residents without that (personal communication, 2012).

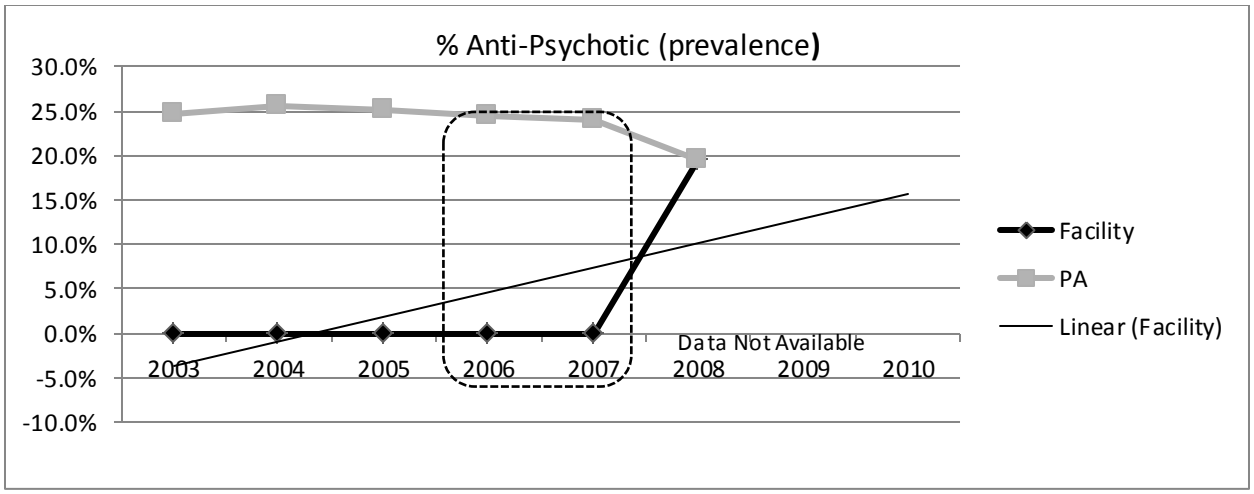


Figure 46. Franklin Village - Anti-Psychotic Use

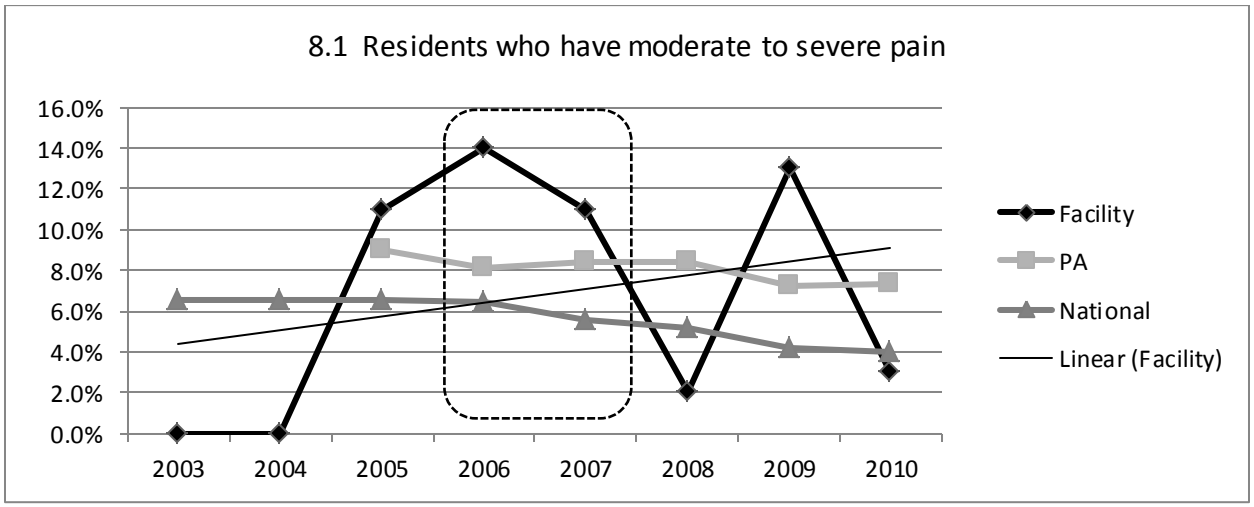


Figure 47. Franklin Village QI - Moderate to Severe Pain

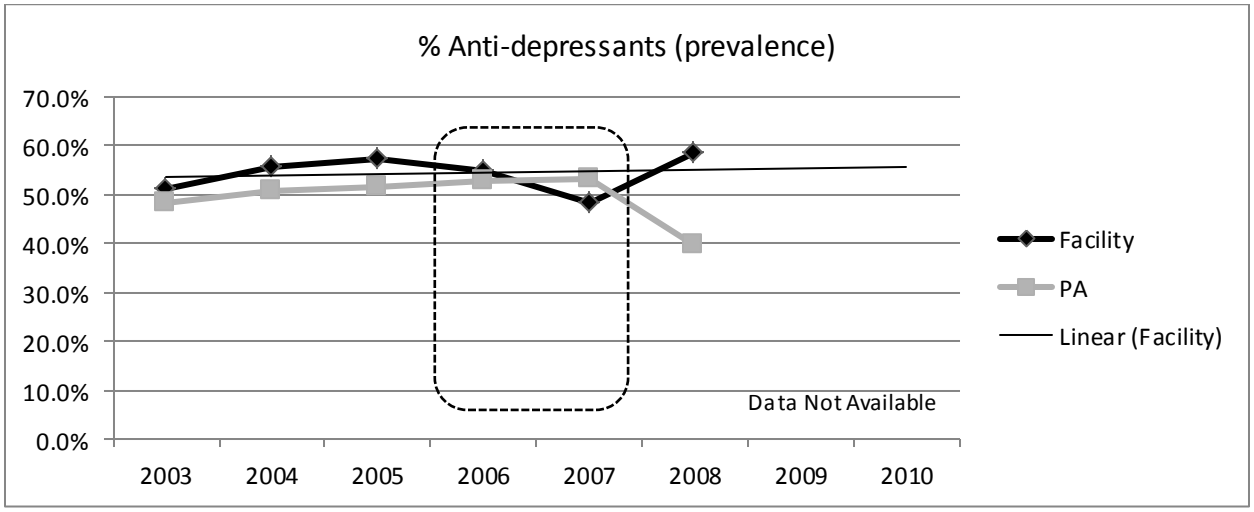


Figure 48. Franklin Village - Anti-Depressant Use

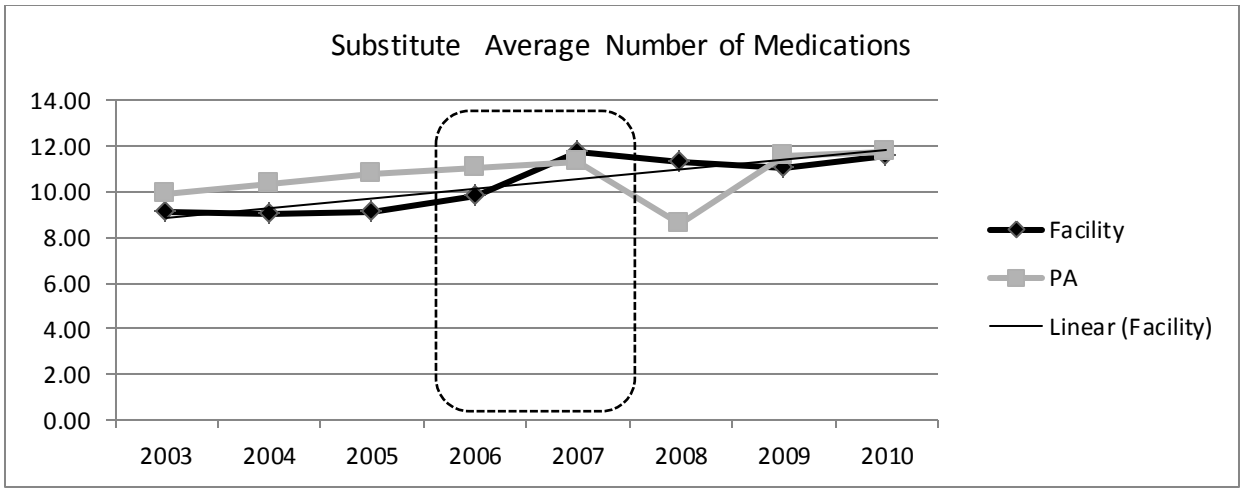


Figure 49. Franklin Village - Average Number of Medications

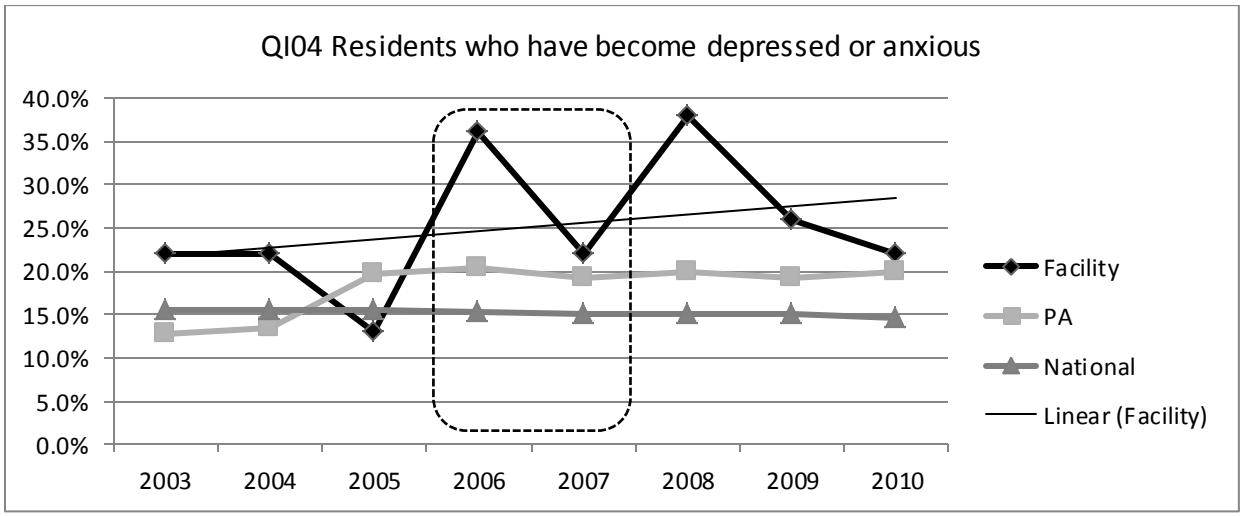


Figure 50. Franklin Village QI - Depression or Anxiety

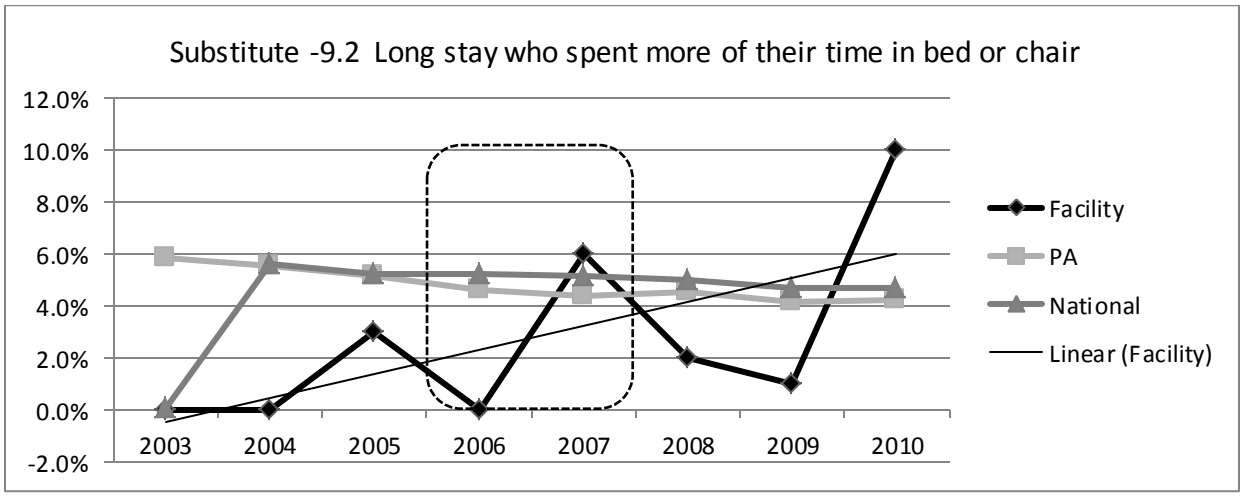


Figure 51. Franklin Village QI - Long Stay Who Spend Time in Bed or Chair

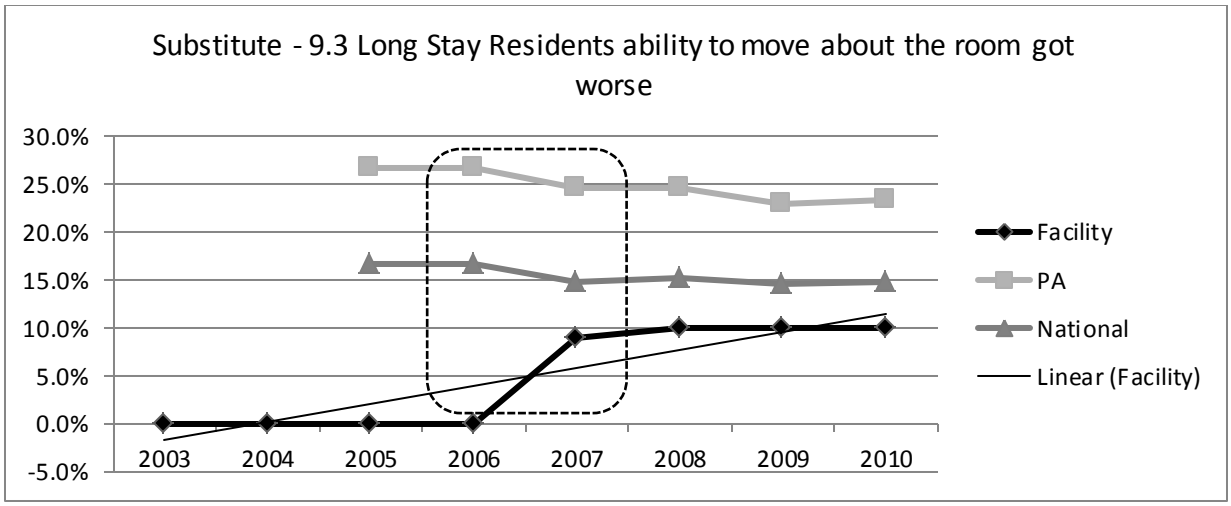


Figure 52. Franklin Village QI - Long Stay Ability to Move about Room Declines

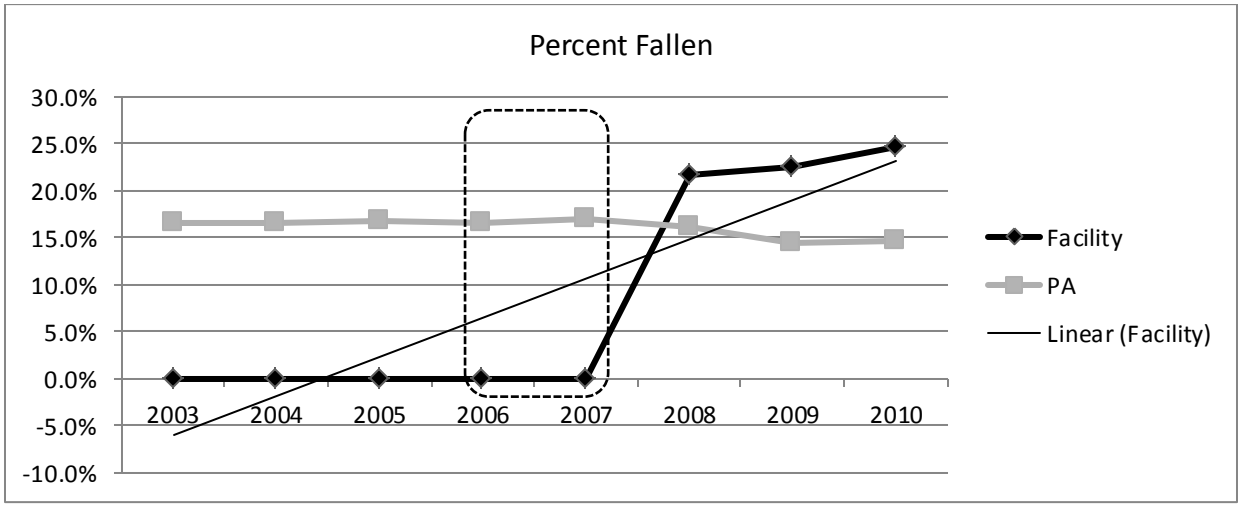


Figure 53. Franklin Village Percent Fallen

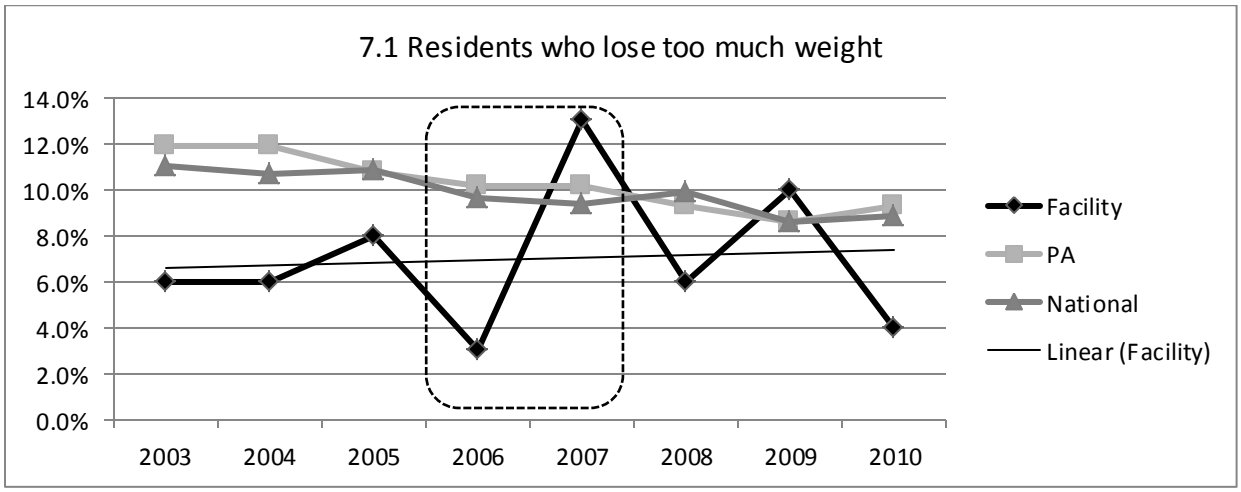


Figure 54. Franklin Village QI Weight Loss

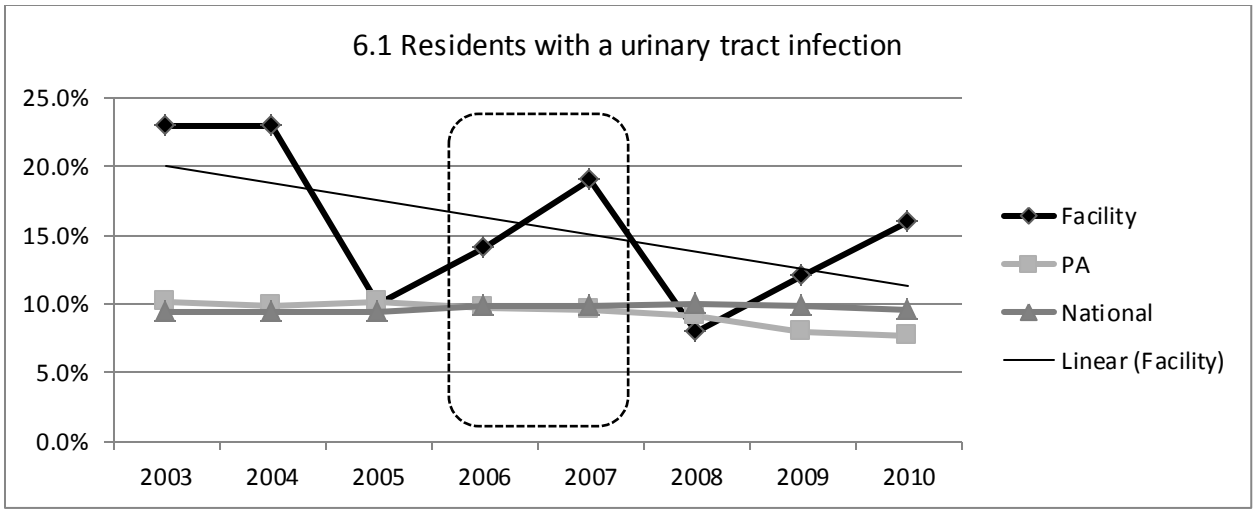


Figure 55. Franklin Village QI Urinary Tract Infection

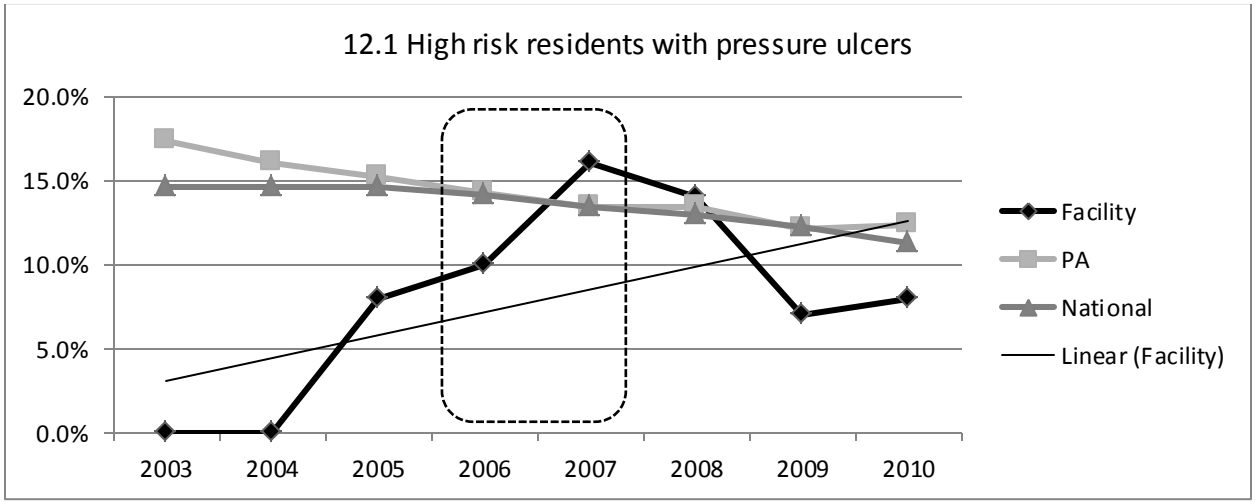


Figure 56. Franklin Village QI - High Risk Pressure Ulcers

Five Sisters Quality Indicators. Five Sisters Home was able to retrieve some quality indicator data from 2006 to 2010, which is the first full year after the households opened. Publically reported data was used to supplement these findings. Trends in the data demonstrate a positive decline for several quality indicators related to the mental health of residents after households. For example, there is a decrease in behavior symptoms impacting others, use of psychotics, a reduction in depression and anxiety. One staff member indicated the households were a more appropriate environment for people with dementia by stating:

> I do think overall the acuity has increased; however, this environment manages that acuity better so you don't see it as pronounced as you would in other areas. For example behaviors, I think, are modified greatly by the environment so were, as we used to see, behaviors of people hollering," I won't to go home." or "help, help, help." Those things have improved, but that is the environment improving it versus medication or people not having those issues anymore. I truly believe that if you put people in a normal environment the behaviors become more normal and I think people act out to the situation they are in (personal communication, 2012).

However, household relationships may encourage the forgiveness of a behavior, which does not get recorded as indicated by the following statement:

> Like behaviors -- because a lot of our behaviors are not as pronounced. A lot of times we don't notice them. You know what I mean, but they really are a behavior. And or we know our residents and we care so much about them that we don't ---we excuse the behavior. 'Oh, that's just Gerald or just Sally and we love her.' But, it is still a behavior. 'Bless her heart' (personal communication, 2012).

However, the use of depression and antianxiety drugs did increase in the last year. A staff member felt the change in these numbers relates more to a trend to turn to prescriptions by stating:

> We certainly have the awareness because all of the QI and the initiatives to reduce depression medications by everyone but the doctors. I think part of what has happened to the older population is they go to the doctor and they are put on their anti-depressant drugs as a first response to anything. . . . the first thing they want to do is put you on an anti-depressant that is a normal life event that years ago we would not have put somebody on an antidepressant for --just immediately. We would have seen how they were able to cope. I just think it became an easy answer. CMS's response to that is to draw this attention to depression, so we can stop paying for this medication and there is definitely an increased awareness, and we are being required to bring more attention to it. But, I don't think --I think more than depression what plagues the people who live in nursing homes is helplessness and boredom (personal communication, 2012).

The above statement also demonstrates that quality indicators for boredom or helplessness may be a better indicator than just measuring depression alone. The physical health of residents is also improving for a decline in a range of motion, which is below the state average. The Prevalence of Little or No Activity average is increasingly slightly with the facility average located below the state average. The facility is below the state average for nine medications or more. Staff believe the positive results can be attributed to the household model as indicated by the following statement:

> I don't think you see the intervention going straight to medication versus other modifications or interventions before medication. So I think when people come here they are deceived into thinking that our residents are not as sick as the residents in

> other nursing home. But, I think it is a combination of the environment, the care, and how engaged they are in life that keeps them more independent and more healthy longer--Even though they are coming in more acute than say ten years ago (personal communication, 2012).

The data for residents who lose too much weight is demonstrating a downward trend that is falling below the state. However, this is a measure of an extreme negative trend and findings might be different if weight gain was a quality indicator. One staff member felt the households have made a difference in weight loss by stating:

> We've seen improvement in things like weight loss. Again you are in an environment where food is hot and fresh and smells and sights and sounds that are stimulating appetite. People are more engaged in eating, so they eat better for example. Were somebody might have finished 20 percent of their meal, they are more likely to finish 80 percent of their meal, so weight loss has improved. In this environment, you don't see the need for things like tube feedings. You don't see the skin breakdown that you see in some long term care facilities (personal communication, 2012).

The facility average for falls shows a trend for decreasing after a high peak during household construction. However, this number is still located above the state average.

