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Measuring Hispanic/Latino Satisfaction with Health Services in Chesterfield County, Virginia

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MEASURING HISPANIC/LATINO SATISFACTION WITH HEALTH SERVICES IN CHESTERFIELD COUNTY, VIRGINIA

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

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ABSTRACT

MEASURING HISPANIC/LATINO SATISFACTION WITH HEALTH SERVICES IN CHESTERFIELD COUNTY, VIRGINIA

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The objectives of this study were to measure and describe the overall satisfaction of Hispanics/Latinos with services they receive from Chesterfield County's Health Department and compare it to that of African Americans and Caucasians. Also, the objectives were to analyze reasons for different levels of satisfaction, assess the nature and degree of satisfaction with particular services, and suggest implications of the Hispanic/Latino opinions for public policy. While the empirical literature revealed that Hispanics/Latinos experience lower levels of satisfaction with health care services, this study did not provide evidence to support this theory.

This is a multi-method non-experimental research design combining a cross-sectional design and qualitative interviews. Quantitative data was collected through a patient satisfaction survey, in both English and Spanish, incorporating both closed and open-ended questions. Qualitative data was collected through taped in-depth interviews

conducted with each subject to obtain their perspective on the services provided by the Health Department.

The Spanish and English research instrument (Appendix C and D) was a self-designed survey to provide a more comprehensive approach to assess customer satisfaction of health services, collect demographic information, and determine how to better deliver these services. The survey consisted of 46 questions (and several follow-up questions) with 23 questions pertaining to the six satisfaction dimensions. These dimensions were measured by a Likert-type response scale ranging from strongly agrees to strongly disagree.

Item identification was based on suggestions offered by staff of Chesterfield County's Health Department, theoretical concepts introduced in the literature review and miscellaneous information adapted from the following surveys: The Connecticut Surgical Group - Patient Satisfaction Survey (2004); SERVQUAL – an instrument for measuring quality service (1990); and The Patient's View on Health Care by RAND and UMQC (1994). Authors of these surveys suggest satisfaction be assessed across the following dimensions: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowledge of the customer, and tangibles (appearance of physical facilities). Data were collected from 166 non-Hispanic/Latino and 90 Hispanic/Latino patients that were 18 years of age or older and receive services, at Chesterfield County, Virginia's Health Department. The independent variables were sex, age, level of school completed, income, marital status, children, ethnic background, ability to speak English, modes of transportation, and

length of residency in Chesterfield County, Virginia. Dependent variables in the analyses included the six dimensions of satisfaction—staff reliability, staff responsiveness, staff courtesy, staff communication, access to Health Department services, and Health Department Facilities. The data were analyzed through several inferential statistical techniques--univariate, bivariate, multivariate, and nonparametric.

Results of the tests indicated that overall, ethnic background only influenced satisfaction with services across two dimensions—staff responsiveness and staff courtesy. However, there were noted differences in the measured levels of satisfaction across the racial/ethnic groups. This study also found that valid comparisons can be made among Hispanics/Latinos, African Americans, and Caucasians on their levels of satisfaction using the 23 measures. Population characteristics had no influence on the differences in satisfaction among the racial ethnic/groups. Results of the in-depth interview revealed that respondents were satisfied with the services as well as the quality of the services provided by the Health Department.

CHAPTER 1

INTRODUCTION

The objectives of this study were to measure and describe the overall satisfaction of Hispanics/Latinos with services they receive from Chesterfield County's Health Department, analyze reasons for differences in the levels of satisfaction, assess the nature and degree of satisfaction with particular services, and suggest implications of the Hispanic/Latino opinions for public policy. While the empirical literature reveals that Hispanics/Latinos experience lower levels of satisfaction with health care services, in some cases the evidence is not conclusive. The results of much of the research are mixed, which precludes the generalizability to the Hispanic/Latino population. In addition, most of the available research follows Donabedian's theory of quality assessment that does not have "satisfaction with care" as its primary theme.

With the influx of Hispanics/Latinos into new destinations where they are not the predominant minority, a more in-depth study needs to be undertaken. There may be significant differences in the service needs and problems of Hispanics/Latinos in an area where they are a proportionately small minority and those residing in areas of the country where they are a predominant minority (Snow and Hutcheson, 1981). Thus, this study will focus on "How satisfied are Hispanics/Latinos with the health services provided by Chesterfield County's Health Department?"

Background

The face of the United States is changing due to the dramatic shifts in its racial and ethnic make-up. Not since the late 18th century has this country experienced such an influx of immigrants. In 1990, the foreign-born population reached 19.8 million, or 7.9%, of the total population of the United States. The 2000 Census revealed that almost one in every ten residents was foreign-born (Portes and Rumbaut, 1996; Tomasi, 1998; Janoski, 1998).

Immigrants come overwhelmingly from the developing worlds of Asia and Latin America seeking a new citizenship that will socially and politically integrate them into a society with opportunities to live and prosper (Portes and Rumbaut, 1996; Tomasi, 1998; Janoski, 1998). Of the two major immigrant groups, Hispanics/Latinos[1] comprise about 11% (or approximately 31 million) of the U. S. population, including 2.6 million residing in the Commonwealth of Puerto Rico. If the current trend continues, the U.S. Hispanic/Latino population is projected to become the largest minority group early in the 21st century, surpassing that of African-Americans (Novello, Wise, and Kleinman, 1991, p. 2; Flores, Abreu, Olivar and Kastner, 1998, p. 2; Frank-Stromborg, 1991, p.1; Marin and Marin, 1991; Skolnick, 1997, p. 2).

Early Hispanic/Latino migration was concentrated primarily in four states—California, Florida, New York, and Texas. Today, Hispanics/Latinos are beginning to spur growth in nontraditional immigrant destinations such as Georgia, Iowa, Ohio and

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[1] For purposes of this research, the terms "Hispanic" and "Latino" are used together to reflect both popular use of the terms and the new Office of Management and Budget (OMB) terminology standards in effect for Census 2000. The term Hispanic/Latino is also used for the population as a whole.

Virginia (Immigrants drawn to Georgia, 2000, p. 1). In the latter part of the twentieth century, over one-half of the largest 100 metropolitan areas in America posted explosive growth of their initially small Hispanic/Latino communities. These new destinations encompass a diverse collection of areas (Appendix A) scattered across 35 states in every region of the country (Suro, 2002, p. 4).

The new dispersal of the foreign-born to states with comparatively few immigrants is occurring at the same time states are shouldering new responsibilities under welfare reform. Federal welfare reform devolved new authority to states to decide whether legal immigrants should be eligible for state and federally-funded public benefits—especially health benefits. With the federal restrictions on eligibility, new Hispanic/Latino destinations now have not only more immigrants than ever before, but also more responsibility to set policy for them and to pay for services provided to them (Passell and Zimmerman, 2001).

Research Problem

Improvement of the health of racial and ethnic minority populations is a priority of the Public Health Service. This priority was underscored in the 1985 Report of the Secretary's Task Force on Black and Minority Health that outlined the magnitude of health disparities among minority populations and proposed approaches to these problems. In 1993, activities were begun to stress the critical role of information on race and ethnicity in public health surveillance and the need for consensus regarding the use of these concepts (Center for Disease Control, 1993, p. 3).

Most public health care systems aim at ensuring the population's good health care according to the individual's needs, regardless of their social position, gender, race, or ethnicity (Sundquist, 2001, p. 1). Reinvestment initiatives, changing demographics, and growth in urban areas are creating changes that offer new opportunities for improving health while requiring that health systems be adapted to residents' health needs (Andrulls, 2000, p. 1). However, determining how to adapt health services to meet the needs of the growing Hispanic/Latino population has proven to be the chief obstacle that most state Health Districts have had to face. Creating these obstacles are the immigrants' fear of reprisal by the Immigration and Naturalization Service (INS), language and cultural barriers, and lack of resources to bridge the gap between Hispanic/Latino health needs and the unfamiliar world of the American health system.

In Chesterfield County, Virginia, with the Hispanic/Latino population noticeably increasing (Table 1, page 5), it was only a matter of time before health concerns and needs caught up with census numbers. In 1994, the County recognized the pronounced need to adapt its service system (Appendix B) to meet the special service needs that accompany the in-migration of Hispanics/Latinos who are not fluent in English and who have cultural norms that depart from those of the majority culture. Combining its efforts with various community organizations (Appendix C), Spanish-speaking staff and various County departments, the Health Department is slowly reaching the Hispanic/Latino community's (Table 2, page 6) health care needs.

Table 1

Chesterfield County Population

Race/Ethnicity	1990	2000	Percent Change
White	177,067	199,447	13
Black or African American	27,196	46,195	70
Native American	487	851	75
Asian*	3,738	6,265	68
Multiple Races		3,673	
Hispanic/Latino	2,511	7,617	203
Other	786	3,472	342
Total	**209,274**	**259,903**	**24**

Source: U. S. Census
* The 2000 population Asian figure includes native Hawaiian and other Pacific Islanders.

However, the Health Department is the first to admit that more needs to be done. In addition, external measures of effectiveness need to be put in place that gauge current levels of Hispanic/Latino satisfaction with the health services provided in order to improve existing services, identify areas of need, and provide a framework for intermediate and long-term planning efforts.

Table 2

Chesterfield Health Department Clinic Services Statistical Data

	FY95	FY96	FY97	FY98	FY99	FY00
Total No. of Customers (all races)						
Family Planning	1,857	1,634	1,641	1,594	1,313	1,605
Maternity	738	665	645	627	431	521
Child Health	695	473	662	749	490	750
Total	**3.290**	**2,772**	**2,948**	**2,970**	**2,234**	**2,876**
Hispanic/Latino Customers						
Family Planning	23	32	28	87	102	102
Maternity	21	26	50	77	60	160
Child Health	23	24	51	115	109	122
Total	**67**	**82**	**129**	**279**	**271**	**384**
Hispanic/Latino customers as a percent of total customers	2.1%	3.1%	4.4%	10.4%	13.8%	15.4%
Hispanics/Latinos – Percent of increase	N/A	22.4%	47.6%	116.3%	(2.9%)	41.7%

Source: Chesterfield County, Virginia Health Department.

Objective of the Study

The objectives of this study were to measure and describe the overall satisfaction of Hispanics/Latinos with services they receive from Chesterfield County's Health Department and compare this level of satisfaction to that of African Americans and Caucasians. Additional objectives were to analyze reasons for different levels of satisfaction, assess the nature and degree of satisfaction with particular services, and suggest implications of Hispanic/Latino opinions for public policy. While the empirical literature revealed that Hispanics/Latinos experience lower levels of satisfaction with health care services, this study did not provide evidence to support this theory.

Significance of the Study

The current flow of immigrants to new Hispanic/Latino destinations is a new urban phenomenon that has important implications for planning and policy development at the local level. Measuring satisfaction with health services among Hispanics/Latinos, like other ethnic minority customer populations, is important because Hispanic/Latino patients have unique cultural and linguistic needs that are frequently not well served by the current health care systems. These systems are generally oriented toward serving patients belonging to the dominant culture (Morales, 2001). Furthermore, this lack of research on satisfaction with health services exists at a time when the Hispanic/Latino population is growing rapidly in areas where they are not the predominant minority.

Findings of this study are useful to academics as it will add to the knowledge base and provide information beyond economic (income parity) and well-being (health status) indicators. Additionally, results of this study may be useful to local and city administrators as they develop strategic and public facilities plans, and determine fiscal impacts. More specifically, results of the study will help Chesterfield County, Virginia's Health Department to assess whether they are meeting the needs of the Hispanic/Latino population.

Limitations of the Study

This study reflects that Chesterfield County's Health Department has taken a reactive approach to provide services to its newest members of its communities. While seemingly they are providing quality service, it was difficult to be certain that a good

understanding of patient satisfaction, from the patient's perspective, was ascertained. To facilitate the survey and interview process, respondents had to be made aware that they would receive a gift for taking the time to complete the survey and interview. Most respondents complained about the time (generally from 15 – 25 minutes) it took to complete the survey. Because of this, most respondents did not want to be interviewed.

Due to the low number of significant relationships between ethnic background and the measures of satisfaction, caution is taken in generalizing the results of Hispanic/Latino satisfaction with services provided by Chesterfield County's Health Department to the larger population.

There were several threats to the internal validity that had the potential to create bias in the survey responses. For respondent's that could not read or understand the question, the investigator would have to find ways to help the respondent understand how to answer the question. In addition, there appeared to be collaboration on responses among some of the respondents, especially for those brought to the clinic by a friend or relative.

Organization of the Study

In chapter one, the objective, significance, limitations, and organization of the study are presented. Chapter two presents a detailed discussion of Chesterfield County, Virginia's Health Department, a discussion on Hispanics/Latinos, immigration policies, new Hispanic/Latino destinations, immigrant health, a review of the literature of patient satisfaction in health care, and a review of ethnicity and culture in health care research.

Also included is a discussion of the development of the conceptual framework for the basis of this study. Chapter three presents the methodology for the study, which includes a description of the population and sample, research instrument, interview protocol, research procedures, treatment of the data, open-ended questions, and interview protocol. Chapter four presents the findings of the study and investigates the research question. Results are discussed by type of test used for the analysis and results of the tests are explained and interpreted in terms of significance and the strengths or weaknesses of the associations. Chapter five discusses the major findings presented in chapter four, the limitations of the study, managerial implications and recommendations, implications for future research, and presents a conclusion.

Measuring Patient Satisfaction

Assessment of patient satisfaction allows health care providers to investigate the extent to which their service meets the needs of their patient group. Investigating specific aspects of service provision will enable the service providers to identify aspects of the service where patients are less satisfied, and potentially improve these aspects of care. Research has shown that satisfied patients are more likely to follow treatment instructions and medical advice, probably because they are more likely to believe that treatment will be effective (Grogan, Conner, Norman, Willits, Porter, 2000).

Measuring the quality of the intangible service product has become a great challenge for providers in the health care industry. While manufacturers can develop quality control methods to ensure that their products meet quality specifications before

the customer ever sees them, the service provider usually does not have that luxury. Accurately measuring how patients feel about their office visit, hospital stay, medical procedure, or total health care experience is a far more difficult challenge than it is to determine the roundness of a tire or the straightness of a seam of clothing (Ford, Bach, and Fottler, 1997).

Patient satisfaction is different from other health care business indicators because it represents the patient's subjective perception of the quality of the health care experience. In every service organization, it is the patient's subjective satisfaction level that determines which policies to develop, change, or eliminate. The extreme degree of subjectivity in customer satisfaction ratings makes consistently high performance levels difficult, but not impossible, to produce. Once an organization has mastered the formula for performing at top levels and has installed the infrastructure necessary to sustain it, the organization will have gained a competitive advantage that other organizations cannot easily reproduce (Sherman and Sherman, 1999, p. 2).

The most critical challenges in measuring patient satisfaction is for health care providers to find and select the appropriate methods to measure overall patient satisfaction and its components. This challenge is made more complex by the fact that the quality of the service product is determined by the individual patient and his or her behavior as well as the technical quality and service quality provided by the organization. Consequently, what is perceived as merely acceptable services by one person may be a great experience to another and totally unacceptable to a third. The subjective nature of the quality and value of the service experience makes identifying

and implementing the appropriate measurement particularly challenging (Ford, Bach, and Fottler, 1997).

There are a variety of structural mechanisms that are used to measure satisfaction--in-office questionnaires (generally comment cards), surveys mailed after a visit, telephone surveys, focus groups, or interviews. However, one of the most widely used mechanisms is the survey. It is used to measure patients' opinions of the quality of the health care they have received. In other words, they capture the patients' recollections and perceptions of care. This alerts the health care provider to patient concerns, needs, and perceptions of treatment. Data is also useful for program planning, evaluation, and identification of potential areas of improvement. Finally, data collected provide a measure of service failure and service failure recovery (Ford, Bach, and Fottler, 1997).

CHAPTER 2

LITERATURE REVIEW

Most public health care systems aim at ensuring the population's good health care according to the individual's needs, regardless of their social position, gender, race, or ethnicity (Sundquist, 2001, p. 1). Reinvestment initiatives, changing demographics, and growth in urban areas are creating changes that offer new opportunities for improving health, while requiring that health systems be adapted to residents' health needs (Andrulls, 2000, p. 1). However, determining how to adapt health services to meet the needs of the growing Hispanic/Latino population has proven to be the chief obstacle that most state Health Districts have had to face. Creating these obstacles are the immigrants' fear of reprisal by the Immigration and Naturalization Service (INS), language and cultural barriers, and lack of resources to bridge the gap between Hispanic/Latino health needs and the unfamiliar world of the American health system.

This literature review starts with a discussion of Chesterfield County, Virginia's Health Department and its efforts to serve the needs of the Hispanic/Latino community. Next, a profile of Hispanics/Latinos, to include a history of their presence in the United States is presented in order to gain insight into the population. Last, a review of the literature relevant to this study is provided.

Chesterfield County, Virginia's Health Department

The Chesterfield Health District is composed of three local health departments—Chesterfield County, Powhatan County, and the City of Colonial Heights. As a state agency, each local health department operates in a cooperative relationship with the city or county that it serves. A network of 35 health districts delivers public health services across the state. Each health district is composed of multiple local health departments operating under the auspices of the Virginia Department of Health.

Chesterfield County has become more racially diverse over the past 13 years. Between 1990 and 2000, the county's minority population grew by more than 80%. Minorities accounted for 23% of Chesterfield's 2000 population, compared to approximately 15% in 1990. This poses a great challenge to the county to determine which services to provide and how to deliver these services to its growing minority population.

In Chesterfield County, Virginia, with the Hispanic/Latino population noticeably increasing, it was only a matter of time before health concerns and needs caught up with census numbers. In 1994, the County recognized the pronounced need to adapt their service system (Appendix B) to meet the special service needs that accompany the in-migration of Hispanics/Latinos who are not fluent in English and who have cultural norms that departs from those of the majority culture. Combining their efforts with various community organizations (Appendix C), Spanish-speaking staff, and various County departments, the Health Department is slowly meeting the Hispanic/Latino community's health care needs as previously shown in Table 2, page 6.

Health Department Staff Concerns. Health Department personnel recognized the possible health risks resulting from the language and cultural barriers. In addition, they also recognized that there is a lack of awareness of the basic services that are available such as immunizations, baby care, dental care, and nutritional guidance. While the staff puts much emphasis on helping the people, most are not eligible for Medicaid, do not have health insurance, and don't know where to turn.

Staff nurses, particularly, feel the effects of the communication gap on a daily basis. Nurses are often the first contact for Hispanic/Latino patients in the unfamiliar world of the American health care system. Typically, they come in for services but are unable to relay their ailments or needs. One way the Health Department has addressed this is by utilizing staff members that are bilingual to assist the doctors and nurses treating Spanish-speaking patients who are unaccompanied by an interpreter. They also work with many of the families to help them understand the importance of seeking health care, helping them to understand the importance of taking their medications, and providing them with information about the services the Health Department offers. This is the first step in gaining their confidence.

It is easy to understand why barriers' exist. Most Hispanics/Latinos migrate to this country with no sponsors. They do not know anyone and speak little or no English. They come from Argentina, El Salvador, Guatemala, or Mexico. Inevitably, they assimilate into a tight-knit Hispanic/Latino network of families. This local network is their backbone for support, information, and direction as they struggle to adapt to a strange new country. Usually, there is one person in this unit who speaks English and

the others depend on that person for help. Many in the population are very mobile and go where the jobs are. Most Hispanics/Latinos are labor workers. Their jobs are in factories, construction, and production lines. Because they are often in transition, they do not develop relationships outside their temporary environments which can cause them to be unwilling to talk about their personal, medical, or clinical needs.

Public health encompasses many things, such as preventing epidemics and the spread of disease, protecting against environmental hazards, preventing injuries, promoting and encouraging healthy behaviors, and assuring the quality and accessibility of health services. According to Dr. William Nelson, director of Chesterfield County's Health Department, "The Health Department is where the state and the locality come together in a common effort to protect the health of all residents". The Health Department's goal is to ensure that everyone has the opportunity to be healthy. Its mission is to protect, preserve, and promote optimum health for the community through excellence in public health service. Its vision is to be the leader in public health through innovative and cost effective strategies to preserve the health and well being of the community—the standards by which others measure their success—*first in health.* However, while the Health Department has been reactive in their approach to addressing the perceived needs of the Hispanic/Latino population, more needs to be done.

Who are Hispanics/Latinos?

The terms "Hispanic" and "Latino" were used together in this study and reflect both popular use of the terms and the new Office of Management and Budget (OMB) terminology standards in effect for Census 2000. These terms describe persons who themselves, or whose ancestors, were born into a Spanish-speaking community. The intention was to develop a nonpejorative term that could include persons born in the United States but descended from Spanish-speaking peoples, as well as immigrants from Spain, Mexico, countries in the Caribbean and Central America, and South America except for Brazil and Portugal. Brazil and Portugal are excluded because the people in those countries speak Portuguese rather than Spanish. While most Latinos in the United States share a common linguistic heritage—Spanish—the Hispanic population includes a diversity of birthplace, national origin, legal status, socioeconomic class, and settlement histories (Cafferty, and Engstron, 2000, p. 2; Suro, 2002, pp. 3-4; Clutter and Nieto, 2001, pp. 1-2).

Census 2000 asked separate questions on race and Hispanic or Latino ethnicity. Persons were asked to identify whether they were of "Spanish" origin. This question was independent of the race question which asked people to identify whether they were white, black, Asian, American Indian, Native Hawaiian or "some other race," and persons could mark as many categories as they identified. Therefore, persons of Hispanic or Latino origins may be of any race (Cafferty, and Engstron, 2000, p. 2; Suro, 2002, pp. 3-4; Clutter and Nieto, 2001, pp. 1-2).

Other terms are also commonly used within the Hispanic/Latino community. Some Southwestern Hispanics/Latinos, especially those whose families have lived there since Spanish colonial times, prefer the terms *Spanish, Spanish-American, or Hispano.* Many persons of Mexican origin prefer the term *Mexican-American*, and some younger Mexican-Americans prefer the terms *Chicano, Xicano,* or *Mexicano.* People who come from other Latin American countries may prefer terms that refer to their country of origin, such as *Cuban-American, Cubano,* or *Dominican.* The term *Puertorrequeno* is common, although other nationalities are also identified. Only 7% of the Hispanic/Latino population lives in the Midwest. No single nationality group is concentrated there, so the term Hispanic/Latino is most often used (Cafferty, and Engstron, 2000, p. 3).

Hispanic/Latino Demographic and Socioeconomic Characteristics. Hispanics/Latinos as a group have some characteristics that differentiate them from other ethnic or racial groups. While Hispanics/Latinos are a heterogeneous group, the information provided below does not reflect that there is variability among them. The characteristics presented are in disagreement among researchers as to the meaning and implications of some of these values. However, they do provide a basic introduction with which one can become familiar (Marin and Marin, 1991; Ramirez and de la Cruz, 2003; Suro, Fry, Kochhar, Passel, Tafoya, Benavides, Seaborn and Luben, 2005).

- *Place of Residence* - Hispanics/Latinos are primarily residents of urban or metropolitan areas. Despite their geographic concentration, there are a few Hispanics/Latinos that live scattered throughout neighborhoods where they are a small share of the population. Approximately 20 million Hispanics/Latinos, 57% of the total, lived in neighborhoods in

which they made up less than half the population at the time of the 2000 Census.

- *Age* – A greater share of the Hispanic/Latino population is concentrated in childbearing years. The median age for all Hispanics/Latinos is 25. Median ages for Hispanics/Latinos by generation are: first-generation—34; second-generation—24; and third-generation—11.

- *Educational Level* - In the United States, 62% of Hispanics/Latinos have finished high school. In contrast, 84% of native-born Hispanic/Latino young adults have finished high school. In 1970, 40% of native-born Hispanic/Latino teens had finished high school. By 2000, the rate had increased to 60%. Similarly, Hispanic/Latino high school graduates go on to college at much higher rates than they did 30 years ago. Seventy percent of Hispanics/Latinos in the high school class of 1992 moved on to college, significantly higher than the 50% in the class of 1972.

- *Income* - Poverty is high among Hispanic/Latino households and wealth accumulation is low. Hispanic/Latino households own less than 10 cents for every dollar in wealth owned by white households. Because they retain strong economic ties to their countries of origin, many of them regularly send money home. The median weekly earnings of foreign-born Hispanics/Latinos are approximately $350 and $425 for the native-born.

- *Occupational Status* - Hispanics/Latinos are concentrated in relatively low-skill occupations and have a higher unemployment rate. The highest percent of Hispanics/Latinos share of employment are in the following occupations: farming, fishing and forestry; building and grounds maintenance; construction; production; and food preparation and serving. The five lowest occupations are: architecture and engineering; legal; computer and mathematical science; health care practitioner and technical; and, life, physical, and social sciences.

- *Language Preference* - A majority of Hispanics/Latinos are bilingual and likely to retain their Spanish language skills as their communities are replenished with new Spanish speaking immigrants. Although only 31.5% of Hispanics/Latinos were born outside the United States and the Commonwealth of Puerto Rico, 77% report Spanish as their primary language and the language they speak at home.

Basic Cultural Values. Traditionally, the Hispanic/Latino family is a close-knit group. However, there are certain cultural nuances or unwritten rules that govern social interactions. These unstated rules can impact the way in which individuals perceive, seek, and receive services. Essential cultural aspects can involve interactions as simple as conversational gambits and spatial (physical space) relationships, along with larger institutional issues such as family visiting hours, patient education, and measuring individual responses to pain. Listed below are some of the common cultural characteristics of Hispanics/Latinos that live in the United States (Delgado, 2001; Clutter and Nieto, 2001, p. 1):

- *La Familia* (the family) – Traditionally, Hispanics/Latinos include many people in their extended families, not only parents and siblings, but grandparents, aunts, uncles, cousins and *compadres* (close friends) and godparents (*padrinos*) of the family's children. When ill or injured, Hispanic/Latino people frequently consult with other family members and often ask them to come along to medical visits.

- *Respeto* (respect) – For Hispanics/Latinos, the intimate confines of extended families, close-knit Hispanic/Latino communities, and traditional networks are mediated by *respeto*. *Respeto* dictates appropriate deferential behavior towards others based on age, sex, social position, economic status, and authority. Older adults expect respect from youngsters, women from men, men from women, adults from children, teachers from students, employers from employees, etc.

- *Personalismo* (personal) – Hispanics/Latinos tend to stress the importance of *personalismo* rather than institutional relationships, which is why so many continue to rely on community-based organizations and clinics for their primary care. Hispanics/Latinos expect health providers to be warm, friendly, and personal, and to take an active interest in their life.

When doing any type of investigative study with Hispanics/Latinos, there are several additional characteristics that researchers must become familiar with. Although

it is less often utilized in research projects, the generational history of the respondents may prove useful for the proper understanding of the characteristics of Hispanics/Latinos. Knowledge of the generation history may clarify some relationships in the data being collected (Marín and Marín, 1991):

- *First-generation Hispanics/Latinos*: Respondents born in Latin America.
- *Second-generation Hispanics/Latinos*: Respondents born in the United States and both parents born in Latin America.
- *Mixed second-generation Hispanics/Latinos*: Respondents born in the United States with one parent born in Latin America.
- *Third-generation Hispanics/Latinos*: Respondents and both parents born in the United States with all grandparents born in Latin America.

Other Hispanic/Latino characteristics that researchers must become familiar with because they may affect the process and outcome of a study are as follows (Delgado, 2001; Marín and Marín, 1991; Frank-Stromborg, 1991, p. 2):

- *Allocentrism* (collectivism) – This is a basic Hispanic/Latino value. Allocentrism means that Hispanics/Latinos can be influenced by others, have mutual empathy, are willing to sacrifice for the welfare of the in-group members, and they trust the members of the in-group. Research has shown that because of allocentrism, Hispanics/Latinos prefer interpersonal relationships in in-groups that are nurturing, loving, intimate, and respectful.
- *Simpatía* (affection/congeniality) – Is derived from allocentrism. *Simpatía* emphasizes the need for behaviors that promote smooth and pleasant social relationships. As a script, Simpatía moves the individual to show a certain level of conformity and empathy for the feelings of other people. A person with Simpatía behaves with dignity and respect toward others, and strives to achieve harmony in interpersonal relations.
- *Distancia de la Energía* (power distance) – The construct of "power distance" is another cultural value that differentiates cultural groups. It is defined as a measure of interpersonal power or influence that exists

between two individuals. This cultural value supports the notion that societies have powerful individuals as a result of inherent traits (e.g., intelligence) or of inherited or acquired characteristics (e.g., money, education).

- *Espacio Personal* (personal space) – Hispanics/Latinos have been shown to prefer shorter distances. Like other contact cultures, they feel comfortable when physically close to others and are less likely to feel that their personal space has been invaded when a stranger comes close to them.

- *Orientacíon del Tiempo* (time orientation) – A number of researchers have suggested that Hispanics/Latinos and Latin Americans can be considered present-oriented and that this cultural value translates into often being late for appointments or in misperceiving the length of time spent at a task. Hispanics/Latinos tend to have a more flexible attitude toward time, particularly concerning events or activities that do not necessarily demand punctuality. This flexibility allows Hispanics/Latinos to feel they are on time if they arrive 15 or 20 minutes after the appointed time.

- *Papeles del Género* (gender roles) – Like all cultures, Hispanics/Latinos have defined gender-related behaviors for both men and women. Much has been written about Hispanic/Latino men and the assumed cultural expectations for being strong, in control, and the providers for their families (*machismo*). Traditionally, Hispanic/Latino women are described as submissive and lacking in power and influence. These stereotypical perceptions of male-female relationships among Hispanics/Latinos have not been fully documented.

- *Confianza* (trust) - To fully engage Hispanic/Latino audiences in the learning process, particular attention should be given to gaining and maintaining trust. Greater acceptance of educational efforts will occur by learners if Hispanic/Latino community leaders are involved in the planning, delivery, and evaluation of these efforts.

Assimilation. Throughout the literature, various terms are use to describe assimilation, e.g., integration, adaptation, and acculturation. In other literature these alternate descriptions are defined as being sub-processes of assimilation. Connor (1985) developed an operational definition of the construct based on the following two

principles. First, he viewed assimilation as being a process because it occurs in varying degrees. Next, assimilation is a multidimensional process because the various aspects of assimilation are highly interactive but vary separately, propelled by somewhat different sets of causes, they change at different rates and in different sequences. Thus, assimilation is defined as a boundary reduction that can occur when members of two or more societies, ethnic groups, or smaller groups meet. When carried to completion, an assimilated ethnic population is defined operationally as a group of persons with similar foreign origins, knowledge of which in no way gives a better prediction or estimation of their relevant social characteristics than knowledge of the behavior of the total population of the community or nation involved (pp. 30-31).