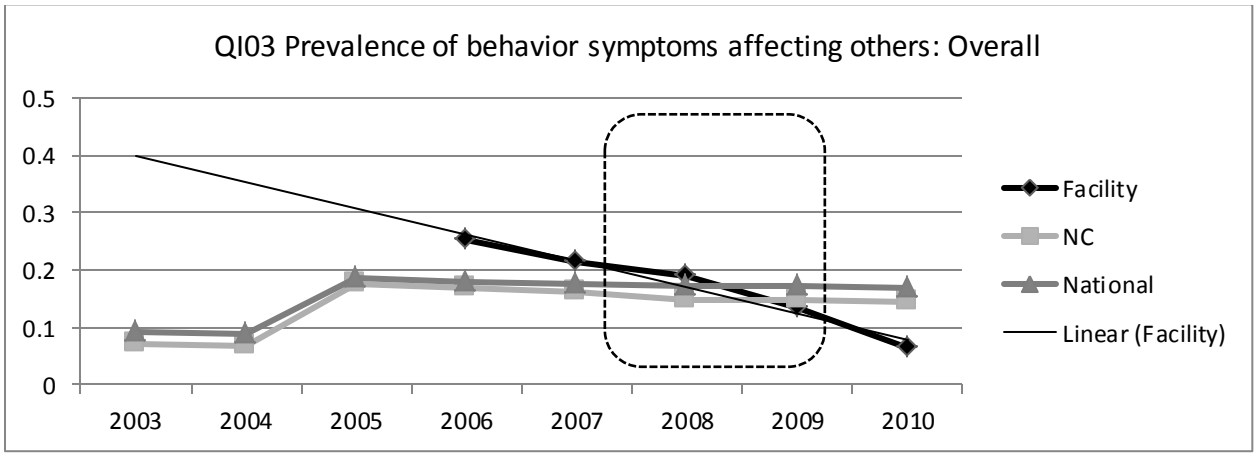


Figure 57. Five Sisters Home QI - Behavior Symptoms

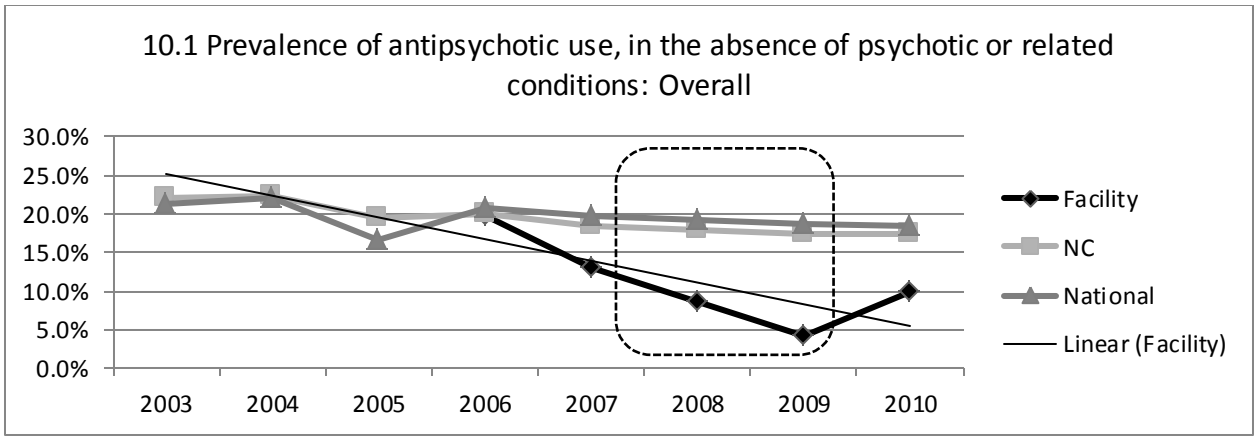


Figure 58. Five Sisters Home QI - Antipsychotic Use

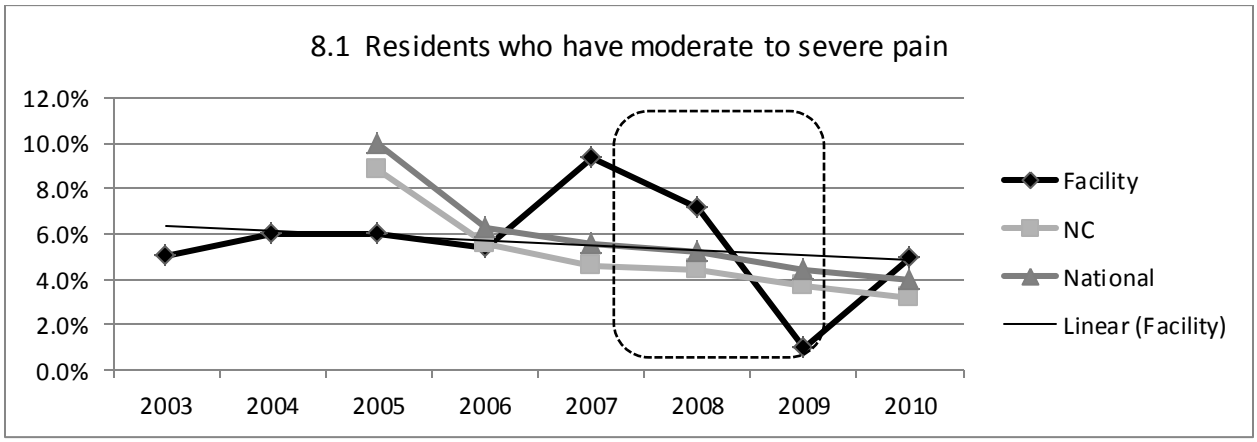


Figure 59. Five Sisters Home QI - Moderate to Severe Pain

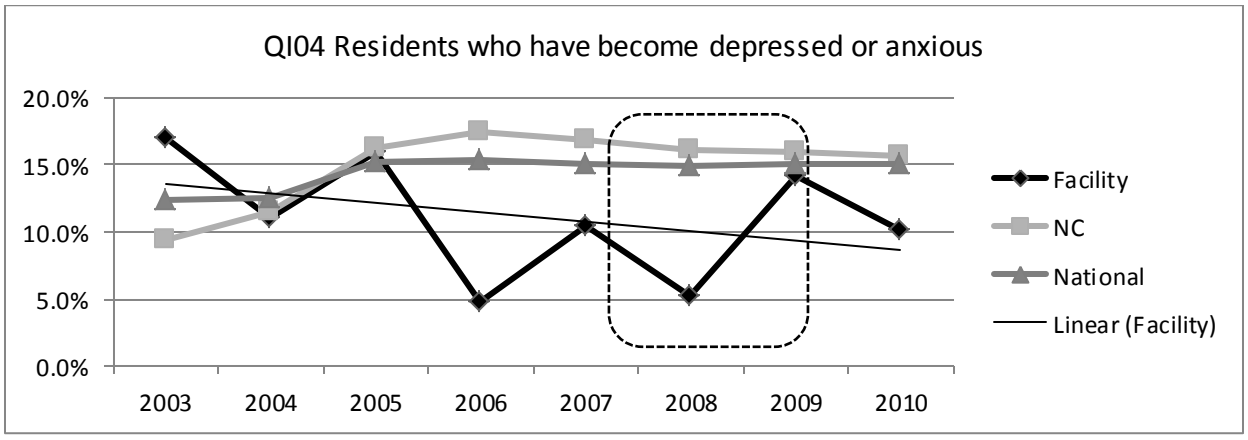


Figure 60. Five Sisters Home QI - Depression or Anxiety

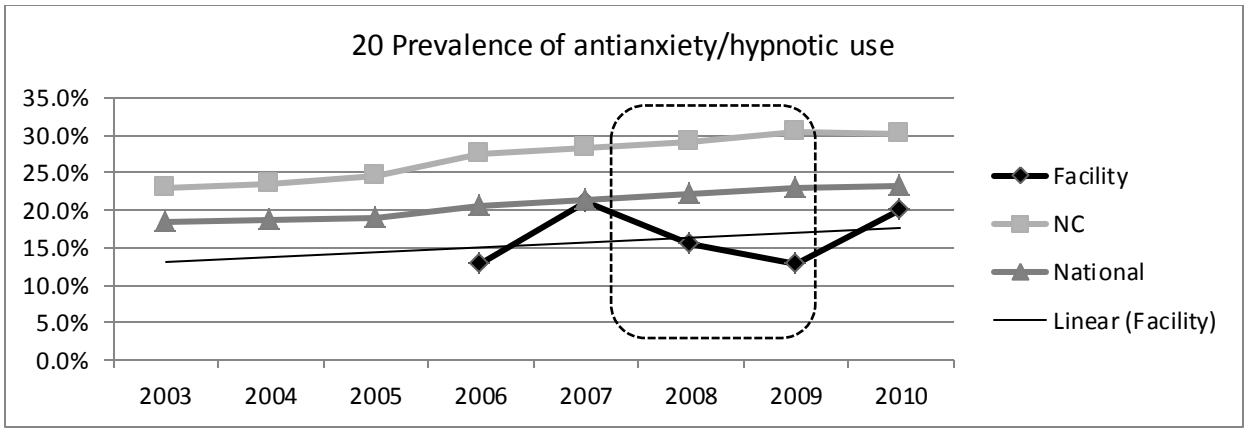


Figure 61. Five Sisters Home QI - Antianxiety/Hypnotic Use

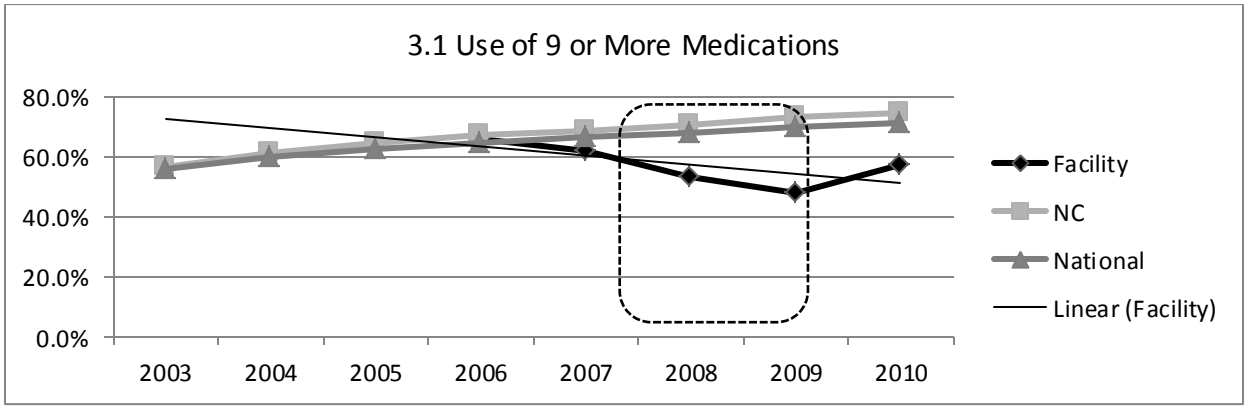


Figure 62. Five Sisters Home QI - Nine or More Medications

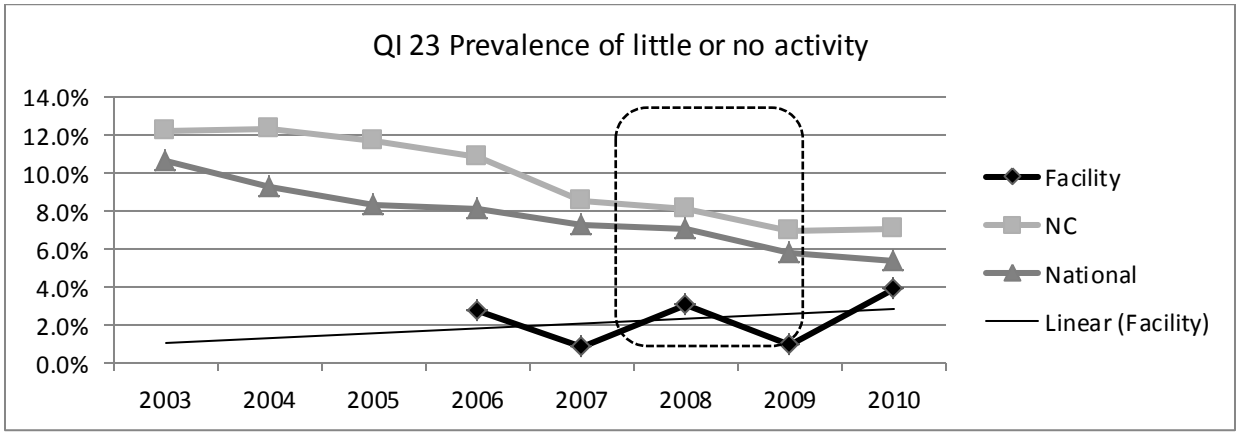


Figure 63. Five Sisters Home QI - Little or No Activity

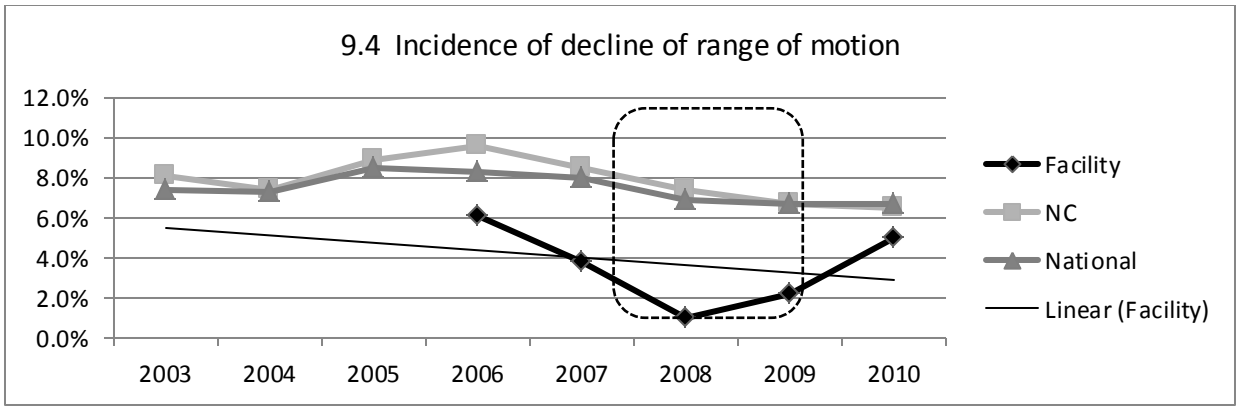


Figure 64. Five Sisters Home QI - Decline in Range of Motion

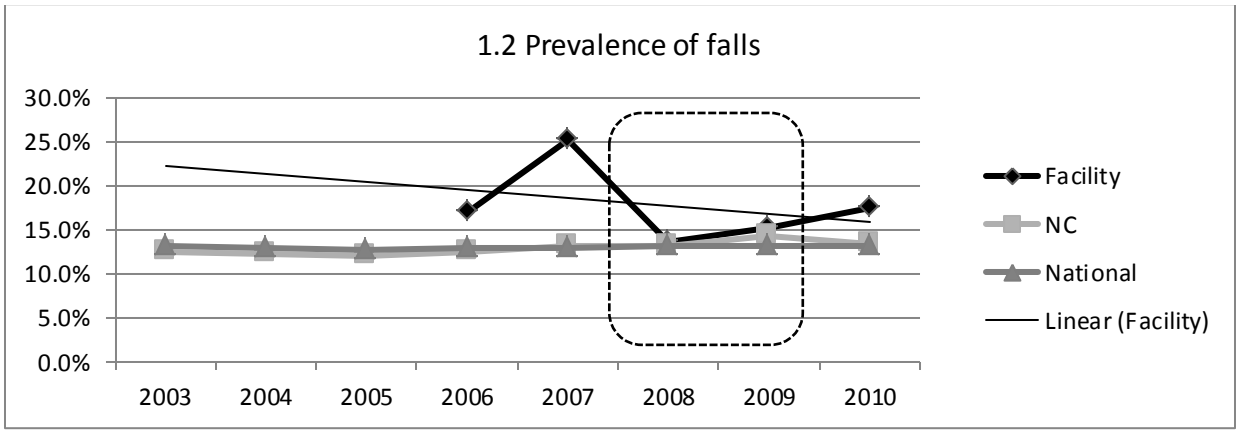


Figure 65. Five Sisters Home QI - Falls

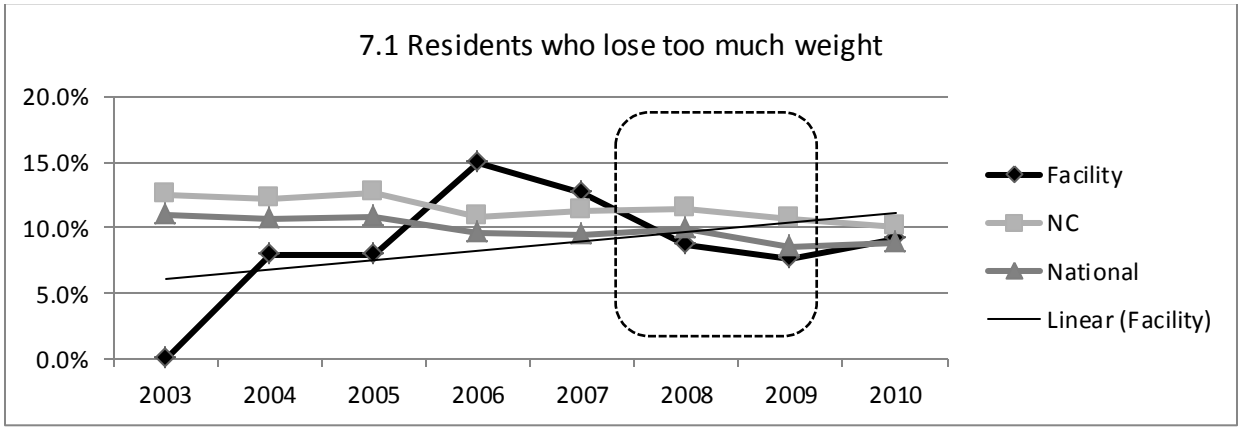


Figure 66. Five Sisters QI - Weight Loss

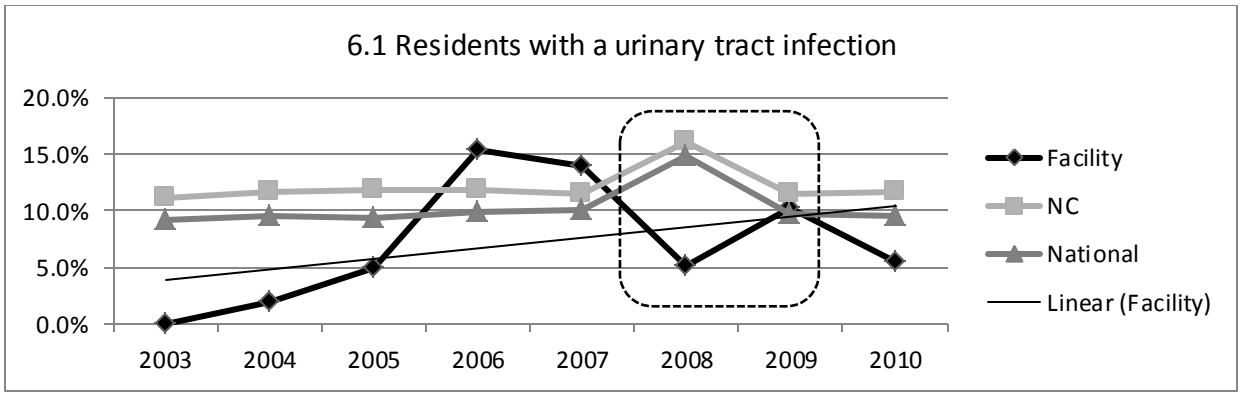


Figure 67. Five Sisters QI - Urinary Tract Infection

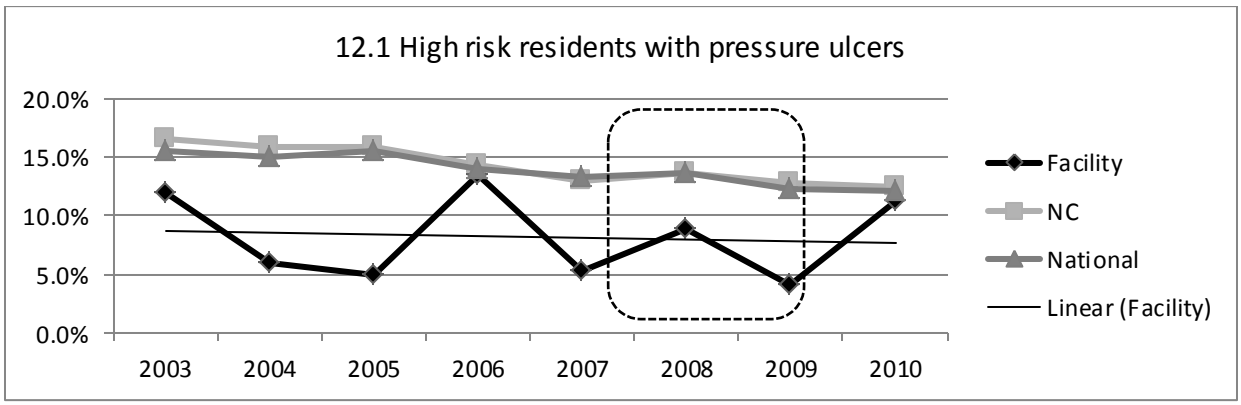


Figure 68. Five Sisters QI - High Risk Pressure Ulcers

Table 32 summarizes key trends in the resident quality indicators data for the three cases. The first arrows indicate the general direction of the average for each indicator before and after households, with a downward arrow reflecting a positive change, an upward arrow reflecting a negative change, and a sidewise arrow demonstrating no change. The other arrow indicator is a comparison of the state average with the facility average for the final year available. Indicators below or at the state average demonstrate a positive trend. Stars indicate the magnitude of change or difference for both measures. More stars indicate a greater difference between the findings. While the available data cannot be statistically correlated with the adoption of the household model, the results reveal some positive trends.

The greatest changes in quality indicators for two of the three cases were in areas related to mental well-being or cognitive improvements. Both Prairie Town and Five Sister's Home saw a substantial decline in behaviors affecting others and have averages well below the state after households. There are other quality indicators that reflect a positive change in the residents' well-being or mental health that compliment these findings. For example, the use of antipsychotics that are used to treat behavioral symptoms decreased. There were also reductions in the number of residents who became anxious or depressed. Additionally, antianxiety or hypnotic drug use was slightly below the state averages in both cases, but only Prairie Town Home demonstrated a diminishing trend. Physiological quality indicators had some positive trends, but with less magnitude. For example, declines in range of motion and prevalence of little or no activity were often below state averages, but averages within the facility did always decrease after households. The prevalence of falls increased in the cases except for Five Sisters, and the facility averages were above the state averages for all three

cases. As stated previously, this trend may be attributed to households encouraging more independent ambulation. Surprisingly, residents with too much weight loss increased at two of the cases after households; however all three cases were below or at the state average. With the household model's emphasis on normal food and choices, a greater impact would have been expected but was not realized. However, it is also possible that the care practices of the three cases avoided weight loss before households, but now weight loss is managed differently. Some quality indicators also indicate good care practices such as all three cases being below the state average for the presence of pressure ulcers in high-risk residents.

Compared to Franklin Village, Prairie Town Home and Five Sisters demonstrated greater changes in quality indicators before and after households. Seven of the 12 Quality Indicators at Prairie Town Home reflected a trend in reduction and nine of 12 were below state averages. Five Sisters also had seven of the 12 indicators that demonstrated a trend in reduction and nine of the 12 indicators falling below the state average. Of the quality indicators available for Franklin Village, only one (urinary tract infections) decreased after households. However, five of the 11 quality indicators available fell below the state average for Franklin Village.

Quality Indicators Measurement Issues. There are limitations to drawing conclusions from the quality indicators since there are multiple sources for the data with different sampling timeframes. With the exception of Prairie Town Home which pulled the data from its own MDS averages, the other two cases required assembled sources to generate comparative data from public sources. Public sources of quality indicators are limited to a select set of measures and were only released until the year 2010. Efforts were made to match the second quarter time frame when choices were available. No tests of statistical significance could be run since only

the averages were available in a public source. The trends revealed in the analysis could have very different results if actual MDS data scores could be accessed or if a different time period was sampled. These numbers reflect averages before and after household and the population is different for each of these time periods.

Table 32

Summary of Quality Indicator Trends for the Three Cases

	Prairie Town Home	Franklin Village	Five Sisters Home
03 Prevalence of Behavior Symptoms Affecting Others			
Pre-Post Household Trend	↘ ★★★★	NA	↘ ★★★★★★
Post Household Compared to State	↓ ★★★★	NA	↓ ★★
10.1 Prevalence of Antipsychotic Use in Absence of Cond.[1]			
Pre-Post Household Trend	↘ ★★★	↗	↘ ★★★★
Post Household Compared to State	↓ ★★★	→	↓ ★★
8.1 Residents with Moderate Severe Pain			
Pre-Post Household Trend	↘ ★★★	↗	↘ ★
Post Household Compared to State	↓ ★	↓ ★	↑
04 Residents who have become Depressed or Anxious			
Pre-Post Household Trend	↘ ★★★★★	↗	↘ ★
Post Household Compared to State	↓ ★★★	→	↓ ★
20 Prevalence of Antianxiety/Hypnotic Use[2]			
Pre-Post Household Trend	↘ ★	↗	↗
Post Household Compared to State	↓ ★	↓	↓ ★★
3.1 Use of Nine or More Medications[3]			
Pre-Post Household Trend	↗	↗	↘ ★★★★
Post Household Compared to State	↑	→	↓ ★★★★
23 Prevalence of Little or No Activity[4]			
Pre-Post Household Trend	↘ ★★	↗	↗
Post Household Compared to State	↓ ★	↑	↓ ★
9.4 Decline in Range of Motion[5]			
Pre-Post Household Trend	↗	↗	↘ ★
Post Household Compared to State	↓ ★	↓ ★★★	↓ ★
1.2 Prevalence of Falls			
Pre-Post Household Trend	→	↗	↘ ★
Post Household Compared to State	↑ ★★	↑	↑
7.1 Residents with too much Weight Loss			
Pre-Post Household Trend	↘ ★	↗	↗
Post Household Compared to State	↓ ★★	↓ ★	→
6.1 Urinary Tract Infection			
Pre-Post Household Trend	↗	↘ ★★	↗
Post Household Compared to State	→	↑	↓ ★★
12.1 High Risk Residents with Pressure Ulcers			
Pre-Post Household Trend	↗	↗	↘ ★
Post Household Compared to State	↓ ★	↓ ★	↓ ★★

Table 32 - Continued

Note. Adapted from Quality Indicators Gathered during Site Visit, CMS Nursing Home Compare & Brown University LTC Focus. Pre-Post Household Trend Data reflects the slope of the linear trend. A positive trend reflects a downward slope. Stars reflect the magnitude of change. One star is awarded for every 5 percentage points reduced across the entire trend line slope. Post Household Compared to State reflects the relationship between the state's average measurement for the quality indicator and the facilities. A downwards arrow reflects the positive relationship of being below the state average. One star is awarded for every 5 percentage points below the state average. Indicators without stars reflect no change or a negative trend. Gray Arrows and stars indicate that a quality indicator was not available and a substitute measure was utilized—See below.

[1] Substitute measure used Percent of Anti-Psychotic Drugs (Prevalence) for 2003-2010

[2] Substitute measure used Percent of Anti-Depressants (Prevalence) for 2003-2010

[3] Substitute measure used Average Number of Medications for 2003-2010

[4] Substitute measure used Long stay residents who spent more time in bed or chair for2003-2010

[5] Substitute measure use Long stay Residents ability to more around the room got worse for 2003-2010

Resident Re-Hospitalization

Nursing homes are increasingly caring for a transient population with an estimated of 30% of the residents being admitted for the first time for an extended stay (Mor et al., 2007). One measure of quality of care directly related to the residents is re-hospitalization rates in which nursing home residents return to the hospital. Re-hospitalization of elderly residents can have negative emotional outcomes and increase exposure to iatrogenic episodes such as medical errors (Mor, Intrator, Feng, & Grabowski, 2010). Policy makers are increasingly concerned with re-hospitalizations that occur from nursing homes. Short-term residents, who are in the nursing home for rehabilitation, that bounce back to the hospital are considered an indicator of possible issues with the hospital. Whereas, short-term nursing home residents who return back to the hospital after 30 days are considered an indicator of possible issues with the

nursing home care versus the hospital (Mor et al., 2010). Long-term residents, who bounce back to the hospital from the nursing home, have been attributed to nursing homes shifting care costs from Medicaid to Medicare (Mor et al., 2010). Some re-hospitalization is unavoidable. However, a study conducted by Mor et al (2010) found variation in the rates may depend upon the common practices of the region and identified a significant correlation between re-hospitalization and the number of physician's visits during the hospital stay.

Mor et al (2010) argues that re-hospitalization has regional trends; therefore, 30 day hospitalization rates were collected for the facility and the county for this exploratory study. These rates were gathered before and after culture change from the Brown LTC Focus website for the years 2000 to 2010 (LTCFocus, n.d.). To protect resident identity, facility data with extremely low percentages for re-hospitalization is not disclosed in the data set and is assumed to be less than one percent. Table 33 summarizes the findings of re-hospitalization for the three cases. Among the three cases, Prairie Town Home has the lowest re-hospitalization rate and Five Sisters has the highest. Notably, Prairie Town Home is also a hospital attached nursing home which may have impacted the results. Until recently, the hospital was directly linked to the nursing home, and provided more flexibility for addressing resident health concerns. Furthermore, Prairie Town Home also operates a short-term rehabilitation household, which may increase the exposure to possible re-hospitalization, but the data did not reflect this trend. Notably, Prairie Town Home also indicated they received awards for having reduced re-hospitalization rates. Franklin Village also has low re-hospitalization rates, with only three years out of the nine available being above one percent. Two of the three years reflected percentages above the county average percentage. Franklin Village also participated in a study

of re-hospitalization among eight similar care communities. From November 2011 to January 2012, no readmissions occurred in the nursing home. Five Sisters had higher re-hospitalization rates overall with only three years out of the ten being less than one percent. Four out of the ten years reported also fell above the average rate for the county.

Table 33

Comparison of 30 Day Re-Hospitalization

	Prairie Town Home		Franklin Village		Five Sisters Home	
Year	Facility	County	Facility	County	Facility	County
2000	<1%	NA		NA	<1%	NA
2001	<1%	09.75%		12.29%	<1%	12.28%
2002	<1%	10.50%	15.73%	12.15%	17.46%	14.77%
2003	<1%	09.90%	<1%	13.64%	11.46%	13.85%
2004	<1%	12.65%	<1%	13.27%	21.28%	14.16%
2005	<1%	10.21%	<1%	14.52%	15.85%	14.11%
2006	<1%	11.11%	<1%	13.58%	18.84%	14.93%
2007	<1%	11.49%	14.62%	13.60%	<1%	15.67%
2008	<1%	08.97%	11.20%	13.35%	15.58%	15.84%
2009	<1%	10.76%	<1%	13.32%	15.25%	19.60%
2010	<1%	13.21%	<1%	13.83%	15.58%	18.95%

Note. Proportion of patients admitted to SNF who were re-hospitalized directly from SNF within 30 days of hospital discharge. Adapted and Compiled from "Long Term Care, Facts on Care in the US (LTCFocus)," by Shaping Long Term Care in America Project at Brown University funded in part by the National Institute on Aging (1P01AG027296), Retrieved from http://ltcfocus.org/.

Comparing re-hospitalization rates before and after households for the three cases revealed no significant changes at Prairie Town Home or Franklin Village. However, Five Sisters, the largest nursing home, demonstrated a slight drop in re-hospitalization rates. This decrease also compared favorably with its county, which experienced an increase in re-hospitalization.

Five Sisters also operates one household as a short-term rehabilitation. After households an increase in exposure to possible re-hospitalization may have occurred, but this trend did not emerge in the data.

The data demonstrates that re-hospitalization did not change for two of the cases after households were created. Both Prairie Town Home and Franklin Village have always had low percentages overall. Five Sisters re-hospitalization percentages were often slightly above the average for the county before households, but sometimes fell below the average. After households opened, two years of data demonstrated a trend of less re-hospitalization compared to the county and a trend towards a reduction in percentages. However, these percentages are not as low as the other two cases.

Resident Satisfaction Survey Information

Resident satisfaction and wellbeing is an often cited outcome of culture change (e.g. A. S. Weiner & J. L. Ronch, 2003). During the site visit to each case, any resident satisfaction measures available before and after households were collected and analyzed (See Table 34). The following section first discusses the findings for each case for these collected resident satisfaction surveys. Interview data related to resident satisfaction is presented next. This qualitative data is followed by a comparison of the three cases for resident satisfaction along with a discussion of measurement issues.

Table 34

Resident Survey Information Availability

Survey Information	Prairie Town Home	Franklin Village	Five Sisters Home
Pre Household Survey	NA	2005 Holleran	2005, 2006 Warmth Survey
During Household Conversion Survey	NA	NA	2007 My-Innerview
Post Household Survey	2012 State Survey Summary	2009 Holleran	NA
Same Survey Instrument Used	NA	Yes	No
Benchmarking Available	Yes	Yes	No
Notes	Family survey issued in 2005 during HH conversion	Resident responses combined with family responses and not parsed	Non-Consistent Data Source

Prairie Town Home Resident Satisfaction. During the site visit, resident satisfaction survey information was not obtained for before and after household construction. Prairie Town Home utilizes the resident satisfaction ratings from the State of Minnesota who contracts with Vital Research to create nursing home report cards. The report card generates ratings in 14 categories with one of these being Resident Quality of Life. Resident Quality of Life surveys are based upon 15 to 20 minute interviews conducted with a sample of residents in each care setting (MNDHS, n.d.). Excluded from the sample are residents with severe dementia, which is based upon a score of six on the cognitive performance scale within the MDS (i.e. Scale of 1 to 6). Pre-household data is not available, as this survey process stated in 2006. Post household information is now published to a public website with detailed results only available for the current period, but summary information is available from 2012. Resident Quality of Life information is based upon scores in 12 key categories and is presented along with a state

average score as well as a ranking benchmark (See Table 35). Only aggregate scores are available on the website and the actual interview script is not published.

Table 35

Prairie Town Home Post Household Resident Satisfaction Rating 2013

Domain	Prairie Town Home	MN State	Facility Rank in State[1]
Satisfaction	88.50%	83.80%	17 of 374
Autonomy	88.90%	85.60%	22 of 374
Relationships	85.90%	82.20%	27 of 374
Environment	92.30%	88.70%	29 of 374
Individuality	86.60%	82.20%	29 of 374
Privacy	92.10%	89.30%	35 of 374
Overall Percent Positive	84.70%	82.30%	36 of 374
Food	89.80%	85.50%	57 of 374
Dignity	97.40%	96.30%	73 of 374
Comfort	83.00%	81.00%	95 of 374
Mood	73.30%	71.70%	123 of 374
Activity	70.70%	70.80%	190 of 374
Security	87.30%	87.90%	218 of 374

Note. Table sorted by facility rank [1] One is best ranking, Adapted from "Minnesota Nursing Home Report Card" by Minnesota Department of Health, Retrieved from http://nhreportcard.dhs.mn.gov/

Current post household resident interview data demonstrates several positive trends for the household model. Overall Prairie Town Home received a ranking of 84.7%, which is slightly above the state average of 82.3%. Furthermore, the nursing home ranked 36th out of a possible rank of 374. Notably, resident satisfaction was within the top 20th rankings for the state. The care community has high rankings for resident autonomy, relationships, the environment, individuality, and privacy. These dimensions indicate an overall positive trend for the household model. Not as highly ranked, but still slightly above the state average are food,

dignity, comfort and mood. The lower ranking of food is somewhat surprising for the household model; however, food service continues to be served from steam tables except for breakfast which has some cook to order options. Therefore, two main meals have a similar cooking and serving style that was present in the community before households. The lowest scores in activity and security fell below the state average. No possible explanation could be determined for security, which related to feeling safe and secure about personal belongings. Activity was the lowest ranking measure, but it is difficult to determine if the questions are written to skew the results away from a household model with a different type of focus. However, the explanation for the measure emphasized both organized and individual activities. No qualitative open-ended responses are indicated in the reporting that might provide further explanation for the scores. During interviews with key staff members at Prairie Town Home, the general perception conveyed was resident satisfaction levels were high. One staff leader summed up this perception in the following statement:

> If we would have looked at the market we would have stayed the same as we were because resident satisfaction, staff satisfaction, family satisfaction was all high. Like we said, we thought our quality of care was high. We had no reason to believe that what we were doing needed to be improved other than the fact that none of us wanted to live there (personal communication 2012).

Current resident information does indicate that Prairie Town Home continues to be highly ranked in the state. Yet, some categories are surprisingly lower given the focus of the household model (e.g. Food, Activity). However, the lack of pre-household data does not permit comparisons.

Franklin Village Resident Satisfaction. Resident satisfaction at Franklin Village is measured by a telephone survey that is conducted with both residents and family members by the independent consulting firm of Holleran. Family members are considered proxy sources for resident satisfaction; therefore, the data from family members and residents are combined in the summary results. The 44 question survey is arranged into six key categories with one being overall satisfaction (See Table 36). The majority of the questions use a five point Likert scale, but there are two open-ended questions, which request suggestions for areas of improvement and what is most appreciated about Franklin Village. Holleran telephone surveys are available for before and after households were constructed and these surveys are also benchmarked against other care communities that participate in the same surveys. A mean score is generated for each question to compare and rank the Likert ratings. This mean score is produced by multiplying the average for each question by 20 to generate a 100-point scale. In addition to the open-ended questions, participant comments are also recorded for each question.

Franklin Village conducted the Holleran survey approximately every two years and summary data was collected during the site visit for 2005 and 2009, which reflect a four year period between the households being started and approximately two years after the households were completed. Since the year 2005 was the start of culture change activities on campus, 2002 survey data was also utilized, which reflects the satisfaction ratings one year after the nursing home opened. This data was available in the 2005 summary report that compared the years 2002 and 2005.

Among Holleran survey participants, Franklin Village has often exceeded benchmark standards in the majority of categories, which reflects a high level of satisfaction. Before households were created in 2005, only two questions fell below the benchmark standard. These included opportunities for privacy and value for the money. Lack of privacy may be partially attributed to the building having mostly semi-private rooms and large common areas. After household were created in 2009, Franklin Village continued to reflect high satisfaction ratings above the benchmark. However, four items now fell below the benchmark, which included value for money, clarity of resident agreement, adequacy of resident orientation, and opportunities to engage in a variety of activities. Less satisfaction with activities was a surprising finding with the household model, but may reflect the lack of a town square area near the nursing home and the initial attempts to shift all activities to the household staff that reverted back over time. Conversely, high positive deviations from the benchmark included staff responsiveness, staff friendliness, meaningful relationships, building upkeep, common area appeal, and odor-free setting. These questions indicate a positive trend for the household environments.

Table 36

Franklin Village Pre and Post Household Resident/Family Satisfaction

	2002 Pre HH	2005 Pre HH	2009 Post HH	Diff 05-09	Diff 02-09
Response Rate	NA	75.6%	81.5%		
SATISFACTION					
Overall satisfaction with Franklin Village	87.4	91.0	89.4	-1.5	2.0
Value for price paid at Franklin Village	78.9	81.4	78.4	-3.1	-0.5
Franklin Village's fulfillment of its mission statement	NA	N/A	88.1	N/A	NA
ADMINISTRATION					
Clarity of Resident Agreement	84.7	91.0	83.7	-7.4	-1.0
Adequacy of new resident orientation	86.3	90.7	84.0	-6.7	-2.3
Explanation of financial responsibility	84.7	91.4	85.6	-5.8	0.9
Quality of community Business Office	72.9	90.0	88.8	-1.3	15.9
Accessibility of Administration	81.1	95.3	89.6	-5.7	8.5
MEDICAL/CLINICAL					
Collaboration regarding medical care	NA	N/A	86.4	N/A	NA
Accessibility of physicians	69.3	91.2	82.0	-9.2	12.7
Notification about changes in) medical condition	82.4	92.7	89.8	-2.9	7.4
Confidence in emergency response	81.1	92.7	86.5	-6.1	5.4
Quality of rehabilitation services	63.3	85.8	83.5	-2.4	20.2
Medication administration	81.1	92.9	90.4	-2.5	9.3
Friendliness/courtesy of Direct Care staff	91.6	94.2	95.8	1.7	4.2
Skill level of Direct Care staff	84.4	91.6	88.7	-2.9	4.3
Direct Care staff's responsiveness to personal daily needs	74.7	90.3	83.8	-6.5	9.1
INDIVIDUAL FULFILLMENT					
Right to make independent decisions	NA	90.5	88.2	-2.3	NA
Opportunity for privacy	84.4	86.0	87.5	1.5	3.1
Staff's commitment to encouraging the functional independence	80	91.7	88.8	-3.0	8.8
Responsiveness to inquiries/problems	82.1	92.3	91.5	-0.7	9.4
Availability of counseling services	86.3	92.4	88.8	-3.6	2.5
Effectiveness of Social Services staff	87.1	93.6	92.5	-1.1	5.4
Meaningful relationships with staff	NA	94.7	92.5	-2.2	NA
DAILY LIVING					
Timeliness of communications	82.1	90.3	90.6	0.2	8.5
Opportunity to engage in a variety of resident activities	89.4	89.6	82.9	-6.7	-6.5
Quality of general laundry service (sheets, towels, etc.)	NA	82.7	87.5	4.8	NA
Quality of personal laundry service (personal clothing)	NA	82.7	81.2	-1.6	NA
Quality of transportation services	80	84.8	85.8	1.0	5.8
Quality of spiritual services	90	91.1	89.6	-1.5	-0.4
Quality of food and snacks	77.8	88.0	80.4	-7.6	2.6
Accommodation of special dietary requests	81.3	95.5	84.7	-10.7	3.4
Variety of menu selections	72	85.0	81.7	-3.3	9.7
FACILITY/ENVIRONMENT					
Safety and security of buildings and grounds	91.1	94.8	93.6	-1.3	2.5
Upkeep and repair to buildings	97.9	96.0	95.1	-0.9	-2.8
Appeal of common areas	94.4	94.8	92.8	-2.0	-1.6
Appeal of resident rooms	88.4	89.7	84.9	-4.8	-3.5
Overall cleanliness of facility	91.6	93.5	90.6	-3.0	-1.0
Effort to maintain an odor-free environment	90.5	92.7	92.1	-0.6	1.6

Note. Compiled from Holleran Resident Satisfaction Survey. Mean score is produced by multiplying the average for each question by 20 to generate a 100-point scale.

Comparing data historically for Franklin Village reveals less consistent trends (See Table 36). From 2002 to 2005, Franklin Village saw increases in satisfaction for all questions except for upkeep and repair to the building which decreased. Notably, the building operated as a 42 bed nursing home and accepted more residents from outside the community during this period. Surprisingly, a comparison of Holleran's standard 39 question instrument from 2005 to 2009 revealed a reduction in 82% (32) of the questions. This reflects a period one year prior to households being constructed to a period two years after opening the households. Questions that had unanticipated reductions after households include: Accommodation of special dietary requests (-10.7), Opportunity to engage in variety of activities (-6.7), Variety of menu selections (-3.3), Right to make independent decisions (-2.3), Meaningful relationships with staff (-2.2), and Appeal of common areas (-2.0). Key areas with an increase in satisfaction related to households include: Friendliness of staff (1.7), Opportunity for privacy (1.5) and Timeliness of communication (.2). Comparing data from 2002 to 2009 demonstrated more positive changes in satisfaction, with 74% of the questions reflecting an increase in ratings. Franklin Village overall satisfaction ratings increased from a mean score of 87.4 to 89.4 over this seven year period. Key household areas with positive change include: Variety of menu selections (9.7), staff responsiveness to personal daily needs (9.1) staffs' commitment to functional independence (8.8), timeliness of communication (8.5). Opportunities to engage in a variety activities (-6.5) and the appeal of the common areas (-1.6) were the two ratings related to households that declined.

The inconsistent data trends may reflect several factors related to the survey. First, the survey is predominantly completed by family members who may have different satisfaction

ratings. Not all family members interviewed may live near Franklin Village and visit regularly, which may alter perceptions of the model. Another factor is the timing of the survey related to the nursing home. In 2002, the nursing home wing had just started operations with few residents. By 2005, the nursing home was much more crowded and planning was underway to expand the building and alter the model of care. One respondent indicated that he/she was "very concerned about this culture change," which was the only reference found in the survey related to households or culture change. By 2005, some changes may have already occurred while pilot testing the model in the smaller 42 resident nursing home which may have influenced the responses. The follow up survey in 2009 occurred after only two years of operation and may have been too soon after the organization settled into households and the new routine. While the Holleran Survey does provide a benchmarking tool with other care communities, none of the questions are geared to the household model. Surprisingly, households, houses or the names of the household never appeared in any of the open-ended responses when asked what they liked about Franklin Village or when responding to questions. However there were some general positive references to the overall atmosphere which may be reflective of the household milieu in 2009. A few responses to the question, what do you like best about Franklin Village?, that suggest this trend include:

> Many things; genuine caring of all staff to individual needs of loved ones; work hard to solve problems; find unique ways to so; put while heart/soul into care giving; make food cheerful, change dining room decorations/ Couldn't ask for better.
>
> Their attention to her and concern. It's a very friendly environment, a nice place, and they do an excellent job.
>
> Their family relationship with residents and everyone involved.
>
> Their friendliness and its nice atmosphere. Nice people and nice buildings.

While responses for what is liked best in the 2005 survey issued before households had a similar appreciation for a family relationships in the nursing home, any references to the environment were lacking as seen in the following responses:

> The personal relationship that we have with the nurses
> I appreciate the friendliness of the staff. They know my mother's name and my name. I feel like I'm part of the family.
> My father appreciates the staff knowing him as a person. He loves the banter they have back and forth. He loves making the staff laugh.

The lack of variety in activities after households were constructed may also have focused heavily on planned social events in the survey and not the general life of the households. Selected comments related to activities suggest a desire for more variety such as the following responses:

> I don't like Bingo; it's a little too slow for me. Some things they do are okay, but they don't do much . . .
> Opportunity is there though resident, doesn't currently participate
> They just lately in the last month, started to provide more activities. They need more activities for people that are mentally alert. More for skilled care residents.

Complaints about meals reflect the challenge of meeting food preferences for different individuals. However, the 2005 survey issued before households, clearly showed a lack of choice when one person stated, "there were no selections. You ate what you got" when asked about meal variety.

Five Sisters Resident Satisfaction. Resident satisfaction at Five Sisters was assessed by a variety of survey sources that are prominent in the Culture Change Literature. Before households were created, residents were surveyed twice using Eden Warmth Surveys, an instrument designed to determine a nursing homes' readiness for change and the patterns and trends in optimism, trust, and generosity in the home (Eden Alternative, n.d.). Therefore, warmth surveys are considered an alternative to resident satisfaction surveys. Elden Warmth Surveys are comprised of 20 statements that elders state their level of agreement with by responding to a five point Likert scale. Warmth Surveys are analyzed by grouping responses into three continua that include: trust to cynicism; generosity to stinginess; and optimism to pessimism. High levels of trust, generosity and optimism are characterized as "warm soil," while cynicism, stinginess and pessimism are considered "cold soil." Previously Warmth Surveys were analyzed by the Texas Long Term Care Institute which does the grouping, but currently the analysis is done through Eden Alternative (Eden Alternative, n.d.). Warmth Surveys at Five Sisters were conducted before households opened in 2005 and 2006. The first survey occurred two years into the planning process, while the second occurred while the first households were being constructed. Neither Warmth Survey offers any benchmarking with other communities in the analysis report. Only the second Warmth Survey report provided open-ended feedback. Table 37 and Table 38 summarize the results of the Warmth Surveys issued prior to households being created.

Table 37

Five Sisters Resident Warmth Survey Mean Average Scores

Survey Category		2005	2006	Diff
1	I am allowed to participate in decision-making	83.6	76.4	-7.2
2	The administrator knows my name.	87.3	84.3	-3.0
3	The staff cares about me	93.3	86.3	-7.0
4	I feel safe	90.7	89.2	-1.5
5	The employees are well trained and know what they are doing.	85.3	75.6	-9.8
6	I am lonely	59.3	55.2	-4.2
7	I rarely see the administrator.	58.7	63.0	4.4
8	I trust my physician.	75.3	68.0	-7.3
9	I can choose what I want to eat.	84.7	83.3	-1.3
10	I can get up and go to bed when I choose.	86.0	85.0	-1.0
11	The facility is clean.	94.0	83.2	-10.8
12	My room looks much like a room in someone's home.	71.3	58.3	-13.0
13	I am comfortable bringing my concerns to a staff member.	87.3	83.9	-3.4
14	I feel helpless at times.	66.2	73.1	6.9
15	I enjoy my bathing time	71.4	72.0	0.6
16	I am given privacy	83.3	79.4	-3.9
17	Stall members are respectful of me.	91.3	86.7	-4.7
18	I am bored	60.0	55.9	-4.1
19	Staff members take time to talk and listen to me	89.3	83.3	-6.0
20	I am happy here	83.3	76.1	-7.2

Note. Compiled from Resident Warmth Survey. Average Score generated by Likert 1 to 5 Score (Sum of Responses/n for question) multiplying by 20 to create a 100 p.t scale. n for questions varied

Warmth Survey analysis for years 2005 and 2006 revealed positive trends with the greatest proportion of scores falling in the "warm soil" categories of Trust, Generosity and Optimism (See Table 38). Generosity received the highest scores (81%) for both 2005 and 2006. Comparing Warmth Survey results historically revealed a negative trend in which only three of 20 categories increased from 2005 to 2006 (See Table 37). Positive gains occurred for feeling lonely, enjoying bathing time and feeling bored. The most significant reductions in 2006 related to the environment, but there were also reductions in resident centered practices. A possible

explanation is the enthusiasm of culture change may have waned with the impending construction interruption or a turnover in residents with different expectations.

Table 38

Five Sisters Resident Warmth Survey Summary Analysis

Continua	2005	2006	Diff
Trust	60%	55%	-0.05
Neutral	15%	14%	-0.01
Cynicism	25%	31%	0.06
Generosity	81%	66%	-0.15
Neutral	8%	14%	0.06
Stinginess	11%	20%	0.09
Optimism	55%	49%	-0.06
Neutral	15%	16%	0.01
Pessimism	30%	35%	0.05

Note. Compiled from Resident Warmth Survey Based upon summary of analysis performed by Texas Long Term Care Institute.

During the conversion for households, an assessment of resident satisfaction was conducted by My Inner View (e.g. Tellis-Nayak, 2007). My Inner View's resident satisfaction survey is a 15 item questionnaire that utilizes a four point Likert scale with no neutral value. Open-ended qualitative comments from the survey were not available in the report and neither was benchmarking with other care communities. This survey was conducted in 2007, which was the first year of construction and around the time the first household opened.

Results of the My Inner View survey demonstrate positive findings with high scores for some culture change oriented categories (See *Table 39*). Nevertheless, resident care as top priority fell at the top of the ratings. However, resident to staff care concern and friendships received a predominate proportion of excellent ratings as well as opportunities to grow. Connections to the outside world received a high number of excellent responses but had the

lowest average, which indicate a polarized response to this question. Participation in funeral rites received the lowest average score. However, it is the organization's policy not to have viewings or funeral services, but it does host memorial services. Anticipation of resident needs/preferences received the least excellent ratings; however, the survey was conducted before the households were formed and the model was mostly being pilot tested. A follow-up survey by *My Inner View* or is not available, but would be informative to see if these scores changed.

Table 39

Five Sisters Resident Satisfaction Survey during Households

Survey Category	% Excellent	Average Score
Resident care as highest priority	41%	73.00
Resident-to-staff care (concern)	41%	67.00
Resident-to-caregiver friendships	40%	70.00
Opportunities to Grow	38%	69.00
Connection with outside world	38%	56.00
Devotion of caregivers	37%	70.00
Competency of caregivers	37%	67.00
Managers' value of caring/service	36%	69.00
Dependability of caregivers	30%	68.00
Activities to prevent loneliness	29%	61.00
Encouragement to set schedule	26%	68.00
Connection with adults/toddlers	25%	63.00
Participation in funeral rites	25%	46.00
Encouragement to improve skills	23%	64.00
Anticipation of needs/preferences	17%	63.00

Note. Compiled from My Inner View Survey. Average scores are calculated by assigning the following values: Excellent=100; Good=66.7; Fair = 33.3; Poor= 0

Open-ended responses from residents at Five Sisters are only available for the Warmth Survey conducted in 2006. Some of the comments reflect a strong degree of satisfaction with the care community, but a desire or anticipation for change. For example one person wrote:

> My husband wants me to express in writing his care at Five Sisters. He is very happy with the care, love and attention he is given. Overall, it's a very pleasant environment, where residents are respected. He really enjoys the meals and the activities that Five Sisters provides. He's not able to participate as much as he would like due to his condition, but is pleased that Five Sisters has so much to offer to the residents. He feels most of the staff is great. He too wishes the rooms could be more home-like and improvements made with the bathrooms.