Theories of assimilation focus primarily on immigrants and their off-springs adopting some values, beliefs and behaviors more characteristic of the core culture than the culture of the countries from which they or their ancestors originated (Suro, et. al, 2005). Contrary to this belief, Faist (2000) believes that the process of assimilation begins with acculturation. He defines acculturation as the immigrants' adjustment or the immigrants' melting into the core culture. In order for this process to work, it is followed, albeit not always, by structural assimilation—the entry of immigrants into primary groups of the immigration country. Structural assimilation concerns the cultural realm, the identificational assimilation, and thus the individual and collective identities of immigrants. This indicates that cultural adaptation and meanings accompany the process of immigrant adjustment all along (Faist, 2000). The final result

is the complete shedding of the old culture and the complete and overall submergence into the new culture (p. 283).

Theories on assimilation perspectives have suggested that immigrant incorporation occurs in multiple stages, usually across one or more generations. According to Massey and Taylor (2004), immigrants' economic progress depends on their length of residence and employment. As members of the first generation acculturate and establish themselves in the U.S. labor market, they increase their contact with and resemblance to the native majority. Ethnic groups may remain distinguishable from one another for a long period of time but, according to some sociologists, distinctive ethnic characteristics become increasingly insignificant over time. Eventually, they cease to exist as ethnic groups as they pass through the stages of assimilation, marrying into the majority population and entering mainstream institutions (p. 132).

Early accounts of Hispanic/Latino assimilation focused primarily on Mexican-Americans because, in the classic era of open immigration, approximately 85% of the Hispanic/Latino immigrants to the United States were from Mexico (Delgado, 2001). In a collection of autobiographical documents by Manuel Gamio (1971), most Mexicans (first-generation immigrants) who entered the United States rarely felt they were an integral part of it. Mexicans of white blood, modern urban culture, and those that were educated were considered to closely resemble North Americans and were more willing to assimilate. Most married Americans to bridge the gap between the two cultures which included learning to speak English. Regardless of their blood lines,

Hispanics/Latinos were forced to learn the language in order to take advantage of the opportunities.

In studying assimilation of Mexican-Americans, Connor (1985) investigated factors that influenced both the degree and tempo of the assimilation process. He identified 14 variables that were, and still are, highly interactive. He noted that these variables were developed to allow one to think systematically about assimilation in the United States. Most of the variables are of some importance in the early years of residence in a new society, and others are of continuing importance. The list of these variables is shown in Table 3, page 25.

With the new contemporary and urban Hispanic/Latino immigration, *Diasporas* are being created that are characterized by high degrees of diffuse solidarity that prohibits, or, at least, slows down the process of assimilation (Faist, 2000). Within the United States, there is much support for minority languages that support diversity and heterogeneity (Bookman, 2002). However, in the nontraditional receiving states, the Spanish language has become the "lightning rod" for anti-immigrant sentiments. A lack of English language proficiency is a major irritant to many monolingual Americans. Spanish dominance and bilingualism are often taken as evidence of cultural fragmentation and a direct threat to the imagined cohesiveness of "American" culture (Zúñiga and Hernández-León, 2005).

Table 3

Variables That Affect The Extent And Speed Of Assimilation

	Assimilative Influence	Dissimilative Influence
1	Belongs to a small group (relative to total population)	Belongs to a large group
2	Is residentially scattered (by region and community)	Is residentially concentrated
3	Has resided in a given society a long time (low proportion of newcomers)	Has resided in a given society a short time (high proportion of newcomers)
4	Return to homeland is difficult and infrequent	Return to homeland is easy and frequent
5	Speaks the majority language	Speaks a different language
6	Adheres to one of majority religion	Adheres to a different religion
7	Belongs to the same race as the majority	Belongs to a different race
8	Entered voluntarily	Entered by conquest or forced migration
9	Comes from a culturally similar society (in terms, for example, literacy, urbanization, etc.) to the receiving society	Comes from a culturally different society
10	Is repelled by political and economic developments in homeland	Is attracted to those developments
11	Is diverse in class and occupation	Is homogeneous in class and occupation
12	Has a high average level of education	Has a low average level of education
13	Experiences little discrimination	Experiences much discrimination
14	Resides in an open-class society	Resides in a society with little social mobility

Results from a series of national surveys conducted by the Pew Hispanic Center in partnership with the Henry J. Kaiser Family Foundation from 2002 to 2004 show clearly that the acquisition of English plays a central role in assimilation. In general, the attitudes of English-dominant Hispanics/Latinos are much more similar to those held by non-Hispanics/Latinos than are the attitudes of Spanish-dominant

Hispanics/Latinos. Results of the studies also show that the correlation extends across a wide range of topics, ranging from attitudes on the acceptability of abortion to beliefs about an individual's ability to control his or her own destiny. Language is found to contribute substantially to differences in attitudes even after controlling for many other factors, such as age, gender, education, income, and country of origin (Suro, et. al., 2005).

Hispanic/Latino Migration

Much of the variation in international migration over time can be explained in economic terms (Brettell and Hollifield, 2000). The classic model of immigration is referred to as *push-pull.* It is constructed around "factors of expulsion" (economic, social, and political hardships in the sending countries) and "factors of attraction" (comparative economic and political advantages in the receiving countries). The model has a close affinity to the "cost-benefit" approach to immigration advanced by several labor economists and corresponds to the popular view that the movement occurs primarily because of the motivations and actions of the newcomers (Portes and Rumbaut, 1996, p. 271).

The cost-benefit model assumes that greater disadvantages (factors of expulsion) will naturally lead to greater migration as individuals seek to escape their situation (Portes and Rumbaut, 1996). To define the model in simpler terms, people leave their country of origin because they believe that their lives will be improved by settling in another country. According to Castaneda (1995), "The *push-pull* effect is truly the decisive determinant of the intensity, size, and evolution of migratory flows" (pp. 16-

17). Faist (2000), on the other hand, views migration as either demand-pull or supply-push, embedded in broader systems. The selection of migrants in the demand-pull dimension says that the post-war migrations to the North began, for the most part, in response to the demand of employers in high-growth industries to cheap and docile labor from the periphery—from Mexico and the Caribbean basin to North America. Migrants also came from the former colonies, such as the Caribbean Islands and the Indian subcontinent, or from southern Europe, North Africa, and Turkey to Europe. The receivers implemented public policy instruments that regulated and legitimized these flows through instruments such as *Gastarbeiter*[1] and *bracero*[2] policies. The economically beneficial arrangements, mainly so for the immigration countries, corresponded to the liberal spirit of the post-war economy (Brettell and Hollifield, 2000; Faist, 2000).

Historically, immigration to the United States has been partially caused by economic transformation or economic development in sending countries. However contradictory this may seem, much of nineteenth and early twentieth-century immigration from Europe actually occurred when countries such as England, Germany, and Italy industrialized. This weakened the social and economic importance of agriculture and created large-scale population movements to urban areas. Not

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[1] A German word that means "guest worker" and referred to people who had moved to Germany for jobs since the end of World War II. Initiated in the 1950s and 1960s, the program is considered outdated.

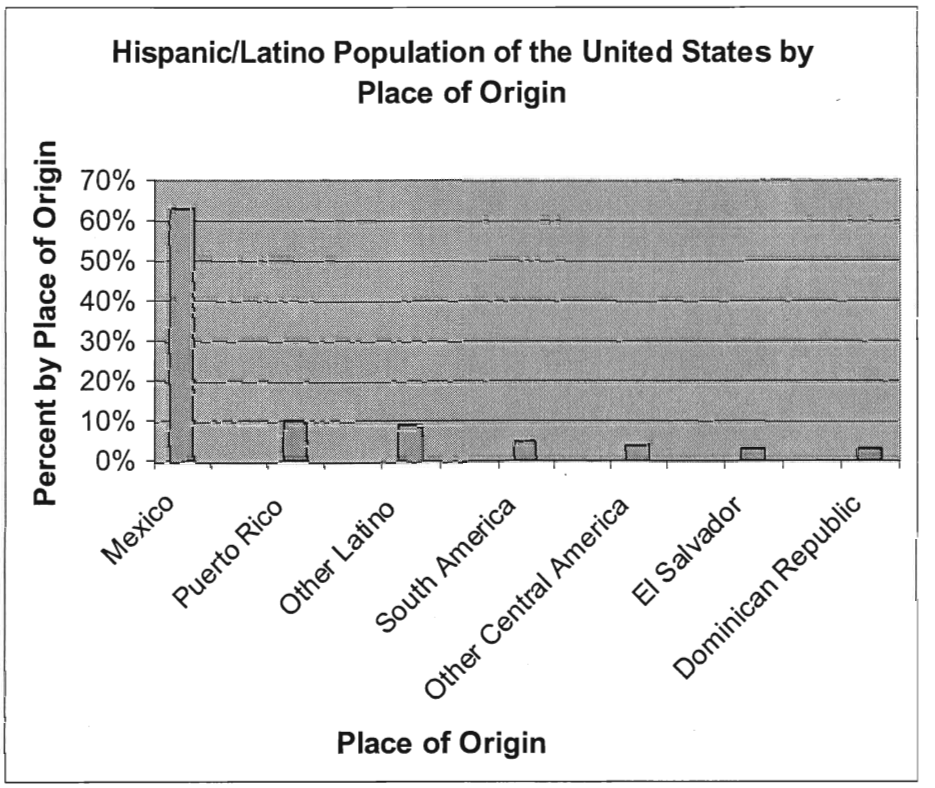
[2] A binational temporary contract labor program initiated in August, 1942 by an exchange of diplomatic notes between the United States and Mexico after a series of negotiations.

surprisingly, similar currents have moved Hispanic/Latino immigration. Economic development and political instability (often, the two go hand-in-hand) have been the major push factors behind Hispanic/Latino emigration. The intrusion of worldwide markets into rural areas, the introduction of more efficient agricultural techniques, the development of transportation facilities, the rapid growth and improvement of communications, and population increases are among the contributing factors in the exodus from rural Latin American communities (Cafferty, and Engstron, 2000, p. 33). As Douglas Massey reminded us, "In the short run...economic development does not reduce the impetus for migration, but only increases it" (Cafferty, and Engstron, 2000, p. 15).

Hispanic/Latino Populations by Place of Origin. Emergence of the Spanish-origin groups, due to historical events, has created today's largest communities involved in a mix of both conquest and immigration. The migration flows that consolidated these communities reflect, almost mirror-like, the expansion of the United States into its immediate periphery. The countries that supplied the major Spanish-origin groups in the United States today were, each in its time, targets of this expansionist pattern. U.S. intervention undermined the social and economic fabric constructed under Spanish colonial domination and reoriented it toward the new hegemonic power. This internal unbalancing of postcolonial societies, which preceded the onset of migration, has created today's ethnic communities. In a sense, the sending populations were Americanized before many of their members actually immigrated to the United States (Jacobson, 1998). Figure 1, page 29, provides a breakdown of the various

Hispanic/Latino groups that are currently residing in the United States (PEW Hispanic Center, 2000):

Figure 1



Source: Adapted from the PEW Hispanic Center tabulations from the 2000 Census

History of Hispanics/Latinos in the U. S. The Hispanic/Latino population was an integral part of American society more than 20 years before the Pilgrims established a foothold near Plymouth Rock (Cafferty and Engstron, 2000, p. 31; Hernandez-Wong, 1997). In 1453, Constantinople fell to the Ottoman Turks, cutting off Europe's silk and spice trade with India and Asia. Thirty-nine years later, a Genoese mariner named Cristóbal Colón, or Christopher Columbus, sailing west for the Queen of Spain, first

reached the New World thinking he had found a new route to the orient (Stavans, 1995). His first landfalls included *Juana* (Cuba) and the island of *Hispaniola* (the Dominican Republic and Haiti) whose natural wonders so amazed him he declared his eyes "would never tire of beholding so much beauty and the songs of the birds large and small" (Helvarg, 1997). Having recorded their first impressions of North America's natural wonders, the early discoverers quickly turned their attention to searching for gold and other objects of value (Delgado, 2001).

Before 1510, Spanish monarchs used their strong army, the *conquistadores,* for explorations and settlements in the Caribbean Islands. After 1510, the conquistadores moved onto the mainland. While there is a great variance in the literature surrounding the date (somewhere between 1513 and 1565) of the first permanent settlement in the New World, historians do agree the first permanent European settlement of the New World was in Florida (discovered by Juan Ponce de León while searching for the Fountain of Youth in 1513), predating Jamestown—the first permanent British settlement in North America. In 1540, the explorer Francisco Vasquez de Coronado and Hernando de Soto set out to conquer the legendary Seven Cities of Cibola, which were said to lie north of Mexico. Coronado and his men explored areas of present-day New Mexico, Arizona, Texas, Oklahoma, and Kansas in the hope of finding the great riches they had heard described (Delgado, 2001; Martin, Roberts, Mintz, McMurry and Jones, 1997). By the time the expedition returned in 1542, the Spaniards had discovered the Grand Canyon, crossed and named many of the continent's great rivers, but discovered no gold. The same year Coronado set out, De Soto led an expedition out

of Cuba that explored much of Georgia, South Carolina, Alabama, Mississippi, Arkansas, and Louisiana, but he and half his men perished without finding any treasure (Gonzalez, 2000).

Early in the 19th century, Spain gave possession of Louisiana to the French and sold Florida to the United States. Also during the beginning of this century, settlements of non-Hispanics/Latinos were being established in California and in Texas, turning those areas into multicultural enclaves. These non-Hispanics/Latinos produced important changes in the political and cultural life of those territories and, in 1836, non-Hispanic/Latino settlers in Texas declared independence from Mexico. Ten years later, in 1846, war broke out between Mexico and the United States. The peace treaty, signed in 1848, forced Mexico to give up almost half of its territory, most of which is now Arizona, California, Colorado, Kansas, Nevada, New Mexico, Oklahoma, Utah, and Wyoming (Marín and Marín, 1991).

Almost all Hispanic immigration to the United States may be linked not only to the economic opportunities that would attract European and Asian immigrants, but also to U.S. military actions that are linked to policies of Manifest Destiny (which declared the United States' "God-given right" to all North American territory) and the Monroe Doctrine (which declared United States hegemony over Mexico, Central and South America, and warned European powers not to intervene there). From the Spanish American War which brought Cuba, Puerto Rico, Hawaii, Guam, and the Philippines under U.S. administration in 1898, to various actions in the Dominican Republic,

Nicaragua, Honduras, and other parts of Central America, waves of immigration followed on war, rebellion, and occupation (Marín and Marín, 1991; Delgado, 2001).

History of Hispanics/Latinos in the U.S. by Race/Ethnicity

Mexican Americans. The Mexican Diaspora is at the core of this country's Hispanic/Latino heritage. Not only are two of every three Hispanics/Latinos in the United States of Mexican origin, but only Mexicans can claim to be both early settlers on U.S. soil and the largest group of new arrivals (Gonzalez, 2000). Mexico is the prime example of the creation of a Spanish-origin community through conquest and immigration.

With close family and community ties remaining on both sides of the frontier, Mexican migration to and from the United States has continued largely uninterrupted since the Treaty of Guadalupe Hidalgo of 1848 (this treaty was the formal agreement between Mexico and the United States which effectively turned over all or part of the states of Arizona, California, Colorado, Nevada, New Mexico, Texas, Utah, and Wyoming). Today Mexicans and Mexican Americans make up over 58% of the U.S. Hispanic/Latino population and include at least two million seasonal migratory workers who spend part of the year in the United States and part in their native Mexico (Jacobson, 1990; Delgado, 2001; U.S. Bureau of the Census, 1990 and 2000).

Puerto Ricans. Puerto Ricans are the second largest Hispanic/Latino group (about 19%) in the United States. There are approximately three million people living on the U.S. mainland and 3.9 million more living on the island (U.S. Bureau of the

Census, 1999 and 2000). *Borinquén*[3] (the islanders' name for Puerto Rico) was discovered by Columbus in 1492 and conquered by Juan Ponce de León in 1508. The *Taíno* Indians who lived there were nearly all exterminated through violence, starvation, and forced labor. In 1511, the Yoruba African slaves were then brought to the island to work the sugar cane fields. They eventually won their freedom, intermarried, and incorporated their culture and beliefs into the island life (Novas, 1994; Delgado, 2001).

Economic underdevelopment on the island, the United States expanding post-war industrial base, and job opportunities led to the migration of approximately one million Puerto Ricans to the mainland between 1945 and 1965. More than 40,000 migrated from the Caribbean to New York City in 1946 alone. Actually, a small Puerto Rican enclave had existed in New York since World War I, and that *colonia* (colony) grew to 135,000 by the end of World War II (Gonzalez, 2000). Large Puerto Rican communities were also established in other parts of the Northeast and Chicago. Half a century later, people on the mainland continue to maintain close links with their families at home through the Puerto Rican "air-bridge" of regular flights between the mainland and Puerto Rico. At the same time the cultural, political, medical, and social needs of Puerto Ricans on the mainland and on the island have tended to diverge over time, although key social agencies like New York's Puerto Rican Family Institute try to bridge that gap by maintaining service centers in both locales (Delgado, 2001).

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[3] *Borinquén* means "the land of the brave lord". Puerto was given this name by the *Taíno* (a clan of Arawak Indians from the Florida peninsula) Indians. "*Boricua*," from "*Borinquén*," is what Puerto Ricans call each other, particularly on the U.S. mainland. Using the name is a form of bonding that reaffirms ancient roots.

Cuban Americans. Cuban Americans comprise about 4% of the Hispanic/Latino population in the United States (U.S. Census Bureau, 1999 and 2000). Cuba, only 90 miles from Key West, Florida, was discovered by Columbus on his first trip in 1492. A few years later, there were a number of Spanish settlements, one of which would become the capital of Havana.

The Cuban Revolution of 1959, which overthrew the regime of Fulgencio Batista and brought Fidel Castro to power, drove approximately 215,000 upper and middle-class refugees to the United States in the first four years. Thousands more went to Spain and Latin America. Metropolitan Miami's Hispanic/Latino population skyrocketed from a mere 50,000 in 1960 to more than 580,000 in 1980 (Gonzalez, 2000). Today, there are three generations of Cuban-Americans living in Florida, and scattered throughout the country, especially in New York and the Northeast. Cuban-Americans are the product of two main immigrations--one that took place in the 1960's and early 1970's and a smaller wave created from the 1980 Mariel Boatlift (Novas, 1994).

Central Americans. Central Americans have immigrated to the United States often in search of refuge from violence created by civil wars and other conflicts including economic instability created by civil war. Dating as far back as 1970, a few Salvadorans lived in San Francisco's Mission District and the Pico-Union area of Los Angeles. A tiny Guatemalan enclave took shape in Chicago's Humboldt Park area around the same time. Central Americans were a negligible presence in the United States until the final decades of the 20th century.

The U.S. Census counted 94,000 Salvadoran-born inhabitants in the entire country in 1980. That figure skyrocketed to 701,000 ten years later—an eightfold increase—and today more than 1.2 million Salvadorans reside in the U.S.--nearly 20% of their homeland's population. Similar astonishing jumps occurred this same decade for Guatemalans (from 71,642 to 226,000) and Nicaraguans (from 25,000 to 125,000). Today, Central Americans have settled in different parts of the country. Salvadorans have settled mainly in Los Angeles and Washington, D. C.; Guatemalans in Los Angeles, San Francisco, and Houston; and Nicaraguans in San Francisco and Miami (Novas, 1994; Gonzalez, 2000; Delgado, 2001).

Dominicans. In 1905, the United States claimed partial control of the island of *Hispaniola*, a small island between Cuba and Puerto Rico which is occupied by the Dominican Republic, to protect American investments there during a time of political and economic uncertainty. Mounting internal disorders and national debt to U.S. companies led to a U.S. invasion in 1916. The United States occupied the island until 1924. In 1930, Rafael Trujillo came to power and established one of the longest dictatorships in Latin America which it endured until his death in 1961. The following year, the first free elections in 40 years brought to power a "leftist" populist reformer, President Juan Bosch. A military coup ousted him in 1963 and when his supporters attempted to put Bosch back in power, civil war broke out (Novas, 1994).

The Dominican exodus, unlike that of Puerto Ricans and Mexicans began largely as a refugee flight in the mid-1960s. Because of the civil unrest between 1961 and 1986, the U.S. invasion of the Dominican Republic in 1965, more than 400,000

people legally immigrated to the United States from the Dominican Republic. Another 44,000 moved to Puerto Rico, and thousands more entered both places illegally. More than 300,000 Dominicans lived in New York City by 1990. By Census 2000, there were more than 600,000 Dominicans living in the U.S. Seventy percent of Dominicans and their descendants have settled in New York City and adjacent parts of New Jersey (Gonzalez, 2000; Delgado, 2001; Grieco, 2004).

South Americans. South American presence in the U.S. is comprised primarily of Colombians and Panamanians. Smaller numbers of Hispanics/Latinos have come to the United States from Venezuela, Ecuador, and other Latin American nations. Although there are various reasons for South American immigration to the United States, two key causes include political instability in certain instances and the search for economic opportunity or prosperity in others (Delgado, 2001).

Colombians. Colombian immigration came a little later than that of Panamanians and proved far more extensive and durable. In the early 1940s, Colombia was a relatively prosperous and peaceful country until 1948 with the assassination of the Liberal Party leader, Jorge Eloiecer. The murder ignited an urban riot that was the worst recorded in Latin American history with two thousand lives lost and millions of dollars in property damage. *La Violencia* ended in 1957, but violence emerged as an accepted Colombian way of settling disputes. The years of bloodshed had uprooted and permanently disfigured much of Colombian society. The sons and daughters of the peasants who had fled the countryside when the fighting began were now urban

dwellers and no longer tied to tradition. Many finished their studies during the 1960s only to find there were no jobs (Gonzalez, 2000).

During the 1960s, more than 72,000 Colombians arrived in the United States. Another 77,000 followed in the 1970s, and 122,000 in the 1980s. Thousands more came here illegally looking for a stable and peaceful place and because there was already a large number of Hispanics/Latinos living in the U.S. They would fly into New York or Miami on tourist visas and simply overstay their allotted time. Unlike Cubans and Dominicans, Colombians were not fleeing political persecution, nor were they contract laborers or migrant farmers as were so many Puerto Ricans and Mexicans. Also, unlike the Panamanians, Colombians were mostly middle-class professionals, skilled workers, and white. Today, more than 300,000 Colombians reside in the U.S., with most living in New York and South Florida (Gonzalez, 2000).

Panamanians. Panamanians started arriving in the United States during the 1950's, settling primarily in Brooklyn, New York. By 1965, they numbered between 15 and 30 thousand. Most were descendants of West Indian canal workers (Gonzalez, 2000). Providing the bulk of the canal workers, black West Indian migrants were subjected to a racial apartheid system that dominated canal life for half a century. By the time the canal opened in 1914, it had turned into a cauldron of labor unrest (Gonzalez, 2000). Unhappy with their pay, working conditions, and the racism of U.S. soldiers and administrators, West Indians launched several militant strikes--each ending in massive evictions of strikers from the Zone. Panamanians felt discriminated against in their own country because canal authorities employed only West Indians in

construction and maintenance—jobs that invariably paid higher wages than most others in Panama. In response, a succession of Panamanian governments attempted to ban further West Indian immigration and prevent the immigrants' children from attaining Panamanian citizenship. After 1928, West Indian children born in Panama had to wait until age 21 to be naturalized. Even then, the government required them to pass a test demonstrating their competency in Spanish and Panamanian history. In addition, a new canal treaty in 1955 made matters even worse for the West Indians—requiring for the first time that they pay Panamanian taxes (Gonzalez, 2000).

History of Hispanics/Latinos in Virginia. Hispanics/Latinos can trace their heritage back 500 years in Virginia, almost a full century before the English landed at Jamestown in 1607. In 1524, Lucas Vasquez de Ayllon from *Hispaniola* sailed up the Rio Guandape, which is known today as the James River and Chesapeake Bay. In 1526, he founded the outpost of *San Miguel de Guandape*, which some scholars believe was near present-day Jamestown. Approximately 600 people, including two Dominican priests and many African slaves, lived in the colony. Unfortunately, Lucas Vasquez de Ayllon died of ship fever, and about 450 colonists died from the harsh winter and hostile attacks by the Indians. Some of the slaves reportedly escaped and lived with the Indians. In 1527, the survivors returned to *Hispaniola*. Today, about 350,000 people in Virginia are Hispanic, with ancestral roots in Spain, Mexico, Puerto Rico, Cuba, and Central and South America (Official Tourism Website of the Commonwealth of Virginia, 2006).

The history of Hispanics/Latinos in the United States clearly indicates that in dealing with Hispanic/Latino populations in a medical or social service context, one must recognize the tremendous range of historical experiences that exists among the various sub-groups. These groups have their own historical perspective that affects how they view themselves within the context of living in the United States and how the U.S. has treated them. In fact, differences among subgroups may be related to how they entered the U.S., i.e., as legal immigrants, legal refugees, undocumented workers, or as a result of war (Delgado, 2001).

Immigration Policy and its Effect on Migratory Patterns. Reactions to immigration have not followed a linear pattern. Critics of the foreign-born lobbied for restrictive American immigration policy limiting the number of newcomers into the country as early as 1921. In his study on new immigration and ethnicity in the United States, Massey (1995) examined twentieth century immigration by dividing it into three phases: a *classic era* of mass European immigration during the period 1901 to 1930; a *long hiatus* of limited movement from 1931 to 1970; and a *new regime* of large-scale, non-European immigration that began around 1970 and continues to the present (p. 633).

The classic era, according to Massey (1995) was actually a sustained 50-year period of mass immigration that began sometime around 1880. During this period, approximately 28 million immigrants entered the United States and, except for two years at the end of World War I, the yearly total never fell below 200,000, and in most

years it exceeded 400,000. The vast majority of these immigrants came from Europe (p. 633).

After the classic era, there was a 40-year hiatus period (due primarily to the Great Depression and World War II) during which immigration levels fell to very low levels and the predominance of European immigrants came to an end. From 1931 to 1970, average annual immigration fell to 185,000. Although immigrants were no longer available in large numbers from Europe, the postwar boom in the United States created a strong demand for labor. This new demand was met by Latin Americans. The number of Mexican immigrants rose from 61,000 in the late 1940's to 300,000 in the 1950's and 454,000 during the 1960's. During the last decade of the hiatus period, approximately 200,000 Cubans, 100,000 Dominicans, and 70,000 Colombians entered the United States (Massey, 1995).

Expanding on Massey's study of new immigration and ethnicity in the U. S., Durand, Massey, and Capoferro (1999), and Zúñiga and Hernández-León (2005), narrowed their focus only to examine Mexican immigration to the United States. This study gives a descriptive account of the changing patterns of Mexican immigration over a 90 year period that was linked to the binational political economy. Borrowing from Massey's (1995) earlier approach which he viewed the historical perspective of U.S. immigration as occurring in three phases, the researchers expanded their perspective to include four key periods: the classic era of open immigration; the Bracero Era, triggered by the onset of the Great Depression; the undocumented era, a period immediately

following the Bracero Program; the passage of the Immigration Reform and Control Act (IRCA) of 1986; and the post-IRCA era, from 1987 to the present.

Classic Era. During this era, and before the restrictive immigration policies of the 1920's, Mexican immigrants flowed primarily to Texas, California, and Arizona. Together these states absorbed roughly 85% of all Mexico-U.S. migrants, with nontraditional states receiving just 11% of the immigrants. Mexican immigration was strongly oriented towards Texas, which had stronger financial and material interests in Porfirian Mexico than other U.S. states. As late as 1920, half of all Mexicans living in the United States were in Texas. The unraveling of the Porfirian regime after 1910, initiated by the integration of the Mexican and U.S. rail systems, coincided with a heightened demand for Mexican workers elsewhere in the United States. As Mexican immigration surged, destinations shifted with California and, to a lesser extent Chicago, emerging as an alternative place of attraction. The era came to an abrupt end in 1929 with the onset of the Great Depression.

Bracero Era. From 1942 to 1964, the United States sponsored a large temporary worker program known as the Bracero Accords (or Bracero Program) to arrange an annual importation of Mexican farm workers under supervision of the U.S. government. Texas faded in relative importance and California became the preeminent destination. The Bracero years coincided with an unprecedented boom in California, Illinois, Michigan, New York, Texas, and Washington, and it dramatically increased labor demand in all economic sectors. Within Mexico, post-revolutionary governments distributed millions of acres of land to peasants but failed to provide sufficient capital to

allow them to begin producing--generating intense needs for cash among rural dwellers. The Mexican policy of import substitution industrialization yielded high rates of industrial growth in urban areas but failed to provide enough jobs for the rising tide of rural in-migrants. With pressures for out-migration building and a program in place to connect the burgeoning supply with rising demand, Mexicans quickly came to dominate farm labor within California and made significant inroads into manufacturing and service industries as well. Although the Bracero Program was enacted as a "temporary" wartime measure, it was successively renewed and expanded for 22 years before finally being terminated in 1964.

Undocumented Era. The termination of the Bracero Program ushered in an era of extensive undocumented migration, during which California became a dominate U.S. destination for Mexican immigration. Although the U.S. economy faltered during the 1970's, the demand for unskilled labor continued unabated, and Mexicans expanded their presence in economic niches that they built during the Bracero Era. By 1990, California alone housed 57% of all Mexican immigrants, whereas Texas was home to only 22% and Illinois around 5% (6% including migrants in Indiana, who were mostly located in Gary). At the end of the 1980's, the diversity of Mexican immigrants' destinations reached an all-time low.

Immigration Reform Control Act of 1986. The 1986 Immigration Reform Control Act (IRCA) was a watershed in the history of U. S. immigration. It broke with the past to establish a new regime of binational migration. The Act's tough new enforcement provisions coincided with a severe recession in California. The result was

an unprecedented deflection of Mexican immigration from that state toward new destinations that heretofore had received few Mexicans. The new destinations included Florida, Georgia, Iowa, Minnesota, Nevada, New York, New Jersey, North Carolina, and Oregon. The Act also provided amnesty and legal residence for previously undocumented laborers throughout the U.S. In addition, it permanently altered Mexican migration and settlement patterns by facilitating establishment of Mexican communities in locales that historically had not experienced permanent settlement from Mexico (Zuniga and Hernandez-Leon, 2005; Shutika, 2001).

Post-Immigration Reform Control Act (IRCA) Era. During the latter half of the 1990s an unusual assemblage of factors came together to push Mexican migrants away from traditional gateways in general and from California in particular (Zúñiga and Hernández-León, 2005):

- A dramatic increase in the costs and risks of border-crossing in San Diego
- Deterioration of the Californian economy
- Nasty anti-immigrant political mobilization in California
- The sudden granting of freedom of mobility to millions of former undocumented migrants
- The emergence of strong labor demand throughout the country.

Today, we find large groups of Hispanics/Latinos in many geographical areas of this country; from the agricultural fields to our most cosmopolitan cities. They come from diversified countries in Central and South America, and the Caribbean. These

groups bring their own cultural characteristics, values, and beliefs; and their strongest bond is their native Spanish language.