Responses also indicate the difficulties of losing staff who do not agree with culture change. For example, one person stated the following

> I am concerned that several long term employees have left. This may be personal choices, or some may have been forced out. . . . There are not enough staff in the central dining hall. Many residents have to wait a long time to get served. . . .

The above quote also demonstrates the acceptance of the status quo of having a central dining room, but questioning the number of staff instead of rethinking the environment and the type of service. Similar to the other two cases, these survey responses demonstrate that Five Sisters had residents who were generally satisfied with the care the organization provided before the household were created. During the culture change process, there was some awareness by some residents of a need for environmental changes.

Indicators of Resident Satisfaction and Well-Being from Interviews

Various staff members during the interviews were asked if the household model impacted resident satisfaction and if so, how? Some people interviewed used an example from their experiences with a resident:

> Five Sisters - I can remember the first day we opened and we were all tired even the residents were tired. I was helping a resident put some clothes in a drawer and she said, "You know what? My husband would be happy I am in a place like this." And, to hear those kinds of things. They feel it, and they know it (personal communication, 2012).

> Prairie Town Home - We had a resident who came here and he was like a hermit before and lived single. He had one leg amputated, and had to be here and hated it. His thing when he lived alone was getting in his pick-up at 2:00 in the morning and doing pull-tabs and chit chats with the clerk at the convenience store. As we got to know him, and I realized he is not doing what he wants to do. He has an electric wheelchair with an orange flag. This is what he wants to do, and he is aware of the risks and we are going to let him do this at 2:00 in the morning on the city streets and go out to the convenience store and do it. It made all the difference in the world. We as a paternalistic facility can you imagine how hard it was for the nurses to say, "We are going to let him go and do that." That's a biggie? He got stuck in the snow several times and what helped was his former landlord was our police chief. He was being looked after. But, those are the kinds of things were we can say let's relook at this. They are making an informed decision about risks and why can't we do it? (personal communication, 2012).

> Prairie Town Home – Many times a resident will say they want to go home. . . . And so that's part of the relationships that evolved from the household model. If they are in the hospital, they want to go home to our place [the nursing home] yeah-to the nursing

home. That's another one of those subtle indicators that people are happy and like where they are (personal communication, 2012).

Staff members indicated they now have more opportunities to engage with the residents, so they can now assess satisfaction instead of feeling removed:

> Prairie Town Home - But now they have an opportunity to be a part of that main meal production. Definitely we see an increase in resident satisfaction (personal communication, 2012).

> Prairie Town Home - Today, they influence how the households operate. Plus, we have residents and families on our community council which is the council for the whole facility. We try to get residents and staff involved in our council and meetings so we have our feedback. We do a lot of things, we do focus groups and community to get people involved. Our goal was to get high involvement throughout the process and we continue to do that (personal communication, 2012).

> Prairie Town Home - The stories that are being told --the positive feedback -- we hear a lot more than we used too--because we weren't asking them before. You know that's true--we weren't. They weren't part of the team before (personal communication, 2012).

> Five Sisters Home - I think the satisfaction has improved because it is easier to get results. It's handled in the house. For example if it's a resident--more times than not it's a resident's family member has an issue. They don't have to wait until Monday. The administrator doesn't come in on Monday morning and have a line of people waiting to beat her up about the weekend (personal communication, 2012).

Some of the responses indicated there was a difference in satisfaction, but it was not measurable:

> Prairie Town Home - Residents aren't waiting for care because anyone that comes in the door can provide care that they need. Even though that is not measurable it is just improving resident satisfaction because their needs are being met more quickly (personal communication, 2012).

> Franklin Village - I do know that the end result that you get, and the satisfaction of residents having purpose and life makes a difference. Sometimes it is hard to put pure hard dollars --I think we are fairly close to where we have been [before], but the satisfaction is a whole another story (personal communication, 2012).

Resident Satisfaction Comparison and Measurement Issues

All three cases did not have clear survey evidence to suggest a change in resident satisfaction. Lack of evidence was partially attributed to a lack of utilizing the same survey tool before and after culture change in the case of Prairie Town Home and Five Sisters. Prairie Town Home did not have any pre-household survey information available and Five Sisters had not completed any follow-up surveys at the time of the site visit. Franklin Village had utilized the same research tool for several years before and after households; however, the results did not demonstrate any clear positive trends in the data that would be expected with culture change and the household model after a four year period. Comparing survey results for a seven year period did yield more encouraging trends, but some areas such as activities were still found to be lacking. Notably, surveys at Franklin Village were a mix of responses from residents and family members, while surveys conducted at Prairie Town Home and Five Sisters were separated out for residents only. When benchmarking information was available, the cases did

have favorable standings (i.e. Prairie Town Home & Franklin Village). When open-ended comments from respondents were available, no significant change was found in the types of comments before or after households. In fact, Franklin Village had no mention of the households in the open-ended comments after they were constructed. However, there were more references to the environment in the references.

Anecdotal evidence for changes in resident satisfaction and well-being after culture change were gathered during the interviews. Staff often utilized examples of specific resident experience to express satisfaction or spoke of how they know residents are satisfied because they have a feedback mechanism. Some staff indicates that they have a general feeling of resident satisfaction, but are not sure how it can be measured. One leadership member interviewed expressed the challenges of measurement by stating, "we had all this anecdotal evidence of higher perceived quality of life, but we did not have anything measurable. Our satisfaction surveys--they are not a high peak. But, we only going by what the state is doing."

The very nature of culture change may be a significant reason that resident satisfaction has not changed. Residents were satisfied before culture change because they had certain expectations for a nursing home that were being met. After exposure to culture change, a new culture for the households emerged that has been reified. Residents that have accepted these new norms no longer perceive their impact. All three cases emphasized how their nursing home was positively perceived before households during interviews:

> Prairie Town Home - If we would have looked at the market, we would have stayed the same. . . . because resident satisfaction, staff satisfaction, family satisfaction were all high. Like we said, we thought our quality of care was high. We had no reason to

believe that what we were doing needed to be improved other than the fact that none of us wanted to live there (personal communication, 2012).

Franklin Village - Interestingly enough, we always had high satisfaction--prior too. So, you are not going to look at that and see dramatic increase. The numbers are not going to change too dramatically (personal communication, 2012).

Five Sisters - I think we always had a great standing -- we were known in the community. We always had great surveys. We were very clean. So it's not that we did anything wrong in the old model. It was just the model itself in my opinion was an old model--that's why we changed (personal communication, 2012).

Some interview subjects pointed out the challenge of measuring resident satisfaction when culture change reflects a new norm for the nursing home, which is gradually accepted over time:

Franklin Village - take meals for example. In the old institutional model we served a pretty institutional meal but that was the expectation--it's nursing home food. You can't ask for anything more. You are in a nursing home. Um--now. I remember [another researcher] came out for a few days and she was talking to residents about their meals. "Do they do anything special around meals?" "No, they don't." And, she started hearing that from people, and she said, "Wait a minute. I see that for breakfast. Can't you get anything you want?" "Oh-yeah. But that's not special that's the way it is." "You know. For supper, I saw you guys grilling out on the porch last night." "Well-yeah. But that's just summer." That whole expectation of okay we are in Households we get what we want. They don't realize they have it so good and others don't. So it's interesting---to see how people adapt to the new norm. And then, they have a whole different level of expectation for the quality of living (personal communication, 2012).

> Prairie Town Home - The household model has totally empowered them. It was really neat seeing the nursing model to the social model. Because what happened [when] they first came over here--We wanted them to tell us what they wanted to do. Or, to visit if they wanted or had a question or wanted to do something different. And, you know, they wouldn't do it. Because, they thought, "nope, you make the decision and that's the way it has always been so you make that decision for us." And we kept encouraging them saying, "no, it's your house, were just here to help you. What I saw in that transition with our constant encouragement of saying, "we're just visiting. This is your house. How would you like it decorated? What would you like to do? If there is something you want to change. What do you want to change? "Slowly, but surely--and it took a while --and now I see the residents as being very empowered. It's wonderful. It's very, very refreshing seeing them take back that role and it's their home now and not just a place for them to come (personal communication, 2012).

These statements indicate that resident satisfaction may not substantially change with the household model unless residents have immediate exposure to different care settings. Furthermore, culture change can lead to an altered level of expectation, and over time these new expectations are taken for granted by the residents. Therefore, traditional survey measures of resident satisfaction within the same organization may not always be a useful measurement strategy to access change.

Staff Outcomes

As discussed previously, conversion to the household model alters staffing patterns and processes which impact outcomes such as costs. Moreover, pioneering culture change organizations have also reported changes in staff demeanor and satisfaction which influences outcomes such as turnover (A. S. Weiner & J. L. Ronch, 2003). During the site visit, key

informants were asked to provide staffing patterns for the nursing home before and after households. Records for staff turnover, longevity and staff satisfaction surveys were also collected from the human resources departments. Similar to resident outcomes, Interview transcripts were also reviewed for key themes that emerged related to the staff's experience or the organization's treatment of staff. The following section presents the findings from the evidence gathered for staff outcomes.

Staffing Patterns and Ratios

All three cases reported a change in the organization of staff that was discussed in greater detail in chapter eight. These resulting staffing changes affected the number of FTEs (Full Time Equivalent) per shift, which are summarized in Table 40, Table 41 and Table 42. The exact difference in FTEs for each case is difficult to determine due to incomplete information and relying on recall from staff members. Prairie Town Home had prepared a comparison sheet that provided a complete comparison of staff FTEs before and after households, which also included for most departments outside of nursing. The other two communities had prepared sheets, which partially explained their after households staffing pattern, but there were no comparisons with the past staffing pattern or hours attributed from outside departments. The before households information was compiled from the interviews with key staff. However, some staffing numbers were not available, which makes longitudinal comparisons within cases and across cases challenging.

All three organizations sought to keep the similar FTEs or hours during their transition to households. The more complete records at Prairie Town Home's demonstrate that the organization met this goal. Franklin Village, which had an increase in residents, tried to keep the hours per resident similar, but recognized this change would increase the overall staffing numbers. Franklin Village provided less comparable data for their transition to households, but did demonstrate that more staff members are assigned to work directly within the households for all shifts. Detailed records of staffing FTEs before households were not available at Five Sisters as well. Similar to Franklin Village, the data does demonstrate an increase in staff who are assigned to work in the households. More comparable data was available for FTE hours after households for key staff positions. Typical FTE hours for a household in each case are summarized in Table 43.

Table 40

Prairie Town Home Staffing Pattern

Staffing Pattern Before Households	Staffing Pattern After Households
Day Shift for 32 Residents	Day Shift for Household of 16
1 RN	.5 RNCC – Shared between 2 Households
1 LPN	1 LPN or TMA
4 CNA	2 CNAs
.5 Bath Aide	.47 Homemaker
1 HK	.5 Household Coordinator
.5 Activities	.5 Healthcare Information Administrator
Total 8 FTE – 1 FTE / 4 Residents	Total 4.97 FTE – 1 FTE/ 3.2 Resident
Evening Shift for 32 Residents	Evening Shift for Household of 16
1 LPN	1 LPN or TMA
3 CNA	1.5 CNAs
1 Mealtime Assistant	
Total 5 FTE – 1 FTE / 6.4 Residents	Total 2 FTE – 1 FTE/ 8 Resident
Night Shift for 32 Residents	Night Shift for Household of 16
.66 LPN	1 CNA
1.33 CNAs	
Total 2 FTE – 1 FTE / 16 Resident	Total 1 FTE – .1 FTE/ 16 Resident

Note. Compiled from facility record

Table 41

Franklin Village Staffing Pattern

Staffing Pattern Before Households	Staffing Pattern After Households
Day Shift for 42 Residents	Day Shift for Household of 16
1 RN	.5 RNCC – Shared between 2 Households
2 LPN	1 LPN
5 CNA	2 CNAs
? HK	1 Homemaker
? Activities	.2 Household Coordinator
Total 8 FTE – 1 FTE/ 5.25 Resident	Total 4.7 FTE – 1 FTE/ 3.4 Resident
Evening Shift for 42 Residents	Evening Shift for Household of 16
1 RN	.25 RN – Supervisor
1 LPN	2 CNAs
5 CNA	? Homemaker
Total 7 FTE – 1 FTE/ 6 Resident	Total 2.25 – 1 FTE/ 7.1 Resident
Night Shift for 42 Residents	Night Shift for Household of 16
1 RN	.25 RN – Supervisor
3 CNA	.5 LPN or (1 LPN)
	1 CNA
Total 4 FTE – 1 FTE/ 10.5 Resident	Total 1.75 FTE – 1 FTE/ 9.1 Resident

Note. Compiled from interviews and records. Missing data for some FTE's marked with question mark.

Table 42

Five Sisters Staffing Pattern

Staffing Pattern Before Households	Staffing Pattern After Households
Day Shift for Typical Hall (32 Resident Estimate)	Day Shift for HH of 19-23 Residents
.5 RN	1 RNCC
1 LPN	1 LPN
.5 MDS	3 CNAs
5 – 6 CNAs	1 Cert. Dietary Manager (Homemaker- 6AM to 2PM)
? HK	1 Household Coordinator
? Activities	
Total 8 FTE – 1 FTE/4 Resident	Total 7 FTE — 1 FTE / 3.3 Resident (23 Residents)
Evening Shift for Typical Hall (32 Resident Estimate)	Evening Shift for HH of 19 – 23 Residents
1 LPN	1 LPN
3-4 CNAs	2.5 CNAs
	1 Homemaker – 11AM to 7PM
Total 5 FTE – 1 FTE/ 6.4 Resident	Total 4.5 FTE – 1 FTE/ 5.1 Residents (23 Residents)
Night Shift for Typical Hall (32 Resident Estimate	Night Shift for HH of 19 – 23 Residents
.5 LPN	.5 LPN
2 CNAs	1 CNA
Total 2.5 FTE – 1 FTE/ 12.8 Resident	Total 1.5 – 1 FTE/ 15.3 Resident (23 Residents)

Note. Compiled from interviews and records. Missing data for some FTE's marked with question mark.

There is a range of 194 hours between the cases for the total number of staff hours. As expected, overall staffing hours in the households increased in relationship to the size of the households. The number of residents per FTEs are similar across all three cases with a difference of .5 between the lowest and highest ratio and an average of 1.35 residents per one FTE. The highest staffing ratio occurs at Five Sisters Home (1 FTE/ 1.1 Resident) in a household dedicated to memory support. The lowest staffing ratio is at the larger households of Franklin Village. However, these numbers do not include the Household Coordinators who allocate 20 percent of their regular position to this role. For two of the Coordinators, eighty percent of their time is spent in full time positions that support the overall nursing home (i.e. social worker and activities director). However, these individuals had offices outside the household, and

tended to only visit their households when able. The other two Household Coordinators served as Homemakers, which provided a greater presence for these staff member in the households. Both Prairie Town Home and Franklin Village reported about five FTEs for outside household staff members, while Five Sisters Home reported nearly three FTEs. During interviews, Franklin Village indicated that a Scheduler and MDS Coordinator are used, but these FTE hours were not provided in the staffing hours provided. While the three cases have different staffing models, there are some similarities for the staffing rations in the households. Variations tend to relate to the different staffing roles that are present in the households.

Table 43

FTE per Typical Household and Other Support

Position	Prairie Town Home	Franklin Village	Five Sisters Home
Typical Household Staff Members	Hrs/Wk	Hrs/Wk	Hrs/Wk
RNCC	44	56	40
LPN or TMA	112	50	140
CNA	256	294	364
Health Information Assistant	20		
Household Coordinator	20	8[1]	16
Homemaker	26.25	112	112
Total Hours per Week	478.25	520	672
Calculated FTE (40 Hrs/Wk)	12 FTE	13 FTE	16.8 FTE[3]
HH Size Range	16 -17 Residents	16 -21 Residents	19 -23 Residents
1 FTE /Residents in HH Range	1.3 -1.4	1.2- 1.6	1.1 - 1.4
Other Staff Members	Hrs/Wk	Hrs/Wk	Hrs/Wk
Administrator	NA[2]	40	40
Director of Nursing	40	40	40
Administrative Assistant	20	80	
Life Enhancement/Activities	60		16
Scheduler	6	NA[2]	
Supervisor Weekend/Night	56		
Payroll & Health Information Assist	20		
Social Worker		60	18-20
MDS Coordinator		NA[2]	
Floor Cleaning		NA[2]	3
Total Hours per Week	202	220	116
Calculated FTE (40 Hrs/Wk)	5.05 FTE	5.00 FTE	2.9 FTE

Note. Compiled from Records and Interviews

[1] Household Coordinators are 20% of regular positions of Social Worker, Activities, and Homemakers

[2] Person mentioned in interview but hours are not listed in records provided

[3] Facility records exclude RNCC and Household Coordinator for an estimate of 15.4. FTE per household. Staff were relocated on table for comparison purposes

A comparison of overall staffing hour across the three cases is not possible across the cases because of missing information. However, the hours per resident day for RNs, LPNs and CNA can be compared across the cases and benchmarked to similar nursing homes because

these hours are reported regularly to CMS as part of the OSCAR data and available historically from the CMS Nursing Home Compare website and Brown University's LTCFocus. org website. Table 44, Table 45 and Table 46 present the hours per resident day (HPRD) or the three cases. These tables are divided into three sections. The first section compares each case's staff hours before and after implementing households. The second section presents the calculated hours per resident day from the household staffing model collected during each site visit. The staff hours per resident day are calculated based upon an assumption of having a full census. The third section presents findings from data available as of March 2011 that benchmarks the three cases with similar nursing homes (i.e. Government Owned Hospital District, Non-Profit CCRC). The following section compares the hours per resident day findings between the three cases.

Pre-Post Household HPRD. All three cases are reporting to CMS an increase in staff hours per resident day after adopting the household model. Before households were created the average total Hours per Resident Day for RNs, LPNs and CNAs was 3.03 HRPD for the three cases. The CCRC of Franklin Village reported the highest total hours per resident day, while the hospital attached Prairie Home reported the least hours per resident day. After households were created, the average total hours for the three cases increased to 3.96 HRPD, which reflects a margin of an additional 55.86 minutes. Similar to the period before houses, Franklin Village had the most hours per resident day after households were created, and Prairie Town Home reported the least (Range = 102 minutes). The greatest magnitude of change also occurred at Franklin Village, which reported an overall increase of 78 minutes after households, but the least change occurred at Five Sisters with an additional 24 minutes. Only RN hours at the two CCRC case studies were reported to have decreasing hours per resident day. CNA

positions changed the least at Five Sisters (6 minutes) and the most at Franklin Village (60 minutes).

While the three organizations strove to be budget neutral for staffing, the licensed and certified nursing staff increased for hours per resident day. An increase in staffing time per resident day is considered a positive outcome with the potential for increasing the overall quality of care (Harrington et al., 2000; Zhang, Unruh, Liu, & Wan, 2005). On the other hand, an increase in staff hours may also indicate an increase in costs (Zhang et al., 2005).

Contextual issues may be affecting these staffing changes. While Prairie Town Home has the lowest HPRD overall, the organization utilizes Trained Medication Aides and all staff members in the household are cross-trained as Certified Nursing Assistants. These staff positions may not be reflected in the overall numbers presented to CMS. Furthermore, this nursing home was attached to a hospital until 2012 and some licensed staff had shared roles for some shifts in both areas. The greater magnitude of change that occurred at Franklin Village may reflect this nursing home's 74 percent increase in bed capacity; therefore, a proportional change of hours per resident day may have been possible due to maintaining minimum state standards. Some additional staff hours may have occurred at Prairie Town Home and Five Sisters due to creating short-term rehabilitation units/households. A clear trend found in the two CCRC nursing homes is a slight reduction in RN hours per resident day (6 to 24 minutes less), which may reflect shifting oversight/administrative task time to the staff in the households. This reduction has some potential for cost savings as lower compensated staff take on these responsibilities. However, other authors have argued that RN hours impact

quality and a decrease in hours may be a concern (Harrington, Olney, Carrillo, & Kang, 2012; Harrington, Swan, & Carrillo, 2007).

Staffing Model HPRD. Using the staffing model for a typical household at each case, the average nursing staff hours is 3.57 HPRD. Projections for staffing between the three cases for nursing staff were very similar (Range = 19.8 minutes). The highest hours per resident day are found at Five Sisters, and the least occur at Franklin Village. These calculated estimates assumed the households were at full capacity and provide an indicator of the most extreme staffing measure. However, these calculated numbers were typically less when compared to data reported to CMS for 2011 which is the latest historical data set available. Differences between the staffing model and actual figures may be attributed to having fewer residents or variations in staffing at the time the figure was calculated.

State and National Benchmarking for HPRD. All three case studies demonstrated a strong trend for having fewer hours per resident day for most nursing staff positions compared to similar nursing homes. The average margin for the three cases and their national benchmarks for total nursing HPRD is 20.4 minutes less. Fewer hours does not necessarily equate to less care and attention as all three cases had other staff members in the household that provided care assistance (i.e. homemakers, life enhancement, and household coordinators). Therefore, one can infer that that the household model does not necessarily increase the overall number of nursing staff hours. The one exception to a reduction in staff hours per resident day is a trend for an increase in LPN hours for the two CCRC. This change may also reflect the shift in responsibilities to the households instead of a centralized hierarchal organizational structure with a prominent Director of Nursing. However, CNA hours did not

exceed benchmarking standards in compensation for an increase in LPN hours. The one exception to this trend is Five Sisters who exceeded the national benchmark for CNA HPRD by 7.8 minutes.

There were some differences between the three cases and their benchmarks. Compared to other nursing homes that are government owned and part of a hospital district, Prairie Town Home had fewer licensed staff and CNAs. This difference may relate to the use of shared staff in the attached hospital or the benchmarked nursing homes serving a higher acuity population. Franklin Village staffing hours were less than the national average for non-profit CCRCs (25 minutes), but slightly higher than the state average (4.2 minutes). Franklin Village had the highest number of licensed staff among the three cases. In contrast, Five Sisters licensed staff hours per resident day is slightly less than the national average (2.4 minutes), but falls well under the state average (42 minutes). Five Sisters has the highest CNAs HPRD ratio between the three cases, while the lowest ratio occurs at Prairie Town Home where all non-licensed staff are cross trained as CNAs.

It is difficult to ascertain if the overall increase in the hours per resident day is solely due to the household model at the three cases. Some increases may relate to changes in resident acuity such as the implementation of a short-term unit or variations in the census. The lower hours per resident day numbers most likely does not represent all staff members who work within the house and provide some form of care. However, these numbers do demonstrate that the household model does not necessarily result in higher staffing numbers. A cross comparison study with similar nursing homes in size and resident acuity would be required for improved comparisons.

Table 44

Prairie Town Home Hours per Resident Day

	NH-Compare Reported Data[a]		HPRD for Staffing Model[b]	Government Hospital District Benchmark[c]		
	Pre-HH	Post HH	Post HH	Facility	State	National
	2003	2010	2012		2011	
RN	0.10	0.50	0.55	0.45	0.62	1.07
LPN	0.50	0.70	0.58	0.81	0.83	0.90
CNA*	1.50	2.00	2.46	2.47	2.72	2.73
Total	2.10	3.20	3.59	3.73	4.16	4.70

Note. Combined staffing for Long Term and Short Term Households Does not include cross trained staff members in the households who are also CNAs.

[a] Data reported to CMS and adapted from Brown University LTCFocus [b] A calculation of the HPRD based upon the staffing model for the household collected during the site visit. [c] Data reported to CMS and pulled for staffing comparisons on March 1st 2011 by *Leading Age from* CMS *Nursing Home Compare* website

Table 45

Franklin Village Staffing Ratios Hours per Resident Day

	NH-Compare Reported Data[a]		HPRD for Staffing Model[b]	Non Profit CCRC Benchmark[c]		
	Pre-HH	Post HH	Post HH	Facility	State	National
	2004	2010	2012		2011	
RN	0.9	0.5	0.33	0.61	0.84	0.84
LPN	0.4	1.1	0.93	1.14	0.82	0.87
CNA*	2.3	3.3	1.95	2.49	2.51	2.78
Total	3.60	4.90	3.21	4.24	4.17	4.49

Note. [a] Data reported to CMS and adapted from Brown University LTCFocus [b] A calculation of the HPRD based upon the staffing model for the household collected during the site visit. [c] Data reported to CMS and pulled for staffing comparisons on March 1st 2011 by *Leading Age from* CMS *Nursing Home Compare* website

Table 46

Five Sisters Hours per Resident Day

	NH-Compare Reported Data[a]		HPRD for Staffing Model[b]	Non Profit CCRC Benchmark[c]		
	Pre-HH	Post HH	Post HH	Facility	State	National
	2005	2010	2012		2011	
RN	0.3	0.2	0.32	0.55	1.07	0.84
LPN	0.6	1	0.96	0.99	0.95	0.87
CNA*	2.5	2.6	2.64	2.91	3.13	2.78
Total	3.40	3.80	3.92	4.45	5.15	4.49

Note. [a] Data reported to CMS and adapted from Brown University LTCFocus [b] A calculation of the HPRD based upon the staffing model for the household collected during the site visit. [c] Data reported to CMS and pulled for staffing comparisons on March 1st 2011 by *Leading Age from* CMS *Nursing Home Compare* website

Table 47

HPRD variance from Minimum Staffing Ratios from Other Studies

	2010 Minimum State Hours[a]	2001 CMS/Abt[b] (4.10 HPRD)	2000 Harrington Kovner et al. Expert Panel[c] (4.55 HPRD)	2006 Zhang, et al 50% Quality[d] (2.36 HPRD)
Prairie Town (3.73) HPRD	-1.73	-.37	-.82	1.37
Franklin Village (4.24) HPRD)	-1.54	.14	-.31	1.88
Five Sisters (4.45 HPRD)	-2.35	.35	-.10	2.09

Note. Compiled from [a] (Harrington, 2010), [b] (Abt Associates Inc., 2001), [c] *(Harrington et al., 2000),* [d] (Zhang et al., 2005).

Since the three cases typically had lower hours per resident day compared to other nursing homes, a comparison with recommended staffing levels was also conducted. Although there is a strong interest by policy makers and administrative staff to establish effective minimum staffing ratios in nursing homes, a uniform number has been difficult to determine due to the complexity of the factors such as varying resident acuities (Zhang et al., 2005). Howe

(2010) argues that other factors such as "organizational structure, staff mix, staff stability, and consistency of care all play crucial and interacting roles which are difficult to tease out separately" (p. 25). Federal standards for nursing homes state that a nursing home should have "sufficient staff," but only provide specific hours for RNs and LPNs, but not overall staff (Zhang et al., 2005). Most states have staffing standards that exceed federal standards (Harrington, 2010). The three case study nursing homes exceeded their minimum state standards (See Table 47). Other studies have suggested minimum staffing hours to maintain quality. A report prepared for CMS by Abt suggested total overall direct care hours per resident should be 4.10 (Abt Associates Inc., 2001). Two of the cases exceeded these recommended hours. An expert panel convened in 1998 of nurses suggested an 4.55 HPRD for all direct care workers (Harrington et al., 2000). All three cases fell below this number with Five Sisters falling within six minutes of the benchmark. While most authors argue for increasing staffing levels to positively impact quality, Zhang et al (2006) argues that there is a diminishing point of return since there is not a consistent linear relationship. The authors' study that compared quality standards with staffing rations suggested that overall hours per resident day to achieve a 50 percent quality level should calculate to 2.36 HPRD. All three cases exceeded this standard by over 82 minutes. However, none of the cases met the 75 percent quality level, which calculated to 12.6 hours per resident. These numbers suggest that the staffing levels reported compare favorably with other recommended staffing levels to achieve quality. If all staff members in the households were used in the calculation, results have the potential to be even more favorable.

Table 48

Comparison of Base Hourly Wage

Position	Prairie Town Home 2011	Franklin Village 2012	Five Sisters Home 2012
Registered Nurse	$24.58	$28.00	$18.00
Licensed Practical Nurse	$16.01	$18.75	$15.50
Trained Medication Aide	$11.52	NA	NA
Certified Nursing Assistant	$9.00	$11.50	$8.00
Household Coordinator	$13.18	$5000 + Hourly	See CNA
Homemaker	$9.00	$10.50	$8.50

Note. Compiled from records.

Household Staff Wages. Monetary comparisons for nursing staffing costs between the three cases are difficult to conduct as the three cases have varying wages based upon regional and contextual differences (See Table 47). At Prairie Town Home, nurses for the hospital and the nursing home are negotiated by a union. The organization chooses to pay all nurses the same rate regardless of whether they work in the nursing home or the hospital, which increases wage costs. Some staff members received an increase in pay due to the organizational structure of the household model. Blended staff roles resulted in higher wages paid for some staff. For example, homemakers at Prairie Town Home who receive CNA training are paid a higher hourly wage due to the certification. The organization choses to pay the higher rate for all staff hours with blended roles which increases the overall costs for these staff members. The use of Trained Medication Aides or Certified Dietary Managers also changed wages for some staff members who took on additional training and responsibilities. While these changes may have increased wages for these staff members, the cost to the organization may not have

been significant if it is offset by a reduction in staff hours in other areas. An example of this is the use of Trained Medication Aides instead of LPNs in some households for some shifts at Prairie Town Home. Due to the complexity of the household model impacting all departments in the cases, it is difficult to extract the longitudinal cost differences.

Household Coordinators often performed duties as a leader or a social ambassador for the household, which requires flexibility (i.e. welcoming a new resident, or staying with resident at the time of death). Each of the cases utilizes a different strategy to compensate these unique staff members. At Prairie Town Home, Household Coordinators are paid a higher rate for a part time role as a coordinator and a lower wage when scheduled to perform other duties such as being a homemaker. Household Coordinators at Franklin Village had other full time roles that are compensated on an hourly basis, but are paid an extra annual salary of $5000 for being a household coordinator. The salary gives the staff flexibility for scheduling the coordinator's time and a salary also reduces overtime hours. Franklin Village also requires household coordinators to serve as back-up homemakers when an unexpected call-off occurs or when a replacement cannot be scheduled. All household coordinators at Five Sisters are Certified Nursing Assistants and are paid a slightly higher hourly rate. They have the flexibility to adjust their hours as coordinators if necessary to avoid overtime.

Table 49

Comparison of Average Hourly Wages with Benchmarks

Position	Facility	State	Region	National
		Prairie Town Home		
Registered Nurse	$30.73	NA	$23.47	$28.20
Licensed Practical Nurse	$19.13	NA	$18.71	$21.74
Certified Nursing Assistant	$12.86	NA	$11.94	$12.28
Housekeeping	$11.41	NA	$10.02	$10.20
		Franklin Village		
Registered Nurse	$31.50	$28.92	$31.21	$28.20
Licensed Practical Nurse	$21.38	$23.28	$23.56	$21.74
Certified Nursing Assistant	$14.75	$13.48	$13.72	$12.28
Housekeeping	$12.75	$11.01	$11.29	$10.20
		Five Sisters Home		
Registered Nurse	$20.00	$25.21	$28.87	$28.20
Licensed Practical Nurse	$16.90	$21.00	$20.77	$21.74
Certified Nursing Assistant	$9.73	$11.50	$11.94	$12.28
Housekeeping	$9.73	$10.04	$10.02	$10.20

Note. Adapted from Facility Records and "2012-2013 Continuing Care Retirement Community Salary & Benefits Report" by Hospital & Healthcare Compensation Service & Leading Age (HHCS), Retrieved at www.hhcsinc.com and Data collected during site visit. Prairie Town Home numbers adjusted for inflation from 2011 to 2012.

A comparison of the average hourly wages paid within the three cases to regional and national benchmarks revealed some key differences. The average wages for each case was generated from the pay scale tables for each case and compared against a survey of staff wages for continuing care retirement communities prepared by Hospital & Healthcare Compensation Service & Leading Age (HHCS, 2012). Prairie Town Home RNs have a higher rate of reimbursement compared to the Regional and National averages. LPNs and CNAs mean wages are slightly above the Regional rate, but below the national. The cross-trained housekeeping

staff's wages are above the regional and national trend. The unionized hospital based wages of the nurses may partially explain these differences; however, Franklin Village's average was within 77 cents. Franklin Village's average hourly wage for RNs is above state, regional and national benchmarks, while LPNs fall below. CNAs and Housekeeping staff tend to have higher compensations compared to other nursing homes. Five Sisters average wages falls below the average for all comparisons. Overall, average staff wages are less for this case and in this region of the country. For two of the cases, the average wages for RNs, CNAs and Housekeeping staff are above the national average, while LPNs wages are slightly below. These same two cases also paid RNs, CNAs and Housekeeping staff a higher average pay rate compared to the regional averages for CCRCs. The findings suggest that some cross-trained staff in the household (CNAs and Housekeepers) are paid higher compared to other nursing homes. RNs wages tend to be slightly higher than the average, while LPNs remunerations are closer to the average. These findings have some limitations as the average wages were computed from salary tables and not the actual wages of employees. Furthermore, comparisons are only made with nursing homes within CCRCs, which may not be appropriate for the hospital based case.

Staff Turnover and Longevity

High staff turnover is a frequent concern within the nursing home industry and an often cited contributor to sub-par quality of care (J. Banaszak-Holl & Hines, 1996; N. G. Castle, 2008; N. G. Castle & Engberg, 2005). Proponents and pioneers of culture change argue that one favorable outcome is a reduction in staff turnover (Pioneer Network, 2010; A. S. Weiner & J. L. Ronch, 2003). However, this decline often occurs after an initial period of transition, during

which some staff members leave the organization because they cannot accept change (Bowers, Nolet, Roberts, & Esmond, 2007). To assess the degree of turnover in the three nursing homes, records were requested during the site visit from the human resources department for the periods before and after households were created. These statistics were compared against published national surveys of staff turnover conducted by the American Health Care Association (AHCA) for Nursing Homes available during the years, 2002, 2007, 2009 and 2010, 2011 (AHCA, n.d.). Table 50 summarizes staff turnover longitudinally for all nursing home staff in each case along with comparisons of estimates of average turnover rates at the state level.

Staff turnover has a high degree of variance across the three cases. Staff turnover before the introduction of households was the least at the Prairie Town Home case, and this rate was below the state average. These findings corroborate the 2002 AHCA survey findings that estimated lower staff turnover rates in hospital based nursing homes (Decker et al., 2003). However, comparing the period before and after households reveals a trend of increasing turnover at Prairie Town until the year 2007, which was the first year that reflected a decline. Nevertheless, when the turnover rate for Prairie Town was near its apex in 2007, it was still over 10 percentage points less than the estimated state average. Franklin Village's turnover rate remained above 25 percent until three years after households when it fell to 23.68 percent. There is a pattern of staff turnover decreasing before households and decreasing after households. No comparable surveys of Pennsylvania turnover rates could be found before households, while state averages for turnover are estimated to be over five percentage points higher after households in 2009, and this margin increased to over 11 percent in 2010. Five Sisters reported the highest rate of turnover before households across the cases. No

comparable state turnover rates are available for the three years before households. After households, Five Sisters is reporting the lowest turnover rates among the cases, and these numbers are 11.6 to 29 percentage points less than the estimated North Carolina average. All three cases report lower rates compared to their estimated state averages, which suggests that the three organizations are quality organizations for employment regardless of the model of care. The nursing homes did experience an apex in turnover rates around the time of culture change with the greatest magnitude reported at Five Sisters. After households were created, the cases have a decreasing turnover tend. However, the overall decline compared to pre-households rates only represents less than two percentage points in Franklin Village and slightly over five percentage points at Five Sisters.

Table 50

Overall Staff Turnover

	Prairie Town Home			Franklin Village			Five Sisters Home		
Period	Year	Facility	State	Year	Facility	State	Year	Facility	State
Pre HH	2002	13.10%	30.68%	2003	30.14%		2004	28.50%	
	2003	16.00%		2004	28.57%		2005	37.50%	
	2004	25.20%		2005	25.52%		2006	43.60%	
Post HH	2006	34.80%		2008	31.56%		2009	28.00%	47.20%
	2007	32.12%	41.88%	2009	28.61%	33.70%	2010	24.60%	36.20%
	2008	26.17%		2010	23.68%	35.30%	2011	23.30%	52.30%

Note. Adapted from Facility Records and "Research and Data: Staffing Surveys," by AHCA. (n.d.), Retrieved December 20, 2013, from http://www.ahcancal.org/research_data/staffing/Pages/default.aspx

Table 51

CNA Staff Turnover

	Prairie Town Home			Franklin Village			Five Sisters Home		
Period	Year	Facility	State	Year	Facility	State	Year	Facility	State
Pre HH	2002	20.30%	51.10%	2003	57.14%		2004	27.80%	
	2003	21.70%		2004	36.00%		2005	32.00%	
	2004	21.00%		2005	54.55%		2006	46.30%	
Post HH	2006	5.80%		2008	35.71%		2009	33.30%	58.50%
	2007	22.40%	58.00%	2009	26.19%	39.30%	2010	32.30%	45.60%
	2008	23.30%		2010	27.91%	43.60%	2011	28.60%	

Note. Adapted from Facility Records and "Research and Data: Staffing Surveys," by AHCA. (n.d.), Retrieved December 20, 2013, from http://www.ahcancal.org/research_data/staffing/Pages/default.aspx

The turnover rates for CNAs were compiled separately from other staff members, since this staff position is known for having a high rate of churn and has comparable state rates (Decker et al., 2003). Table 51 summarizes the CNA turnover for the three cases and provides a comparison to other nursing homes within the state. Nationally, CNA turnover is estimated to be 71.1 percent in 2002. The three cases always demonstrate lower turnover percentages compared to the estimated averages in their respective states. Prairie Town Home's CNA turnover is always below 25 percent, but after households the rate increased slightly. However, this case experienced the lowest CNA turnover rate three years after opening the households among the cases. Franklin Village is demonstrating a significant reduction in CNA turnover after households. Before households, turnover rates for households were above 50 percent for some years, while two years after households the rates dropped to below 28 percent. Five Sisters demonstrated an increase in turnover leading up to the household model, but is now showing a trend of reducing turnover after households. In 2011 the turnover percentage for

CNAs fell back to levels reported in 2004. Therefore, the only case that has experienced an overall reduction in turnover rates after households is Franklin Village.

Staff Turnover Measurement Issues. Turnover over rates in the three cases were always below estimated state averages when comparable data was available. These findings emphasize that the model of care has not altered the organization in regards to human resource practices or its status of being a preferred employer in the area. Furthermore, there has not been a clear trend in improving overall staff turnover after households as the rates are highly variable. For example, Five Sisters turnover rates are about five percentage points less for all staff members. Only Franklin Village is demonstrating a dramatic reduction in turnover after households and culture change for CNAs (*M* = 19.29%, Reduction Range .29-30.95). While the trends are encouraging, a study with larger sample of household model nursing homes utilizing a longitudinal design would provide additional insight. However, these changes must be considered within the economic context of high unemployment during the period (American Health Care Association, 2011). Specifically, turnover rates are also impacted by contextual factors and the American Health Care Association has reported an inverse relationship between unemployment and turnover (AHCA, n.d.). From 2008 to 2011, staff turnover decreased nationally, which is partially attributed to the downturn in the national economy resulting in fewer job changes. Since Franklin Village and Five Sisters opened their households during this period, the limited turnover findings cannot be directly attributed to the household model.

Table 52

Staff Longevity Five Sisters Home 2012

Position	Average Years of Employment
Life Enhancement Coordinator	30
Social Worker	15.5
Registered Nurse Mentor	11.5
Certified Dietary Manager	10.5
Household Coordinator	8.5
Environment Services	7.5
Registered Nurse	4.5
Certified Nursing Assistant	4
Licensed Practical Nurse	3.5
Homemaker	3

Note. Compiled from facility records.

Staff longevity statistics were requested at the three cases from the human resources department, but were only available at Five Sisters. This case was the second oldest case of the three and has been in operation at the current building for 47 years in 2012. Leadership at the organization described efforts to maintain staff members during the transition to households and the expansion of the CCRC campus. The average number of years of service is over ten years for several staff roles that have leadership roles in the households. Household Coordinators were predominately CNAs with longstanding positions in the organization of over eight years. Longevity for CNAs and LPNs were less than four years, while homemakers had the least experience with the organization. Therefore, the majority of front line staff had lower average terms of employment. These findings are not necessarily negative as some turnover during the transition would be expected, and new staff members may be easier to train in the model. Furthermore, the newness of the homemaker position may have generated more job openings than job transfers from existing employees.

Staff Satisfaction Surveys

An increase in staff satisfaction is a possible outcome of culture change (e.g. Pioneer Network, 2010; A. S. Weiner & J. L. Ronch, 2003). During each site visit to each case, any existing staff satisfaction measures were collected for the period before and after households were created (See Table 53). Only Franklin Village was able to provide surveys of staff satisfaction conducted before and after households that utilized the same instrument. The following section first discusses the available findings for each case for these collected staff satisfaction measures. Next, a summary of the findings across all three cases is presented.

Table 53

Staff Survey Information Availability

Survey Information	Prairie Town Home	Franklin Village	Five Sisters Home
Pre Household Survey	NA	2004 Holleran	2005, 2006 Warmth Survey
During Household Conversion Survey	2005 Jim Collins	NA	NA
Post Household Survey	2006, 2007, 2009 Jim Collins, Gallup	2010 Holleran	NA
Same Survey Instrument Used	Yes	Yes	No
Benchmarking Available	Yes	Yes	No
Notes	2006-2007 Done in Two Segments	Resident responses combined with family responses and not parsed	

Table 54

Prairie Town Home - Staff Satisfaction Survey – During and Post Households

Survey Category	2005 Dur-HH	2007 Post-HH	2007 Benchmark	Change
1. I am proud of working for Prairie Town Home (PTH)	85.8	85.1	76.2	-0.7
2. I would be comfortable having a family member receive care at PTH.	82.1	84.1	70.2	2
3. PTH provides staff with opportunities to learn and grow.	77.2	80.0	76.8	2.8
4. PTH has the materials. equipment and technology needed to	80.7	82.0	74	1.3
5 There are opportunities and means available to address provide excellent care. interdepartmental/household problems and opportunities to improve service	66.2	70.3	72.4	4.1
6. My direct supervisor gives recognition for good work	65.6	75.3	71.4	9.7
7. My fellow department/household members generally treat each other with dignity and respect.	69.5	71.8	70.6	2.3
8. My department/household works well with other Departments/households to get the job done.	66.8	76.9	74.4	10.1
9. My fellow department/household members are committed to doing high quality work.	78.1	72.1	70.6	-6
10. Senior leadership articulates and represents the mission and values of PTH	68.5	73.0	70.2	4.5
11. Generally my direct supervisor gets opinion from staff before making important decisions that effect us.	57.1	69.5	56.6	12.4
12. My salary is fair compared to other health care organizations.	57.8	60.0	62	2.2
13.When an employee does not do his/her job my direct supervisor takes appropriate action.	55.2	58.2	67	3
14. Generally there is enough staff in my department/household todo good work.	45.4	59.2	61.6	13.8
15. Staff in my department/household feel free to report safety problems to our direct supervisor.	80.9	79.4	79	-1.5
16. Generally everyone takes responsibility for improving customer satisfaction.	71.3	73.3	65.2	2
17. In my department/household staff receive feedback on how issues are resolved..	62.7	65.2	69	2.5
18. The personnel policies (PTO, breaks. overtime, etc.) are enforced in my dept./household.	72.2	70.6	73.2	-1.6
19. Staff in my department/household respect patient/resident confidentiality.	81.8	79.8	80.2	-2
20. Generally my fellow staff members use their time efficiently.	73.6	70.5	na	-3.1
21. My department/household has regularly scheduled meetings.	73.0	77.4	73	4.4
22. My department/household is kept clean and presentable.	68.3	82.0	na	13.7

Note. Compiled from Jim Collins Staff Satisfaction Survey

Prairie Town Home Staff Satisfaction Survey Four staff satisfaction surveys were conducted at Prairie Town Home between the years 2005 to 2009. No surveys for the period directly before households were available for analysis; however, a survey was available for the year 2005 during the transition to households. Three of the surveys were conducted by a Jim Collins Organization and utilized the same instrument each time, while the last survey was conducted by Gallop. Only half of the staff were surveyed at the household level for the year 2006 and 2007. These results were aggregated for a 2007 finding. Since the Jim Collins survey offers a during household transition to post household comparison as well as a benchmark to other nursing homes in 2007, I chose to focus on these results. A review of the findings comparing different staff satisfaction levels at the household level was insufficient for meaningful analysis; therefore, results are compared at the facility level. During interviews with key staff members, it was learned that the most recent staff survey was conducted by My-Innerview; however, these findings were not available for analysis.

The Jim Collins Staff Satisfaction Survey is comprised of 22 statements that respondents rate for level of agreement using a five point Likert Scale that offers a neutral category (See Table 54). The original survey instrument was not available to review, but summary reports were made available. Surveys responses were reported as average means score for the Likert Scale with a range of five (i.e. Neutral score of three was not scored as 0 and disagreement was not scored as a negative number), a frequency response for each category and a comparison to an industry standard. The source of the industry standard is not explained in the report, but is assumed to be other nursing homes that utilize the same staff survey instrument. For the purposes of comparisons in this exploratory study the Likert Scale mean was converted to a

calculated mean response by multiplying by 20 to convert to a 100 point scale (Hasson & Arnetz, 2005). A portion of the staff satisfaction survey gave respondents an opportunity to express any concerns in an open-ended format that were transcribed verbatim in the reports.

Findings from the 2007 survey, which was issued approximately one year after construction was completed, revealed that the Prairie Town Home exceeded benchmark ratings for 13 out of the 20 categories. Notably, agreement with the statement that, "staff would be comfortable having a family member being cared for at the facility" was nearly 14 percentage points higher. Having a direct supervisor listen to staff input also exceeded the benchmark by nearly 13 points. Having a supervisor take appropriate action for an employee not doing their job was the one item that received an average rating over eight points less than the benchmark average. Comparisons of the statement agreement during and after households revealed positive improvements for 17 of the statements. Net gains of over ten points occurred for 1) having enough staff to complete work, 2) the cleanliness and appearance of the households, 3) supervisor getting input from staff for decisions, and 4) the household working together to get work done. The one statement that had a net loss of over five points reflected the commitment of staff members to high quality work. Using time efficiency also received a lower rating of nearly three points after households.

Numerical findings from the Prairie Town Survey demonstrate both positive and negative trends one year after the new households opened and approximately two years after the organization began pilot testing the model. There are improvements in perceptions of staff teamwork and increases of staff autonomy to influence decision making, which are key tenets of culture change (Shields & Norton, 2006). Furthermore, the new environment is perceived as

being "presentable." Some of the losses in points after households may reflect actual findings, but may also reflect some issues with the wording of the questions. For example, four of the questions specifically ask about the actions of a supervisor, instead of addressing the actions of the team that is in the household. Therefore, requesting the level of agreement for the statement that "staff feel free to report safety problems to their direct supervisor" may not be appropriate if staff are expected to be accountable. In a care setting that implements versatile staff roles and has expectations that extra time be spent with residents, requesting the level of agreement for the statement "other staff members use time efficiently" may have created a conflicted response. The survey may also capture some learning curves as the organization continued to work within the new model of care and household teams adapted to the new routines. The loss of staff members' commitment to high quality work and the reduction in personnel policy enforcement are examples. Moreover, the only statement that decreased after households and was below the benchmark was related to policy enforcement. Some of these concerns were reinforced in the open ended responses to the two surveys.

Open-ended comments from staff on the survey issued during the household transition were reported without an indicator of the questions being asked. However, the comments tended to reflect general comments or suggestions for improvement. Key themes that were prominent in the staff responses reflected a concern for stretched time resources with the new model that were expressed using institutional language (See items underlined):

> All our time is put into <u>patient care</u>. We do not have time for the cleaning and activities, which are also expected of us--Very frustrating situation. The culture change concept is a good concept in many ways. However, there are things that need to change in order for this to work.

> I feel we are backsliding, going back to old ways of nursing care. LPN, RNs are not helping with everyday care of residents. Complaints are on the rise such as "We don't have time – we need to pass pills."

> The cleaning in the households is not done enough. They need to have housekeepers.

One of the open ended questions in the post household staff satisfaction survey asked staff to name things they like about their department. Responses demonstrate that teamwork had developed in the households and staff enjoyed having positive relationships with the residents. Furthermore, staff viewed residents in a more holistic nature:

> We get along. We have fun with the residents.

> I like my department because generally the staff work with are hardworking and pleasant. Also, I love the residents and caring for them.

> Whenever I work, staff is willing to help me in any way they can. I love the residents.

> I think the residents are really great. They are so much fun to get to know. All the residents have so much company and they like to go out with family and friends and have a good time and when they get back. I enjoy listening to what they did when they went out.

The post household survey instrument also asked staff for suggestions for improvement. The newness of the model of care was evident in some of these responses. For example, time resources were still demonstrating evidence of being stretched in the post household staff

survey and accountability standards were being questioned, as well as the new social focus of the household coordinators:

> Too much lay backs. There are too many things that are not being done - resident cares, housekeeping, charting, passing information on to next staff. Sometimes it feels that everyone runs the place, but there is no direction or leadership - like you really don't know what's going on or what you are doing. There is something missing.

> I think the household coordinators are involved in too many meetings, discussions, etc. and their help is needed on the floor more and on weekends/holidays to make it fair for all staff. They are supposed to be all equal too.

One key staff member interviewed believes the staff survey instrument needed to change to reflect culture change, teams and households. She believes accountability should reflect the household team and not the supervisor. She expressed her dissatisfaction with the language of the staff satisfaction surveys in the following statement:

> The satisfaction tools we use--Such as *My-Innerview*--We did last year because it happen to be a research grant that we happened to be working on--but even that tool is not written in a language that supports households and teams. If you think about those--they all ask--"does your supervisor pay attention to you?, does your supervisor listen to you?, are you paid enough?" They don't ask you--"do I contribute to a team?, Do I get satisfaction for what I do within a team?" They all measure from how you feel about those people over you which is that old hierarchy mentality -- and it continues to reinforce the administrator is what makes me happy in my job and that's never been the case. There's a real disconnect yet---we talk about it with technology but even with survey tools that are still geared to measure the old structure and rather than helping people to see to get their satisfaction from the work that they do within their team and their work group and how much they are able to accomplish it's still give the impression

that the only way I can be satisfied is to get my supervisor to listen to me and if um--you know---there were four or five questions on that survey that just bugged me---And mainly because it just reinforces the old. Here we are working hard to create a change in the culture and we are stuck with old measuring tools -- that just tell staff that --you know--don't worry about what's happening in that Households. Worry about what the administrator is doing to support you--are we paying you enough--you know all those questions that we will never be able to satisfy (Personal communication, 2012).

Table 55

Franklin Village Staff Satisfaction – Selected Questions

	Nurses			CNAs		
Survey Question	2004 Pre	2010 Post	Diff	2004 Pre	2010 Post	Diff
Overall, I am satisfied with my job.	84.5	84.3	-0.2	78.3	80	1.7
I would recommend FV as a great place to work.	84.5	87	2.5	79.1	82.1	3
I think I will be working at FV in three years.	81	80.9	-0.1	76.4	82.1	5.7
I am comfortable going to my Supervisor with concerns.	85.7	78.3	-7.4	76.5	64.8	-11.7
I feel I personally make a difference here.	90.5	84.3	-6.2	83.5	84.8	1.3
People in my department work well together.	82.7	78.3	-4.4	65.6	64.8	-0.8
I believe FV is living up to its mission and goals.	82.7	85.2	2.5	80	80	0
FV cares for its employees.	81.8	87	5.2	74.8	72.9	-1.9
I often leave work feeling good about the work I did.	87.3	84.3	-3	80	80.7	0.7
My work is appreciated.	80.9	83.5	2.6	74.8	80	5.2
I believe that FV plans well for the future.	75.2	80.9	5.7	83.6	81.5	-2.1
FV manages change well.	75	82.6	7.6	80	78.6	-1.4
I can handle the workload assigned	74.3	81.7	7.4	76.5	86.9	10.4

Note. Compiled from Holleran Staff Satisfaction Survey

Table 56

Franklin Village Staff Satisfaction Themes for Open Ended Responses

Franklin Village Pre-Household Staff Satisfaction Themes
Time
CNA - Too few people for the heavy workload we have. Too many people quit.
CNA -Sometimes I'm really rushed. I don't feel like I did as good as I could have.
Nurse - Lower staff to resident ratios. More support staff in the evenings
Nurse - By giving more importance to the residents and spending more time with residents
Nurse - More help. We need more CNAs on second shift, especially with the dementia residents. More help would make everything easier for the residents and CNAs
Concern for Teamwork
CNA - There is teamwork only at special times, holidays, etc.
Positive Views of Organization
I like that FV really cares about the residents and also takes time to think about the people who care for them.
Accountability
People need to be held accountable
Clear expectations, more follow up, more fun
Lack of Activities
I would say to have more interactive activities inside and outside of the facility. Also more things to do in the afternoon.
Franklin Village Staff Satisfaction Post Household Theme
Time
Nurse - I do not feel nurse's aides are well enough staffed to support the type of care you want to offer. Including activities and restorative, leaving very little individualized time for care with all staff demands.
New Views of Residents
Nurse – Culture Change changed my whole outlook for the elderly. I no longer feel sad for them. I can make their stay here happier.
Resident Improvements
Nurse - I feel the culture change is a valuable asset. I've seen residents who did not eat well, eat much more In this environment and take better short meals, activity time and care.
I feel we are making a difference in people's lives, they are happier and healthier because of the unique way we care for them.
New Roles
CNA - I think of it as more as their homes rather than just a nursing home where we only care for their physical needs.
New Perspective for Job
CNA I feel I am coming to a second "home" rather than going to "work."
I plan activities and duties of my job around the preferences of the residents, rather than my own agenda.
Continuous Quality Improvement Concerns
Nurse - What happened to all the ongoing training sessions? I enjoy my job and look at my residents differently but not everyone is on board.
Nurse - It needs to involve the whole "team" to be the most effective in succeeding.

Note. Compiled from open ended comments. If available staff designations are provided

Franklin Village Staff Satisfaction Survey. Franklin Village's staff satisfaction survey was available from 2004, 2 years before households to 2010, which was 3 years after opening household. Both surveys were conducted by Holleren and used a similar instrument. Numbers were only available for Nurses and CNAs. Overall nurses reported more negative changes after households compared to the CNAs. However there was 11.7 drop in CNAs feeling comfortable with going to their supervisor. Results continue to show some growing pains around the household model and not an overwhelming increasing trend. Themes that emerged from open ended response indicated a concern for workload before and after household. However new attitudes about residents begin to emerge in the post satisfaction survey (See Table 56).

Five Sisters Staff Satisfaction Survey. Eden based Warmth Surveys were only available at Five Sisters for the years 2005 and 2006 for staff members which was before the household had opened and the start of construction.(Yeung, Dale, Rodgers, & Cooper, 2016) (See Resident Satisfaction Survey for Explanation). The staff warmth survey summary conclusions indicated trends in increasing optimism, trust and generosity and a decrease in cynicism, pessimism and stinginess (See Table 57). Detailed question responses showed both positive and negative trends. Over a period of year, gains were achieved in 15 of 22 questions selected for comparative analysis based upon their relationship to culture change. The largest net of 17 points occurred in the feeling that there was opportunity to advance. However decreases were found in the organization "valuing money over people," "staff tension" and "staff feeling like a number." Based upon the timing of the last survey it is not possible to assess if the frustrations of changing the organization and the construction process were beginning to occur. However, overall there appears to be a positive attitude for staff towards change.

Table 57

Five Sisters Warmth Survey Results – Pre-Household Comparison

	2005	*2006*	*Dif*
Trust	58%	64%	0.06
Neutral	14%	18%	0.04
Cynicism	28%	18%	-0.10
Generosity	54%	61%	0.07
Neutral	16%	17%	0.01
Stinginess	30%	22%	-0.08
Optimism	66%	73%	0.07
Neutral	13%	16%	0.03
Pessimism	21%	11%	-0.10

Note. Compiled from summary score reports from Warmth Survey

Table 58

Five Sisters Staff Warmth Survey – Pre-Households Comparison

Selected Statements	2005	2006	Dif
My work has meaning and purpose.	93.33	94.08	0.75
Management (does not) value money more than people.	55.65	39.71	-15.94
I am an important part of the care team.	82.92	86.67	3.75
I know and understand the mission of this organization.	84.68	87.04	2.36
My work contributes to the overall philosophy and goals of the facility.	87.08	85.35	-1.73
I can be creative in completing my tasks and working in my team.	88.75	86.20	-2.55
I have an opportunity to grow.	65.11	80.59	15.48
Management listens to me and takes my opinions seriously.	58.33	70.70	12.37
I (do not) feel like a number. (and that) Nobody here really cares about me.	68.33	57.68	-10.65
My work is recognized by my team members as worthwhile	79.17	82.29	3.12
My work provides me with adequate pay and benefits.	54.47	69.71	15.25
I (do not) work under a great deal of tension	52.11	40.90	-11.21
I am given opportunities to use my talents for the facility's benefit.	66.84	76.06	9.21
There is opportunity to advance here.	60.00	77.10	17.10
Management actively encourages cooperation and teamwork	81.58	83.10	1.52
I enjoy helping my team members.	96.22	94.93	-1.29
At the end of a typical day, I feel I have contributed to the quality of life of the elders I serve.	89.76	95.14	5.39
I can trust the people I work with to lend me a hand If I need it.	76.67	84.51	7.84
I would leave this facility if offered the same job with another facility.	57.07	62.25	5.18
I would recommend a close friend to join our staff.	71.43	82.82	11.39
There Is a happy atmosphere In the place I work.	71.43	73.80	2.37

Note. Compiled from Warmth Survey Questions. Mean scores from a conversion to a 100 point scale. The Likert scale scores were reversed for questions worded with negative responses to facilitate comparisons. Reversed questions are reworded in parenthesis.

Qualitative Analysis of Staff Themes

During the site visit staff members were asked about the impact of culture change and the household model as well as the challenges and benefits. These interviews were transcribed and analyzed for qualitative themes related to staff outcome, which impact costs or quality. Several themes are entrenched in a concept of change as reflected in Table 59. The following section summarizes these key themes.

Table 59

Key Themes for Staff Outcomes

	Traditional Nursing Home	➔	Household Model
Organization	Nursing Unit	➔	Household Family Unit
	Central Accountability	➔	Team Accountability
	Professional Roles	➔	Household Team
	Defined Roles	➔	Universal Roles
Leadership	Control Emphasis	➔	Mentor / Motivator Emphasis
	Staff compliance	➔	Staff competence
	Suspicion	➔	Trust
	Detection	➔	Prevention
Staff	Staff Focus	➔	Resident Focus
	Task Focus	➔	Person Focus
	Professional Detachment	➔	Relationships
	Job Task Stress	➔	Social Stress

Note. Compiled from themes as well as household model definition

Shifting Role of Leadership. Leaders in all three case studies recognized they had adopted different roles. One essential aspect of their new focus was supporting the job enlargement of the household staff. One administrative leader summed up this shift by stating, "It's really that whole idea of being patient and taking the slow route sometimes. Being willing to let things happen rather than having to intervene and fix everything." One administrator considered her new role as a motivator by stating:

> My job is to be a huge motivator and a huge driving force is keeping them interested in what they are doing and engaged in what they are doing and satisfied with what they are doing and helping them to connect. Not just to the resident's, but also each other. To insure this is a place where they want to be and where they want to work (personal communication, 2012).

Another administrative leader at another case summed up leaderships role as one of ensuring competency by stating the following:

> Our role is to make sure that people in the Household are competent. That they have the training they need to do the job that we are asking them to do. That we have some way of demonstrating that competency, and you have some way of monitoring it on an ongoing basis. And, that we get out of the way and let it happen. . . . What changed is just that we had to trust the staff a whole lot, so they could do it for us and make it happen in a non-traditional setting (personal communication, 2012).

Leadership in all three cases emphasized that their role shifted from overseer and problem fixer, to one of mentorship and advisor. Rather than viewing the staff members through the lens of suspicion and an expectation of having to deal with problems, leadership adopted a position of trust and scanned the environments for ways to prevent issues. Furthermore, household staff members were expected to solve problems themselves within the household

instead of relying on their supervisor. One person from administration shared her observation about the ineffectiveness of the hierarchal organized nursing home by stating:

> The fallacy of that old hierarchy is you keep reporting the problem up and the person at the end has to deal with it no matter what and they are the furthest from the problem. And, I can remember in the old model solving problems--or at least thinking that we did --and never having them really solved. Or, not hearing about something for two years that has been festering in the organization (personal communication, 2012).

These themes emphasize that although there is a flattened hierarchy in the households and an emphasis on teams, leadership is still needed but with a different role.

Supporting Teamwork. All three case study organizations utilized cross-trained teams to staff the households. One theme that emerged was how the boundaries of the household foster a family atmosphere that promotes job ownership of achieving resident centered care. One household staff member spoke about these outcomes by stating:

> I think probably we work with the same people all the time. And, I think when you work with the same people all the time; it's easier to get the jobs done. You know. You are a family and you need to get it done because these are our people-our family and you need to get it done. It's more important to get it done for them (personal communication, 2012).

Effective household teams assumed accountability and solved problems as a group. One administrative staff member indicated that group decision making may take longer, but it is often more effective. She shared the story of how laundry was integrated into the households at the staff discretion as an example:

> In the old model, I would have weighed the laundry to determine how much they have to do each day to be able to do this. And, I would write policies and procedures of exactly what to do and how to do it, and gone to the staff and they would have looked at me and said, "yeah, sure, you betcha." But, they would have tried really, really hard to implement it because it was something I had told them they needed to do. And, they probably would have worked on a terrible procedure for years because it was written down and it was the way it had to be regardless if it worked or not. So, instead, I went to the Households and said, "I don't know how you are going to do this." I know you are going to use a color safe bleach with soap. And, if there is any supplies you need to make it work, you just need to ask me and I will make sure you have it. And, you need to figure out how to make it work. And, within two weeks they were all doing the personal laundry. And, they had tried three or four different ways until they had found a system that worked for them. Everybody was doing it differently, but the laundry was getting done and they said it was the easiest change they ever made. And, I know it was because they didn't have their hands tied. They were able to go in and figure out, as a team, how to make it happen (personal communication, 2012).

Household teams have also evolved into a pseudo-family network with which staff members identify and receive emotional support. A Director of Nursing who was visiting one of the three nursing homes asked the administrator how the staff dealt with stress. Rather than answering this question, the administrator suggested the DON ask the staff. The administrator summarized the DON's revelation at the end of the day by stating the following:

> When they go to work, this is the least stressful part of their lives. They know when they come in here--they are just embraced. And, that they are doing something so worthwhile. They still have all the same tasks to do, but it feels so good to come here . . . this is a culture of caring--not just about our residents. But, about each other (personal communication, 2012).

The organization of the staff into households promotes teamwork that is nurtured by leadership. Teams can serve as an efficient and effective means to accomplish the work tasks in the households and provide socio-emotional support for its members.

Knowing the Residents. When staff members were asked about the benefits of households, knowing the residents was frequently mentioned by several staff members. The smaller household settings promote staff knowledge. One person stated, "I could tell you right now what everybody in [Household Name] is doing. I could do that. I could do it every day." Another staff member stated, "you just get to know your residents so much better; more intimately then you would if you have 30 residents . . . In a bigger group it would be harder to extract that information from the residents." Knowledge of the resident's routines and preferences is essential to honoring resident's choices. This knowledge impacts the work routines of the households. One staff member described the nature of the workflow in the following statement:

> It is a much more go with the flow kind of day. And, they learn their residents and they learn their routines. And, then they work around that. Who can get up while this one wants to sleep. I was blown away when one of our newer Nursing Assistants Just knew everything about them . . . because it lends itself to knowing somebody. You have seven people approximately (personal communication, 2012).

Knowing the residents, also promoted staff efficiency. For example, one staff member stated, "it is a whole lot easier to write a care plan. Then when you are basing it on a note states, 'resident is sleeping well'." One staff member stated that the MDS is "more accurate" because it was done by people close to the residents instead of a MDS coordinator. As relationships form, staff members believed there were fewer conflicts which resulted in less stress and time

savings. An example of this theme was shared by a Director of Nursing who saw staff react to the idea of consistent assignment in a culture change learning circle:

> I would have to put up with Mrs. so and so for a while, but I guess if I knew her better we probably get to be friends and I wouldn't have to every time I go in there I would not have to get her to trust me (personal communication, 2012).

For some staff members, culture change provided them with a first opportunity to directly interact with residents and receive first-hand knowledge for how their job affects the residents. One member of the kitchen staff described this change by the following statement:

> I think that was the beginning when staff started to interact with the residents because all of sudden you now knew a face with a name. You were visible to that person. The person could tell you more about what he wanted. And, if he did not like something at that time. You were right there and the resident could verbalize to you (personal communication, 2012).

For the majority of staff, knowing the residents was seen as a positive benefit that enhanced the efficiency or effectiveness of their job roles. However, some staff members also shared the negative consequences of knowing the residents. Some staff members shared an enhanced feeing of concern for the residents when not on the job. For example, one staff member in a new role stated, "I am a little more stressed. In my old days, I went home and 'click' didn't think about it." Job enlargement has resulted in some staff members having a heightened sense of accountability that is perceived as stress inducing. A Household Coordinator at one case study expressed this theme by stating:

> For me--honestly--I feel a lot more stress. I think that I am more responsible--not that I am more responsible for any more residents, but I feel I have more responsibility and maybe need to answer to more people. And, I say that because families are much more involved and staff. And, I work for a select group of people every day. I feel a responsibility to them as well as the residents. So, to me -- my job-- I feel a lot more stress in my job than I use to. Is that good or bad? I don't know. It is what it is. Would I go back? No! Everything comes with its drawbacks (personal communication, 2012).

In addition to job enlargement, the relationships that form between residents, family members and staff were mentioned as a potential source of stress, particularly when a resident was ill or dying. One staff member shared her personal experience by stating the following:

> There is a lot more stress. This job is 24/7. When I'm out of here, I get calls on the weekends you know. When you are shopping, you are always looking for something that you can add to the house. Always thinking, and the stress of staff, Are their going to be enough staff. You take that home and then the residents are the sick or ill. I'm calling up here and I've come up here--I came up here--I think it was until 10:30 and then I got the call at 4:00 in the morning and would you come back, and so I was back up here at 4:30 and that happened again this last year. Family—that's how close I come to the family and I come close to the residents also. They are like my grandpa. So, that's very hard and very emotional. I'm burying a lot more people than I ever dreamed -- people that I love and really care about. And, that's probably the hardest part of my job is losing some really good people, because I learn from them every day (personal communication, 2012).

Enhanced knowledge of residents is a natural outcome of the smaller household model. Knowing the resident impacts staff efficiency and contributes to less daily uncertainty. However, the relationships that form by knowing the residents and their family members does

engender a degree of stress. Notably, staff members often emphasized they still preferred their job after culture change whenever they shared issues with stress related to their expanded role of focusing on the residents.

Versatile Worker Roles. All three case study organizations utilize versatile worker roles to organize work tasks in the households after culture change. Issues related to versatile workers were a frequent theme mentioned by staff members when asked about challenges. One theme was tasks not getting completed, because it was the responsibility of all staff members. Staff members would admit that, "because everybody can do it, it is one of those things that falls in the cracks," and "things that should be done sometimes get left." Leadership at the three cases further cautioned that," . . . you just got to be on top of the universal workers and make sure that something does not fall through the cracks." For example, household staff not finding time to conduct regular activities was cited by more than one staff member during interviews. One individual who oversaw activities stated the following:

> They complain because you are telling them, activities, activities. I have not heard that as much now, but I noticed if you are not on top of it every day it is so easy to slip back and say we do not have time for that today (personal communication, 2012).

One of the cases addressed this issue by assigning staff members to conduct a specified number of one-on-one resident activities as part of their regular job tasks during each shift. Similarly, a household at a different organization was experimenting with assigning one staff member the responsibility of conducting a resident activity on a regular basis. Other tasks that were frequently mentioned in the interviews as being occasionally dropped by household staff

include cleaning and resident laundry. Flexible roles also led to time management concerns for some staff members. One household coordinator stated the following:

> My biggest challenge is I get interrupted so many times. Once I start something, it takes me forever to get back. Phone will ring. I will go run and take somebody the phone and I will see a resident that wants something and it takes me forever to get back so it is really hard to reign myself in and work on the schedule (personal communication, 2012).

These themes demonstrate that effective versatile roles for staff members require some consideration for establishing accountability. Furthermore, versatile work roles may require a degree of organizational slack, so resources are available at times of need or as a backup in times of intense need (e.g. Näslund, 1964).

Decentralized Organization Moving from a centralized organizational structure to a decentralized organizational structure does alter traditional forms of hierarchical and custodial oversight. One person viewed household as, "almost operating as little independent nursing homes to some degree." Households duplicate services that, in the past, were addressed by a single source. A member of leadership shared the challenges of decentralization and efficiency in the following statement:

> We now have six stocked med rooms, whereas we use to have two. And, so it took less oversight to ensure somebody was checking and making sure there was not expired medications and it was stocked and all those kinds of things. So, now instead of checking in two rooms; we have to check six rooms. For us, the pharmacists use to do that. And, the pharmacists said, "there is no way I can check six while I am here." So, you guys are going to have to check. And so, it is just a little--sometimes there is just another layer of responsibility because there are more places. It is not that there is

more. You would have more medications, but that's not really the issue. It is now that we have to go to six different places to look and see.

Duplication of cooking in the household was another example that was mentioned during staff interviews that required oversight. For example, one staff member pointed out the following:

> One person could essentially cook breakfast for the whole nursing home. And now, you have individual kitchens so you have multiple people cooking. Do they all understand sanitation? Do they all understand what our goal is for residents? It is easier to tell one person then it is to tell multiple people. Those are just some of the things that I think you run in to but it is making sure that everybody is one the same page because everybody is so spread out now, and we are all doing are own thing but it's within the parameters we have said as an organization that we want to accomplish . . . So I think you have more people--more hands in the pot--you have to make sure those hands are well-capable and well trained to do what you need them to do (personal communication, 2012).

When departmental services such as cooking, housekeeping and laundry moved into the households, the managers for these departments often adopted a quasi-mentorship role. Non nursing staff members are now supervised by the nursing home's administrator in the three cases. For example, one manager in dining services defined the role in the following statement:

> There is one CDM [Certified Dietary Manager] per household, but none of those fall within my budget for dining services. That moved over to the household budget. Again, it is not a direct -- it is more suggestion -- If I walk through the kitchen and see something I'm going to let them know (personal communication, 2012).

While managers adopt a mentor role within the organization, compliance with regulations ultimately fell to their oversight. This challenge was mentioned by several departmental managers during interviews. One department manager stated this role in the following

> Yeah, it gives me a challenge because I'm not their boss but sometime I do and someone might say something back to me but I have to take the appropriate steps to get it corrected anyway. Regardless of what the Household said to me. If they said something that needs to go a little further than me. Or take it a little further than me. I would take it to somebody (personal communication, 2012).

Moving from a centralized organization to a decentralized organization of households did alter the workflow; however, household staff did not perceive it as an extra burden. One member of leadership argued this point in the following statement:

> That nurse is having to stock 20 different rooms with the meds versus stocking the cart. . . . There are certainly tradeoffs. I think we are less frazzled in this environment than we were in the other. I don't think we are working any harder. I think there is a lot of the same amount of working being done. But it flows much smoother. It feels much better. So in that sense, it is easier. These things I am saying aren't anything that makes it harder. It is just different (personal communication, 2012).

Numerous staff members when asked about the benefits of the household model echoed a similar sentiment of feeling fewer burdens after the change. These statements demonstrate that operating a decentralized household model may change the way work is done, but the difference is not perceived to add to the household's staff burden. Outside managers of departments that now support the households (e.g. dining and housekeeping) often had to operate with a new degree of trust. These managers often described their role as trainers and mentors, but who would ultimately assert some authority when deemed necessary.

Adopting New Roles. Each of the cases expanded the roles of staff members in the households. One Administrative staff member stated the expectations as the following:

> We have a lot of blended roles here. We have formally blended roles and informally blended roles. Everybody is expected to blend to some degree. My expectation is 80/20; eighty percent in your specialty and twenty percent doing something else.--whatever you like to do. Other roles like a homemaker is a formally blended role where you have someone who has duties in the kitchen and duties in housekeeping (personal communication, 2012).

Staff members at all three case studies mentioned the challenges of staff accepting new roles in the household. One staff member acknowledged that professional roles were a barrier by stating the following:

> . . . the LPNs were probably least in favor of this model initially because they felt they were being demoted. "I did not go to nursing school to do CNA work." And, yet now, they are probably the biggest promoters of this model. They know the residents better (personal communication, 2012).

Leadership at one community specifically chose to hire new LPNs from recent graduates of the nursing school to avoid changing someone who has worked in the "clinical model." Staff that adopted new or flexible roles at two of the cases spoke of having to earn the respect of their peers. One household coordinator who came from an activities background described this challenge in the following statement:

> They threw me to the lions because I had all the 20 year veterans and of course they were "who do you think you are." But, they are all gone now . . . So it is challenge. And, I work on it every day as a person. And, how I can be more of a leader? It is everyday -- it is a work in progress everyday (personal communication, 2012).

A household coordinator with a social worker described a similar experience:

> I had to prove that I could be that Household Coordinator that I could do what the staff was doing and they had to see that. They needed not view me as thinking I was better than them because I was one of the team. And, they needed to see that I willing to do the work they were doing. And once they saw that I gained their trust and their respect. And that was something you know that I really wanted to do. And that is an obstacle that we all as Household Coordinators have to do to prove to staff (personal communication, 2012).

Household coordinators also expressed challenges with peers as they assumed leadership positions in the households. New leaders often described their personal struggless to be effective. Moreover, some key informants questioned the flexible roles and an individual's personal abilities in addition to the professional background qualifications by stating the following:

> That was the initial expectation. You train them, and you won't have to do the activities. However, I will share with you. We struggled. I set up training things, and I tried...I don't know how many things. … We set up -- we had boxes of activities or things that the staff could pull out to do with the residents. We gave them more training we gave them resources--we gave them so much. But being that a CNA is CNA and a Recreation Person is a Recreation Person we go into fields that we do well. For me to go in and do CNA work would be tough. Because, I don't like that kind of work for many reasons. But, to expect the CNA to be a recreation assistant and lead group activities was very intimidating for a lot of the CNAs and not only that--it wasn't their passion--they didn't like it and the residents they were frustrated because there is a certain amount of creativity and entertaining that you have go to put in to running a group. You don't just stand there and call off questions and expect answers there's whole big gamut of things that you also need to look at. The other part of that--the CNAs did not have the time to run the groups because in order to pull off a group. It's hard to pull off a

> group impromptu. Unless, you just pull a bunch a people. Let's just start singing. But anytime. You do a group--think about it--whether it is a meeting or special even or party social--It takes time and planning. The CNAs had no time to plan (personal communication, 2012).

These themes emphasize the learning curve of culture change and that existing staff members may be uncomfortable with these changing roles. While some staff thrive to meet these new challenges other staff prefer the older ways.

Staff Benefits and Awards

Viewing all staff members as team members who contribute to the well-being of residents is an essential element of culture change (e.g. Abushousheh et al., 2010; Koren, 2010). To that end, culture change organizations have adopted various means to reward staff, acknowledge their contributions and facilitate their efforts beyond formal training efforts. While resident centered care is often the focus of culture change, staff contributions are an essential element. One administrative leader emphasized this theme by stating:

> The most important thing is to start with your staff. Although, everybody says they are in it for the residents, and obviously we are. The number one asset that you have is your staff and you have to know them. You have to value them and you have to respect and appreciate them to set the standard for what you want and how you treat them. In other words how you treat your staff is going to set that tone for how they will treat the residents. And, they are the ones that are really going to have to do the hard work (personal communication).

The following section summaries key themes gathered during the interviews related to unique staff benefits and rewards related to culture change. Each of the organizations had adopted

various means to recognize staff members who contribute to the ongoing culture change effort. Both Prairie Town and Five Sisters described a formalized process in the households. At Five Sisters household leadership can nominate a staff member for an "I caught you caring" reward. The reward includes a letter signed by the nursing home administrator and a check for $25.00. At Prairie Town Home, Household coordinators receive monthly funds for the household and $25.00 can be used to reward staff members. The household coordinator can choose to reward a single individual or purchase small gifts that are distributed to all household members such as scented skin lotions. Franklin Village did not describe a formal reward process in place; however, the leadership team did indicate that contributions by staff members were informally rewarded on an ad hoc basis. For example, food was made available for all staff as a thank you for receiving a recent positive survey result. The other two organizations also described hosting similar informal events to reward staff and boost morale.

Staff holiday rewards have changed minimally due to culture change at the three cases. The two CCRCs have an employee Christmas fund which is raised from resident and family donations. Both organizations have a strict policy for staff to steer monetary gifts to a collective holiday fund instead of accepting individual bequests. The distribution of the funds is to all employees at Franklin Village, while Five Sisters Home distributes to non-administrative staff. The CCRC residents are the coordinators of the holiday fund at Franklin Village, who raised as much as $45,000 one year to distribute to all staff. Similar to the other two cases, Prairie Town Home does not permit staff to accept individual gifts, but there was no mention of a collective holiday fund. There were a few indicators that culture change and households affected some staff rewards. One staff member at Prairie Town Home emphasized that

Christmas presents are now done at the household level. All cases indicated that family members often wanted to do something for the household in the form of a non-monetary contribution such as a pizza party or a new garden bench for the household's patio. Staff indicated these contributions occurred around the holidays or after a resident's passing. These outcomes will be discussed in more detail in the philanthropy section of organizational outcomes.

Some organizations align their employee benefits to support their culture change mission and support their staff. Two such employee benefits were found at Five Sisters Home. The organization encourages household staff members to dine with the residents in the households by subsidizing the costs of their meals during their work shifts. The cost for the meals for the employee is deducted pre-tax every two week pay period at either $12.00 for one meal a day or $24.00 for two meals a day. Therefore, each meal costs the employee approximately $1.20. The meal benefit encourages more resident interaction with staff members and contributes to the family atmosphere of the household. Furthermore, staff who may have low incomes are provided with an inexpensive, nutritious meal and are not burdened with bringing food from home or the time pressures of leaving the campus or household to dine. A second employee benefit related to culture change was an open policy for staff's children to visit. There is room near the town square set aside for children to use by family members or staff. However, this is an informal service and no day care services or formal monitoring is offered. The administrative staff member described the use of the children's room as the following:

> . . . I encourage staff to bring kids to work, which usually gets a raised eyebrow from somebody. But, I think it is a good thing for lots of reasons and lot of times staff members will go and pick children up from school and bring them back and they will do homework. Especially like during the summer, or if we have snow days you will see more kids in here. As far as kids visiting their grandparents, it just comes and goes. We will have a particular resident that her grandchildren are here all the time. And, when that resident is gone we don't have anybody. So it just sort of ebbs and flows (personal communication, 2012).