New Hispanic/Latino Destinations. No shortage of analysis has described the fast and widespread growth of the Hispanic/Latino population in America. Numerous early commentators on Census 2000 remarked on the speed of the Hispanics/Latinos' dispersal across the country, noting Hispanics/Latinos had become the fastest growing U.S. minority group. Just over one-half of the largest 100 metropolitan areas in America posted explosive growth of their initially small Hispanic/Latino communities between 1980 and 2000. This growth of these new Hispanic/Latino destinations reflects an astonishing and very rapid entrance of the Hispanic/Latino population into new settlement areas (Suro, 2002. pp. 1-5). From Wilmington, North Carolina to West Palm Beach, Florida, from Little Rock, Arkansas to Las Vegas, Nevada the new Hispanic/Latino destinations encompass a diverse collection of metropolitan areas scattered across 35 states in every region of the country. Within these 51 metros (Appendix A), the Hispanic/Latino population grew at rates ranging from 147% (Knoxville) to 1,180 % (Raleigh-Durham) over the past 20 years. In 2000, 19% of all Hispanics/Latinos among those in the largest 100 metros lived in these 51 metropolitan areas (Suro, 2002, p. 4).

The Southeastern U.S. is one of the regions affected by the internal redistribution of Hispanic/Latino populations. Hispanics/Latinos, as well as other immigrants, are settling in the Southeast in unprecedented numbers. Owing to its

historical dependence on slave labor, and subsequently to its large pool of unskilled, nonunionized, native-born labor, the Southeast (outside of Florida) has had no significant urban immigrant population. Until recently, Hispanic/Latino immigrants who passed through these states were, for the most part, migrant agricultural workers. For the first time, however, Hispanic/Latino immigrants have begun to settle in and around southeastern urban areas and are engaging primarily in nonagricultural work (Jackson-Webb, 2002).

Transnational Social Spaces. In addition to the form in the sense of a unidirectional and one-time change in residence from one country to another that has predominated recently, there is a growing amount of "transnational migration" in which the actual living spheres and projects of the "transmigrants" (i.e., their "social spaces") span a number of different residences or "geographic spaces." The qualitative changes in conditions and forms of international migration are having far-reaching consequences for the process of social integration and identity formation experienced by migrants, as well as for the state polities of both the new country and the former homeland (Pries, 1999).

Mexican transmigrants, primarily Mexican males, have been engaged in organizing themselves since the early part of this century to help their communities of origin. The primary reason was the Mexican state spent years largely ignoring Mexicans abroad, with no consistent policy besides repatriation, the guest-worker (Bracero) program, and various ad hoc policies. Starting in the late 1980s, in the midst

of deep political and economic crises, the Mexican state began to take official recognition of Mexicans in the U.S., developing a series of outreach programs, and, more recently, expanding the definition of the Mexican nation to include Mexicans abroad (Pries, 2001).

In a study of the profiles of two communities in southern Louisiana, Zúñiga and Hernández-León (2005), found that most Mexican immigrant workers in oil-dependent cities of Houma and Morgan City, were born in Mexico. Unlike most recent studies suggesting that Mexican workers are settling in new U.S. destinations because they are searching for areas where their entire family may live, the substantial majority of the samples in both locations were men who migrated without their families. Most men had families—wives, children, and parents—living in Mexico. They reported maintaining strong connections emotionally, financially, and socially, to their origins. Most sent money home to their families and returned frequently to visit. Many expressed a strong desire to return permanently to Mexico once they had improved their financial well-being. In short, workers in both communities maintained their social and economic attachments to Mexico through remittances, frequent return trips, and other forms of communications (pp. 83-84).

Immigrant Health

Hispanics/Latinos share a range of sociocultural characteristics as well as national, experiential and, in some instances genetic make-up that can impact their health status within the United States. Certain cultural factors, such as a more

traditional diet and lower rates of smoking among women impact favorably on their health status. Others, such as low immunization rates linked to low-economic status and fear of authority among new immigrants, have negative consequences. The horrors and resulting mental trauma that many recent arrivals faced in their homelands and/or in reaching the United States can also lead to long-term mental and physical health care needs (Zuvekas, 1994, pp. 1-2). They also may have limited understanding of care-seeking behaviors and the U. S. health care system (American Academy of Pediatrics Committee on Community Health Services; Evans, 1995, p. 1; Fox, 1997, p. 3). According to the National Alliance for Hispanic Health (2001) acculturation, inadvertently, among new immigrants and their children seems to weaken limited positive health habits and lead to the adoption of negative ones from the U.S. culture (such as smoking, alcohol use, and early sexual activity).

Hispanics/Latinos living in the United States are almost twice as likely as non-Hispanic/Latino whites to die from diabetes. Although constituting only 11% of the total population in 1996, Hispanics/Latinos accounted for 20% of the new cases of tuberculosis and 20% of the nation's acquired immunodeficiency syndrome (AIDS) cases. Hispanics/Latinos also have higher rates of high blood pressure and obesity than non-Hispanic/Latino whites. They are five times more likely than non-Hispanics/Latinos to suffer serious complications from this disease. While cancer incidents are somewhat lower among Hispanics/Latinos, they have substantially shorter survival times once cancer is diagnosed. For a variety of economic, cultural, and other environmental reasons, Hispanics/Latinos tend to seek medical care when their cancers

are advanced and there is much less chance of a cure (Healthy People 2010, 2001, p. 6; Skolnick, 1997, p. 2). Another emerging trend with important implications for Hispanic/Latino health is the development of confluent cross-border communities. The growing interdependence of metropolitan areas on both sides of the U.S.-Mexican border has created serious challenges to the notion that health and sanitation systems can be operated in isolation from their counterparts across the border (Novello, Wise and Kleinman, 1991, p. 4).

Urban Health Concerns. Urban communities continue to face formidable historic challenges in efforts to improve public health. Most health care systems aim to ensure the population's good health care according to his/her needs, regardless of their social position, gender, race, or ethnicity (Sundquist, 2001, p. 1). Reinvestment initiatives, changing demographics, and growth in urban areas are creating changes that offer new opportunities for improving health, while requiring that health systems be adapted to residents' health needs (Andrulls, 2000, p. 1).

In October 2002, medical and congressional leaders held a symposium (sponsored by the National Hispanic Medical Association and the Commonwealth Fund of New York with the Grady Health System as honorary co-chair) and news conference to assess the needs of the health care system in the public and private sectors. The number of Hispanics/Latinos in the South is burgeoning but their health care coverage is not. The problem is especially acute in Georgia, where the Hispanic/Latino population increased 300% in the last decade (PR Newswire, 2002, p. 1).

Because of cost, language and cultural barriers, lack of education, and fear of apprehension by immigration authorities, illegal immigrants underutilize health services, especially preventive services such as prenatal care, dental care, immunizations, and health supervision. They also often delay seeking care for minor conditions until those conditions become more serious. A complicating factor to providing access to health care for immigrant families is the possibility that various family members may have different immigration statuses. When one member of the family is in this country illegally, the entire family may limit access to care for fear of triggering an investigation. Other reasons are many immigrants have problems getting transportation to clinics and cannot find health care providers who speak their language (American Academy of Pediatrics Committee on Community Health Services, 2005; Duffy and Alexander, 1999, p. 2; Fox, 1997, p. 4).

There are noted differences among Hispanic/Latino populations as well. For example, whereas the rate of low birth weight infants is lower for the total Hispanic/Latino population compared with that of whites, Puerto Ricans have 50% more low birth weight infants than do whites. Overall, these immigrants are healthier than U.S.-born people, though this health advantage declines as their length of stay in the U.S. increases. Lack of access to health care and exposure to U.S. lifestyles contribute to the development of chronic costly diseases. As an immigrants' health deteriorates, this increases the risk of poverty that then presents a barrier to medical care (Evans, 1995, p. 1; Skolnick, 1997, p. 2).

To address the issue of Hispanic/Latino health, officials in Chattanooga, Tennessee's health agency started a Hispanic/Latino Health Fair to help address their medical needs. Participation at the Fair resulted when medical professionals realized there was a definite need for health education in the Hispanic/Latino community. For example, there were women that had experienced 12 or more pregnancies and never had a gynecological exam. Many of these women had no idea that it was necessary. Also, adding to this lack of care, there was a shortage of bilingual doctors and nurses coupled with limited access to medical care due to a lack of insurance (McLaughlin, 1999).

In 1999, The North Carolina Center for Public Policy Research conducted a survey with 87 local health departments, 22 community and migrant health centers, 34 rural health centers, and 75 rural hospitals to assess the impact of the rapid growth of the Hispanic/Latino population was having on local health departments and their health care needs. Results indicated, as shown on page 47, the primary barriers Hispanics/Latinos had in obtaining adequate health care in their communities, health departments and other health care organizations (McLaughlin, 1999, p. 1):

- Language – 85%
- Lack of insurance or other means to pay for health services - 59%
- Lack of transportation – 55.2%
- Lack of information and/or awareness about services available – 35%

Hispanics/Latinos now hold a growing number of jobs in construction, food service, landscaping, and slaughterhouses. They work in lower-wage and more dangerous jobs with fewer benefits like health insurance, and they use local health

department services in greater numbers. Because of this, they rely more heavily than the rest of the state's population on local health departments for health care services. The Durham County Health Department, for example, reports serving 5,000 Hispanics/Latinos in 1997-98, or 22.6% of its total caseload. The Wilson County Health Department reported 30% of its clients were Hispanic/Latino, and in Randolph County, the estimate was 40% (McLaughlin, 1999).

In the Greater Richmond Area (Counties of Chesterfield, Hanover, Henrico and the City of Richmond, Virginia), in January 2003 and due to grant support made available through the Bon Secours National Health System, the Bon Secours Richmond Health System contracted with the Central Virginia Health Planning Agency to develop a comprehensive needs assessment to quantify the immigrant population, methodically identify health care needs by demographic group, and to develop priority needs and strategies. Through the use of a survey, interviews, and focus groups meetings, the following health needs, as well as characteristics to increase effectiveness of health care (eliminate and/or reduce barriers to care) for the area's Hispanic/Latino population was determined (Bon Secours Richmond Health System and Central Virginia Planning Agency, 2003):

Health Needs:

- Prenatal
- Behavioral health care (mental health and substance abuse services)
- Dental Care
- Primary health and urgent care (particularly for primary wage earner)
- Health screenings (mammography, prostate, cholesterol, blood glucose)

Characteristics to increase effectiveness of health care:

- Bi-lingual medical professionals or translators
- Mobile clinics or transportation to services
- Weekend and/or evening hours (minimize time away from work)
- Trusted sources of care and referral
- Neighborhood and/or employment based delivery
- Low or no cost services

Preventive Care. As would be expected, vulnerable people use far less preventive care such as immunizations, pap smears, and mammograms, as well as interventions in the early stages of diseases such as cervical cancer or glaucoma. This eventually results in a need for more acute and expensive care and ultimately, in reduced health status. Moreover, lack of preventive and primary care services for new arrivals can be a threat to the community at large. For example, diseases that could be prevented through immunizations (e.g., measles) or controlled through early treatment (e.g., tuberculosis) can be spread throughout a community. In addition, society as a whole pays the steep medical bills for conditions neglected until they are emergencies (Decision 2000 Campaign, 2000 p. 1; Zuvekas, 1994, p. 2).

Hispanics/Latinos with limited English proficiency are also less likely to receive important preventive care (PR Newswire, 2002, p. 2). Another major barrier to more widespread screening among Hispanics/Latinos is their fear of not being able to afford medical treatment should it be needed. Immigrants are also less likely to seek public assistance for health care. Some fear they will be penalized by the Immigration and Naturalization Service (INS) if they do so, while others feel compelled to disprove the stereotype that immigrants come to the United States for government benefits (Klein,

2000, p. 2). Practitioners of preventive medicine who are frustrated by language and cultural barriers often consider Hispanics/Latinos a "hard-to-reach" population.

With the reduction of federal funds for local services beginning in the 1980's, many state and local governments now have inadequate resources to manage current services, much less to expand services to meet new areas of need. As such, a shared responsibility is required, with a combination of approaches at all levels of government (Lillie-Blanton, Leigh, and Alfaro-Correa, 1996, p. 3). Although the sentiment of the voting public toward the role of government has shifted, there is little evidence that the public wants government to entirely abandon its responsibilities in the area of health care. There is considerable evidence, however, that the public wants government to perform its job in the most efficient and cost-effective manner possible. As such, there is an urgent need to heighten awareness and achieve some level of consensus on public/private and federal/state roles in assuring equitable access to care (Lillie-Blanton, Leigh, and Alfaro-Correa, 1996, p. 4).

Patient Satisfaction in Health Care

Patient satisfaction can be a core strategy for achieving and sustaining the mission of a health care organization. Done correctly, an organization can achieve higher quality of care, staff will be more content with their jobs—reducing turnover, and for private organizations it can result in their being more financially sound, giving them a competitive edge, and reducing the likelihood of the organization being sued. Today, public and private health care organizations are being mandated to monitor

patient satisfaction by the Joint Commission on Accreditation Hospital Organizations (Press, 2002).

Investigation of the patient satisfaction literature revealed that data pertaining to satisfaction with health care services dates as far back as the 1950's in private health care organizations. Literature pertaining to Hispanic/Latino, minorities or ethnic patient satisfaction was very limited or nonexistent. Historically, however, surveys of patient satisfaction have usually been fielded for one of two purposes (Ware and Stewart, 1997). First, the data have been used as dependent variables to evaluate provider services and facilities, on the assumption that patient satisfaction is an indicator of the structure, process, and outcomes of care. Second, satisfaction data have been used as independent variables to predict patient behavior (e.g., use of services on the assumption that differences in satisfaction influence what people do). More recently, the patient satisfaction measurement has been used to protect or increase patient revenues, conduct sound market research, improve risk management practices, build employee morale, document different levels of job performance, facilitate the performance appraisal process, improve the quality of care, and establish performance standards (Strasser and Davis, 1991, p. 3).

Patient satisfaction is viewed by many as a "soft phenomenon" that reflects medically uneducated perceptions as opposed to serious evaluations of "real" quality. Many health care professionals feel that patients may be able to judge "service" through surrogate indicators and the individual "moments of truth" but not technical/medical care (Brown, Nelson, Bronkesh, and Wood, 1993). For example, patients may not view

service and care as two separate and distinct entities. In a clinical setting, for example, if the receptionist was not cordial, then one might rate the whole spectrum of care lower than if the receptionist had been cordial. However simplistic or inconsequential this theoretical construct may appear, patient satisfaction is important because it is a component of service rendered and the care received. When patients are satisfied, both the immediate care and subsequent clinical outcomes are enhanced. At the same time, when the quality of care is high, satisfaction will be measurably high (Press, 2002).

Strasser and Davis (1992) conceptually defines patient satisfaction (Figure 2) as patients' unique value judgments and subsequent reactions to the stimuli that they perceive in the health care environment just before, during, and just after the course of their inpatient stay or clinic visit. In their view, these value judgments and reactions will be influenced by the dispositional characteristics of the patients and their previous life and health care experiences (p. 55). The message conveyed in Figure 2, page 56 is that patients make value judgments and react in response to stimuli in the health care environment. Both these value judgments and reactions may be influenced by the personality or disposition of the patient and the experiences he or she has had in life, particularly in health care. For the research methodologists and statisticians, patients' dispositional and experiential characteristics serve as the moderator variables. Stimuli are the independent variables, value judgments are mediating or intermediate variables, and reactions are dependent variables (p. 55).