The open children's policy reduces time pressures on staff members who can continue working instead of having to take time off. The residents benefit by having an opportunity to interact with children and by having a child friendly place available while visiting the care community. The employee meal program and permitting staff to bring children to work may have a slight cost to the organization; however, the organization views these costs as essential to meeting their mission and anticipates cost savings in the long term.

Managers of dining services at all three cases described an unintended rise in cost after households due to some staff members helping themselves. This was partially attributed to the increased access to snacks in the households, but also the family atmosphere of the households of which staff were a part. One member of leadership jokingly described the change as, "Our maintenance guys were spending all their time up there having to check on something because there was always something coming out of the oven." All three organizations have been able to address the issue by policies changes.

Revised Hiring Practices

Staff teams in households develop into family like relationships; therefore, hiring new staff members requires some unique consideration for how a new member will fit into the social dynamic. Only Prairie Town Home involves both residents and staff in the hiring process for new household staff members.

> That's another administrative function that really got distributed to the houses, was the hiring decisions. We still do the screening. As a Director of Nursing I still do an initial interview. We check records and references and make sure they are hirable based upon our standards. And then when they are, they look at the schedule based upon where we think they would be a good fit. We call them for a second interview. And during that, the second interview is with the residents and staff in the Household. So, they do a group interview with the residents and a couple of staff and they have their list of questions and they actually decide whether or not they want to invite them in the house or not. . . . They have the final say, and if they say no we would never hire them (personal communication, 2012).

Thus far, only one potential job candidate has ever been rejected by the residents at Prairie Town Home. Five Sisters Home was exploring how to engage residents in the staff hiring process at the time of the site visit. Several household coordinators felt some new staff members needed to assistance to "get them into the person centered view." One coordinator interviewed indicates this was the role of the entire team by stating:

> Yes. It is not very often. Every so often when someone comes in newly hired they still are traditional. They have to get used to our culture coming in. We try to work on that as a team. It tries to creep back in but we try to stop it at the door. Basically, when we do the hiring we let them know how we are set up. And what we are doing and what we expect from them and if we see that-that is happening we bring that person in and speak with them and try to nip it (personal communication, 2012).

Use of Agency Staff

Studies of nursing home quality have often focused on the transient nature of staff (J. Banaszak-Holl & Hines, 1996; Bostick, Rantz, Flesner, & Riggs, 2006; N G Castle & Engberg, 2007; Cohen-Mansfield, 1997). Some nursing homes rely on an outside staffing agency to provide temporary workers to fill staffing gaps. The use of agency staff has been linked to the quality of care as well as costs. Castle (2009) found that sixty percent of nursing homes within a large sample (N=3,876) utilized agency staff and a significant association existed between better quality indicator scores and lower use of agency staff. Although not discussed in the research literature, the costs of hiring temporary agency staff can be higher than hiring a permanent worker (Singh, 2010). The tenants of Culture Change, which emphasizes relationships and staff empowerment, suggest a minimal use of agency staff (Koren, 2010). Accordingly, the Artifacts of Culture Change record a reduction in the use of agency staff as an indicator of culture change progression (Bowman & Schoeneman, 2006; Pioneer Network, 2011).

All three case study organizations were asked to provide information about their current and past use of agency staff during the primary interview. Of the three cases, only Five Sister's indicated a heavy use of agency staff in the past. One administrative staff member stated, "We have not had agency in here in six years. I remember one of those DON's who was here for like three months. She used $80,000 dollars of agency in three months." However, no further records regarding the use of agency staff were available to review. Both Prairie Town Home and Franklin Village stated that they never used agency staff in the past except in an

emergency. Prairie Town Home resorted to agency staff for three shifts during a heavy outbreak of influenza. Nursing homes must have some system to address the inevitable worker shortages that occur with holidays, vacations, sickness, and turnover, etc. To reduce staff overtime at Prairie Town Home, part time staff members are hired on an "as-needed" basis, which is a position with no guarantee of hours. Franklin Village relies on part time staff and some pool staff to cover staffing shortages. Currently, Five Sisters also utilizes part time staff to address changes in staffing. These part time roles are seen as a means to get full time employment when a position becomes available.

Evidence for a reduction in the use of agency staff is not strong for the three cases. An avoidance of agency staff use before and after culture change was prevalent in the three cases. Only one case indicated a heavy use of agency staff by one administrator who was employed for a three month period. All three cases use part time staff to fill in hours for inevitable staffing gaps and reduced overtime. Contextually, both Franklin Village and Five Sisters indicated that they did not have a challenge filling positions and had a reasonable pool of applicants. The rural location of Prairie Town Home resulted in a smaller pool of applicants. Staff interviewed at both Franklin Village and Five Sisters stated that people often used the part time positions while waiting for a full time position to open. There was limited evidence to document the use of temporary and agency staff that was available at the three settings to historically document the use of agency staff.

Organizational Outcomes

Organizational outcomes provide performance measures as they are benchmarked against the external world. Typical financial and indicators of nursing home financial health will

be presented, such as occupancy rates as well as quality indicators like citations. This will be followed by a discussion of operational issues for the household model.

Primary Income Sources

The primary source of income for nursing home providers are medical assistance funds from the Federal and State government and private pay from individuals. However, other income sources include philanthropy, culture change consulting as well as the market potential.

Occupancy. Occupancy rates for the three nursing home providers offer a lens for determining income potential before and after households (See Table 60). All three nursing home providers had occupancy rates above 90% prior to constructing households. Capacity did change for all three nursing homes as part of the household construction process. At Prairie Town Home there was a reduction in beds while Franklin Village and Five Sisters added beds to the nursing home. As a trend, occupancy rates did not positively change for all three cases and therefore no assumptions can be made on the impact of the household model. Key informants provided contextual information for these reasons. Prairie Town Home actually reduced the number of beds and introduced a short term rehab unit after the household model opened. These factors may have impacted the slight increase in occupancy afterward in 2007. Key informants also stated that the greater turnover of short term rehab may result in lower occupancy levels when viewed as a snap shot in time. Franklin Village needed to add beds to the nursing home to serve its aging population and does not admit from outside the continuing care retirement community. For these reasons you see a ramp up in occupancy levels after households. Five Sisters was a large nursing home that added some beds during the household

construction process (i.e. a re-designation from a type of assisted living in NC). As a large nursing home with numerous beds to fill, they do admit from outside the continuing care retirement community which was expanded at the same time the nursing home was renovated into households. Occupancy rates actually were less after households were constructed at Five Sisters which was partially attributed to the longer period of construction. However all three providers indicated high occupancy rates before and after the households were constructed that are higher than their state averages.

Table 60

Beds and Occupancy Rate

	Prairie Town Home		Franklin Village		Five Sisters Home	
Year	Beds	% Occupancy	Beds	% Occupancy	Beds	% Occupancy
2002	98	95.92%				
2003	98	95.92%	42	90.48%		
2004	98	95.92%	42	92.86%	115	97.16%
2005		HH Const.	42	97.62%	115	96.76%
2006	96	95.83%		HH Const.	115	96.40%
2007	96	100%		HH Const.		HH Const.
2008	96	98.96%	73	95.89%	125	92.42%
2009			73	96.00%	125	91.93%
2010			73	99.00%	125	93.19%
	State	State Average	State	State Average	State	State Average
2002	MN	92.59%	PA	87.83%	NC	87.8%
2011	MN	89.2%	PA	85.8	NC	85.8%

Note: Compiled from LTC Focus and Facility Records

Payer Mix Medicaid, Medicare and Private Pay are key sources of income for nursing homes. Changes in this payer mix offer another indicator of financial health of the three organizations as nursing homes typically receive the highest reimbursements from Medicare and Private Payer Sources (Singh, 2010). Table 61 is an overview of the mix of payer sources approximately three years before and after the household model was completed.

Table 61

Payer Sources

	Year	Medicare	Medicaid	Other (Private/Insurance)
Prairie Home				
	2002	4.7%	69.2%	26.2%
	2003	5.7%	66.1%	28.2%
	2004	6.4%	64.4%	29.2%
	2006	3.8%	67.0%	29.2%
	2007	1.6%	65.3%	33.1%
	2008	8.8%	64.2%	27.0%
Franklin Village				
	2003	8.2%	NA	91.8%
	2004	9.6%	NA	90.4%
	2005	6.8%	NA	93.2%
	2008	13.1%	NA	86.9%
	2009	9.9%	NA	90.1%
	2010	0.1%	NA	89.9%
Five Sisters				
	2004	8.3%	37.1%	54.6%
	2005	6.5%	37.9%	55.7%
	2006	6.0%	40.5%	53.5%
	2009	8.7%	44.1%	47.2%
	2010	13.9%	39.6%	46.6%
	2011	12.3%	38.4%	49.3%

Note: Compiled from CMS Cost Reports

No overall trend is showing in the payer data for all three nursing homes as each provider has different contextual factors that have impacted the numbers. As mentioned previously, Prairie Town Home increased its Medicare payments by opening a short term rehab household in 2008. Franklin Village does not accept Medicaid at the time of this inquiry and had little fluctuation in payer sources after households. Five Sisters did demonstrate an increase in Medicare and a decrease in Medicaid funds, which may also be explained by the opening of an improved short term rehab household. An increase in private pay residents could be an indicator that a nursing home is being favored in the market (Green House Project, n.d.-b) . However, there is no trend for an increase in private pay residents due to adopting the household model.

Table 62

2012 Provider Room Rates compared to National and State Averages

	Prairie Town (MN)	Franklin Village (PA)	Five Sisters (NC)
Provider Private Rooms	$261.28	$318.00	$276.00
Average State Rates Private Rooms	$241	$290	$228.00
Average State Regional Rate Private Room	$249	$280	$204
Provider Semi-Private Rooms	$238.28	$283.00	$245.00
Average State Rates Semi-Private Rooms	$223	$273	$201
Average State Regional Rate Semi-Private Room	$228	$266	$190

Note: Compiled from Provider Records and Metlife Long Term Care Survey 2012

Room Rates. Nursing home daily room rates in light of the high occupancies provide an indicator of the desirability of these three providers. A. E. Elliot (2010) conducted a national comparison and found providers who adopted culture change did command higher revenues per bed. All three cases had private room rates that fell above the $248 national average, while semi-private rooms rates were consistently above the national average rate of $222 (Metlife, 2012). Compared to state averages these providers had private room rates that ranged from $20 to $48 higher, and semi-private room rates that ranged from $15 to $48 higher. In both instances Five Sisters had the highest margins. While comparable rates were not available before households, these numbers do demonstrate a trend that these providers can command high rates similar to the national survey.

Private Room Differential. All three nursing homes increased the number of private rooms as part of the household construction/renovation process. Private rooms promote resident quality of life by enhancing resident privacy and autonomy (M. P. Calkins & Cassella, 2007). While not exclusively attributed to culture change and the household model there has been a growing emphasis on creating private rooms in the industry (personal communication, 2012). However, private rooms provide additional income for the provider in the form of daily private rooms with differentials payments that ranged from $23 to $35. Nursing home daily room rates in light of the high occupancy provide an indicator of the high desirability of these three providers. As mentioned earlier, A. E. Elliot (2010) conducted a national comparison and found providers who adopted culture change did command higher revenues per bed.

All three cases had private room rates that fell above the $248 national average, while semi-private room rates were consistently above the national average rate of $222 (Metlife,

2012). Compared to state averages these providers had private room rates that ranged from $20 to $48 higher, and semi-private room rates that ranged from $15 to $48 higher. In both instances Five Sisters had the highest margins. While comparable rates were not available before households, these numbers do demonstrate a trend that these providers can command high rates. These findings follow a similar trend to the national survey of culture change adopters of having higher rates. Notably, the state of Minnesota where Prairie Town Home is located does not permit a provider to charge private pay residents more than someone on Medicaid (See Chapter 5) (Von Mosch et al., 1997). The exception is the private room differential. The construction of additional private rooms for households increased the revenue potential for these organizations.

Table 63

Private Rooms and Private Rooms Differential

	Prairie Town	Franklin Village	Five Sisters
% (#) of Private Rooms Pre-HH	4% (4)	14.2% (6)	57.3% (66*)
% (#) of Private Rooms Post-HH	66.6% (64)	48.7% (38)	69.6% (87)
2012 Private Room Daily Differential	$23.00**	$35.00	$31.00
Potential Daily Income Increase	$1380	$1120	$651

Note: Compiled Provider Records *Based upon the new construction as renovated private rooms could not be identified.

**Private room with shared bath differential reported as $20.00.

Philanthropy and Volunteerism. Increases in gift giving or time resources is another potential financial impact for culture change. None of the three organizations had tracked the amount of gift giving before and after culture change but there were some encouraging trends. Prairie Town home uses larger donations for the "greater good of the nursing home," but smaller donations made by family members often went to the households. The households decide how to use the funds unless they are designated for a certain event such as a pizza party. A similar trend occurred at Franklin Village and a key informant described a family member coming into a household to prepare a special meal for the extended family including household members. Family members at Five Sister can't give money but do buy items for the household like an umbrella for the patio. In essence, households appear to personalize the donations that are given to the nursing home by family members. Conversely, there was organized gift giving at two of the cases for monetary gifts. Five Sisters uses staff monetary gifts towards generating a staff Christmas bonus and Franklin Village collected funds to support residents who have depleted their funds (i.e. no Medicaid funds available).

Volunteerism was only tracked at Franklin Village since it was a strong part of the CCRC culture. There was an increase in the number of hours CCRC residents volunteered in the nursing home after the households were constructed from 3141 in the year 2003 to 5952 in the year 2010. Key informants at Five Sisters also reported an increase in volunteerisms after households, but the CCRC was also expanded at the same time, which increased the number of potential volunteers. Prairie Town Home felt volunteerism did not change with the households. A key informant stated:

> Our vision was we would get volunteers to go into the Households . . . and the volunteer group that we had at the time were all very elderly themselves. They were the next residents of the nursing home and they really liked the large group events where they could be visiting with their friends . . . So we still have a few volunteers that help us with large groups but we never have been able to get people that are interested in the Households (personal communication, 2012).

The informant also stated that volunteers often want a defined task and period of time to volunteer such as operating a gift shop. An open ended volunteering role in a household was not as desirable. However, tailored events for the households were frequently mentioned and included staff giving of their time and expertise. For example, one key informant described the maintenance men at Prairie Town Home grilling food for the household residents, taking residents fishing or hosting a fish fry. At Five Sisters the main chapel for the campus is located at the nursing home, which encourages mixing of CCRC residents with nursing home residents on a regular basis. Franklin Village also utilized CCRC volunteers to help push nursing home residents in wheelchairs to attend church services or for special events.

Culture Change Tourism and Consulting. All three providers were pioneers in the culture change movement for their area, and continue to educate the industry and provide consultations services or host industry meetings. Five Sisters netted about $35,000 to $40,000 by providing consultations and hosting intensive meetings for nurse training over a one year period. All three providers host tour groups who want to see culture change and the household model in operation. Recognizing the draw on staff resources, one provider charges a nominal fee. For example, Five Sisters charged $500 for a four person visit and $75 per person

afterward, up to a cap of 12 people. Therefore, there are some monetary advantages to being a sought after organization for culture change leadership.

Market. The market for each of these cases is based upon contextual factors and not the impact of the Household Model. Prairie Town Home primarily draws potential residents from the hospital district, which falls within a 15 mile radius of the campus. The CCRC of Franklin Village primarily draws 45% of its population from a 10 to 15 mile radius. Another 45% falls within a 30 mile radius, which includes a major metropolitan area. Ten percent of Franklin Villages are a national draw. The households at Franklin Village only serve the CCRC residents unless there are extenuating circumstances. The CCRC of Five Sisters draws about 66 % of its residents from a 25 mile radius, 17% of residents come from further outside this radius within the state, and 17% are from out of state. The nursing home does admit from outside, but no marketing statistics are available. Herfindah index numbers for market penetration for the county in 2008 indicate that the Nursing Home at Prairie Town Home has a greater monopoly (.12) in 2008 (i.e. results 0 to 1, closer to 1 = monopoly), compared to the Franklin Village (.0479) or Five Sisters (.059) (LTCFocus, n.d.; Rhoades, 1993). Therefore, the county of Franklin Village has the most competition.

Key informants provided information about their culture change process and their competition within the market (See Table 64). Both Franklin Village and Five Sisters were described by key informants as the first nursing home households in their states while Prairie Town Home was an early adopter in Minnesota. Two other household models were known with 35 miles of the Prairie Town Home. Franklin Village had only one other provider with a Household model within 15 miles of the CCRC, but there also were three other organizations

that had environmental changes but none met the definition of a household per an informant (i.e. organizational and operational changes). Five Sisters had two nursing homes within 15 miles that were considered a household model, and two that the informant considered partially a household model (Some changes). Based upon the information in 2012 the three cases were unique in bringing the household to the area with only a relative small number of competitors who adopted the model at a later date. Franklin Village has the most competition with some form of the household model, as well as the most competitors who have not adopted culture change in 2012. Key informants did feel that there was potential for the household model to increase their market potential but this information was not tracked at the three cases. However, altering the CCRC tour for perspective residents did serve as an indicator for the increasing market potential:

> In the past we never included the nursing care areas on a CCRC tour ---some of our prospective residents would come in and they would see the pool, the wellness center, the campus, the woodshop, and all the other amenities on campus, but they never took them back to nursing because they did not want to deal with that. However, after we developed households, we started having people that were on our tour say, "I heard you guys are doing something different with skilled. I would like to see that if we could." So we started including that as a part of that. And it is such a radical departure from what they have known as the nursing home -- that it becomes a good selling point for the rest of the campus (personal communication, 2012).

Conversations with other marketing staff members at the three cases confirmed that they were just trying to figure out how to track the impact of the household model.

Table 64

Culture Change Progress and Competition in the Vicinity

	Prairie Town	Franklin Village	Five Sisters
Adoption of Household and State	Early HH model in State	First HH model in State	First HH model in state with separate kitchens
Providers with HH's(Distance)	2 (34 miles) (21 miles)	1 (15 miles)	2 (4 miles) (15 miles)
Providers that claim HH model but are not per informant (Distance)	1 (21 miles)	3 (11 miles) (12 miles) (13 miles)	2 (12 miles) (13 miles)
Number of Providers within 15 miles with little or no CC	2	7	1

Note: Compiled from Key Informant Interviews

Organization Quality Indicators

Nursing Home Compare Archival datasets provided an overview of health and fire/life safety citations for the three cases before and after households (CMS, n.d.). (See Table 65, Table 66, and Table 67). These numbers are used in part to generate the five star measure of quality reported at nursing home compare (Mukamel & Spector, 2003). The number of health citations range 2 to 6 before households were constructed. Before households, most citations tended to fall between B (minimal harm) to D (potential for minimal harm). Five Sisters did have some J-citations which are indicators of isolated minimum jeopardy, which is more severe. Key informants indicated that one of these J citations was a resident elopement. Citations increased at Prairie Town Home after households, but decreased at Franklin Village and Five Sisters. The level of severity ranged from B (minimal harm) to G (actual harm). Key informant

interviews provide some background information about the reasons for the numbers. At Prairie Town Home, surveys tended to have less severity. However, the survey team was designated the lowest citing survey team in the region, and afterwards deficiency free surveys were a thing of the past. However, the informant was adamant that no deficiency was related to the model of care. Both Franklin Village and Five Sisters felt the survey teams were very supportive of the household model and tried to look at deficiencies through a new lens. Fire and Safety Citations did not have a discernable pattern since these occur with less frequency. Upon reviewing the fire and safety survey deficiencies at Franklin Village, the informant pointed out a similar pattern for health safety at Prairie Town Home, "they are going to find something." Therefore, citations may provide a lens for nationally measuring nursing home quality, but it is less effective as a performance measure for assessing a change in quality at the facility level.

Table 65

Prairie Town Home Health and Life Safety Tags Before and After Households.

Pre-Household	Year 3 2002	Year 2 2003	Year 1 2004
Health			
Number of Citations	2	NA	6
Severity Range (A-L)	D	NA	B-D
Area	2	NA	3 Areas
Fire/Life Safety			
Number of Citations	NA	NA	2
Severity Range (A-L)	NA	NA	D
Area	NA	NA	2 Areas
Post-Household	**Year 1 2006**	**Year 2 2007**	**Year 3 2008**
Health			
Number of Citations	NA	15 (3 inspect)	12
Severity Range(A-L)	NA	B-D	D-F
Area	NA	2 Areas	6 Areas
Fire/Life Safety			
Number of Citations	NA	5 (2 Inspect)	8
Severity Range (A-L)	NA	D-F	C-F
Area	NA	5 Areas	7 Areas

Note: Compiled from Nursing Home Compare Archival Records

Table 66

Franklin Village Health and Life Safety Tags Before and After Households.

Pre-Household	Year 3 2003	Year 2 2004	Year 1 2005
Health			
Number of Citations	2	2	2
Severity Range (A-L)	D	B	D-E
Number of Areas	1	2	2
Fire/Life Safety			
Number of Citations	4	NA	NA
Severity Range (A-L)	B-D	NA	NA
Number of Areas	4	NA	NA
Post-Household	**Year 1 2008**	**Year 2 2009**	**Year 3 2010**
Health			
Number of Citations	1	1	1
Severity Range(A-L)	G	D	D
Number of Areas	1	1	1
Fire/Life Safety			
Number of Citations	3	6	4
Severity Range (A-L)	D	D-F	D
Number of Areas	3	5	4

Note: Compiled from Nursing Home Compare Archival Records

Table 67

Franklin Village Health and Life Safety Tags Before and After Households.

Pre-Household	Year 3 2004	Year 2 2005	Year 1 2006
Health			
Number of Citations	6	4	4
Severity Range (A-L)	D	D-J	D-J
Number of Areas	5	2	4
Fire/Life Safety			
Number of Citations	0	0	0
Severity Range (A-L)	-	-	-
Number of Areas	-	-	-
Post-Household	**Year 1 2009**	**Year 2 2010**	**Year 3 2011**
Health			
Number of Citations	3	1	2
Severity Range(A-L)	B-D	E	D
Number of Areas	2	1	NA
Fire/Life Safety			
Number of Citations	8	3	2
Severity Range (A-L)	D-F	D	F
Number of Areas	6	3	NA

Note: Compiled from Nursing Home Compare Archival Records

Operations

Operational costs relate to the cost of maintaining and providing services for the organization. Two key issues discussed are the operational costs and themes related to efficiency of the household model.

Operational Costs. Obtaining comparable operating costs for the three case studies proved to be challenging. While cost numbers are found in the CMS cost reports, the context of each case, and the methods used to generate the figures made it impossible to generate an accurate comparison of how costs changed with the household model. Moreover, it was discovered these large organizations don't track costs at a level that facilitates comparisons at a departmental level. Perceptions by key financial people about the differences in costs to operate the household model were mixed, but all felt it was worth any increases found.

Since each nursing home is part of a larger organization, there was a blurring of financial information. As discussed previously Prairie Town Home is a hospital and a nursing home. Staff resources are shared between the two operations (See Chapter Five). When cost reports for the nursing home and hospital are generated, a time/motion study is conducted to determine what percent of time is spent on the nursing home and what percent of time is spent on the hospital. The overall financial numbers for the operations are then divided based upon this time study. Similar blurring occurred at Franklin Village and Five Sisters which are part of a larger CCRCs. Therefore, some costs for operating the nursing home operation were shared between other departments on the campus.

Other research studies demonstrate the need for controlling for variations of providers when comparing revenue costs. For the years between 2004 and 2008, A. E. Elliot (2010)

compared occupancy and revenue for 185 culture change adopters with 185 non adopting nursing homes. Matching for this study required controlling for number of beds, resident ADL, RUGS case mix index, staff hours, payment sources from Medicaid, Medicare and private pay (Bryson, Dorsett, & Purdon, 2002; A. E. Elliot, 2010). These three providers are not matched on any of these of factors; therefore, a comparison for revenue is not possible between cases. Furthermore, a comparison of changes in revenue within cases is also not possible, as the adoptions of household models included other substantive changes to the campus and the nursing home. For example when households were created there was a change in the number of beds and/or the number of short term rehab residents on Medicare. Franklin Village added 31 beds and Five Sisters added 10 beds, but Prairie Town Home reduced beds. Five Sisters expanded its entire campus at the same time it renovated into households. Prairie Town Home converted a household for short term rehab to enhance its revenue and Five Sisters also created a short term rehab household when it renovated its building into households. While ratios could be used to calculate per resident costs, the underlying costs may reflect a tipping point of adding more residents or short term residents, and not reflect any change due to adopting the household model. The 125 bed nursing home at Five Sisters may not present ratio numbers that are comparable to the smaller nursing homes at Prairie Town Home or Franklin Village. Thus, the three cases selected do not provide reasonable monetary numbers to assess any differences in operating revenue after household or to compare differences across the cases. Some of these challenges were also due to the method of tracking costs.

Based upon informant interviews, it was determined that the large operating budgets of these organizations do not necessitate tracking costs at a finite level. Therefore, the

differences in operating a household model may not be discernable from the numbers tracked. One informant with a financial background stated the following:

> As a co-located facility [nursing home and hospital] . . . There's this allocation mystery sometimes for lack of a better term. I guess I am thinking back when we worked for [name] systems and we had a freestanding hospitals, co-located facilities and freestanding nursing homes. And we would go to meetings with the North Dakota facilities. And those financing people at the North Dakota freestanding nursing homes probably tell you on a daily basis if not on a monthly basis within five cents what their costs were running at any given time. For a combined facility you know we didn't spend --that wasn't something we did except for cost report time--and dug into and did a little more investigating. So I think there is a little bit of that too. And probably if the hospital was not doing as well--we would be spending a little more time and effort and cost cutting and seeing if there was any fat to trim (personal communication, 2012).

Since nursing homes are not reimbursed based upon finer degree of costs the need to track these costs is less. One key informant also expressed this view by stating the following:

> If we were in a state . . . if the funding is different. If we had a different system for funding, we would probably drill a little bit more to track some more of these costs. Well if you are losing 30 bucks a day versus 32. In the grand scheme of thing, it's not a difference that if we keep track of those things we are going to be making money. We are so far from that at this point in time--some nickels and dimes it really doesn't matter. Maybe that's a weird way to look at it (personal communication, 2012).

To compare the monetary cost of a household model with more traditional nursing home models within these cases is not possible due to these varying contextual circumstances.

Those responsible for making financial decisions at each provider organizations did provide their perceptions of cost differences for the household model. One key financial

person indicated, his "gut reaction" was it costs more to operate the household model to cover all of the shifts. Another financial person expressed a similar view by stating the following:

> Did we think it would cost about the same in terms of staff and in terms of hours? We felt it would it maybe be a touch more expensive. By in large it would be about the same. If anything it would be more -- but you can make the argument you can do it about the same costs. But I've heard things that it is actually a lot less expensive. So, because you can't take---If you are going to take tasks that were done by somebody who was salaried like an Assistant DON and take those tasks and give them to people who are paid hourly it is going to be more expensive. I think it is a good way to go. I think we need to go this way. But it's tough to make the argument that there's going to be these things that accrue immediately (personal communication, 2012).

These perceptions indicate the household model can cost more to operate in certain areas of the operation. However, financial people felt it was still a necessary transition for their organization.

Efficiency. The organizational structure of the operating core shifted from arrangement by task to arrangement by location and persons—the households. These changes impacted the daily work flow, but results were often reported as positive. Efficiency was frequently mentioned as an outcome of adopting the household model. For example one informant stated:

> Were we have become more efficient, we have poured it back into spending time in other areas. It makes staff enjoy their job more and residents . . . happy. Their kind of in-effect some real time savings there, that we kind of plow that back in to being with the residents and that sort of thing (personal communication, 2012).

Several informants stated that efficiency did not reflect a reduction in staff members. Instead existing staff members have the freedom to spend more time with the residents or honoring their choices.

Moving the locus of control for operational issues was another theme related to efficiency. For example instead of a central scheduling operation, one household has shifted the responsibility to the household coordinators and the household members. Per one key informant, accountability for overtime is now the responsibility of the household, which has made a positive impact on this provider's budgets:

> I think that the way we manage things like overtime, it is so much more efficient now. And overtime is one of the greatest bleeds in an organization and long term care will never get away from overtime because if I need a nurse; I have to have a nurse. I can't say, we just won't do that today--we will wait until tomorrow. And, so having more committed staff. Having it managed closer to the staff makes sense and that we are not running over budget in our hours. . . .I think you actually save time. Breaking it up into multiple people because any one person. If you ask a Household Coordinator how long does it take to schedule your CNAs for the next six weeks. They will say -- Oh--ten minutes. You know and if everybody is spending ten minutes. Then you don't even measure ten minutes. You can spend ten minutes at the water cooler talking about last night. Ten minutes is easily found. Whereas when we had a scheduler they would spend a day and a half working on the CNAs schedule and then everybody would still be up in arms because it wasn't what they wanted. And now it is just a non-event (personal communication, 2012).

Other key departmental heads in the cases indicated that they served as "mentors" for the empowered households. While initially some had reservations, they discovered that it made their job easier over time as trust in the new system was developed. However, there were

some indicators of issues with oversight and accountability which impacted efficiency. At Five Sisters each household has Certified Dietary Manager so in effect each household is its own food service entity. These managers are responsible for their kitchens in the households, but a food service director is responsible for the menu, main entrée preparation and general oversight. These dual systems of oversight were seen as efficient and more effective. While decisions may fall to the households, it was also clear that there was still the need for a centralized type of community understanding and decision making. This is reflected in one administrator stating the following:

> There has to be someone responsible to come together as a community. I think you decentralized things to a point you have a lot less control. My background is in Human Resources. So you got six or eight or ten or twelve people views versus one person. So you have to spend more time training and making sure people have a consensus of understanding and that is true of the MDS. That is true of lots of things. How are we going to code this? And we all have the same understanding. Or what are the things that we are going to be looking for in our staff? Do we all have that same understanding? So I think you have more people--more hands in the pot--you have to make sure those hands are well-capable and well trained to do what you need them to do. We have got to make sure those things are not falling through the crack.

Each of the three cases continues to grapple with efficiency issues as they further refine their process of operating the model. None of informants felt the systems in place were perfect or will ever be perfect, but all cases were striving to make improvements when issues arose. Efficiency was not seen as a determent for the household model by informants.

Material Costs. Changing material costs were mentioned during several interviews with key departmental heads. These were attributed to the duplication of supplies, providing choices, the learning curve of adopting culture change and the ramifications of the domestic environment and a different view for the activities budgets.

Duplication of Supplies. Several key informants indicated that the smaller households resulted in a duplication of supplies in order to have a reasonable amount in each house. For example one key informant stated: "If I was stocking two cabinets then I would have less medication. I might have six bottles of Pepto-Bismol now versus I would have had two bottles before" (personal communication, 2012). Two of the cases adopted an operational process that household members were responsible for restocking primary supplies for the households instead of relying on outside staff. In some circumstances this involved swapping out carts for items such as linens, but in other instances household members would retrieve items from a centralized source in a form of shopping. Some informants felt this process resulted in waste as household retrieved more than was needed as they went through a learning curve. One food service staff member mentioned that they had to rethink the ordering of dietary supplies for the household. For example, they might have ordered a 105 oz. bottle of mustard for a cookout with 100 residents in the past. But when homemakers shopped for mustard they needed a 12 oz. bottle for 15 residents, so retrieving a large bottle resulted in waste. Now dietary staff member parcel out supplies for the households to reduce waste or order small sized quantities for Homemakers to use. The duplication of supplies is not just due to the environmental change of the duplicated households, but also the new emphasis on resident autonomy. One key informant indicated offering residents' choices results in increased costs by

having options available at all times within the households. Over time staff have adapted to the new systems and also have a better knowledge of the resident preferences, which has mitigated some of these concerns. However, duplication and choice do result in some higher material costs that are unavoidable with the household model. Yet, nursing home rules are increasingly encouraging more resident centered focus, so regardless of the model of care adopted costs may be increasing (Reform of requirements for long term care, 2016).

Waste. Reducing or Increase waste was another key theme that emerged from the interviews that impacted the bottom line of these organizations. There was some evidence that the household model has reduced waste in food service after moving from tray service. More food is actually being consumed versus being thrown away from the tray which was less appetizing, cold or was stocked with small packets of condiments that were not being used. Moreover, one dietary manager stated that she has very few residents on pureed diets, because household staff has time to assist residents with dining versus being rushed in a noisy, chaotic main dining area. Although not tracked, all three cases felt dietary supplements were being used less frequently used. As one informant stated, "a lot of the Meg Ace and Stimulants have gone down --Nothing better than the smell of bacon in the morning to make you want to eat breakfast."However, an increase in waste was also noted when food options stocked in the household got overlooked and expired if not diligently reviewed. Furthermore, one case stated that code officials did not permit staff to offer residents a choice for a meal entrée option unless they first presented the resident with the standard offering on the menu. Following this code interpretation resulted in more food being thrown away. Another unintended waste is due to the familiar, domestic routines of the household for visiting staff members. For

example, residents and staff engaged in a baking activity felt it was appropriate to offer passing staff members a cookie or a snack instead of reserving it solely for the residents. This may be an unintended consequence of replicating a familiar home setting and routine. While some instances of sharing meals and snacks with residents were expected and even encouraged, two of the cases felt it had to be cautious of sharing snacks with staff to avoid overextending the budget.

Activities Budget. There was some evidence to suggest that the overall approach of culture change may impact the activity budget. For example, one informant stated:

> I will say one thing--I think we spend a little more money with the Households because the residents are expecting certain things. And, I remember at one time, we would not have a special event unless we had X number of residents attending. Let's put it this way--bodies there. They may not really be enjoying it but they were just there. Because how could we justify spending this amount of money if we are only going to have five people, and now . . . If we have one or two residents who really want to go out somewhere-we take them. Before we wouldn't do that (personal communication, 2012).

Several key informants felt that there was an increase in the activities budget or a reallocation of funds because of the number of activities and/or the amount of food being served at events. One activities informant pointed out that this differed per household by stating, "there are some with stronger personalities--I am serving the residents --the residents get whatever they want--and they do. But sometimes the generosity extends to staff, visitors and sometimes it doesn't." However, another activities person stated, "I think all the houses are pretty budget conscientious of everything they do in that house." Notably, none of the financial key informants seemed overly concerned by these changes to activities and felt any changes in

costs were reasonable. One financial informant stated that the activities budget for 125 residents was about $6500 a year. This was comprised of an activities budget of $5000 and $1500 of "mad money" that could be used as desired ($52.00 per nursing home bed annually).

Culture Change Maintenance. All three cases spoke about the vigilance needed to avoid going back to the ways before culture change and the household model. This was referred to by several agents as "keeping the creep out." One example shared included the following:

> I had incident were one of the LPNs was serving residents and we were cooking pasta to order so we had a pasta bar set up and I was cooking. They would write the order down and I would prepare the pasta. . . . I guess they gave somebody something they didn't want. And the LPN said, "just give that to me--she'll eat that." And I said, "[name] we are doing this so somebody feels like they are ordering off a menu and they are getting exactly what they want. What does she want?" She was happy to give her red [pasta] sauce when she wanted white [pasta] sauce. Sometimes you just have to tell people that (personal communication, 2012).

One administrator stated that her job is to continue to monitor the internal environment of culture change but also the external environment. She stated the following as her role when asked about keeping the creep out:

> That is my job and that is the biggest part of what I do--Constantly scanning the environment looking for that creep. Looking for where we need to go next. And, it might not even be creep. We are maintaining, but the world is changing around us so now we have to change our strategy to adapt to that. So it is constantly forecasting and scanning and saying here is plan towards what we want to do (personal communication, 2012).

This statement also reflects the theme for continual organizational and personal learning required of the organization as a whole and its members. Spath (2009) states that learning is a core value for healthcare performance excellence and reflects a, "continuous improvement of existing approaches and processes and adapting to change, leading to new goals and/or approaches" (p. 16). Clearly, learning is embedded in the operations of these three cases. This is evident from the numerous committee meetings, and opportunities for feedback within the organization. Yet, learning was also reflective of the personal reflections that were gathered throughout the interviews with key informants. For example one administrative staff person indicates that she continues looks for issues and concerns, but does not consider it her role to solve the problem. She stated the following:

> I meet with my neighborhood council every two weeks. I am transparent completely. Here is what is going on. What do you think we should do? If we are struggling with money. If we have a difficult employee situation we got a difficult resident situation it is out on the table. I am a problem solver. That's my nature, but one of the things that I had to learn to do. Was to shut up and say --- and now it's just very natural for me to say. What do you think we should do? My first question is always,-what do you think we should do? (personal communication, 2012).

A similar view was reflected by another administrator when planning for culture change:

> I also remember at one point in time that if I didn't shut my mouth and walk away it never would happen. That was when we working with a staffing team. We had an organization team and a physical team. And the physical team was working with the architect to figure out how we are going to build the building and we had an organization design team that was trying to figure out how we are going to staff those houses. And, how we are going to get the work done? And as the Director of Nursing on that team, every time they would come to me--And how we are going to do that?--

> And I was use to solving all their problems so I always had an answer. And we got to the point we really hit this wall and really couldn't go anywhere because every time we would bring something up we got really too close with the names. "Oh Joan, would never do that, or you could never have her do this." when we talking about cross-training. And, I realized that unless I stepped away from that team that team would never develop a plan on their own because they were just waiting for me to solve it like I always did (personal communication, 2012).

There are continued costs to maintain the household model. These costs relate to not only keeping it relevant to the concerns of the residents and the organization, but also adapting the model to changes in societal expectations at large.

Chapter Summary

This chapter discusses the values of the performance indicators and outcomes after implementing the household model. The chapter was organized into resident, staff, and organizational outcomes.

Resident outcomes for quality indicators were found to have mixed trends with most improvement related to the residents' mental states, but there was an increase in falls as residents are granted greater autonomy in these smaller care settings. Quality indicator data was not available for all three cases that is comparable. Informants demonstrated that many of differences in outcomes can be attributed to contextual factors and had nothing to do with adopting the model such as CMS emphasis on reducing psychotic drug use. Re-hospitalization rates as a resident outcome are reflective of care quality of the three nursing homes and tend to be lower compared to other similar care settings at the three cases. Resident/family surveys

revealed that satisfaction was high before households and after. Expectations shifted with the household model but not satisfaction ratings.

Staffing structures took various forms at the three cases after households were adopted, but most adopted an approach with versatile workers to varying degrees with similar types of roles. Hours per resident day did increase with the adoption of households, but these numbers were less than suggested hours per resident day benchmarks suggesting that the household model has some potential for efficiency. Staff turnover and longevity appear to be driven by contextual factors for the case and there is less evidence that adopting the household model has changed these statistics. Lower than national average turnover rates were reported by the cases which was attributed to the exemplary character of the three non-profit providers, but also the tight economic climate of the period when fewer jobs were available. Similar to resident satisfaction, staff satisfaction is not overwhelmingly changing due to the adoption of the household model. Key themes raised by staff during the interviews about the adoption of households are the fostering of teams, knowing the residents, versatile worker roles, decentralization, and expanded roles.

The expanded staff benefits and awards that three cases adopted are next discussed. Beyond the resident focus of culture change, all three providers changed benefits and awards to support and encourage staff. The providers have revised hiring practices with one case using resident approval in the process and other cases considering adding this as a step. Temporary agency staff has not changed significantly at two of the cases who use other methods to fill scheduling vacancies. Only one case reported use of agency staff for a short period of time before households were adopted, which was attributed to the preferences of an administrator.

The organization values began with a discussion of the key revenue sources for the three cases. All three cases tended to have higher daily rates compared to national, state and regional averages and relatively high occupancy rates. Occupancy rates did not positively change due to households. An addition of private rooms with the adoption of the household model also improved the bottom line due to private room differential payments. Although not related to the household model but facilitated by the underling structure, two of the cases opened short term rehabilitation units which increased the higher reimbursements from Medicare. Quality indicators judged by citations issued to the nursing home from regulators revealed a low number of citations with typically less severity. This did not change with households, and thus the efficacy of using these quality indicators as a means to access a change in quality improvement was questioned.