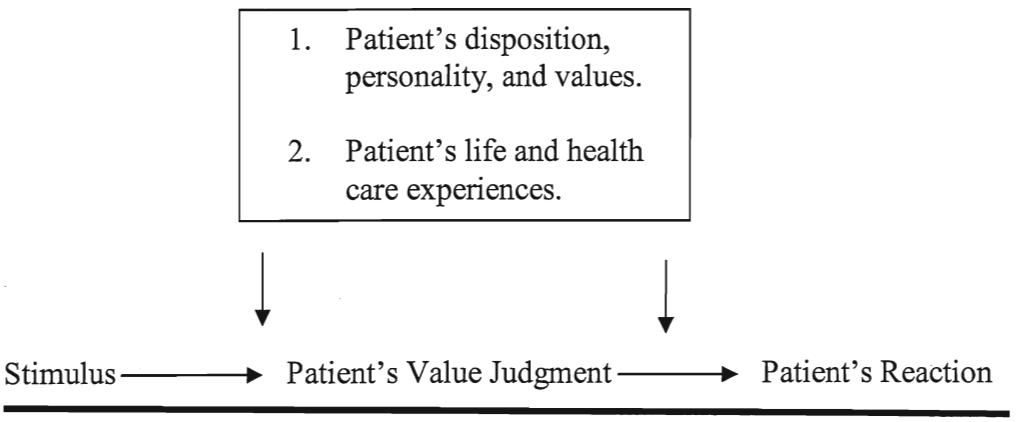
Brown, et al. (1993) expands on Strasser and Davis' (1992) conceptual definition by incorporating the actions and interactions of the providers, other staff, and

processes that surround the medical practice. According to Brown, et al. (1993), a patient's every need or expectation cannot always be met, but if the provider shows personal concern and creates a relationship with the patient at the beginning, this usually will result in patient satisfaction. Thus, in their view, patient satisfaction is whatever the patient says it is.

An opposing point of view in defining patient satisfaction was developed by Applebaum, Straker, and Geron (2000). In their discussion of the theory of client satisfaction, they defined the client satisfaction paradigm, as shown in Figure 2, as a cognitive assessment between expectations for a service and how the service is experienced, an affective or emotional response to services received, or a combination of the two. Thus, in their opinion, satisfaction results from: (1) a cognitive evaluation of the perceived performance or quality of the various attributes of a service compared

Figure 2

A Definition of Client Satisfaction

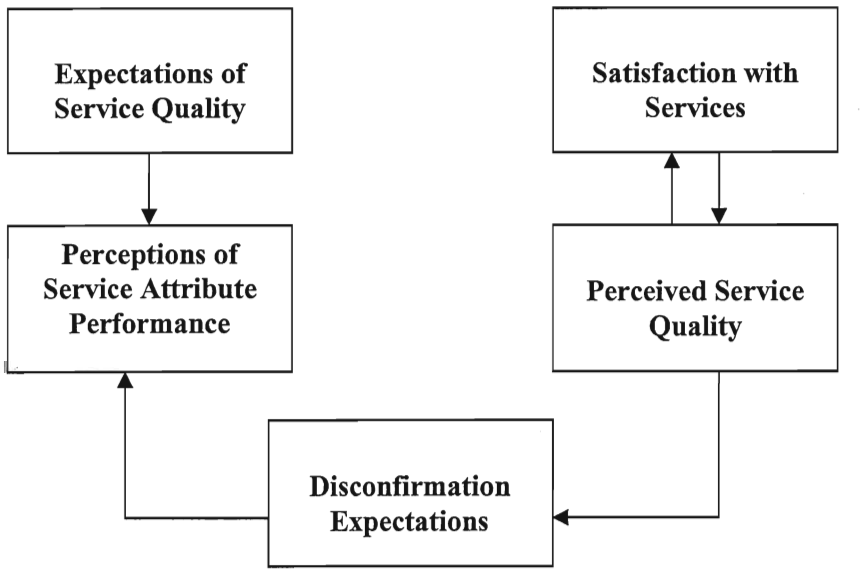


to expectations about those attributes; and, (2) an affective response to that evaluation. Satisfaction (or dissatisfaction) with a service occurs when there is a "disconfirmation" between expectations and actual performance. Satisfaction occurs when actual performance exceeds expectations; dissatisfaction occurs when the client's experience with a service falls below expectations (p. 18). Figure 3 depicts a conceptual model of client satisfaction that is based on what is called the "expectancy disconfirmation model" (p. 19).

While there is wide agreement in the literature on general components of the Client Satisfaction Model, there is intense debate about the direction of some of the effects between the constructs shown. For example, some theorists have shown that

Figure 3

Conceptual Model of Client Satisfaction



affective responses also may be based on the reaction of the consumer to the immediate experience of a product or service. Others have documented that expectation directly affects satisfaction. As satisfaction research continues to grow, researchers have proposed a variation in which satisfaction is a function of perceived service quality and disconfirmation when disconfirmation occurs and a function of expectations when disconfirmation does not occur (Applebaum, et. al, 2000).

Service Quality. In the literature, service quality is directly linked to patient satisfaction[4] and is becoming a major issue in successfully delivering, and marketing health care services. The increased emphasis is in part due to the benefits that both patients and health care organizations may accrue from providing a quality health care service. Benefits derived by patients include a more efficient and effective service. The benefits accruing to health care organizations primarily evolve from having more satisfied patients (Clemes, Ozanne, and Laurenesen, 2002, pp. 3-4).

In addition to how to deliver and market health care services, another important challenge facing health care today is how to define quality. Individual definitions are numerous, and one can easily be confused by the verbiage. Ask any health care practitioner what is meant by the term, and he/she may have difficulty putting the concept into words. However, describe for that practitioner a patient situation, and

[4]Much of the literature pertaining to quality, service quality, and satisfaction with services focuses on the term "customer". In a vast amount of health care literature patients are referred to as "consumers" or "clients" instead of "customers". For this study, the term "patient" was used when referencing all information pertaining to health care to avoid confusing the reader. The term "customer" is not widely accepted by patients or health care professionals.

he/she can easily point out the factors that indicate quality care or the lack of it (Katz and Green, 1997).

Defining service quality requires knowledge from many disciplines, including marketing, psychology, operations, human resource management, economics, and business strategy. Several basic concepts about how a service organization provides a service help explain why defining service quality is such a complex and difficult management task. The process is often the service (Bowen, Chase and Cummings, 1990, p. 237):

- The delivery of the service involves the simultaneous execution of marketing and operations tasks.
- The service has tangible (high goods content) and intangible (low or no goods content) attributes.
- The customer often experiences the service in the place where it is produced.
- The service itself cannot be inventoried
- The creation and delivery of a service often involves a high degree of interaction between the customer and high-contact employees,
- Service quality can be measured according to marketing (external) and/or operations (internal) information.
- Customers judge the service process at least as much as the service outcome, and true service quality is best measured by the customer's perception of it.

Given these basic ideas and an appreciation of the complexity of a service encounter, the meaning of the terms *service* and *quality* can be examined.

Initially, the definitions of service quality in health care tended to focus on the technical aspects of quality. The Joint Commission on Accreditation of Healthcare Organizations (1992) defines quality as "the degree to which patient care services increase the probability of desired outcomes and reduce the probability of undesired outcomes given the current state of knowledge." On the other hand, Donabedian (1980)--a pioneer in the field of health care research and evaluation--viewed the definition of quality as consisting of three elements: (1) technical care—the application of the science and technology of medicine; (2) interpersonal—management of the social and psychological interaction between client and practitioner; and, (3) amenities—the basic definition of quality. Amenities are such features as a pleasant and restful waiting room, a comfortably warm examining room, clean sheets, etc.

Donabedian (2003), in his book *An Introduction to Quality Assurance in Health Care,* refined his earlier definitions of quality and currently conceives of quality as the product of two factors. One is the science and technology of health care and the second is the application of that science and technology in actual practice. The quality of care achieved in practice is the product of these two. That product is characterized by the following attributes:

- *Efficacy* – The ability of the science and technology of health care to bring about improvements in health when used under the most favorable circumstances.

- *Effectiveness* – The degree to which attainable improvements in health are, in fact, attained.

- *Efficiency* – The ability to lower the cost of care without diminishing attainable improvements in health.

- *Optimality* – The balancing of improvements in health against the costs of such improvements.
- *Acceptability* – Conformity to the wishes, desires, and expectations of patients and their families.
- *Legitimacy* – Conformity to social preferences as expressed in ethical principles, values, norms, mores, laws, and regulations.
- *Equity* – Conformity to a principle that determines what is just and fair in the distribution of health care and its benefits among members of the population.

According to Donabedian (2003), these attributes taken singly or in a variety of combinations constitute a definition of quality and will signify its magnitude when measured in one way or another.

Fottler, Ford, and Heaton (2002) define quality as the difference between the quality that the customer expects and the quality that the customer gets. If the two are the same, then quality in this special sense is average or normal—you got what you expected and are satisfied. If you got more than you expected, quality is positive; if less than expected, quality is negative. The following equation describes these relationships for the health care experience (pp. 41-42):

$$Q_e = Q_{ed} - Q_{ee}$$

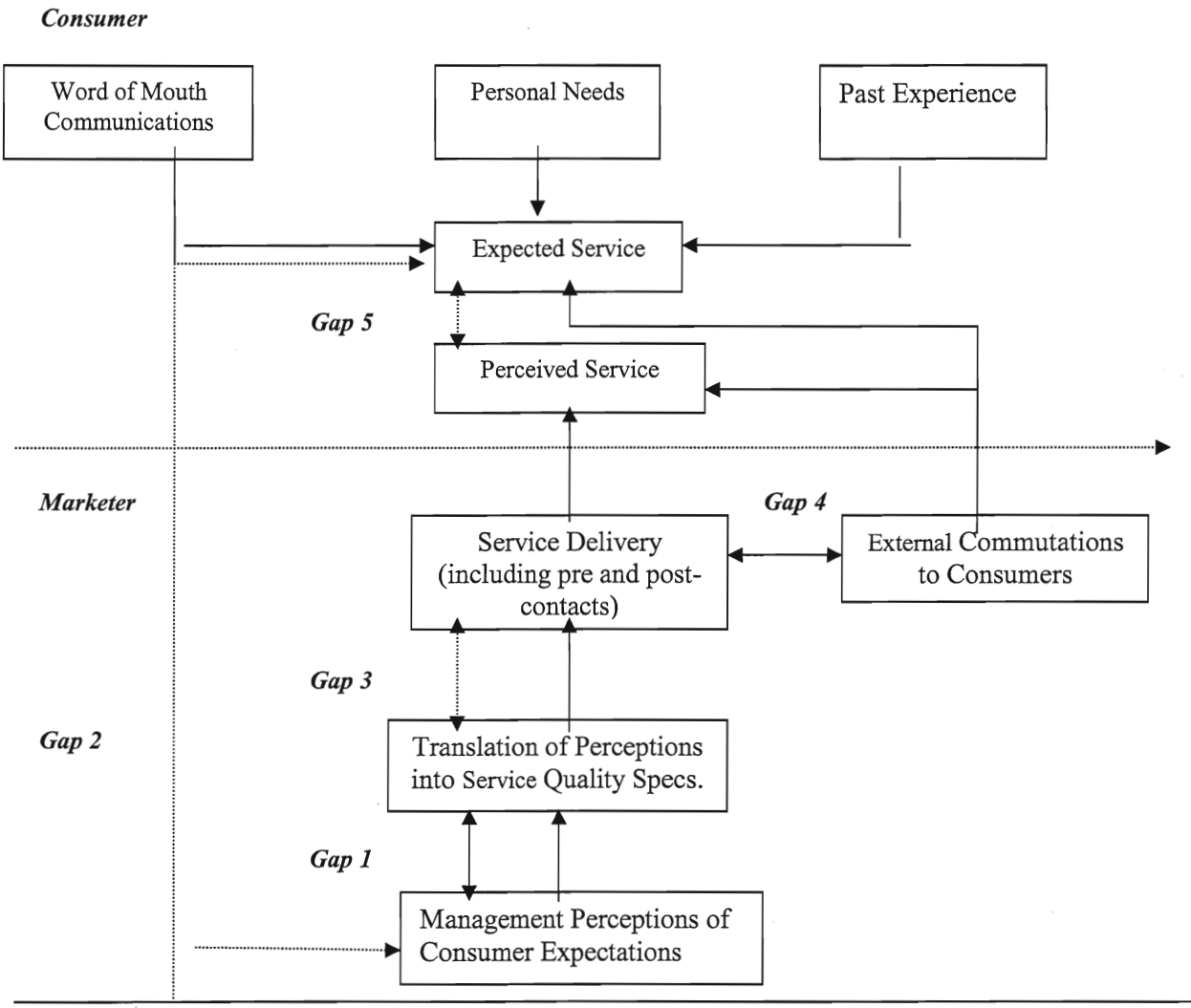
The relationship is defined as the quality of the experience as delivered, Qed, minus the quality expected, Qee. If the delivered quality and expected quality are about the same, quality is not zero as it would be if these were true mathematical equations, but it would be average or normal—the expectations have been met. If the quality of the health care experience is average or above average, the patient can be described as satisfied with

the quality of the experience. If quality is below average, the patient is dissatisfied. If Q_e is high enough, the patient had an exceptional, memorable, or superb healthcare experience. Thus, customer satisfaction is determined by customer expectations (p. 42).

A third view of service quality, and possibly the most sophisticated, recognizes that there are several ways to misspecify and mismanage the definition and delivery of excellent service quality. Parasuraman, Zeithaml, and Berry (1985, pp. 411-50) call these gaps and identify five of them in their service quality model in Figure 4, page 63, (Bowen, et al., 1990, p. 242). The first gap denotes that there is a discrepancy between what manager's think about the consumer's perception of service quality. Managers may think that they understand why the customer buys their service and define service quality specifications according to this perception. But what if management's perception is wrong? The second gap is the discrepancy between management perceptions of what features constitute a target level of service quality and the task of translating these perceptions into executable specifications. Even if these areas are congruent and well-managed, the service delivery system must execute these service quality specifications. The third gap is the discrepancy between service quality specifications documented in operating and training manuals and their implementation. The fourth gap is the discrepancy between actual service delivery system performance and external communications to the customers. The customer should not be promised a certain type and level of service quality unless the service delivery system can achieve or exceed that level. Finally, the service quality perceived by the customer is a function

Figure 4

A Service Quality Model



of the magnitude and direction of the fifth gap which is between expected service and perceived service. This fifth gap is a function of the other four (Bowen, et al., 1990).

Quality has also been defined in many other ways, such as conformance to specifications, the degree to which customer specifications are satisfied, a fair exchange of price and value, fitness for use, and doing it right the first time. Most of these ideas

about quality are founded in goods-producing rather than service-producing industries. Basic ideas and premises about product or goods quality are not always directly transferable to service quality (Bowen, et. al., 1990).

Service Quality – A Multidimensional Concept. During the past 20 years, a large amount of theoretical and empirical research has been dedicated to quality management and, more specifically, to quality measures in industrial companies. Turning to the service industry, significant results have been obtained in the marketing field. It is here that researchers found that a service is not described by its delivery but the perception that the customer has of it and even more exactly what he/she is able (or wants) to say about this perception. Thus, a customer judges a service on perceived quality and not on delivered quality (Malleret, 1998).

Parasuraman, Zeithaml and Berry (1985, p. 42) found that perceptions of service quality result from comparison of patient expectations with actual service performance. Patients tend to use cognitive dimensions to judge overall quality. In other words, they evaluate the technical aspects of a product or service (even when they lack the expertise to do so directly) by judging service features as an indirect proxy measure of quality. In health care, such features include promptness of service, level of confidence projected by personnel, and the completeness of explanations offered by technicians and clinicians. Patients' perceptions must be taken seriously and considered important though indirect indicators of the quality of care provided by the health care organization (Leebov and Scott, 1994, p. 4):

Typically, when patients are dissatisfied with a service, there are particular reasons for not returning to a particular medical facility—things such as unsupportive staff behavior (coldness, impatience, impersonal behavior, annoyance, etc.); service delays; and confusing and incorrect bills combined with insensitive handling of financial questions. Karl Albrecht describes the "Seven Sins of Service"—the key criteria customers use to explain their loss of loyalty to a particular service provider (Leebov and Scott, 1994, pp. 4-5):

1. Apathy
2. Brush-off
3. Coldness
4. Condescension
5. Robotics
6. Rule Book
7. Runaround

Assessing Service Quality. Avedis Donabedian unraveled the mystery behind the concept of quality medical care and provided detailed blueprints for both its measurement (known as quality assessment) and its improvement (known as quality assurance). More than 30 years ago, he suggested that there are three approaches to assessing the quality of care. He deemed these approaches structure, process, and outcome. Structure is meant to designate the conditions under which care is provided and includes the following (Donabedian, 2003):

- *Material resources* - Facilities and equipment
- *Human resources* - The number, variety, and qualifications of professional and support personnel.

- *Organizational Characteristics* – The organization of the medical and nursing staffs, the presence of teaching and research functions, kinds of supervision and performance review, methods of paying for care, etc.

Process means the activities that constitute health care. These includes diagnosis, treatment, rehabilitation, prevention, and patient education—usually carried out by professional personnel, but also including other contributions to care, particularly by patients and their families. Outcome means changes (desirable or undesirable) in individuals and populations that can be attributed to health care. Outcomes include (Donabedian, 2003):

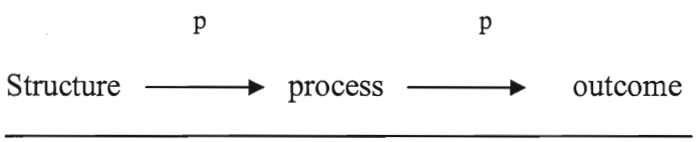
- Changes in health status.
- Changes in knowledge acquired by patients and family members that may influence future care.
- Changes in the behavior of patients or family members that may influence future health.
- Satisfaction of patients and their family members with the care received and its outcomes.

Donabedian's (2003) three-part classification of approaches to assessment is not always properly understood. He describes four limitations on what it is and is not. First, structure, process, and outcome are not attributes of quality. They are only kinds of information one can obtain, based on what one infers about quality—whether quality is good or not. Second, inferences about quality are not possible unless there is a predetermined relationship among the three approaches. In other words, structure

influences process, and process influences outcome, as shown in Figure 5 (Donabedian, 2003):

Figure 5

Assessment Classifications



The linear relation depicted above is a simplified version of a much more complex reality in which certain causes have their effects, and these effects become causes to subsequent effects in a single chain or a chain with two or more branches. Therefore, it becomes somewhat arbitrary to say where structure ends and process begins or where process ends and outcomes begin. Third, relations postulated to exist between adjacent pairs in the structure-process-outcome model are not certainties. Rather they are probabilities, hence the lower-case "p" that is placed over each of the arrows in Figure 5, page 67. These probabilities may be large or small, and they may be well established by scientific evidence or largely presumed. The higher the probabilities are and the more firmly established they are by scientific evidence, the more credible the judgments of quality can become. Fourth, a further limitation of the structure-process-outcome model is that it was developed to assess clinical practice. For that purpose, it performs reasonably well. But when the model is used to evaluate activities other than clinical practice, it may work as is, may perform only if modified, or may even fail (pp. 46-49).

A pictorial model of the hypothetical relationships between the characteristics of structure, process, and outcome can be found in Figure 6, page 69 (Donabedian, 2003). Structure means the way a health care system is set up, and it possibly has a bearing on how persons in that system behave and, consequently, rate the quality of care offered and enjoyed. In some instances, structure could be the major determinant of quality of care. In contrast, the detailed characteristics of health care processes can provide discriminating and valid judgments about the quality of care. In some instances, this is evidentiary because "quality of care" can be assumed to mean "quality of the process of care." Outcome, on the other hand, is a justifiable measure of the quality of care because what matters most is the effect of the care on the patient's health and well being. However, outcomes have been defined as consequences attributable to antecedent care (Donabedian, 2003).

During the new millennium, Donabedian's (2003) theories on service quality (and some that also incorporated Parasuraman's theory of determining service quality based on a set of dimensions) and quality assessment has been found to be useful in determining patient satisfaction in various health care studies:

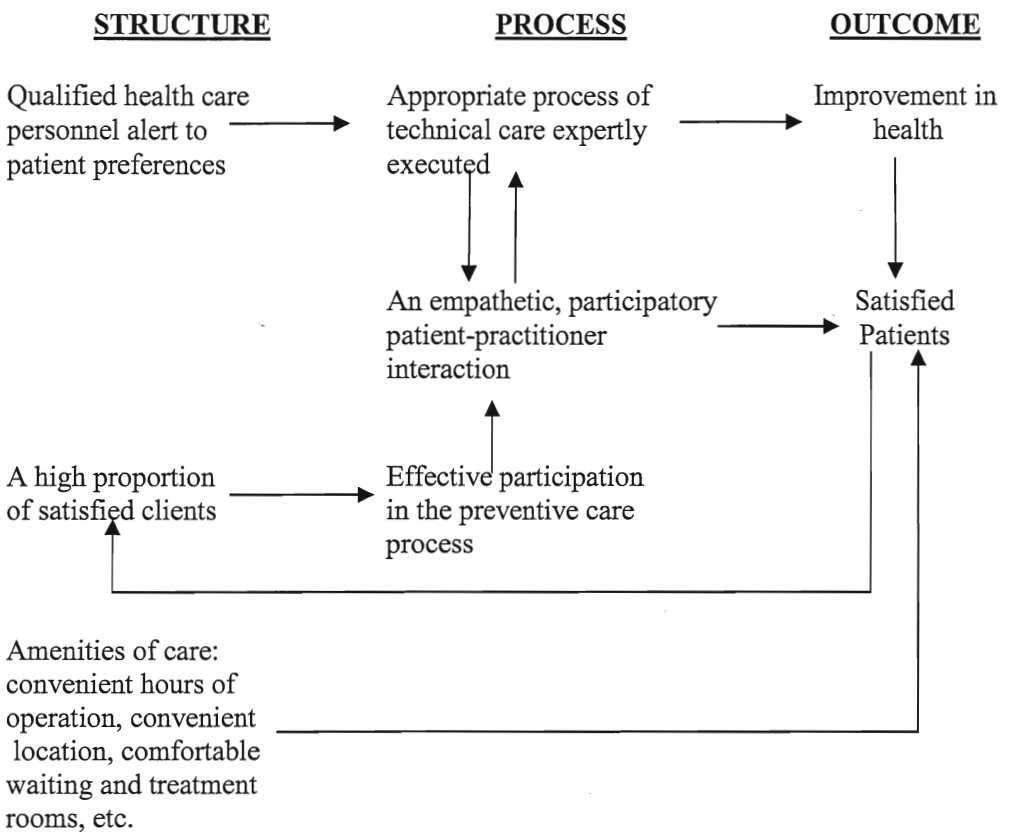
- Determining patient satisfaction and the quality of hospital care in Switzerland and Austria (Heidegger, Husemann, Nuebling, Mori, Sieber, Huth, Germann, Innerhofer, Faserl, Schubert, Geibinger, Flückiger, Coi, and Kreienbühl, 2002).

- Patients' perceptions of outcome of general practice consultations (Andén, Andersson, and Rudebeck, 2005).

- Satisfaction with health care for young children (Halfon, Inkelas, Mistry, and Olson, 2004).

Figure 6

A Conceptual Model of Quality Assurance in Health Care



- Identifying the underlying dimensions of patient satisfaction for diabetic patients (Westaway, Rheeder, Van Zyl, and Seager 2003).
- Satisfaction with quality and access to health care among people with disabling conditions (Iezzoni, Davis, Soukup, and O'Day, 2002).
- Satisfaction with antenatal care (Langer, Villar, Romero, Nigenda, Piaggio, Kuchaisit, Rojas, Al-Osimi, Belizán, Farnot, Al-Mazrou, Carroli, Ba'aqeel, Lumbiganon, Pinol, Bergsjö, Bakketeig, Garcia, and Berendes, 2002)
- Measuring and improving quality of care (American Heart Association, 2000).

- Patient perceptions of quality following a visit to a doctor in a primary care unit (Haddad, Potvin, Roberge, Pineault and Remondin, 2000).
- Consumer satisfaction in nursing homes (Robinson, Lucas, Castle, Lowe, Crystal, 2004).
- Assessing hospital-based wellness services (Gibbs, Kattapong, St. John, Kushner, 2002).
- Satisfaction with care among elderly African American and White residents of adult care facilities (Mutran, Sudha, Desai, Long, 2001).
- Quality of rheumatoid arthritis care from a patient's perspective (Jacobi, Boshuizen, Rupp, Dinant, and Van Den Bos, 2004).
- Measuring satisfaction with physical therapy (Goldstein, Elliott, and Guccione, 2000).
- Perceptions of prenatal care among immigrant Latina women (Bender, Harbour, Thorp, Morris, 2006).
- Predictors of cancer patients' overall perceptions of the quality of care received (Sandoval, Levinton, Blackstien-Hirsch, and Brown, 2006).
- Client perceived quality of maternity services in rural Vietnam (Duong, Binns, Lee, and Hipgrave, 2004).

Results of most of these studies indicated that the patient's perspective can be utilized in planning initiatives to improve the quality of care.

Hirst and Hewison (2001) explored integrating Pakistani and indigenous white women's views using the Donabedian-Maxwell grid. Maxwell (1992) expanded Donabedian's (1980) original work by adding six dimensions of quality to the framework "structure, process, and outcome" as shown in Figure 7, page 71. The purpose of this grid was to expand, clarify, and illuminate dimensions of quality in a systematic and structured way. This was considered to be particularly beneficial for the

quality assessments undertaken by the providers and purchasers of health care. The findings of the study, suggested support of a streamlined and systematic approach to assessing maternity care for Pakistani and indigenous white women. The authors

Figure 7

Donabedian-Maxwell Grid

Dimension	Structure	Process	Outcome
Effectiveness			
Acceptability			
Efficiency			
Access			
Equity			
Relevance			

suggested that this consumer-focused template would be helpful in planning and implementing the assessment of the quality of the maternity services.

Quality Management in Health Care. Problems with traditional approaches to medical quality have led to a search for more than 20 years for alternative methods and strategies. This was due in part to the explosion of medical and technical knowledge in the past 50 plus years that has moved much of medicine away from art and more toward science. However, this movement has occurred at a very uneven pace. Even within a single disease entity, the scientific bases for diagnosis, treatment, and aftercare may be at quite different levels. Therefore, some activities in the organization are still very much an art form and still suited to the craft approach. The recent past, the present and

much of the future of health care, however, focus on performance enhancement (McLaughlin and Kaluzny, 1999).

Total Quality Management/Continuous Quality Improvement. Total Quality Management (TQM)/Continuous Quality Improvement (CQI) dominate the process of quality improvement and quality control in the industrial and business world. TQM in health care is a structured organizational process for involving personnel in planning and executing a continuous flow of improvements to provide quality health care that meets, or exceeds, expectations. It can be defined as "an ongoing effort to provide services that meet or exceed customer expectations through a structured, systematic process for creating organization-wide participation in planning and implementing quality improvements" (Rhode Island Department of Health – Health Care Quality Steering Committee, 1999).

The importance of quality in business first started to be appreciated in the 1940's and 1950's. Initial efforts focused primarily on the manufacturing sector--the need for quality in the service industry was recognized later. In 1951, Fiegenbaum defined quality straightforwardly as the capability of a product to fulfill its intended purpose, produced with the least possible cost. A complementary relationship between quality and cost was thus established early on (Katz and Greene, 1997; Rabin, Hildreth, and Miller, 1998). Fiegenbaum coined the phrase "total quality control," which he defined as an effective system for integrating the functions of quality development (conception, planning, design, set-up), quality maintenance (production, distribution,

service), and quality improvement--training, data analysis, user feedback (McLaughlin and Kaluzny, 1999).

Philip Crosby published *Quality is Free* in 1979. He acknowledged the importance of the relationship of quality and cost but broadened the definition to include conformance to requirements (i.e., quality is achieved through compliance with defined specifications or standards). In 1951, Joseph Juran wrote and edited the *Quality Control Handbook* (now in its fourth edition). Juran defined quality as "fitness for use." He developed a three-part approach to quality (Katz and Greene, 1997; Rabin, Hildreth, and Miller, 1998):

- *Quality Planning* – This approach involves determining who the customers are, what their needs are, then developing products based on those needs and designing processes to produce those products.
- *Quality Control* – This is the evaluation of performance to identify discrepancies between actual performance and goals.
- *Quality Improvement* – Establishes an infrastructure and the project teams to carry out process improvement.

Juran strongly emphasizes the use of statistical analysis in the quality control stage. Finally, W. Edwards Deming techniques became the standard in Japan as he helped the Japanese to rebuild their economy after World War II. His strategy centers first and foremost on the development of quality and its continual improvement. He developed a 14-point system to do things right the first time, with emphasis on meeting both company and customer expectations as the primary source of quality improvement.

In their approaches to quality, Fiegenbaum, Crosby, Juran, and Deming suggested that quality be defined as a continuous effort by all members of an

organization to meet the needs and expectations of the customer. For health care purposes, Al-Asaaf and Schmele (1993) suggested that the definition be modified to substitute "patients and other customers" for the word "customer". The advantages of this substitution are several (p. 43):

- The reference to "continuous effort" emphasizes the value of striving to exceed prevailing standards, rather than accepting them even temporarily as limits on performance.
- The term "all members of an organization" suggests an imperative to study the organizational processes by which health care is produced and provided.
- The reference to "expectations" recognizes that patients' reports of their experiences and their assessments of results are valid indicators of quality, including some of its technical aspects.

By singling out the patient from other customers, this definition acknowledges the ethical primacy of the individual patient's needs and expectations. However, one advantage of acknowledging openly the existence of other customers is that this may encourage frank discussion within health care organizations of the reality that they are constantly engaged in complex efforts to satisfy many parties. The needs and expectations of differing patients sometimes conflict, and such conflicts must always be resolved in the patient's favor (Al-Asaaf and Schmele, 1993).

Continuous Quality Improvement. In a health care environment TQM is known as Continuous Quality Improvement (CQI) and is widely used in public health settings. Grounded in TQM, CQI in health care comes in a variety of shapes, colors, and sizes. It is a structured organizational process for involving personnel in planning and executing a continuous flow of improvements to provide quality health care that

meets or exceeds expectations. While CQI encompasses a realm of distinguishing characteristics, it is simultaneously two things--a management philosophy and a management method. It is distinguished from other philosophies and methods by the recognition that patient requirements are the key to patient quality and that ultimately patient requirements will change over time because of changes in education, and the administrative and clinical methods that affect the quality of patient care (McLaughlin and Kaluzny, 1999).

The methods of continuous quality improvement have been endorsed by quality specialists in American health care and hospital CEO's coming to the realization that industrial methods can contribute to health and medical care. Accordingly, administrators have applied quality improvement methods, including problem solving cycles, to ensure that a process is in control. Pareto diagrams, affinity diagrams, cause and effect diagrams, histograms, bar charts, scatter diagrams, and control charts separating variations between chance and assignable causes are now commonplace in hospital administration offices (Wan and Connell, 2003).