The challenges of collecting comparable information about operations were then discussed. These large organizations often share costs across departments and do not always track costs at levels that make comparisons possible. Furthermore, the three cases are not comparable for operating costs due to the differing numbers of residents, their acuity, RUGs. case mix index, as well as staff ratios. The selection of the cases was based upon the household model definition and gaining access and not on matching characteristics.

The theme of efficiency emerged from the staff interviews. Positive changes in efficiency were perceived as a different use of time and not a reduction in staff members. Costs of materials and supplies appear to increase due to a duplication of supplies in each household and providing the residents enhanced choices. Some of these increased costs were seen as initial costs or a learning curve. Key informants would also point out that some of these

increased costs were offset by cost savings in other places. Finally, the organization has to dedicate resources to ongoing learning to continue to refine the model for not only the needs of the residents, but also the outside world. These costs are ongoing, but necessary as the household model continues to be refined. The next chapter provides the conclusions that can be drawn from the presentation and comparison of the three cases.

CHAPTER TEN – DISCUSSION AND CONCLUSIONS

This dissertation was guided by five key research questions which included the following:

1) What investments did the providers make to adopt and operate the household model?
2) What are the values of the outcomes for adopting the household model?
3) What factors influenced these outcomes?
4) How does the household model impact the three providers monetarily?
5) Why do the providers perceive that these impacts exist?

Information regarding the majority of the "what" questions is contained in chapters five through nine of this dissertation. Understanding "how " the household model impacted the providers monetarily is emphasized in chapter nine. Looking at the question of "why" providers perceive that these impacts exist is the focus of these conclusions, as well as a deeper look at the question of "what" factors influence outcomes.

According to Fishman (1999) knowledge generation from a single case is finite, but a payoff occurs when an increasing number of cases are assembled into a database. Increasing the number of cases to three still provides limited evidence, but it does offer suggestions to inform case based reasoning for issues raised when adopting the household model and attempting to measure monetary outcomes. The pragmatic case study approach also informed the guiding conception of the framework developed for the dissertation and its underlying premises. While a pragmatic case study is not designed to test a theory, it can inform theory (Fishman, 1999). In turn, theoretical concepts can generate new guiding conceptions for future

inquiries (Peterson, 1991). Consequently, this chapter is organized into two key sections: 1) theoretical contributions to understanding costs and values for adopting the household model, and 2) practice based applications for evaluating the costs and values for the household model.

Theoretical Applications

Two key theoretical constructs informed the analysis of data for the three cases: 1) The theory of New Institutionalism for understanding organizational change and 2) the concept of place in regards to the resource system. These constructs were prevalent in the themes that emerged from the interviews and have relevance for future inquiries.

New Institutionalism

The concept of new institutionalism is a recognition that formal organizational structures are not shaped solely by technical demands (i.e. how work is done) or a dependence upon resources (e.g. money or goods) (Paul J DiMaggio & Powell, 1991). Institutional forces such as rational myths, legitimized knowledge from educational systems, the professions, public opinion and laws, play an equally important role. New institutionalism provided a lens for understanding what forces shape and promote changing an organization such as a nursing home. Each of the three cases approached culture change and the adoption of the household model with a recognition that they needed to readdress the legitimacy of what a nursing home should be. In their eyes, a rational myth of culture change was the answer for an underlying problem they perceived with their organization (See Chapter One for detailed description of rational myths). Primary decisions were driven by a concern for legitimacy and not economic

acumen. Conversely, resources were redirected towards achieving a new vision for legitimacy in all three cases. In some instances these decisions were delayed, but eventually key decision makers decided to change the entire nursing home as part of larger construction projects occurring on the campus. For example, the Five Sisters Nursing Home that was originally slated for a minor refurbishment eventually became a major renovation and addition project. Another example is the delayed decision to renovate the existing nursing units at Franklin Village constructed only four years prior, instead of just adding the much needed new beds. This emphasis on legitimacy was also reflected in the general reluctance to discuss the financial consequences of the household model or even a general unawareness of the financial aspects for the model by several key informants. When asked if the household model costs more, one key informant stated, "I think it costs this much to run a nursing home." This does not mean costs were ignored. Each of the cases often diligently tried to reshape the organizational structure with the same number of staff members to keep costs neutral.

Another neo institutionalism aspect of this study is the rationalization for duplicating the household model. While each provider had a slightly different version, all three cases had a parallel underlying environmental structure (i.e. a primarily bounded structures with a front door containing a living room, dining room, kitchen and resident rooms with an emphasis on domestic arrangement of spaces and décor), and similar general organizational structures and roles for staff members (e.g. Household Coordinator, Homemaker, etc.). P. J. Dimaggio and Powell (1983) argue for three mechanisms for isomorphic change that rationalize similar adaptations being made to these three organizations: 1) coercive, 2) mimetic and 3) normative. Isomorphism represents the process of homogenization when a constraining process forces one

part of a population to resemble another within a similar set of environmental conditions (Hannan & Freeman, 1977; Hawley, 1968). Coercive isomorphism's relate to the influence of politics and issues of legitimacy (P. J. Dimaggio & Powell, 1983). These influences are pressures from other organizations, as well as cultural expectations from society. Mimetic isomorphism reflects imitation when there is great uncertainty (P. J. Dimaggio & Powell, 1983). Organizations with problems from unclear causes may adopt a viable worked out solution that fits their needs. Normative isomorphism is the result of professionalism in which members seek to legitimize their occupation by defining the conditions, and methods for their work in addition to the gateway to enter the occupation (P. J. Dimaggio & Powell, 1983). Therefore, the professional networks and educational resources may result in similar tactics being employed by an organization.

All three mechanisms were discovered at the three cases. Each of the three cases was clearly impacted by coercive isomorphism to address the legitimacy of the nursing home. Key informants described an awakening to a new way of thinking about long term care from attending conference presentations from early household model adopters. Since each perceived their elder care settings as a leading organization in the area, the need for change was seen as paramount to maintain their legitimacy into the future. Further, societal expectations for nursing homes changed with expanded views of offering quality of care and quality of life. The three cases also faced uncertainty when adopting the household model, so each spent varying amounts of time touring other care settings that had developed a similar solution. While there were discussions of altering the model to fit their needs, it was clear that these solutions were often imitated as a result of mimetic isomorphisms. Normative

isomorphisms were less apparent, but still existed. All three hired ActionPact, a culture change consulting firm which influenced similarities between the three cases. While ActionPact previously encouraged providers to develop their own unique program of culture change, it now offers toolkits and guides for culture change and the household model (Rahman & Schnelle, 2008; Shields & Norton, 2006). Culture change consultants are gaining legitimacy in the industry through their past experiences. Representatives from two of the cases were actively engaged in consulting services for providers who are engaged in or considering culture change. As mentioned previously, industry educational conference presentations were some of the first glances for community leaders to be exposed to culture change. Five Sisters hired an executive director from an early adopter of culture change to consult on the change process. Clearly, there were professional networks involved in the process of adopting change at the cases that encouraged and informed the process. One other example of a professional resource includes the Eden Alternative networks which promoted the resident centered philosophy of Eden but with less environmental change focus (Eden Alternative, n.d.). Cases mentioned being an Eden community or having Eden associates, but Eden did not promote the sweeping widespread changes that eventually occurred. Yet, it did provide increased exposure to similar professionals expressing similar goals. Moreover, for those adopting the Green House™ Model (i.e. not represented in the three cases), this is a licensed prescriptive product entrenched in the Eden Philosophy (i.e. over time there has been more flexibility on some parts of the Green House Model). Repetition is an intentional part of the license agreement to ensure that those who claim to be Green Houses have adopted the policies fully. Licensing is one way to ensure that the model does not get conflated and altered by those seeking the

attention and marketability of a different environment of the house, without adopting the staffing model and the emphasis on domestic routines. The three mechanisms were powerful forces that resulted in the three organizations redirecting their resources to develop a similar approach to altering the place of the nursing home. Continuing to understand the drivers for culture change and the replication of the household model is useful for future inquires that relate to the models penetration into the industry and the espoused goals, which include monetary claims.

Place and the Environment

Chapin (2010) uniquely equates holistic culture change to the idea of place making, "which is a process of collectively creating meaningful and purposeful settings" (p. 191). Weisman (2001) conceives place as combination of the built environment, the program and the people. As one repeatedly experiences places, they take on deeper meanings and serve as a schema for understanding the settings we encounter, which fosters expectations for what should occur. Within the early culture change literature, there is often a lack of emphasis on altering the built environment even though it is recognized as an important element of change (Chapin, 2010; Shier et al., 2013). Altering the environment can be conceived as desirable, but less feasible due to the significant costs (Miller, Cohen, et al., 2014; M. A. Proffitt et al., 2010).

During several key informant interviews with frontline staff, there was often an emphatic emphasis that culture change could occur without altering the physical setting. For example, one person stated the following when asked about changes in costs with the household model:

> it is not based upon the walls, it is based upon the relationship . . . Yeah, the building may look nice, but that is not what makes the model. I believe it can be done without any remodeling if you have the right leadership. So from that perspective, do you have to spend more money to be successful. I don't think so. . . . Yeah, it looks pretty, but I am not sure that it is. I guess I- what is home to you? Home is not what it looks like, but what it feels like. I believe Home is based upon relationships. Just like some of us live in nicer homes than others sometimes the nicer the house the less family you really have. So, I think I really believe as much is it is nice to be in a lovely place--and maybe the morale is better in here-- for a lot of people this is nicer than anything they have ever known. So, I am not sure what that says to an elderly person what they think about this. I don't believe the facility and the walls around it is what makes this work well. I really don't. I think there is something to be said about surroundings (personal communication, 2012).

The informant's emphasis on a deeper need for change is evident in the response. The person also is implying that changing underlying assumptions and values towards a culture of relationships does not require significant monetary investments. What is also evident in the quote is the view that the changes to the environment are primarily for appearance sake with no acknowledgement of the structural changes of creating smaller, divided settings or the relocation of daily activities such as meals. All of the cases started changing their organizational structures and routines before significantly altering the environment. Some report feeling a difference immediately with these changes. Individuals would taut the emphasis of changing the organization over the environment, while also sharing stories of closing the door between two halls to create a pilot household. Yet, this alteration of the environment was not perceived as significant. Interviews revealed that most staff appreciated moving into their new "houses"

that reinforced the new model of care. However, there seemed to be a disconnection from understanding the resources of the environment.

Culture change advocates have argued changing the environment is not a crucial first step for culture change (Shields & Norton, 2006). However, recreating home or a homelike setting is key domain of culture change practices (Koren, 2010). Home is a multi-dimensional concept with various meanings (Hayward, 1982). M. P. Calkins (2008) argues that the feeling of being at home goes beyond the appearance of a care setting. She contends that altering the operations of a nursing home to reflect the qualities of home are equally important. Improving resident autonomy by offering choices over decisions that impact their daily lives and creating opportunities for residents to have forms of self-expression through personalization are two examples shared. However, she also acknowledges that eliminating the institutional character of a care setting does rely on altering the built environment.

Why do some staff members perceive the environment as primarily décor? Reph (1976) provides one explanation by categorizing spatial experience as both immediate and cerebral. Immediate experiences are instinctive and bodily, while cerebral experiences are cognitive and abstract. Therefore, staff members may immediately evaluate the impact of the environment based upon its décor, but as they have more meaningful interactions with the altered place it becomes more cognitive and abstract and eventually difficult to express. Therefore, the importance of space becomes less relevant to the aspect of place for the staff members. The informant above begins to capture this idea with the reference to "surroundings" and the reference to the multi-dimensional aspects of home as a "feeling." Briller and Calkins (2000) offer a similar suggestion for integrating the "multi-dimensional aspects of organizational,

social, operational, and physical elements" (p. 18) around the concept of place as an organizational principle for dementia care environments. Places can feel like a home, a resort or a medical center based upon altering the dimensions. The authors suggest by utilizing a concept of place, staff can easily comprehend how to alter these dimensions into a cohesive intervention. For example, a home model would be hallmarked by attributes of control and privacy: elements of a daily routine would be decided upon by the residents and include family style meals; activities would be home based activities and external activities; staff would dress in home attire and medical care would be presented in the form of home health: the environment would include family sized dining spaces with opportunities for residents to personalize areas beyond their bedrooms (Briller & Calkins, 2000, p. 20).

There was a continuum for awareness for the role of the built environment as a resource for culture change. I interviewed one food service director who started before the conversion to household. He took great pride in getting rid of the breakfast tray service, by installing a toaster and a griddle in an available room located along the existing nursing room halls. Breakfast times could now be flexible and residents had increased options. This was a minor environmental change, but it had significant impact on the operations and routines for the residents. Two administrative staff members expressed a higher level of sophistication of utilizing the environment when selecting their office locations. One administrator felt that her role as a guide for the household staff did not necessitate her office being near the households. She wants the household staff to solve problems on their own instead of deferring to her judgement. On the other hand, another administrator believed that her office needed to be accessible for the residents as her involvement with their daily lives was an equally crucial

aspect of improving the culture. Both of these individuals consciously manipulating their degree of contact with others, to support their vision of culture change. The role of office placement also played a significant role in the Green House™ Model with nursing staff, social workers and activities staff primarily being located outside the houses. These individuals are consciously removed from the daily life of the house. In contrast, the connected household model at the three cases offered a blended role for social workers and activities staff members in which many were stationed in the households, but took on other social roles. This solution offered more opportunities for these staff members to spend time with the residents in a different capacity, and share their professional expertise with the care team.

A dramatic impact on the experience of the environment can occur just by changing the distance between spaces and the connections between spaces. A key element of the household model is replicating familiar domestic routines and settings. While placing a toaster near the residents is a small environmental change for meals, the introduction of kitchens within the households is a significant investment that has the potential to offer residents more food choices and the ambiance of a home. Each of the three cases has a dining room with a kitchen immediately adjacent and some form of a meal was prepared in these spaces. Food choices were available 24 hours a day, seven days a week in these kitchens for residents and residents had "refrigerator rights" to help themselves. These spaces, however, are arranged and are connected differently, which resulted in a different meaningful experience. I judged the breakfast service at Franklin Village to feel extremely domestic for environmental structural reasons. The kitchen and the dining are directly connected. I observed one staff member using a griddle to make breakfast pancakes at the counter while she chatted with the residents. This

place experience felt like a family meal being prepared in a kitchen at home on a Saturday morning. A similar pattern occurred at Five Sisters, but due to the interpretations of fire and health codes, the actual cooking area was separated from the dining room by a half wall. Staff could chat with residents but mostly went back and forth to communicate. This experience felt more like being at a friendly neighborhood diner. Therefore, the environment was less conducive to the social aspects of the meal between staff and residents. At Prairie Town Home, the kitchen area for breakfast is actually separated by a serving window from the dining room in the newly constructed household which effectively increases the social distance. Furthermore, staff felt residents (and other staff members) feel isolated in the households and wanted a door installed to connect the dining rooms of two houses back to back. Here breakfast felt more like dining in a small dorm cafeteria. The serving window and the presence of more people from both households created a different experience compared to the other two cases. These differences may be subtle, but they do emphasize that the physical environment does serve as a resource for supporting the model. Briller and Calkins (2000) place based model of care provides guidance for an overarching view of this concept, but the recognition of these smaller environmental variances reflects the need for deeper inquiries. Staff members' awareness of the benefits of manipulating the existing physical environment is equally important to culture change. For example, moving chairs so residents can see a person face while holding a conversation, or turning off loud music distractions during meal times. The household model should not be viewed solely as a change in décor. The household affordance instrument used for this dissertation is an attempt to address some of these issues by critiquing physical aspects of the design that are supportive of the household model premises.

Practice Based Applications

As an example of a pragmatic case study, this dissertation is primarily intended to inform practice (Fishman, 1999). Case-based reasoning offers providers insights into the costs and values of adopting the household model, as well as guidance for researchers who chose to view monetary issues in future studies. This section is organized around the consistent themes that emerged from interviews and data analysis from each case.

Shifting Views of Costs

Views on costs associated with the household model often shifted for individuals based upon different perspectives or time periods. All three cases initially spoke of trying to remain cost neutral when adopting the household model. For example, Franklin Village described a meeting where every FTE assigned to the nursing home was placed on a card for the old model and these cards were used to account for the same number of FTE when designing the new organizational model with allowances for the 32 residents (beds) being added. Eventually, some informants have realized costs could be higher in order to have sufficient staff coverage for all shifts. Informants described tinkering with some of the staffing patterns and ratios based upon their experiences of operating in the model. All three cases are reporting higher numbers of hours per resident day for staff members after households. Informants suggested that some of these increases were related to the short term rehabilitation units, or changes in regulations that require more labor intensive documentation. However, all three cases suggested that the household model can be cost effective, but additional staff numbers are a benefit to the

operation. The means by which staff members are compensated also increased some operating costs. When job responsibilities in the nursing home shifted from a salaried employee to an hourly employee, the cost to achieve a similar task increased. In some instances informants reported salaried employees were expected to fill in for hourly staff during call-offs to keep costs in check. When housekeeping staff or dietary staff took on a blended role that required certification, such as CNA duties, they were paid the higher hourly rate. At least two of the cases solved this problem by having short term lower paid helpers enter the household during the heavy work periods of meals. Some staff members had significant duties in other parts of the nursing home (i.e. Social Worker or Activities), but were assigned to be a household coordinator for a certain number of hours. These individuals would often report that this did result in some challenges to fulfill both tasks. These findings suggest that solely looking at FTEs or HPRD for households, only reflects part of the picture when examining costs factors.

As discussed previously, these strategic changes were primarily necessitated by a moral need. Key informants were reluctant to discuss cost issues for the model and often illustrated their points by sharing stories about the residents that justified the expenditures. Informants were either unaware of costs or very aware of some costs at the three cases. For example, the administrator at Five Sisters keeps household coordinators informed of costs because they are ultimately responsible for the budget and staffing hours of their house. Several key informants, who could converse about costs, pointed out that costs shift with the household model. An emphasis of moving away from a task based organization to a location and person based organization resulted in a shift of cost centers which may be difficult to track.

Furthermore, costs can change throughout the process. There may be a steep learning curve that increases costs, but problem solving may result in a reduction in costs. An example of this is the recognition at Franklin Village that purchasing bulk size containers of condiments was wasteful when sent to the smaller households. Items needed to be parceled out or ordered in smaller sizes to keep waste in check. The time frame of sampling for costs and values is a crucial decision when choosing to explore monetary issues. Too early of a review may result in experiencing the higher costs of the learning curve, while waiting too late may result in informants not being able to recall cost issues or more reluctant to critique the model in which they are invested.

Context Impact Costs and Values

Numerous measurement issues with generating comparable costs for the three cases arose due to the different contexts. As these three cases were a convenience sample, meeting the definition of a households model and having a commitment to share financial data, these differences were not taken into account when selecting the cases. All three cases were part of larger campus organizations that shared resources. These structures proved to be a driver for some nursing home costs, and therefore it was not possible to always tease out household inputs or outcomes from budgetary numbers. The co-located hospital and nursing home at Prairie Town has very different costs compared to the nursing home located on a CCRC campus. Due to the large operating budgets, specific nursing home costs were not always available or judged to be inaccurate from the available prepared cost reports.

The acuity levels of residents at the three cases also differed based upon the context of the organization. As a CCRC, Franklin Village was able to support its residents in their independent living and assisted living, which meant the nursing home was used when it was only medically needed. Therefore, residents resided in the nursing home for short term rehabilitation, or had reached a point near death as evidenced by their higher acuity level scores (10.58 -11.59). The large nursing home at Five Sisters attracted a wider range of long and short term residents and only recently began to operate as a CCRC with a full continuum of care, and therefore still had higher acuity numbers (10.79-12.12). Prairie Town Home, a co-located home and hospital, primarily serves long term residents until the recent opening of the short term rehabilitation unit. This resulted in the lowest acuity scores between the three cases (7.90-10.18). A comparison of the RUGS scores also demonstrated that Franklin Village reported slightly higher need residents compared to the county and state averages in 2008 after households were built. However, Five Sisters and Prairie Town Home RUGS scores were less than the counties and state averages in 2008. A comparison of RUGS scores before households show Prairie Town Home remained the same before and after households, while Franklin Village increased and Five Sisters decreased. These differences in acuity and RUGS scores make it challenging to compare revenue across cases and within cases as these scores determine reimbursement rates. Therefore, a financial analysis of any long term care settings that compares settings should consider the impact of matching RUGS Case Mix Index scores.

The impact of Medicaid and Medicare also impacted costs. Two of the cases operated short term rehabilitation units (i.e. one as part of the initial planning and one added at a later date) in part to increase revenue from the higher Medicare reimbursements. The medical

needs of these short term residents are more intensive and therefore rates are higher (Singh, 2010). In 2010, Medicare paid an average of $500 to $600 a day for post-acute short term stays, while Medicaid paid an average of $125 a day for long term care resident that has exhausted his/her personal funds (Glickman, 2013). Only two of the cases accepted Medicaid, which offers assistance for those who can no longer pay for their own care. The third case did not accept Medicaid at the time of the site visit, but had a benevolent fund to pay for those residents who had run out of funds as part of its moral, religious, contractual obligations.

A review of state policies for nursing home reimbursement demonstrated that revenue could be different based upon state policies for Medicaid. For example, nursing homes in some states may charge higher rates for private pay compared to the reimbursements rates from Medicaid and thus may provide an operator with more income per bed. However, Minnesota's policies do not permit a private pay resident to be charged more than a person on medical assistance. A suggested increase in revenue from more private pay residents seeking out the household model would not be relevant for that state.

These varying payer sources and the characteristics of residents being served impacted the revenue. Therefore, a comparative longitudinal design of the cases did not yield a useful comparison. The providers also changed the number of residents when adopting household which made it difficult to access if these changes impacted the financial differences or the impact of the household model.

Future research should consider matching the cases on similar factors. As more household models are constructed, this will increase the pool of possible cases to study. However, as construction costs are expensive and not completely reimbursed for nursing

homes, providers may seek capital improvements to address changing resident acuity, and capacity as drivers to justify these costs (Miller, Cohen, et al., 2014; Semuels, 2015; Singh, 2010). No nursing home may maintain the same number of residents and serve the same type of residents after developing the household model. For example, a nursing home may add a dedicated short term rehabilitation unit to enhance revenue or increase the capacity of the nursing home. Comparing costs before and after households within the same organization may continue to be a challenging methodology.

The Impact of the Surrounding Economic Context on the Cases

The contextual factors discussed above are recognized in research studies as control elements when assembling large data sets to compare nursing homes (A. E. Elliot, 2010). There are, however, more subtle economic contextual factors that can significantly impact findings when assessing a change in costs or values. These factors may not always be available in the large datasets (Rantz & Connolly, 2004). Prairie Town Home is located in a small town and serves as a major employer for the area. Staff turnover rates are impacted by this situation to some degree with fewer options available, but also a sense of loyalty by the organization to support the townspeople. All three cases began culture change and the conversion to households between the years of 2003 and 2009. This period is considered part of a recession with fewer jobs being available and a downturn in spending (Bordo, 2008). Therefore, staff turnover and satisfaction rates may be indirectly impacted by staff choosing to stay where they were and not express dissatisfaction. The religious nature of Five Sisters also played a role in staff retention; the organization made a commitment to find roles for all staff members during

the transition to households. The organization also accepted that they would pay a higher hourly rate for blended tasks. This attitude is not expected in all nursing home providers or culture change processes as increased attrition rates of losing staff are often reported when some staff members are not onboard with change. Notably, Five Sisters did lose a Director of Nursing due to disagreeing with some of the premises of operating the model, but she returned several years later and now is a proponent for the model. These contextual factors are less obvious in the nursing home datasets, but may make a difference in outcomes regarding staff retention.

Shifting Benchmarks within the Cases

Early stories of culture change often reported changing satisfaction for residents and staff members (A. S. Weiner & J. L. Ronch, 2003). Formal measures of resident and staff satisfaction from surveys did not demonstrate overwhelming positive trends. This study revealed that satisfaction benchmarks shift with culture change and therefore, it is not always impossible to demonstrate a change. Aspects of the household model that begin as a startling differences become reified as part of the rituals of daily life (Schein, 2010). For example residents who have breakfast cooked to order near their table may assume that's the way it is and are not aware that some nursing home residents regularly receive food prepared in a commercial kitchen and served on a tray. Satisfaction levels don't change because of this perspective and if they do change it is not always related to any differences for the household model. Occasionally, there is awareness by family members. One key informant described an amusing conversation with a prospective resident's family member who stated, "I am not sure

you are aware of this, but other nursing homes are not like yours." Planning for culture change does not always increase awareness. A frequent mantra for culture change agents is "listen to your residents." However, asking residents about what should change for a place that is already perceived as satisfactory does not always generate useful feedback. One administrator said they may have never engaged in culture change if they had listened to their residents and their family members. It took time for a common understanding to emerge and seeing an example in operation was often the best recourse to understand the ultimate goal of the process. This further demonstrates the power of the experience of a place.

Greater efficiencies have been suggested to reduce operating costs (Semuels, 2015). Informants from the three cases reported focusing less on tasks and more on the residents' needs, which has created a smoother and more enjoyable workflow. Challenges were acknowledged by several key informants, but many felt the new system was efficient and even less stressful. While staff can perceive they are not working any harder, that does not mean there can be a reduction in staff levels to save costs. Instead these costs savings insure a degree of organizational slack that can be used to spend time with residents and honor their choices. Therefore a reduction in staff members to reflect a cost savings may never be realized. The Green House™ Model, which uses a universal worker approach for CNAs, is touted as a potential reduction in staff per households, but these houses are supported by a "mothership" on the campus and in some instances the operations have been tweaked (R. A. Kane & Cutler, September, 2008). Comparing the connected households, such as the three cases, with the separated houses of the Green House Model would be a future opportunity to compare the staff efficiency of these similar approaches.

Lack of Measurement Tools for Accessing Costs

Cost reports prepared for CMS are the primary source of costs information for research studies. However, the accuracy of this information was questioned as key informants discussed the reasons or sources behind these monetary figures. Take for example, the time motion study conducted at Prairie Town Home to allocate staff hours between the nursing home and the hospital. Occasionally errors were discovered in the costs repots when discussing the figures prepared before the site visit with key informants. They did not always agree with the numbers being presented or would suggest that some of the differences in numbers had nothing to do with the household model.

During the data collection phase it became apparent that these large organizations do not track costs at a level that permit retrieving departmental costs. The reasons for this lack of data were attributed to the size of the organization and its budget as well as the means by which they are reimbursed. These organizations only measure what is necessary. For example, Prairie Town Home had more extensive number for staff turnover because for several years a lower rate provided a higher reimbursement rate from the state's Medicaid program. Awareness of tracking costs and values is changing; however, as these care settings begin to see the potential for validating and measuring changes. For example, Prairie Town Home pulled MDS numbers for their care community and the state before and after households to see if the model had any impact. The other two cases had not measured the change in resident quality indicators with households. None of the cases clearly tracked monetary issues specifically with the households, other than the larger bottom lines of the organization. Adopting an evidence

based approach and tracking financial information may improve data availability and reaffirm the belief system of the organization.

Accessing a period of time before and after households were constructed may also be impacted by changes in policies. For example, Five Sisters was required to complete the MDS 2 before household, but now is required to complete MDS 3 as of 2010. The changes in the MDS for resident and facility data resulted in less comparable data for one case. Therefore, longitudinal cases that seek comparison should look to see what information is consistent for both versions if their study spans this change in policy.

Limitations of the Study and Opportunities for Future Studies

Limitations

This comparative case study approach does have several limitations. Only three cases were compared longitudinally. This small number limits the ability to transfer findings to other nursing homes. The selection of the cases was a convenience sample to insure access to financial data. Therefore, the cases were not matched for having similar characteristics which might have facilitated between case comparisons. A traditional nursing home with similar characteristics to draw comparisons to the cases was not included in the study due to the perceived challenges of finding an agreeable participant. Having a control nursing home may have provided a greater depth of understanding of costs. As an exploratory study which relied on existing records and databases, missing information was frequently encountered that reduced the ability to compare results between and within the cases. Furthermore, each of the cases was visited at a different period relative to the opening of the new building. Prairie Town

Home had been in operation for six years while Five Sisters had only been operating under the new model for less than three years. These differences could have further conflated the findings for each case which did rely on the recall of information. Similarities between the cases could also have impacted findings as all three utilized ActionPact as a consultant and adopted its vision for households and the staff structure. All three cases are non-profit organizations while two thirds of the nursing homes are for profit in the United States (Comondore et al., 2009). Therefore, these findings may not be transferable to a for profit organization. Finally, the exploratory scope of this project to access the impact of a holistic model of change resulted in the generation of significant amounts of data to sift through and evaluate. Future studies might benefit by studying a singular aspect of the household model in greater detail. For example, a study could be conducted on the differences in costs and values from moving from a centralized dining experience to a household based dining experience.

Future Studies

This exploratory study does provide a framework to understand costs and values when implementing a holistic change process. The framework for this dissertation was a useful heuristic to gather and organize information for the three cases. Generating future cases to build a database will permit a greater understanding of the household model (Fishman, 1999).

Another contribution for this research study is the development of the household model affordance survey, which serves to evaluate the physical features of a household design. The instrument serves as a tool to judge the characteristics of the household based upon key aspects of the model. The approach for this tool is similar to the Artifacts of Culture Change

survey instrument developed by a contract with CMS, which only includes one question about the household model and a third of the questions in the environmental section address accessibility concerns (Bowman & Schoeneman, 2006). This deficiency is partially due to the artifacts instrument not focusing solely on the household model, but a broad range of environmental adoptions. Future studies could further refine the instrument and assess its efficacy and validity. This instrument could be used to build a database of household designs for the sake of comparison.

One of the challenges of this dissertation is seeking monetary outcomes for a social investment. In effect, the question becomes what is the social value for the household model? Bruyn (1991) describes social investments as non-economic criteria introduced into investment decisions that impact people as well as the profit. Emerson, Wachowicz, and Chun (2001), state "social value is created when resources, inputs, processes or policies are combined to generate improvements in the lives of individuals or society as a whole" (p. 1). This monetary language demonstrates a blurring of social and economic evaluations due to an increasing concern for accountability from those who are more familiar with business methods. These expectations result in a focus on accountability through the use of the methods that are more familiar to the business world (Frumkin, 2003). Future studies may benefit from this framework and inquiry as values are sought for investments into new models of care. Based upon the experience of visiting these three cases it is evident that while there is much face validity for the household model to benefit residents and staff; integrating provider monetary concerns is a necessary next step to continue to evolve the household model. Monetary research does not necessarily require a business case with exact numerical differences as this level of sophistication may not

be possible. F. Duffy (1999) argues that research must "produce evidence that is consistent with the practical business judgements of the client" (p. 140). Therefore, providers require a level of research findings that are both tangible and credible for decision making versus a stringent level of proof. Finding that some aspects of the household model costs more should not discourage providers, nor should we seek the cheapest solution when it comes to creating appropriate care settings for elders. Instead the hope is that we continue to find values that justify any differences in costs.

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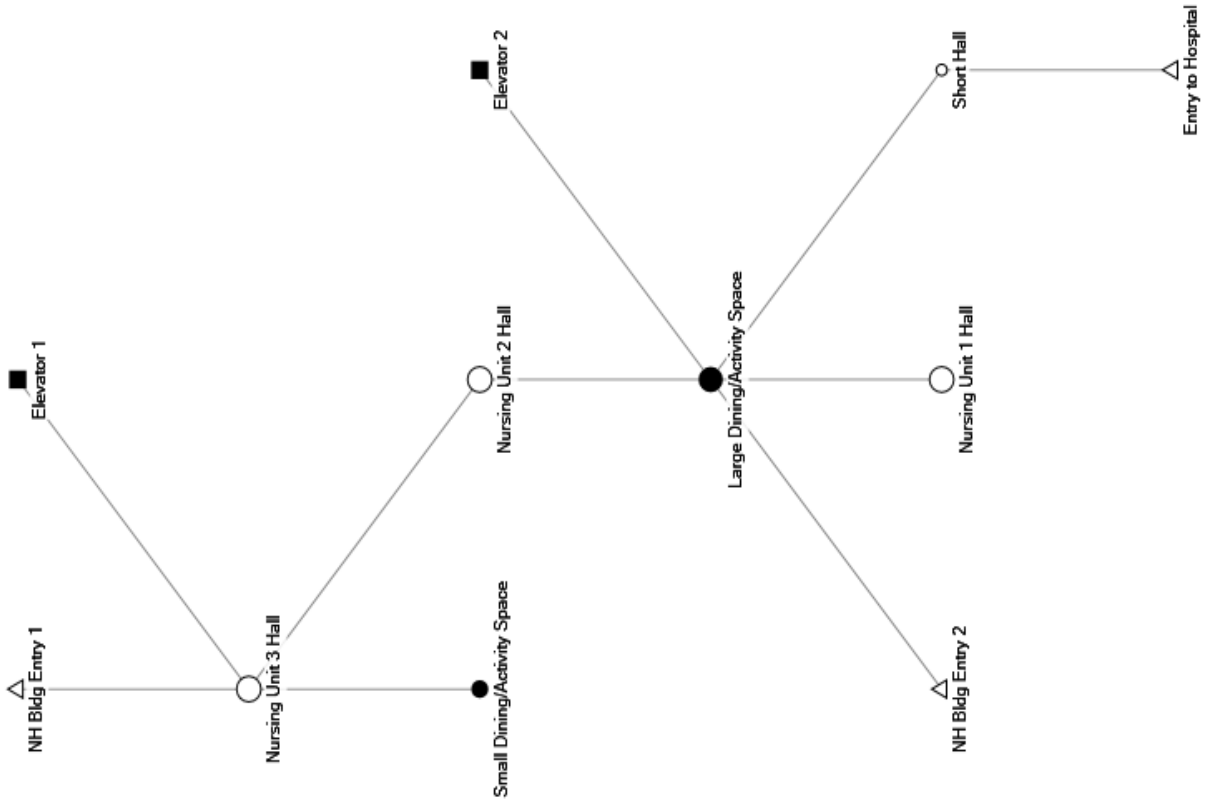
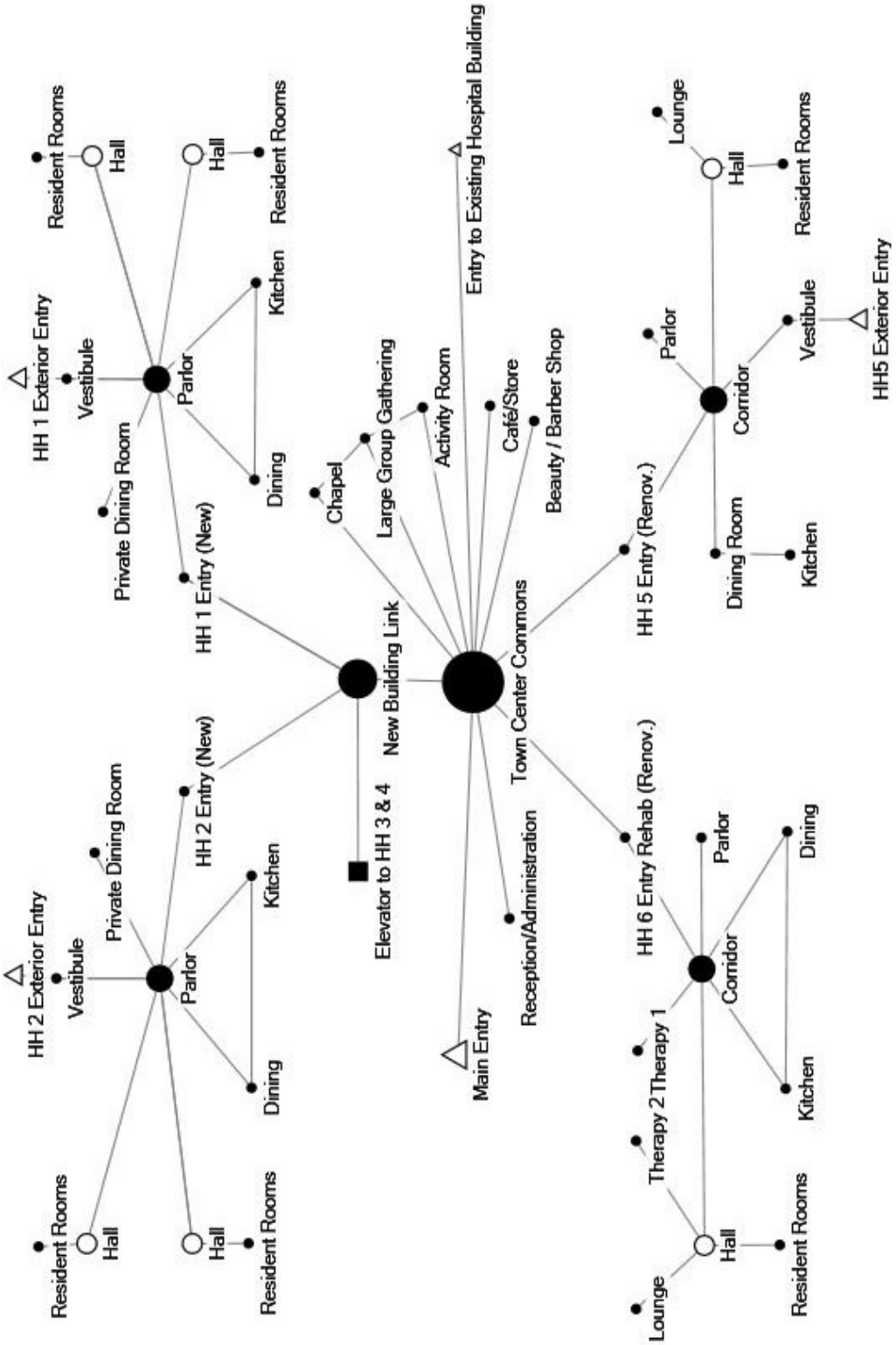
APPENDIX A – SPACE SYNTAX DIAGRAMS

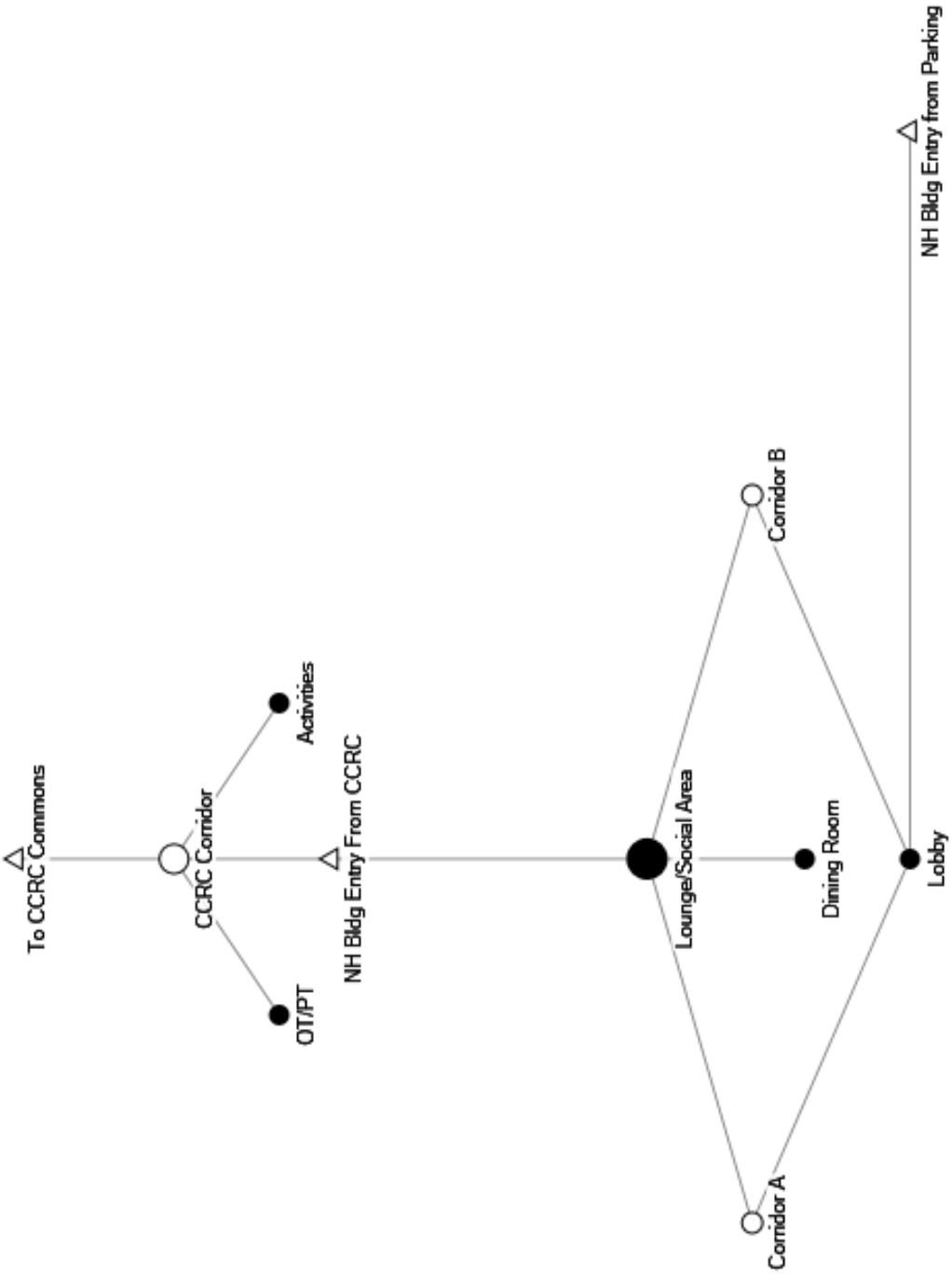
Prairie Town Before Households Space Syntax Diagram



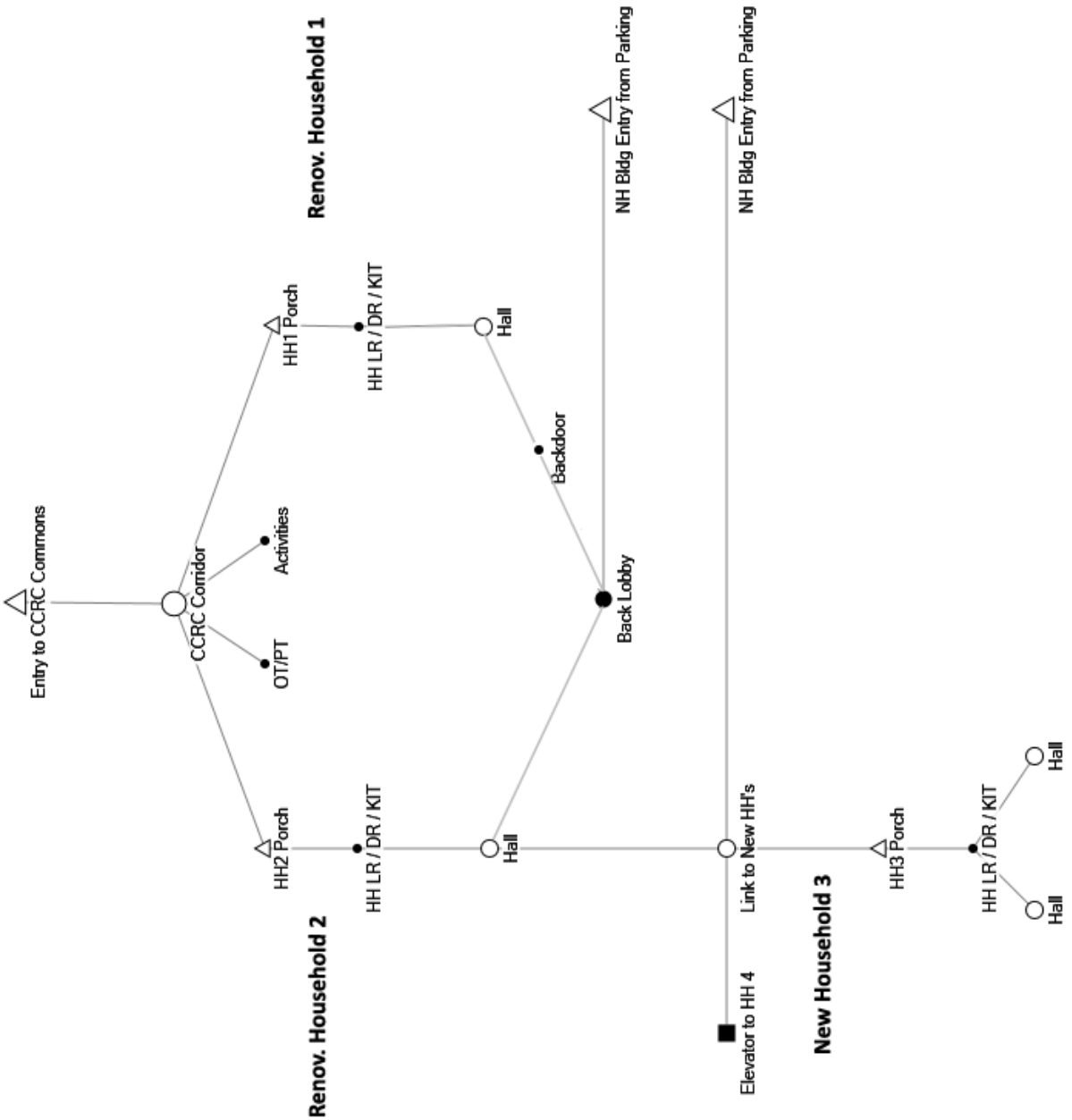
Prairie Town After Households Space Syntax Diagram



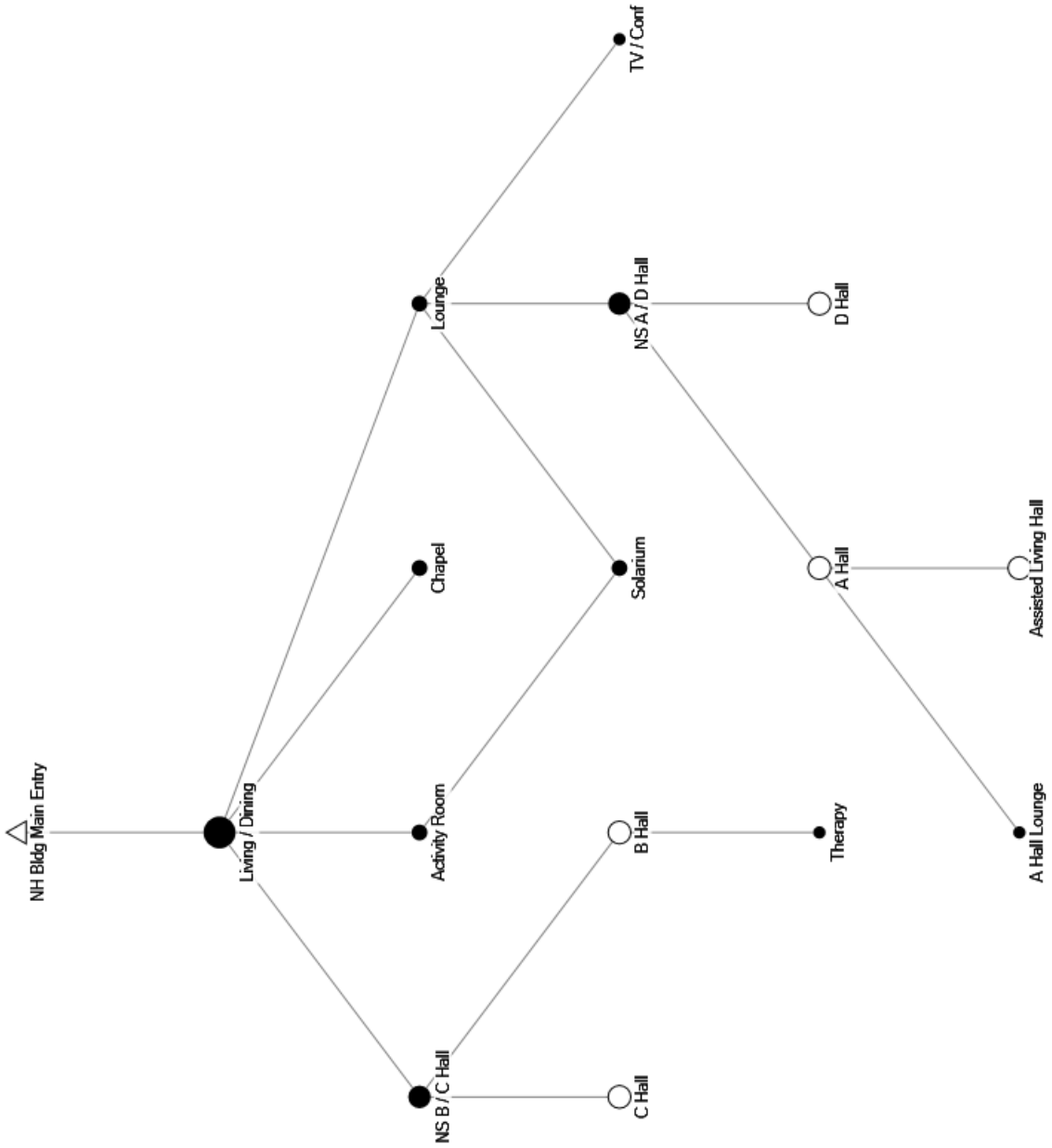
Franklin Village Before Households Space Syntax Diagram



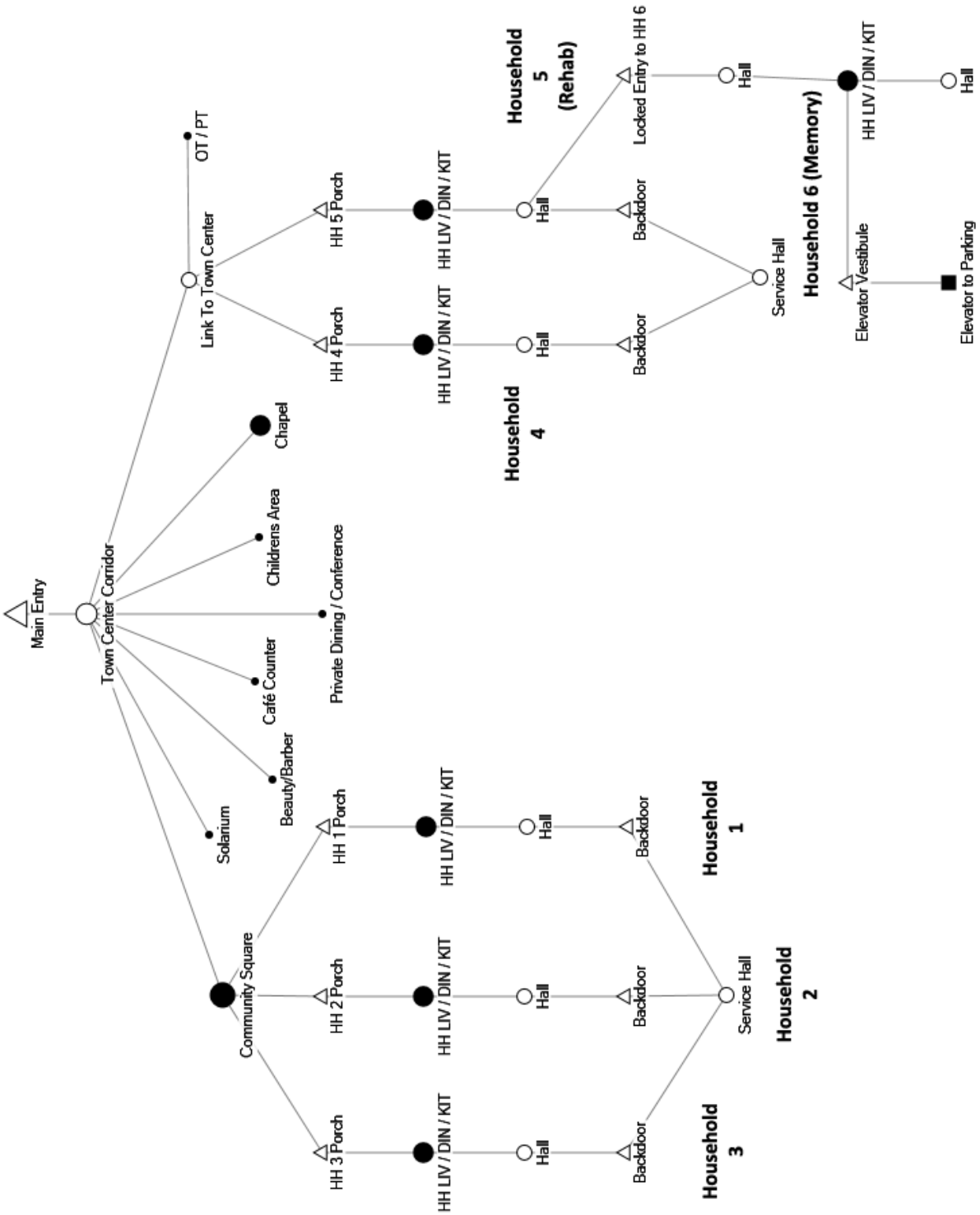
Franklin Village After Households Space Syntax Diagram



Five Sisters Before Households Space Syntax Diagram



Five Sisters After Households Space Syntax Diagram



APPENDIX B – ARTIFACTS OF CULTURE CHANGE SURVEY

Artifacts of Culture Change - Online Version (
www.artifactsofculturechange.org)

Pioneer Network is host to this web-based version of the Artifacts of Culture Change. By registering and completing the Artifacts of Culture Change, providers are able to input, score and store their data online. Providers will be able to access current and historical data and are encouraged to:

- Complete the tool at a minimum of twice a year. Quarterly updating is recommended, because for many homes, organizational reporting occurs quarterly. Adding Artifacts to a quarterly reporting schedule can also help to better analyze incremental changes in benchmark reporting;
- Create high involvement of staff, family and residents in completing the tool and solicit feedback from varying perspectives (see below);
- Although assessments of responses can be approximates (e.g. responders do not need to count every adaptive handle), providers are encouraged to provide close approximate estimates toensure the best possible measurements of longitudinal change.

Tips for High Involvement (By Peggy Bargmann, R.N., B.S.N)

Start by gathering the Culture Change Leadership Team. This team should consist of the administrator, the director of nursing, and representatives from each department in the organization. In order to have complete representation of the home, it is important that there be representatives from all levels of the organization. Be sure to include direct care staff members, and at least one family member and one resident. The team is usually comprised of 15 – 20 people.

Once the team is gathered, have them divide up into groups of 3 – 4 and ask each group to complete the tool ensuring that everyone has input. Once all the groups have completed the tool, a facilitator can bring the large group back together and start down through the tool enlisting input from all groups to form a final consensus score. For some questions, there will be common agreement on the score. For other questions, there will be a wide variance and the resulting discussion will be lively. By listening, there is much that can be learned during these discussions. The facilitator will need to be sure that all voices in the room have equal input – be sure to be listening to the input from direct care staff, residents, and families. As an example, question # 11 states, "Residents can get a bath/shower as often as they would like." The staff may feel that all residents have choice in their bathing times, until a resident informs them that when she moved in she was told what days she was "scheduled" for her shower, and didn't realize that she could ask for other days. This could lead to a discussion of how residents are informed and how choice is encouraged and what impact that has on the day-to-day operations.

The process for completing the tool and facilitating the robust discussion can take up to three hours. It is a great way for the Culture Change Leadership Team to assess where the home is on its culture change journey, celebrate their accomplishments and, as a result of the group discussion, generate goals and action plans for their culture change journey. The Team can decide how often they want to repeat this process (e.g., every 6 months or annually) in order to assess their progress, celebrate their successes and revise their goals and action plans, as necessary, to continue on their culture change journey.

CMS
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Artifacts of Culture Change - Online Version

Home name _____ Date _____

City _____ State _____ Current number of residents _____

Care Practice Artifacts	
1. Percentage of residents who are offered any of the following styles of dining: • Restaurant style where staff take residents' orders; • Buffet style where residents help themselves or tell staff what they want; • Family style where food is served in bowls on dining tables where residents help themselves or staff assist them; • Open dining where meal is available for at least 2 hours time period and residents can come when they choose; • 24 hour dining where residents can order food from the kitchen 24 hours a day.	_____Enter the actual percentage % in your home Convert your home's figure based on the below scale: 100-81 % (5 points) 80-61 % (4 points) 60-41 % (3 points) 40-21 % (2 points) 20-1 % (1 point) 0% (0 points)
2. Snacks/drinks available at all times to all residents at no additional cost, i.e., in a stocked pantry, refrigerator or snack bar.	_____ All residents (5 points) _____ Some residents (3 points) _____ Not a current practice (0 points)
3. Baked goods are baked on resident living areas.	_____Enter the actual number of days in your home Convert your home's figure based on the below scale: All days of the week (5 points) 2-6 days/week (3 points) < 2 days/week (0 points)

Care Practice Artifacts (cont.)	
4. Home celebrates residents' individual birthdays rather than, or in addition to, celebrating resident birthdays in a group each month.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current practice (0 pts)
5. Home offers aromatherapy to residents by staff or volunteers.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current practice (0 pts)
6. Home offers massage to residents by staff or volunteers.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current practice (0 pts)
7. Home has dog(s) and/or cats(s).	_____ At least one dog or one cat lives on premises (5 pts) _____ The only animals in the building are when staff bring them during work hours (3 pts) _____ The only animals in the building are those brought in for special activities or by families (1 pt) _____ None (0 pts)
8. Home permits residents to bring own dog and/or cat to live with them in the home.	_____ Yes (5 pts) _____ No (0 pts)
9. Waking time/bedtimes chosen by residents.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current practice (0 pts)
10. *Bathing Without a Battle* techniques are used with residents.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current pratice (0 pts)

Care Practice Artifacts (cont.)	
11. Residents can get a bath/shower as often as they would like.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current practice (0 pts)
12. Home arranges for someone to be with a dying resident at all times (unless they prefer to be alone) – family, friends, volunteers or staff.	____ All residents (5 pts) ____ Some residents (3 pts) ____ Not a current practice (0 pts)
13. Memorials/remembrances are held for individual residents upon death.	____ All residents (5 pts) ____ Some residents (3 pts) ____ Not a current practice (0 pts)
14. "I" format care plans, in the voice of the resident and in the first person, are used.	____ All care plans (5 pts) ____ Some (3 pts) ____ Not a current practice (0 pts)
Care Practice Artifacts Total (Out of 70 possible points)	

Environment Artifacts	
15. Percent of residents who live in households that are self-contained with full kitchen, living room and dining room.	_____Enter the actual percentage % in your home Convert your home's figure based on the below scale: 100-81 % (100 points) 80-61 % (80 points) 60-41 % (60 points) 40-21 % (40 points) 20-1 % (20 points) 0 % (0 points)

Environment Artifacts (cont.)	
16. Percent of residents in private rooms.	_____Enter the actual percentage % in your home Convert your home's figure based on the below scale: 100-81 % (50 points) 80-61 % (40 points) 60-41 % (30 points) 40-21 % (20 points) 20-1 % (10 points) 0 % (0 points)
17. Percent of residents in privacy enhanced shared rooms where residents can access their own space without trespassing through the other resident's space. (This does not include the traditional privacy curtain.)	_____Enter the actual percentage % in your home Convert your home's figure based on the below scale: 100-81 % (25 points) 80-61 % (20 points) 60-41 % (15 points) 40-21 % (10 points) 20-1 % (5 points) 0 % (0 points)
18. No traditional nurses' stations or traditional nurses' stations have been removed.	_____ No traditional nurses' stations (25 pts) _____ Some traditional nurses' stations have been removed (15 pts) _____ Traditional nurses' stations remain in place (0 pts)
19. Percent of residents who have a direct window view not past another resident's bed.	_____Enter the actual percentage % in your home Convert your home's figure based on the below scale: _____ 100 – 68% (5 pts) _____ 67 – 34% (3 pts) _____ 33 – 0 % (0 pts)

Environment Artifacts (cont.)	
20. Resident bathroom mirrors are wheelchair accessible and/or adjustable in order to be visible to a seated or standing resident.	_____ All resident bathroom mirrors (5 pts) _____ Some (3 pts) _____ None (0 pts)
21. Sinks in resident bathrooms are wheelchair accessible with clearance below sink for wheelchair.	_____ All resident bathroom sinks (5 pts) _____ Some (3 pts) _____ None (0 pts)
22. Sinks used by residents have adaptive/easy-to-use lever or paddle handles.	_____ All sinks (5 pts) _____ Some (3 pts) _____ None (0 pts)
23. Adaptive handles, enhanced for easy use, for doors used by residents (rooms, bathrooms and public areas).	_____ All resident-used doors (5 pts) _____ Some (3 pts) _____ None (0 pts)
24. Closets have moveable rods that can be set to different heights.	_____ All closets (5 pts) _____ Some (3 pts) _____ None (0 pts)
25. Home has no rule prohibiting, and residents are welcome, to decorate their rooms any way they wish including using nails, tape, screws, etc.	_____ Yes (5 pts) _____ No (0 pts)
26. Home makes available extra lighting source in resident room if requested by resident such as floor lamps, reading lamps.	_____ Yes (5 pts) _____ No (0 pts)

Environment Artifacts (cont.)	
27. Heat/air conditioning controls can be adjusted in resident rooms.	_____ All resident rooms (5 pts) _____ Some (3 pts) _____ None (0 pts)
28. Home provides or invites residents to have their own refrigerators.	_____ Yes (5 pts) _____ No (0 pts)
29. Chairs and sofas in public areas have seat heights that vary to comfortably accommodate people of different heights.	_____ Chair seat heights vary by 3" or more (5 pts) _____ Chair seat heights vary by less than 3"(3 pts) _____ Chair seat heights do not vary (0 pts)
30. Gliders which lock into place when person rises are available inside the home and/or outside.	_____ Yes (5 pts) _____ No (0 pts)
31. Home has store/gift shop/cart available where residents and visitors can purchase gifts, toiletries, snacks, etc.	_____ Yes (5 pts) _____ No (0 pts)
32. Residents have regular access to computer/Internet and adaptations are available for independent computer use such as large keyboard or touch screen.	_____ Both Internet access & adaptations (10 pts) _____ Access without adaptations (5 pts) _____ Neither (0 pts)
33. Workout room available to residents.	_____ Yes (5 pts) _____ No (0 pts)
34. Bathing rooms have functional and properly installed heat lamps, radiant heat panels or equivalent.	_____ All bathing rooms (5 pts) _____ Some (3 pts) _____ None (0 pts)

Environment Artifacts (cont.)	
35. Home warms towels for resident bathing.	_____ All residents (5 pts) _____ Some residents (3 pts) _____ Not a current practice (0 pts)
36. Accessible, protected outdoor garden/patio provided for independent use by residents. Residents can go in and out independently, including those who use wheelchairs, e.g. residents do not need assistance from staff to open doors or overcome obstacles in traveling to patio.	____ Available to all residents (5 pts) ____ Available for some residents (3 pts) ____ Not available (0 pts)
37. Home has outdoor, raised gardens available for resident use.	____ Available to all residents (5 pts) ____ Available for some residents (3 pts) ____ Not available (0 pts)
38. Home has outdoor walking/wheeling path which is not a city sidewalk or path.	____ Available to all residents (5 pts) ____ Available for some residents (3 pts) ____ Not available (0 pts)
39. Pager/radio/telephone call system is used where resident calls register on staff's pagers/radios/telephones and staff can use it to communicate with fellow staff.	_____ Yes (5 pts) _____ No (0 pts)
40. Overhead paging system has been turned off or is only used in case of emergency.	_____ Yes (5 pts) _____ No (0 pts)
41. Personal clothing is laundered on resident household/neighborhood/unit instead of in a general all-home laundry, and residents/families have access to washer and dryer for own use.	_____ Available to all residents (5 pts) _____ Available to some residents (3 pts) _____ None (0 pts)

Environment Artifacts Total (Out of 320 possible points)	

Family & Community Artifacts	
42. Regularly scheduled intergenerational program in which children customarily interact with residents.	_____ Weekly (5 pts) _____ Monthly or less frequently (3 pts) _____ No (0 pts)
43. Home makes space available for community groups to meet in home with residents welcome to attend.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
44. Private guestroom available for visitors at no, or minimal cost for overnight stays.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
45. Home has café/restaurant/tavern/canteen available to residents, families and visitors at which residents and family can purchase food and drinks daily.	_____ Yes (5 pts) _____ No (0 pts)
46. Home has special dining room available for family use/gatherings which excludes regular dining areas.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
47. Kitchenette or kitchen area with at least a refrigerator and stove is available to families, residents, and staff where cooling and baking are welcomed.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
Family and Community Artifacts Total (Out of 30 possible points)	

Leadership Artifacts	
48. CNAs attend resident care conferences**.**	_____ All care conferences (5 pts) _____ Some (3 pts) _____ Not a current practice (0 pts)
49. Residents or family members serve on home quality assessment and assurance (QAA, QI, CQI, QA) committee.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
50. Residents have an assigned staff member who serves as a "buddy", case coordinator, Guardian Angel, etc. to check with the resident regularly and follow up on any concerns. (This is in addition to an assigned social service staff.)	_____ All new residents (5 pts) _____ Some (3 pts) _____ Not a current practice (0 pts)
51. Learning Circles or equivalent are used regularly in staff and resident meetings in order to give each person the opportunity to share their opinion/ideas.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
52. Community Meetings are held on a regular basis bringing staff, residents and families together as a community.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
Leadership Artifacts Total (Out of 25 possible points)	

Workplace Practice Artifacts	
53. RNs consistently work with the residents of the same neighborhood/household/unit (with no rotation).	_____ All RNs (5 pts) _____ Some (3 pts) _____ Not a current practice (0 pts)

Workplace Practice Artifacts (cont.)	
54. LPNs consistently work with the residents of the same neighborhood/household/unit (with no rotation).	_____ All LPNs (5 pts) _____ Some (3 pts) _____ Not a current practice (0 pts)
55. CNAs consistently work with the residents of the same neighborhood/household/unit (with no rotation).	_____ All CNAs (5 pts) _____ Some (3 pts) _____ Not a current practice (0 pts)
56. Self-scheduling of work shifts. CNAs develop their own schedule and fill in for absent CNAs. CNAs independently handle the task of scheduling, trading shifts/days, and covering for each other instead of a staffing coordinator.	_____ All CNAs (5 pts) _____ Some (3 pts) _____ Not a current practice (0 pts)
57. Home pays expenses for non-managerial staff to attend outside conferences/workshops, e.g. CNAs, direct care nurses. Check yes if at least one non-managerial staff member attended an outside conference or workshop paid by home in past year.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
58. Staff is not required to wear uniforms or "scrubs".	_____ Yes (5 pts) _____ Not a current practice (0 pts)
59. Percent of other staff cross-trained and certified as CNAs in addition to CNAs in the nursing department.	_____Enter the actual percentage % in your home Convert your home's figure based on the below scale: _____100–81 % (5 pts) _____ 80 – 61% (4 pts) _____ 60 – 41% (3 pts) _____ 40 – 21% (2 pts) _____ 20 – 1% (1 point) _____ 0 (0 pts)

Workplace Practice Artifacts (cont.)	
60. Activities, informal or formal, are led by staff in other departments such as nursing, housekeeping or any departments.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
61. Awards given to staff to recognize commitment to person-directed care, e.g. Culture Change award, Champion of Change award. This does not include Employee of the Month.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
62. Career ladder positions for CNAs, e.g. CNA II, CNA III, team leader, etc. There is a career ladder for CNAs to hold a position higher than base level.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
63. Job development programs, e.g. CNA to LPN to RN to NP.	_____ Yes (5 pts) _____ Not a current practice (0 pts)
64. Day care onsite available to staff	_____ Yes (5 points) _____ Not a current practice (0 points)
65. Home has on staff a paid volunteer coordinator in addition to activity director.	_____ Full time *(30 hours/week or more)* (5 pts) _____ Part time *(15-30 hrs/week)* (3 pts) _____ No paid volunteer coordinator (0 pts)
66. Employee evaluations include observable measures of employee support of individual resident choices, control and preferred routines in all aspects of daily living.	_____ All employee evaluations (5 points) _____ Some (3 points) _____ Not a current practice (0 points)
Workplace Practice Artifacts Total (Out of 70 possible points)	

Staffing Outcomes and Occupancy	
67. Average longevity of CNAs (in any position). Add length of employment in years of permanent CNAs and divide by number of CNA staff. _____ Enter your home's average years.	Convert your home's figure based on the below scale: Above 5 years (5 points) 3-5 years (3 points) Below 3 years (0 points)
68. Average longevity of LPNs (in any position). Add length of employment in years of permanent staff LPNs and divide by the number of LPN staff. _____ Enter your home's average years.	Convert your home's figure based on the below scale: Above 5 years (5 points) 3-5 years (3 points) Below 3 years (0 points)
69. Average longevity of RN/GNs (in any position). Add length of employment in years of permanent staff RNs/GNs and divide by the number of RN/GN staff. _____ Enter your home's average years.	Convert your home's figure based on the below scale: Above 5 years (5 points) 3-5 years (3 points) Below 3 years (0 points)
70. Longevity of the Director of Nursing (in any position). _____ Enter your home's figure in years.	Convert your home's figure based on the below scale: Above 5 years (5 points) 3-5 years (3 points) Below 3 years (0 points)

Staffing Outcomes and Occupancy (cont.)	
71. Longevity of the Administrator (in any position). _____ Enter your home's figure in years.	Convert your home's figure based on the below scale: Above 5 years (5 points) 3-5 years (3 points) Below 3 years (0 points)
72. Turnover rate for CNAs. Number of CNAs who left, voluntary or involuntary, in previous 12 months divided by the total number of CNA's employed in the previous 12 months. _____ Enter your home's percentage.	Convert your home's figure based on the below scale: 0-19 % (5 points) 20-39 % (4 points) 40-59 % (3 points) 60-79 % (2 points) 80-99 % (1 point) 100% and above (0 points)
73. Turnover rate for LPNs. Number of LPNs who left, voluntary or involuntary, in previous 12 months divided by the total number of LPNs employed in the previous 12 months. _____ Enter your home's percentage.	Convert your home's figure based on the below scale: 0-12 % (5 points) 13-25 % (4 points) 26-38 % (3 points) 39-51 % (2 points) 52-65 % (1 point) 66 % and above (0 points)
74. Turnover rate for RNs. Number of RNs who left, voluntary or involuntary, in previous 12 months divided by the total number of RNs employed in the previous 12 months. _____ Enter your home's percentage.	Convert your home's figure based on the below scale: 0-12 % (5 points) 13-25 % (4 points) 26-38 % (3 points) 39-51 % (2 points) 52-65 % (1 point) 66 % and above (0 points)

Staffing Outcomes and Occupancy (cont.)	
75. Turnover rate for DONs. _____ Enter number of DONs in the last 12 months	Convert your home's figure based on the below scale: 1 (5 points) 2 (3 points) 3 or more (0 points)
76. Turnover rate for Administrators. _____ Enter number of NHAs in the last 12 months	Convert your home's figure based on the below scale: 1 (5 points) 2 (3 points) 3 or more (0 points)
77. Percent of CNA shifts covered by agency staff over the last month. Total number of CNA shifts (all shifts regardless of hours in a shift) in a 24 hour period; Multiplied by the number of days in the last full month; Of this number, number of shifts covered by an agency CNA _____Enter your percentage (agency shifts divided by total number multiplied by days multiplied by 100)	Convert your home's figure based on the below scale: 0 % (5 points) 1-5% (3 points) Over 5% (0 points)
78. Percent of nurse shifts covered by agency staff over the last month. Total number of nurse shifts (all shifts regardless of hours in a shift) in a 24 hour period; Multiplied by the number of days in the last full month; Of this number, number of shifts covered by an agency nurse. _____Enter your percentage (agency shifts divided by total number multiplied by days multiplied by 100)	Convert your home's figure based on the below scale: 0 % (5 points) 1-5% (3 points) Over 5% (0 points)

Staffing Outcomes and Occupancy (cont.)	
79. Current occupancy rate. _____ Enter your home's occupancy rate	Convert your home's figure based on the below scale: Above average 86-100 % (5 points) Average 83-85 % (3 points) Below average 0-82 % (0 points)
Staffing Outcomes and Occupancy Total (Out of 65 possible points)	

Artifacts Sections	**Potential Points**	**Score**
Care Practices	70	
Environment	320	
Family and Community	30	
Leadership	25	
Workplace Practice	70	
Staffing Outcomes and Occupancy	65	
Artifacts of Culture Change	**580**	

Developed by the Centers for Medicare and Medicare Services and Edu-Catering, LLP.
ACC-FL adapted with permission.

APPENDIX C – HOUSEHOLD AFFORDANCE SURVEY TOOL

Household Physical Environment Affordances Assessment

Community_____

Household Name_____

Date_____

Small Size

PREMISE: A household should include a reduced number of residents living in a small scale living environment. Households should provide spaces that are not overwhelming in size and provide options for residents to have intimate gatherings outside their rooms.

0	*1*	*2*	*3*	*Score*
The HH has more than 24 residents	The HH has 24 to 17 residents	The HH has 16 to 11 residents	The HH has 10 or fewer residents	
The living room and dining room are not clearly defined OR Both rooms appear oversized and could easily accommodate more than the people who live on HH OR the Household does not contain a Living Room or Dining Room	Both the living room and the dining room in the HH are slightly oversized compared to what one might find in a home AND are not broken down into smaller areas	Either the living room or the dining room in the HH is about the size of one would find in a home but the other room is larger OR either the living room or the dining room in the HH is not clearly defined architecturally and has the appearance of a larger space than a home	Both the living and dining spaces in the HH are about the size of one would find in a home OR one of these spaces is larger than a home but is comprised of several smaller areas which are about the size of a home	
The HH does not have any small alcoves or separate rooms for small social gatherings other than the resident's rooms	The HH has alcoves off of large living spaces suitable for one or two people	The HH has separate small contained living spaces for small social gatherings for less than all Household members	The HH has separate small contained living spaces for small social gatherings for less than all Household members AND small alcoves off of larger living spaces suitable for one or two people	
Pass more than 6 bedroom doors along the corridors that connect the bedrooms	Pass no more than 6 bedroom doors along the corridors that connect the bedrooms	Pass no more than 4 bedroom doors along the corridors that connect the bedrooms	Pass no more than 2 bedroom doors along the corridors that connect the bedrooms	
			SMALL SIZE TOTAL (Out of 12)	

Household Identity

PREMISE: A household should have a clear physical boundary to support a sense of territoriality and identity. The environment should afford household members opportunities to personalize all spaces.

0	1	2	3	Score
The HH is not identifiable from the exterior	The HH is identifiable from the exterior as a separate wing/pavilion or floor, but it is not very obvious	The HH is connected to other HHs, but it is easily identifiable from the exterior	The HH is located in a detached building which is clearly identifiable from the exterior	
The HH has three or more entries which are used by more than just household members and their guests to reach other parts of the building or campus	The HH has two main entries used by more than just household members and their guests to reach other parts of the building or campus	The HH has two main entries primarily for Household members and guests	The HH has a main entry for Household members and guests, but may have a service entry or a door leading to outdoors which is used less frequently	
A main entry portal or doorway is not evident when entering the household	The HH has a main entry through a portal or smoke/fire doors which are left open most of the time.	The HH has an obvious front door like a home which is used as a main entry but the door is almost always kept open	The HH has an obvious front door that is kept closed similar to a home	
All HHs in the community are architecturally identical	The HH is somewhat architecturally distinctive but there are a few differences from other HH's in the community	The HH is mostly architecturally distinctive, but there are some similarities to other HH's in the community	The HH is architecturally distinctive from the other HH's in the community	
All HHs in the community are decorated identical	The HH is somewhat decorated differently from other HH but there are a few differences from other HH's in the community	The HH is decorated mostly different from other HH but there are a few similarities	The HH is decorated differently from other HH's in the community	
There are no places for HH members to personalize other than their bedrooms	There is only one place for HH members to personalize outside their rooms and express their identity	There are few places for HH members to personalize outside their rooms and express their identity	There are many places for HH members to personalize outside their rooms and express their identity	
			HOUSEHOLD IDENTITY TOTAL (Out of 18)	

Familiar Patterns of a Home

PREMISE: A household should replicate the familiar patterns of domestic daily life and domestic environments.

0	1	2	3	Score
Three or more HH's share a living room or there is no living room space available for HH members	The HH has a living room which is located outside the HH and/or it is shared with one other HH	The HH contains a living room for the use of Household members and their guests, but the room is used regularly for events that include other HHs	The HH contains a living room for the exclusive use of household members and their guests	
Household members must leave the HH to go the dining room which is shared by three or more HHs	Household members must leave the HH to go to the dining room and/or the dining is shared by another HH	The HH has a dining room, but it is shared by one other HH's or is visibly connected to another HH through a large opening	The HH contains a dining room for the exclusive use Household members and their guests	
There are no clear options for residents to dine other than the dining room	Two or more HHs share a separate room where residents can dine away from other Household members beside their rooms	The HH contains an alcove /area/ counter where residents can dine away from other Household members beside their rooms	The HH contains a separate room where residents can dine away from other Household members beside their rooms	
The HH contains an area referred to as the kitchen but it only has one out of the main kitchen components of a stove, sink or refrigerator OR no Kitchen is available on the HH	The HH has a domestic kitchen but it lacks either a stove, or sink or refrigerator OR the HH shares a kitchen with another HH	The HH has a domestic kitchen but either the stove, sink or refrigerator is kept in a separate adjacent room	The HH has a domestic looking kitchen with at least a stove, sink and refrigerator which is visible to residents	
The HH does not have a kitchen or the kitchen is not accessible by the residents or the kitchen is always used for staff purposes	The HH has a domestic looking kitchen which is not easily accessible by residents and/or is used mostly for staff purposes	The HH has a domestic kitchen with at least a stove, sink and refrigerator but it resembles a kitchenette by occupying a single wall in a larger room which is accessible to all household members	The HH has a domestic kitchen which is a separate room/area defined by walls or counters, but the kitchen is still accessible to all household members	
The kitchen is not visible within the HH or the HH does not contain a Kitchen	The kitchen is barely visible within the HH or the Kitchen is often hidden from view by a door/shutter	The kitchen is visible within the HH, but it is not very prominent	The kitchen is prominently visible from multiple places within the HH	

0	1	2	3	Score
A kitchen is not available, or the kitchen is not used for any meals and is intended for limited cooking activities or other uses	The kitchen in the HH is mostly used to assist with serving meals or cooking activities. All main cooking and dishwashing is done elsewhere	The kitchen in the HH is used to prepare and serve SOME of the meals and/or SOME of the dishes are washed in the HH A pantry may serve as a back of house function to serve, prepare or clean up after the meals.	The kitchen in the HH is used to prepare and serve MOST meals as well MOST dishes are washed in the kitchen A pantry may serve as a back of house function to serve, prepare or clean up after the meals.	
Residents cannot sit near the kitchen to participate in cooking activities or no kitchen is available for cooking activities.	Residents can sit near the kitchen to participate in cooking activities	Residents can sit at a counter outside the kitchen to participate in cooking activities	Residents can sit inside the kitchen to participate in cooking activities	
None of the appliances in the kitchen appear residential or there are no visible appliances	A few of the visible appliances in the kitchen appear residential	Most of the visible appliances in the kitchen appear residential	All visible appliances in the kitchen appear residential	
Less than 25 percent of the bedrooms are private	26 to 50 percent of the bedrooms are private	50 to 90 percent of the bedrooms are private	90 percent or more of the bedrooms are private	
Shared rooms are designed so the only effective means for privacy is to pull a curtain around the bed areas	Shared rooms are designed so residents have walls or large furniture to separate each person space as well as the privacy curtain	Shared rooms are designed so each person has a distinct alcove which promotes privacy, but residents must enter another person's territory to use the bathroom or to enter or exit the room	Shared rooms (if used) are designed so each person has a distinct alcove which promotes privacy and residents do not have enter another person's territory to use the bathroom or look out the window *Enter 3 for all private rooms*	
Residents have only one option to place their bed in the room (For Shared Rooms if Used)	Residents have at least two options to place their bed in the room (For Shared Rooms if Used)	Residents have at least three options to place their bed in the room (For Shared Rooms if Used)	Residents have at least four options to place their bed in the room (For Shared Rooms if Used)	
All or most of the resident room bathrooms are shared between rooms	Some or few of the resident room bathrooms are shared between rooms	All resident room bathrooms are private and include a toilet and sink OR a few rooms have a shower	All resident room bathrooms are private and include a toilet, sink and shower	

0	1	2	3	Score
Bathing spa are located such that all residents must move through public spaces to assess the space	Bathing spa are located such that most residents must move through public spaces to assess the space but a few do not	Bathing spa are located next to most resident rooms but a few must move through prominent public areas to assess the space	Bathing spa are located directly adjacent to resident bedrooms which avoids residents having to move through public areas to access the space	
Residents must leave the HH to access useable outdoor space which is a long distance from the HH OR no useable outdoor space is available	Residents can directly access an outdoor space from the HH, but it is not very useable or set-up to encourage comfortable use (i.e no seating/shade/ places to park a wheelchair or walker) OR residents must walk a short distance outside the HH to access a door leading to useable outdoor space	Residents can directly access the outdoors from the HH but must ambulate a distance outside to reach a useable space (i.e. seating/shade/places to park a wheelchair or walker)	Residents can directly access from the HH a useable outdoor space such as a patio / balcony / garden / porch which offers comfortable seating, some shade, and a place to park a wheelchair or walker	
Residents do not have access to any useable outdoor space near the HHs OR no outdoor spaces is available	All useable outdoor spaces for the HH are shared with more than one HH	All useable outdoor spaces for the HH are shared with only one other HH	The HH has at least one useable outdoor space for the exclusive use of Household members and their guests	
None of the living and dining spaces for Household members have views to the exterior	A few of the living and dining spaces for Household members have views to the exterior, but most do not	The majority of the living and dining spaces for Household members have views to the exterior, but not all	All living and dining spaces for Household members have views to the exterior	
The HH is not spatially arranged like a house and resembles more of the arrangement of an institution	Some of the HH is spatially arranged like a house with a clear public to private gradient of spaces starting from the entry	Most the HH is spatially arranged like a house with a clear public to private gradient of spaces starting from the entry	The HH is spatially arranged like a house with a clear public to private gradient of spaces starting from the entry	
Décor in the HH is very institutional in appearance	Décor in the HH is not residential with several areas appearing institutional	Décor in the HH is residential but there are few areas which appear institutional	Décor in the HH is very residential in appearance	

0	1	2	3	Score
There are no knick-knacks, books and accessories and pictures throughout the HH similar to a home	There are few knick-knacks, books and accessories and pictures throughout the HH similar to a home OR the decorating looks more appropriate for children	There some knick-knacks, books and accessories and pictures throughout the HH similar to a home OR only in a few areas	There are multiple knick-knacks, books and accessories and pictures throughout the HH similar to a home	
			FAMILIAR PATTERNS OF HOME TOTAL (Out of 60)	

Community Connectedness

PREMISE: A household should be a part of a larger community offering residents opportunities to engage in familiar social life and activities outside the home.

0	1	2	3	Score
The HH's is not linked to other HH by paths or hallways or pathways	The HH's is linked to other HH by paths or hallways that are not continuous, inaccessible and/or require an elevator and/or walking long distances. Staff supervision would be required when residents leave the HH	The HH's is linked to other HH by paths or hallways that are not completely accessible and/or require an elevator and/or a require walking long distances. Staff supervision would be preferred when residents leave the HH	The HH is linked to other HHs by paths or hallways that are easily accessible and are a reasonable distance apart so that residents may move from one HH to another with little supervision	
There is no community gathering space available to the HH	The HH is located within easy access to a large space that can be used for community gathering but it would not accommodate all members of the community and some guests	The HH is located within somewhat reasonable access to a large community gathering space, but it would require staff supervision or assistance to reach safely	The HH is located within easy access of a large community gathering space which can be comfortably reached with minimal staff supervision or assistance	
The members of the household have no social destinations outside the HH for them to enjoy without using a vehicle to drive a long distance	The members of the household must leave the community to reach social destinations, but it is either a short walk or short drive away	The members of the household have access to one social destination within the community where they can entertain guests	The members of the household have access to multiple social destinations within the community where they can entertain guests. (game room, café, chapel)	
			COMMUNITY CONNECTEDNESS TOTAL (Out of 9)	

Seamless Service

PREMISE: A household should be designed to avoid prominent institutional icons while still providing nursing services to an older population with changing physiological and cognitive needs.

0	1	2	3	Score
There is a prominent staff station in the HH that is visible to residents, appears institutional and staff are only allowed to use OR There is no place to staff to work in the HH.	The primary work area for staff is a separate room which appears institutional and, it is partially visible to residents due to large windows and doors which are kept open	There is a desk area that is visible in the HH for the exclusive use of staff, but it appears residential A separate room may be used exclusively by some staff to work but it is not prominently visible	There is a place for staff to work in the HH which is visible, but residents can sit there as well. Desks or work areas do not look institutional if they are in view of residents A separate room may be used exclusively by some staff to work but it is not prominently visible	
Direct care staff have no obvious place to do paperwork or chart	Direct care staff must return to a central location in the HH to do paperwork or chart	The only option for direct care staff to chart near resident rooms is an electronic terminal	There is an option for direct care staff to do paperwork/chart near resident rooms while being seated	
There are prominent nurse call lights, and chimes throughout the HH	There are somewhat prominent nurse call lights in the halls as well as common areas	The nurse call lights are only visible in the resident room hallways and/or call lights are discreet or modified to appear residential	The nurse call lights in the hall have been replaced with a silent pager system	
There is no availability to communicate to other staff other than face to face or fixed intercom systems or telephone OR overhead intercoms/alarms are used.	Most staff have one way communication through pagers OR use staff locator lights.	Some staff can have two way communication through portable phones, but some staff have one way communication through pagers which does not require using an overhead intercom	Most staff can have two way communication to one another through portable devices or other means that does not require using an overhead intercom	
There are prominent alarms and signals regularly heard throughout the HH	A few alarms and signals are silent but most still use audible sounds which are heard throughout the HH.	Most alarms and signals are silent but a few still use audible sounds such as wandering guards or motion detectors which are kept at a low volume	All alarms and warning signals are silent except for those critical for life-safety	

0	1	2	3	Score
Staff have to store their personal belonging in a dedicated room or space which is located distant from the HH	Staff have to store their personal belonging in a dedicated room or space which is located near the HH	Staff have to store their personal belonging near their workspace which is not always secure	Staff have a dedicated room or space to put their personal belongings within the HH which is secure	
There is no dedicated restroom for staff on the HH. Staff either use toilets available on the HH or must leave the HH and walk a long distance	There is a dedicated restroom for staff in the HH but it is kept locked and is in sight of the residents	There is a dedicated restroom for staff near the HH or shared with another HH that is out of sight of the residents	There is a dedicated restroom for staff members out of sight of the residents	
There is no ability for residents to do their own laundry within the community	There is a laundry area for residents to do laundry but it is located remotely from the HH	There is a laundry area near the HH where residents can do their own laundry	There is a laundry area on the HH where residents can do their own laundry if they chose or help	
In addition to not having service functions out of sight of residents in the HH, staff and carts must pass through this HH on a regular basis to service other areas	There is only one primary door to enter and leave the HH which is used by household members, their guests as well as for service functions which is in view of all residents	There is a separate door that is used for servicing the HH, but it does not connect to a service area within the household resulting in some back-of-house functions being seen	There is a separate door and holding area in the HH where carts for laundry, linen, food and can be transported without being seen	
Residents must return to their bedrooms to use a toilet	The only toilet room near the living and dining areas is in the bathing room	There is a toilet room nearby the living and dining areas in the HH but one room is closer than the other	There is a toilet room directly adjacent to both the living and dining areas in the HH.	
Carts are prominently located throughout the HH on a permanent basis	Carts are visible in the HH for several hours during the day	Carts are not prominently visible in the HH except when the HH is being serviced. OR Alcoves and closets are available but they are not always used.	Carts are rarely found in the HH and are typically parked out of sight in an alcove or closet or room	

0	1	2	3	Score
Most Medications are stored in an institutional looking medication cart which is prominently visible to residents for most of the day	Most Medications are stored in a medication room or cart that is not prominently visible to residents	Most medications are stored in an island near the dining room or a cart that looks residential	Most medications are stored in the resident's rooms in locked cabinets	
The HH does not contain a soiled utility room or soiled items are stored in carts which are prominently visible in the HH	The HH has a soiled utility room which is shared with another HH and/or staff must leave the HH to access	The HH has a soiled utility room but it is not located near resident rooms	The HH has at least one soiled utility room conveniently located near resident rooms	
The HH does not contain a clean utility room	The HH has a clean utility room which is shared with another HH and/or staff must leave the HH to access	The HH has a clean utility room but it is not located near resident rooms	The HH has at least one clean utility room conveniently located near resident rooms	
The HH does not contain a linen storage area or clean linens are stored in carts which are prominently visible in the HH	The HH has a clean linen storage area which is shared with another HH and/or staff must leave the HH to access	The HH has one central clean linen storage area	The HH has clean linens stored either in the resident rooms or nearby	
There is no housekeeping closet in the HH or nearby	The HH has a housekeeping closet that is located outside the HH but nearby	The housekeeping closet is shared between two HHs in a connected back of house area	The HH has at least one housekeeping closet	
The HH has limited places to store large pieces of equipment resulting in bathing rooms and other spaces being taken over.	The HH has a storage room for large pieces of equipment and supplies that is located distant from the HH and/or is shared with other HH's	The HH has a storage room for large pieces of equipment and supplies that is located near the HH and/or is shared with other HH's	The HH has a storage room for large pieces of equipment and supplies	
			SEAMLESS SERVICE TOTAL (Out of 48)	

Summary - Household Physical Environment Affordances Assessment

TOPIC	SCORING ITEMS	POSSIBLE POINTS	AWARDED POINTS
Small Size	4	12	
Household Identity	6	18	
Familiar Patterns of Home	20	60	
Community Connectedness	3	9	
Seamless Service	13	39	
TOTAL	**46**	**138**	

APPENDIX D – MDS 2.0 QUALITY INDICATORS

MDS 2.0 Quality Indicators Version 6.2

Domain	Quality Indicator
Accidents	Incidence of new fractures
	Prevalence of falls
Behavioral & Emotional Patterns	Prevalence of behavioral symptoms affecting others
	Prevalence of symptoms of depression
	Prevalence of symptoms of depression without antidepressant therapy
Clinical Management	Use of nine or more different medications
Cognitive Patterns	Incidence of cognitive impairment
Elimination & Continence	Prevalence of bladder/bowel incontinence
	Prevalence of bladder/bowel incontinence without a toileting plan
	Prevalence of indwelling catheters
	Prevalence of fecal impaction
Infection Control	Prevalence of urinary tract infections
Nutrition & Eating	Prevalence of weight loss
	Prevalence of tube feeding
	Prevalence of dehydration
Physical Functioning	Prevalence of bedfast residents
	Incidence of decline in late loss ADL
	Incidence of decline in range of motion
Psyhotropic Drug Use	Prevalence of antipsychotic use in the absence of psychotic & related conditions
	Prevalence of hypnotic use more than two times per week
Quality of Life	Prevalence e of daily physical restraints
	Prevalence of little or no activity
Skin Care	Prevalence of stage 1-4 pressure ulcers

Note. Adapted from "Improving nursing home quality of care through outcomes data: the MDS quality indicators." By D.R. Zimmerman, 2003. *International Journal of Geriatric Psychiatry, 18*(3), p. 253.

APPENDIX E – INTERVIEW RECRUITMENT LETTER

Interview Information Sheet

EXPLORING THE COST AND VALUE OF THE HOUSEHOLD MODEL IN LONG TERM CARE

IRB 12.199 12/18/12

WHO IS DOING THE STUDY?

This study is being conducted by Mark A. Proffitt, M.Arch to fulfill his dissertation requirement at the School of Architecture and Urban Planning at the University of Wisconsin-Milwaukee. Professor, Gerald Weisman, Ph.D. serves as the chair of his dissertation committee. The study is partially funded through a grant from the Hulda B. and Maurice L. Rothschild Foundation bequeathed to the Institute on Aging and Environment to study the Household Model.

WHAT IS THE STUDY ABOUT?

Innovative nursing homes are changing the way they operate and look around the country. Such changes are an exciting opportunity to improve the lives of residents and staff, but change is never easy and there is always a concern for costs. Yet, some of these changes may actually save money in the long run. This study seeks to understand the impact of one culture change process that was recently implemented at (FACILITY NAME) which is commonly referred to as the Household Model. The Household Model seeks to recreate a smaller home environment and feeling within the nursing home. The operation of the nursing home is also typically different as staff members take on new roles and new daily routines are adopted. This study will focus on exploring the relative costs and values of adopting the Household Model in comparison to a traditional nursing home.

HOW WILL WE BE INVOLVED?

FACILITY NAME was selected to participate in the study because it represents a pioneering organization that adopted the Household Model early. In the coming months, Mark Proffitt will be visiting to conduct a site visit focusing upon staff members and their experiences with the model. Specifically, Mark would like to interview people who have key responsibilities for the following areas which have traditionally been referred to as departments but may be renamed or altered as part of your change process.

- Administrative – *Persons responsible for the management of overall nursing home and business aspects.*
- *Social Services – Persons responsible for the social welfare of residents, coordination of services as well as admission and discharge.*
- *Activity – Persons responsible for the coordination of resident recreational activities*
- *Nursing – Persons responsible for the medical care of residents.*
- *Dietary – Persons responsible for food service.*

- *Environmental Services – Persons responsible for maintaining the building, laundry and housekeeping.*

WHAT KINDS OF QUESTIONS WILL BE ASKED?

The focus of the study is on the operation of the Household Model and how it may differ in costs from a traditional nursing home without Households. Interviews will focus on describing the process of change and your perceptions of differences in costs or possible savings. When relevant, records may be requested to assist with describing the differences.

HOW MUCH TIME WILL THIS REQUIRE?

Each recorded interview is expected to last approximately 40 minutes, but can be stopped and started at any time. If requested, you can request a list of questions in advance or complete some questions afterwards. There may be a few short telephone calls after the interview or emails to clarify any information.

HOW WILL THE ANSWERS TO THE QUESTIONS BE USED?

Information will be compiled to present a complete picture of the impact of the Household Model in your community along with two other nursing homes. The three nursing homes will also be compared to each other to look for common issues. To protect your privacy, your nursing home will not be named in the report and the names of people interviewed will also not be used. Knowledge gained from the study should help your community to have a better understanding of the change process, as well as assist other nursing homes who are embarking on a culture change process.

DO I HAVE TO PARTICIPATE?

Participation in the interviews is voluntary and you can elect not to answer any of the questions or stop at any time. Before proceeding with the interviews, you will be asked to sign an informed consent form that will further explain your rights.

WHERE CAN I GET MORE INFORMATION?

If you would like more information about the study, please contact Mark Proffitt at proffit2@uwm.edu, or 414-732-4931. For general questions about the study and the involvement of (FACILITY NAME) please contact (KEY INFORMANT) at (CONTACT).

APPENDIX F – INFORMED CONSENT FOR INTERVIEWS FORM

IRB Protocol Number: 12.199

IRB Approval date: 12/18/12

University of Wisconsin – Milwaukee
Consent to Participate in Research

Study Title: Exploring the Costs and Value of the Household Model in Long Term Care

Person Responsible for Research: Mark Proffitt, Student Principal Investigator; under the direction of Gerald Weisman, Principal Investigator.

Study Description: The purpose of this research study is to explore the costs and potential savings of the Household Model in long term care which has been adopted by (INSERTED FACILITY NAME) as part of your culture change process. Approximately nine staff members will be asked to be interviewed about the process of change in your community as well their understanding of the relative benefits and costs of implementing the Household Model. If you agree to participate, you will be asked to speak about the impact of the Household Model in relationship to the activities you oversee within the community in a recorded interview. This will take approximately 40 minutes of your time.

Risks / Benefits: Risks that you may experience from participating are some discomfort in answering questions that may be reviewed by others. There are no costs for participating. Benefits of participating include gaining a better understanding of the impact of the Household Model in your community as well as providing information to other nursing homes who are considering adopting the model.

Confidentiality: Your information collected for this study is completely confidential and no individual participant will ever be identified with his/her research information. However, it might be possible to identify your information because of your position within the organization. To reduce this chance, your facility will not be mentioned by name in the report. Data from this study will be saved on password protected computer or locked cabinet for five years. Only the Principal Investigator, Mark Proffitt will have access to the information. However, the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review this study's records.

Voluntary Participation: Your participation in this study is voluntary. You may choose not to take part in this study, or if you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin Milwaukee or (FACILITY NAME). There are no known alternatives available to participating in this research study other than not taking part.

Who do I contact for questions about the study: For more information about the study or study procedures, contact Mark Proffitt at proffit2@uwm.edu or 414-732-4931. For questions about (INSERT FACILITY NAME) involvement with this research, contact (KEY INFORMANT NAME) at (CONTACT INFORMATION).

Who do I contact for questions about my rights or complaints towards my treatment as a research subject? Contact the UWM IRB at 414-229-3173 or irbinfo@uwm.edu.

Research Subject's Consent to Participate in Research:
To voluntarily agree to take part in this study, you must be 18 years of age or older. By signing the consent form, you are giving your consent to voluntarily participate in this research project.

_____
Printed Name of Subject/Legally Authorized Representative

_____ _____
Signature of Subject/Legally Authorized Representative Date

CURRICULUM VITAE

MARK A. PROFFIT

EXPERIENCE

Teaching Assistant / Co-Instructor, University of Wisconsin, Milwaukee, Wisconsin 8/06 – 5/13

School of Architecture and Urban Planning, Arch 302 – Architecture and Human Behavior
Responsibilities include developing, updating and presenting course content related to architecture, the social sciences, history and the humanities.

Fellow, Institute on Aging and Environment, Milwaukee, Wisconsin 8/06 – Present

Co-Investigator – Culture Change and the Household Model
Conducted a national, on-line Delphi survey of over 200 long term care providers, researchers and consultants to clarify the importance and feasibility of key culture change strategies to transform the traditional medical nursing home into a resident centered product. Hosted a Think Tank in conjunction with key leaders to clarify issues around the household model in long term care which is based upon creating a small scale care setting which replicates the familiar patterns of home.

Project Associate – Oneida Indian Project
Provided evidence based design support for the development of an innovative new care facility for the Oneida Indian Tribe in partnership with Engberg Anderson and the Center on Age and Community. Conducted a review and summary of the existing research literature to inform key design decisions as well as educate the Oneida Tribal Councils.

Project Associate – North Chicago VA Medical Center
As part of the reconceptualization of The North Chicago VA Medical Center into a Community Living Center, an existing underused courtyard was being converted into a therapeutic garden. The Institute on Aging and Environment in partnership with Engberg Anderson and Site Design Group engaged in a participatory design and programming process for the existing ±15,000 courtyard to shape the renovation program and inform the conceptual design of the courtyard by involving staff, veterans and their family members.

Project Coordinator – Dementia Design Lexicon
Development of a website to provide designers with summaries of published research to inform the design of senior living environments for people with dementia. Responsibilities include project coordination, conducting literature reviews, reviewing white papers and evaluating/updating the website. This project was supported by grants from The Helen Bader Foundation, The Commonwealth Fund and The Huba Rothchild Foundation.

Project Manager – Aging in Community, A Senior Living Ideas Competition
Organization and development of a design charrette publically held at the UWM School of Architecture and Urban Planning. The competition brought together eight Milwaukee architectural firms and representative community groups to collaboratively generate new ideas for senior living housing for four Milwaukee neighborhoods. The competition was sponsored by The Community Design Solutions Program, The Helen Bader Foundation, The Faye McBeath Foundation, The Greater Milwaukee Foundation, and The United Way of Greater Milwaukee.

Architectural Researcher / Designer, Dorsky Hodgson + Partners, Beachwood, Ohio **2/96 – 8/06**

Key Responsibilities include pioneering an evidence based design/programming process and post occupancy evaluation program for the senior living design studio using applied research techniques, as well as literary reviews to further the firm's knowledge base.

Led and coordinated three national surveys and participated in voluntary activities to benefit the senior living field. These include a collaboration with Ziegler Capital Markets Group to conduct the first national survey of senior living communities to assess the presence of wellness centers and wellness programming along with a follow-up study conducted with Mather Lifeways Institute on Aging and Ziegler Capital Markets Group to further assess whole person wellness programming on senior living campuses. Conducted a survey of Jewish Retirement Communities around the country to assess the state of Kosher food service. Developed, coordinated and catalogued the ALFA Best of Home Design Competition from 1997–2000 which was the first architectural competition hosted by the Assisted Living Federation of America to recognize innovation in assisted living design.

Project Associate, IDEAS, Inc., Kirtland, Ohio **2/96 – 1/99**

Project Associate for the National Institute on Aging funded R.E.M.O.D.E.L. project, a low-cost assessment and evaluation tools for improving special care units for people with dementia. Developed and maintained a database of environmental products and services appropriate for elders and people with dementia. Participated in applied research and consultation services directed at evaluating and developing appropriate settings for people with dementia.

Intern Architect / Facility Manager, Webber Design Group, Northbrook, Illinois **12/93 – 2/96**

Provided architectural and facility management services for a senior living developer in Illinois that owned and managed two retirement communities and one HUD apartment building.

Research Assistant, Institute on Aging and Environment, Milwaukee, Wisconsin **5/92 –12/93**

Responsibilities included assisting with a national facility consultation project, organizing the Fall 1993 Colloquium Series and co-authoring two Institute monographs related to dementia and innovative care settings.

Project Assistant, Planning and Design Institute, Milwaukee, Wisconsin **8/91 – 7/92**

Responsibilities included compiling a technical report documenting the conditions of the buildings within the National Soldier's Home in Milwaukee, as part of the national historic district application.

EDUCATION

University of Wisconsin, Milwaukee, School of Architecture and Urban Planning **8/06 – Present**

Doctor of Philosophy in Architecture, Environmental Design Research
Currently, an ABD doctoral candidate with a dissertation topic focused on the social and economical benefits of the household model in long term care settings. Major program of study focuses on aging and the environment with a minor concentration is lifecycle evaluation of buildings.

University of Wisconsin, Milwaukee, Certificate in Applied Gerontology **5/09**

Graduate Certificate in Applied Gerontology, 18 Credit Hours focused on the biological, psychological, social, policy, and ethical aspects of aging. Capstone Project focused of the Connecting Caring Communities initiative in the City of Milwaukee.

University of Wisconsin, Milwaukee, School of Architecture and Urban Planning **5/93**

Masters of Architecture, Two Year, NAAB accredited degree, 3.7 GPA
Thesis — *A Catalyst for Community in Sheltered Care Environments for the Elderly: The Role of First, Second and Third Place*. A case study analyzing the physical and organizational attributes that contributes to the presence of a social network within a Continuing Care Retirement Community. Completed under the direction of Dr. Gerald Weisman. Key areas of interest include Environment and Behavior Studies, Programming, Post-Occupancy Evaluation and Design for Aging.

University of Tennessee, Knoxville, School of Architecture **5/90**

Bachelor of Architecture with Honors, Five Year, NAAB accredited degree, 3.2 GPA
Final Comprehensive Design Project — *Continuation: Cultural Specific Design*. A comparative study of the Navajo and Pueblo Native American cultural patterns of built form and the design of two culturally appropriate prototype HUD developments. Key areas of interest include Housing and Architectural History.

HONORS & AWARDS

The Hulda B and Maurice L Rothschild Foundation 2/10
Co-Investigator - Understanding the "Household" place-type for Skilled Nursing Facilities ($30,000).

Recipient of Center on Age and Community Scholarship(s) ($9000) & ($4500) 8/08 & 8/10

Recipient of University of Wisconsin, Milwaukee Alumni Travel Fellowship ($2000). 5/98

Recipient of Student Award for Master's Thesis ($100). 6/93

Member of Honor Society of Phi Kappa Phi, University of Wisconsin, Milwaukee Chapter. 5/93

Recipient of International Management Association Student Scholarship ($500). 5/92

Fellow, Institute on Aging and Environment, UWM ($2,000). 5/92

Second Prize Winner of Undergraduate Final Comprehensive Design Project, Tau Sigma Delta Fifth Year Competition, School of Architecture, University of Tennessee. 4/90

Recipient of Deans Award for Final Comprehensive Design Project, School of Architecture, University of Tennessee. 5/90

Second Prize Winner of Tau Sigma Delta, Designing in the Historical Context Competition, School of Architecture, University of Tennessee. 4/88

Invited to study and travel in Poland for the summer of 1989 (Partially sponsored by Polish Society of Architects, Cracow, Poland). 5/89

First Prize Winner of International Competition, The Third Biennial of Architecture, Cracow, Poland. 8/89

PRESENTATIONS

Leading Age (Formally American Association of Homes and Services for the Aging)

2005, *Post Occupancy Evaluation of Freedom House at Air Force Village II*, AAHSA and SAGE, San Antonio, Texas.

2004, *Post Occupancy Evaluation of Mary Queen of Angels*, AAHSA and SAGE, Nashville, Tennessee.

2003, *Colorado State Veterans Home at Fitzsimons: A POE*, AAHSA and SAGE, Denver, Colorado.

2003, *Trends in Long-Term Care Design: Using Environment as a Therapeutic Tool*, AAHSA, Denver, Colorado.

2003, *Transforming Your Community into a Center for Well-Being*, AAHSA, Denver, Colorado.

2002, *Post Occupancy Evaluation of Mercy Ridge*, AAHSA and SAGE, Baltimore, Maryland.

2001, *Post Occupancy Evaluation of Carlsbad by the Sea*, AAHSA and SAGE, San Diego, California.

2000, *Post Occupancy Evaluation of Hazel Cypen Tower*, AAHSA and SAGE, Miami, Florida.

AAHSA State Affiliates

2005, *Post Occupancy Evaluation of the Gardens of McGregor and Amasa Stone*, AOPHA Conference - Association of Ohio Philanthropic Homes for the Aging, Columbus, Ohio.

2003, *Learning from Seven Years of DESIGN*, MAHSA Conference and Trade Show - Michigan Association of Homes and Services for the Aging, Flint, Michigan.

2003, *How to Turn Your Community into a Center for Well-Being*, LifeSpan / PANPHA Annual Conference & Exposition - Pennsylvania Association of Non-Profit Homes for the Aging, Baltimore, Maryland.

2002, *The Evolution Revolution: The Power of Compassionate Design: A Vision of Care in the New Millennium*, AOPHA Spring Retreat - Association of Ohio Philanthropic Homes for the Aging, Newark, Ohio.

2001, *Learning from the Experience: The SAGE Process*, AOPHA Conference- Association of Ohio Philanthropic Homes for the Aging, Columbus, Ohio.

ASA, American Society on Aging and GSA, Gerontological Society of America

2010, *Nontraditional Design Approaches for Integrating Culture Change*, ASA, Chicago, Illinois.

2008, *Using Design Competitions to Promote Aging and Community*, ASA, Washington, DC

2003, *Transforming Your Community into a Center for Well-Being*, ASA, San Francisco, California.

2002, *Exploring the Unit's Edge: Usage and Personalization of Resident Doorways in Retirement Communities*, ASA, Denver, Colorado.

2001, *Exploring the Dwelling Unit's Edge: Usage and Personalization of Resident Doorways in Retirement Communities*, GSA, Chicago, Illinois.

2000, *Promoting Wellness in The Design of a Retirement Community*, ASA, San Diego, California.

1999, *How One Retirement Community Architecturally Achieved Integration*, ASA, Orlando, Florida.

National Alzheimer's Conference

2000, *Planning and Organizing Settings to Promote Effective Activity/Entertainment Programs*, National Alzheimer's Conference, Washington D.C.

1998, Identifying the Effects of Design Spaces and Relationships, National Alzheimer's Conference, Indianapolis, Indiana.

EDRA, Environmental Design Research Association

2010, *Culture Change Consensus, Exploring the Household Model using the Delphi Technique*, EDRA, Washington, District of Columbia.

2002, *Exploring the Unit's Edge: Usage and Personalization of Resident Doorways in Retirement Communities*, EDRA, Philadelphia, Pennsylvania.

2002, *Using Design Guidelines to Steer the Creation and Expansion of Retirement Communities*, EDRA, Philadelphia, Pennsylvania.

2000, *The Value of Applied Research in Design for Aging*, EDRA, San Francisco, California.

Other Presentations

2011, *Constructing a Road Map for Culture Change in Long Term Care*, Environments for Aging Conference, Atlanta, Georgia.

2011, Integrating Culture Change—Non-Traditional Design Approaches, Environments for Aging Conference, Atlanta, Georgia.

2010, *The Changing Landscape of Long Term Care: The Results of a Delphi Study*: Invited to present at the U.S. Government Accountability Office as part of a Health Care Symposium, Washington, District of Columbia.

2010, *Culture Change and the Household Model: The Results of a Delphi Survey & Think Tank Focus Group,* Invited to present at the Centers for Medicare and Medicaid Services, Baltimore, Maryland.

2008, *The Future of Senior Living Housing*, Adult Education Program, Milwaukee, Wisconsin.

2005, *Post Occupancy Evaluation of Mother Angelina McCrory Manor*, SAGE/Scripps Changing Spaces – New Models of Long-Term Caring, Columbus Ohio.

2003, *Post Occupancy Evaluation of Colorado State Veterans Home at Fitzsimons*, Healthcare Design Symposium, Miami, Florida.

PUBLICATIONS

Abushousheh, A. M., Proffitt, M. A. & Kaup, M. (2011). *2010 stakeholder survey: Culture change & the household model* [White Paper]. http://www.ageandcommunity.org/products.attachment/culture-change-and-the-household-model-9408/Culture%20Change%20and%20the%20Household%20Model%20-%20Delphi%20Survey.pdf

Proffitt, M. A., Abushousheh, A. M. & Kaup, M. (2010). *2010 next steps think tank: Culture change consensus and the household model* [White Paper]. http://www.ageandcommunity.org/products.attachment/2010thinktank-3906/2010ThinkTank.pdf.

Proffitt, M. A. & Alden, A. (2008). *Book review of senior living communities: Operations management and marketing for assisted living, congregate, and continuing care retirement communities, 22* (4). Journal of Housing for the Elderly. 423-427.

Alden A. & Proffitt, M. A. (2008). *Design matters*, 16 (5). Advance for Long Term Care Management. 59.

Proffitt, M. & Weisman, G. (2008, Summer) Design competition raises awareness through a public-private partnership, ASA Healthcare and Aging. 16 (1).

Dorsky Hodgson + Partners & Ziegler Capital Markets Group (2003). *The state of wellness initiatives and wellness centers in senior living communities: The 2003 wellness center study*. [Tech. Rep].

Proffitt, M.A. & Hodgson, C.C. (2003, Fall). *Behavioral mapping: An analytical approach to optimal design for senior living environments.* ASA Healthcare and Aging, 10 (3).

Proffitt, M.A. & Briller S. (2002). *The unit's edge: Exploring the boundary between public and private domains in residential settings for older persons.* University of Wisconsin-Milwaukee: Center for Architecture and Urban Planning Research Monograph Series.

Briller, S. Proffitt, M., Perez, K. & Calkins,. M.P. (2001) *Understanding the environment through aging senses*, Vol. 1. In M. P. Calkins, Creating Successful Dementia Care Settings (series). Baltimore, MD: Health Professions Press.

Briller, S., Proffitt, M., Perez, K. & Calkins, M.P. (2001) *Maximizing cognitive and functional abilities*, Vol. 2. In M. P. Calkins, Creating Successful Dementia Care Settings (series). Baltimore, MD: Health Professions Press.

Perez, K., Proffitt, M., & Calkins, M.P. (2001) *Minimizing disruptive behaviors*, Vol. 3. In M. P. Calkins, Creating Successful Dementia Care Settings (series). Baltimore, MD: Health Professions Press.

Marsden, J.P, Briller, S., Calkins, M.P. and Proffitt, M. (2001) *Enhancing self and sense of home*, Vol. 4. In M. P. Calkins, Creating Successful Dementia Care Settings (series). Baltimore, MD: Health Professions Press.

Calkins, M.P., Sanford, J. & Proffitt, M.A. (2001). *Design for dementia: Challenges and lessons for universal design*. In Wolfgang, F.E. &E. Ostroff (Eds.), Universal design handbook, (pp. 22.1 – 22.24). New York: McGraw-Hill.

Proffitt, M.A. & Yang, C.J. (1994). *A story of innovation: The Alexian Village Health Center*. University of Wisconsin-Milwaukee: Center for Architecture and Urban Planning Research Monograph Series: Institute on Aging and Environment.

Barisas, M., Calkins, M. , Chaudhury, H., Johansen, D. & Proffitt, M. (1993). *Environments for people with dementia: Annotated bibliography, vol. II*. University of Wisconsin-Milwaukee: Center for Architecture and Urban Planning Research Monograph Series: Institute on Aging and Environment.

RESEARCH

National Surveys

Culture Change and the Household Model
A national Delphi survey of over 200 long term care providers, researchers and consultants to clarify the feasibility and importance of key strategies for changing the traditional medical culture of a nursing home into a resident centered product. This survey focused upon organizational, operational and environmental strategies as part of the culture change movement and was conducted with a multi-wave structure that permitted participants to view summaries of past responses to identify areas of agreement and disagreement.

Whole Person Wellness Programming on Senior Living Settings
A national survey developed in partnership with Mather Lifeways Institute on Aging and Ziegler Capital Markets Group to access the state of whole person wellness programming, its staffing and physical environment attributes on senior living campuses.

Defining the Wellness Paradigm
In collaboration with Ziegler Capital Markets Group this research is the first survey of wellness centers and wellness activities on senior living campuses. Findings from 123 communities indicated a clear trend towards embracing wellness philosophies, but a focus on physical fitness. As communities considered the future, a broader concept of wellness was being addressed which embraced all five dimensions of wellness—social, emotional, intellectual, spiritual and vocational.

State of Kosher Food Service
A survey of 65 Jewish organizations with 101 care settings to assess the state of Kosher Food services in the industry. Ninety two percent of the respondents kept Kosher under a part-time or full-time Mashgiah. Kosher food is most typically prepared in a main kitchen with some finishing occurring in remote pantries. Independent living and assisted living settings offered residents more food choices and typically served meals by waitstaff. Dining in nursing homes occurred in more familiar smaller groups of people, but more often with food served by less familiar tray service.

Post Occupancy Evaluation Studies

Froedtert & the Medical College of Wisconsin Clinical Cancer Center, Milwaukee, Wisconsin.
A Center on Healthcare Design Pebble Project to evaluate the efficacy of a new clinical cancer center that was designed to enhance the patients experience with enhanced views of nature and daylight, improve patient choice and access to wellness amenities and streamline services by co-locating specialties. Research methods include observation, surveys and resident record audits. Findings are still being compiled.

Luther Manor Adult Day Care, Milwaukee, Wisconsin
Post-occupancy evaluation and program evaluation for an existing Adult Day Program that is in the process of implementing a person-centered care philosophy. This study was conducted four years after a major renovation to the building and after significant changes were made to the activities programming. Research methods include surveys and behavioral mapping comparing before and after data. Key findings include a statistically significant change towards active engagement in activities by participants, and significant improvement in the therapeutic qualities of the architectural space.

Friendship Village of Schaumburg, Schaumburg, Illinois
Building performance evaluation for an existing 1970's life-care community undergoing master planning to revitalize the campus for the future. Research methods included interviewing staff and residents, as well as behavioral mapping of all public spaces. Key findings include a better understanding of how a large quantity of social space was poorly configured to support social interaction, and the recognition that the outdated nursing home was not supportive of the residents or staff.

Barclay-Friends Hall, West Chester, Pennsylvania
Post-occupancy evaluation of a replacement skilled nursing building based upon a decentralized cluster concept. A pre and post-move comparative behavioral mapping was used to identify changes in the residents' usage of spaces and their behavior. The study identified the new building's cluster design as a much calmer environment, but the staff needed to re-evaluate their activity programs to offer more decentralized events to engage the residents living in the smaller clusters who appear bored. In contrast,

the centralized dining room in the new building resulted in sensory overload for some residents which suggested some dining should occur in the smaller clusters as an option.

Kendal at Oberlin, Oberlin, Ohio
Post-occupancy evaluation of a ten year old Continuing Care Retirement Community to validate the original design concepts and benchmark the community against current design for aging concepts. Research methods included behavioral mapping, as well as surveys of both residents and staff. A key finding is validation of the integrated design of the community, in which all levels of care mix and interact, but without any concerns for segregation as typically found in most retirement communities. Unit design alterations by residents and considerations for future projects within the community are also shared. A follow-up study commissioned by the client assessed the pool building for lessons learned to apply to other retirement communities.

Parkcliffe Eldercare Community, Toledo, Ohio
Resident Activities of Daily Living and Incidental Activities of Daily Living outcomes were compared before and after moving into a supportive group home setting for people with Alzheimer's disease and related dementias. The findings indicated the physical and social setting positively influenced resident outcomes, resulting in a slower decline through the disease trajectory.

Columbia Hospital Department of Laboratory Sciences, Milwaukee, Wisconsin
Post occupancy evaluation of the Laboratory of Columbia Hospital of Milwaukee with the goal to improve the outdated, inefficient layout. Design criteria were researched, compiled and then used to evaluate the present laboratory setting. Based upon the evaluation, suggestions were made for the redesign of the facility. This evaluation was an independent study conducted under the direction of Harvey Rabinowitz for the Columbia Hospital's facilities department.

Alexian Village of Milwaukee, Health Center, Milwaukee, Wisconsin
Part of a research team which studied residents' behavior after moving from a medical model nursing home, to a social model based upon the cluster concept. Comparative behavioral mapping, identifying positive and negative behaviors, was conducted in both settings. The new social model had more instances of positive behaviors. This research team was led by Dr. Gerald Weisman and Dr. Uriel Cohen.

Rapid Ethnographic Research

The Unit's Edge: Exploring the Boundary between Private and Public Domains in Residential Settings for Older Persons.
This research explores the role of manipulating the architectural boundary of the dwelling's edge in residential settings for elders. Quantitative and qualitative research methods were employed to compare different dwelling's edge treatments in two retirement communities that encouraged personalization of resident entryways. Key study findings were validation of the dwelling edge as a form of self expression, group identity and an effective catalyst for socialization. Architectural design guidelines were developed to maximize the therapeutic potential of the unit's architectural boundary.

VOLUNTEER ACTIVITIES

Treasurer and Advisory Committee for SAGE, Society for the Advancement of Gerontological Environments. 2002–2007,

Jury member for SAGE / Long Term Care Living Magazine Competition as featured in the Annual DESIGN publication and the Renovation Competition. 2000–2004, 2008–2011, 2013

Member of the editorial review board for the Journal of Housing for the Elderly, 2010–Present,