Application of CQI to Health Care Organizations. In the 1990's, several CQI implementation models and methods that embody the TQM systematic approach were applied in various health care settings. The most notable work, following the principles outlined by Deming, was the early work done by three physicians--Paul Batalden at the Hospital Corporation of America (HCA), Donald Berwick at Harvard Community Health Center, and Brent James at Intermountain Health System. One of Deming's major premises is that management needs to undergo

a transformation. To respond successfully to the current challenges facing our organizations and their environments, the way to accomplish that transformation (which must be deliberately learned and incorporated into management), is to pursue what he calls *profound knowledge*. The key elements of his system of profound knowledge are appreciation for a system, knowledge about variation, theory of knowledge, and psychology (McLaughlin and Kaluzny, 1999). Formerly used by HCA, and illustrated in Figure 8, page 77, is a Deming approach that is referred to as FOCUS-PDCA. It provides the firm's health care workers with a common language and an orderly sequence for implementing the cycle of continuous improvement.

In 1993, Baird and Cadenhead developed a conceptual total quality process that was used on earlier models to clarify and provide a guide to operationalize the implementation process in the health care field. This eclectic model, as shown in Figure 9, page 78, reflects continuous, ongoing, and overlapping building blocks to the next step. Use of this model requires that each organization customize its own plan for total quality (McLaughlin and Kaluzny, 1999).

With both models, once there has been commitment to the concept of CQI and transformation of the culture has begun, quality planning directly follows. It is during this phase that factual data, from both internal and external customers, is generated to identify problems and/or opportunities for improvement without making assumptions. This is followed by translating customer requirements into operational specifications—key work processes that consist of a chain of events that a department performs to meet customer requirements or professional standards.

Figure 8

Continuous Quality Improvement in Health Care

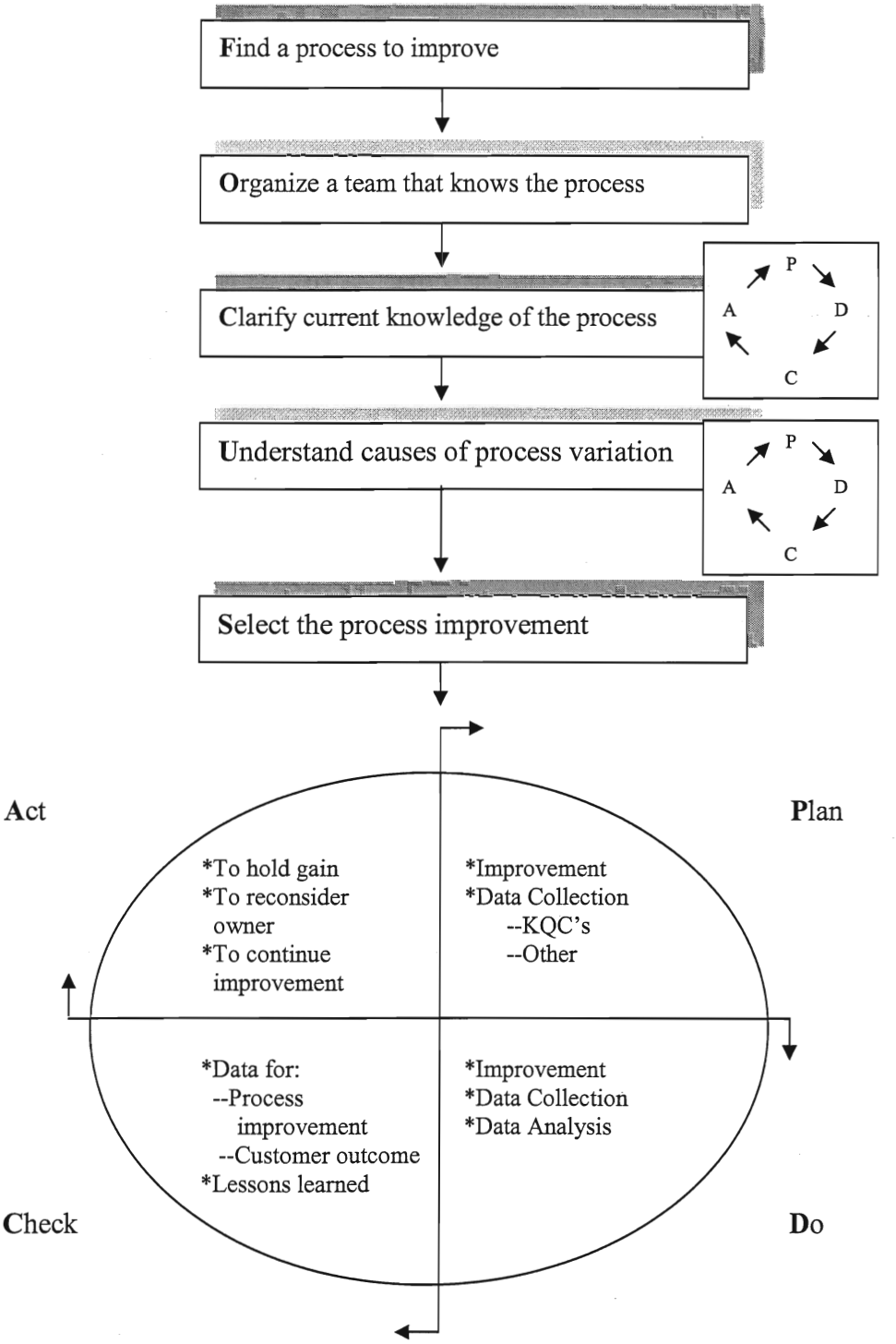
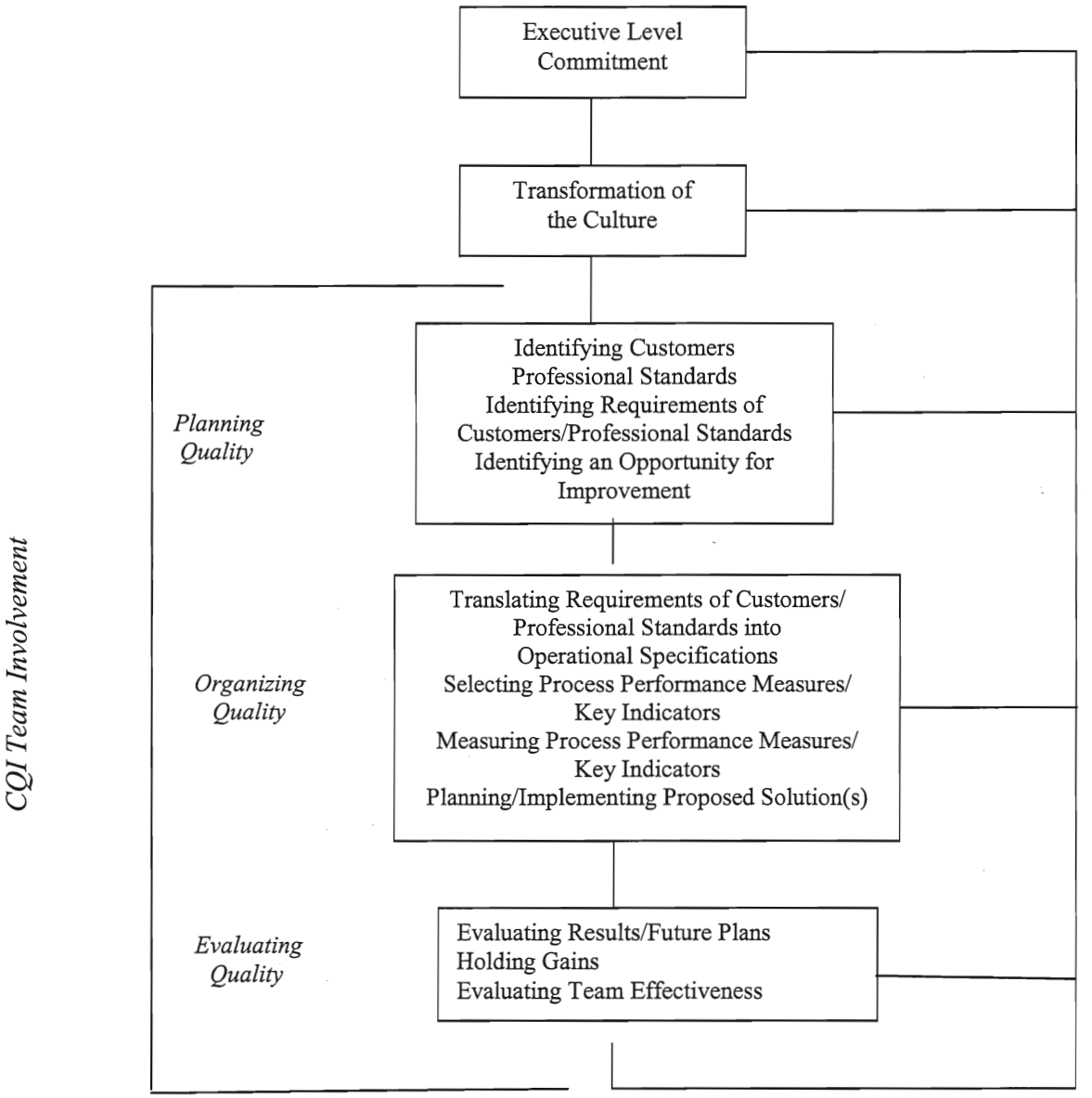


Figure 9

Total Quality Management Process Model



Applying CQI to health care, Samsa and Matchar (2000) considered two applications of CQI to randomized control trials (RCT) to warfrain therapy for stroke prevention among patients with atrial fibrillation:

1. As a general philosophy of management (by analogy with the use of conceptual models from the behavioral sciences)

2. As a conceptual model for developing specific interventions.

Results indicated that it was impractical to use RCT's to study CQI as a general management philosophy. However, RCT methodology is appropriate for studying CQI as a conceptual model for generating interventions. RCT's of CQI, it was found, might be considered when the process change under consideration is very large, its implications (e.g., in terms of cost, outcomes of care, etc.) are very great, and the best approach is uncertain.

Doran, Baker, Murray, Bohnen, Zahn, Sidani, Carryer (2002) evaluated whether training health care teams in continuous quality improvement methods results in improvements in the care of and outcomes for patients. Two tertiary care hospitals and two community hospitals located in a metropolitan area in southern Ontario participated in the study. The number of clinical services ranged from 16 in one hospital to 35 in another. Twenty-five teams were organized to participate in the study. Nine of the 25 teams were successful in improving the care/outcomes for patients. Successful teams were more effective at problem solving, engaged in more functional group interactions, and were more likely to have physician participation.

Evaluation of CQI has also been conducted in various other health care settings. CQI was evaluated in a German cardiac surgery unit of the referring physicians over the course of three consecutive years on structures and processes in the scope of the quality

management system. The investigation revealed a measurable increase in satisfaction with postoperative communication (Beholz and Klinik, 2006).

Measuring Patient Satisfaction. Assessment of patient satisfaction allows health care providers to investigate the extent to which their service meets the needs of their patient group. Investigating specific aspects of service provision will enable the service providers to identify aspects of the service where patients are less satisfied, and where they can potentially improve these aspects of care. Research has shown that satisfied patients are more likely to follow treatment instructions and medical advice, probably because they are more likely to believe that treatment will be effective (Grogan, Conner, Norman, Willits, Porter, 2000).

Measuring the quality of the intangible service product has become a great challenge for providers in the health care industry. While manufacturers can develop quality control methods to ensure that their products meet quality specifications before the customer ever sees them, the service provider does not usually have that luxury. Accurately measuring how patients feel about their office visit, hospital stay, medical procedure, or total health care experience is a far more difficult challenge than it is to determine the roundness of a tire or the straightness of a seam of clothing (Ford, Bach, and Fottler, 1997).

Patient satisfaction is different from other health care business indicators because it represents the patient's subjective perception of the quality of the health care experience. In every service organization, it is the patient's subjective satisfaction level that determines which policies to develop, change, or eliminate. The extreme degree of

subjectivity in customer satisfaction ratings makes consistently high performance levels difficult, but not impossible, to produce. Once an organization has mastered the formula for performing at top levels and has installed the infrastructure necessary to sustain it, the organization will have gained a competitive advantage that other organizations cannot easily reproduce (Sherman and Sherman, 1999, p. 2).

The most critical challenges in measuring patient satisfaction is for health care providers to find and select the appropriate methods to measure overall patient satisfaction and its components. This challenge is made more complex by the fact that the quality of the service product is determined by the individual patient and his/her behavior as well as the technical quality and service quality provided by the organization. The subjective nature of the quality and value of the service experience makes identifying and implementing the appropriate measurement particularly challenging (Ford, Bach, and Fottler, 1997).

There are a variety of structural mechanisms that are used to measure satisfaction--in-office questionnaires (generally comment cards), surveys mailed after a visit, telephone surveys, focus groups, or interviews. However, one of the most widely used mechanisms is the survey. It is used to measure patients' opinions of the quality of the health care they have received. In other words, they capture the patients' recollections and perceptions of care. This alerts the health care provider to patient concerns, needs, and perceptions of treatment. Data is also useful for program planning, evaluation, and identification of potential areas of improvement. Finally, data

collected provide a measure of service failure and service failure recovery (Ford, Bach, and Fottler, 1997).

Patient Satisfaction Surveys. Taxonomy of patient satisfaction identifies and defines the major characteristics of providers and health and medical care services that influence patient satisfaction (Ware, Davies-Avery, and Stewart, 1977). In order for satisfaction to be assessed in a meaningful way, it is important to develop valid and reliable measures that give practices the information that they need to assess the quality of the process and outcome of care. Thus, a worthwhile patient satisfaction scale must fulfill these requirements. It must be reliable (produce consistent results), valid (measure what it is designed to test), and show transferability--measure the same constructs when applied to different patient groups (Grogan, Conner, Norman, Willits, and Porter, 2000).

SERVQUAL. The literature on service quality in general and on communications about service quality in particular has been largely conceptual. Ideas and strategies suggested in these conceptual articles are intriguing and intuitive, yet empirical confirmation remains to be accomplished. To empirically test assumptions about the relationship between service quality and company communication, a valid and reliable instrument measuring service quality is necessary. A potentially useful instrument for providing this empirical verification is SERVQUAL (Appendix D), a multiple-item scale for determining consumer perceptions of service quality (Parasuraman, Zeithmal, and Berry, 1988, p. 371; Bowen, Chase, and Cummings, 1990).

SERVQUAL is a generic instrument that has desirable psychometric properties and that captures the most important aspects of consumer perceptions of service quality. Its development involved several phases (described in detail in Parasuraman, et al., 1988) beginning with an exploratory study to delineate the conceptual domain and then entailing several data collection phases that refined the instrument. The resulting SERVQUAL scale consists of 22 matching items representing consumer perceptions of the service delivered by a specific company. These items are used to measure five abstract dimensions that capture the construct of perceived service quality (Bowen, et al., 1990, p. 371):

Reliability – ability to perform the promised service dependably and accurately

Responsiveness – willingness to help customers and to provide prompt service

Assurance – knowledge and courtesy of employees and their ability to inspire trust and confidence

Empathy - caring, individualized attention to customers

Tangibles – physical facilities, equipment, and appearance of personnel

The measures are then used to compute perceived service quality by subtracting expectations from perceptions (SQ=P-E). The five dimensions and the dual measures (expectations plus perceptions) provide flexibility and diagnostic capability (Bowen, et al., 1990, p. 372).

Using SERVQUAL and techniques for measuring direct or indirect importance weights, researchers can evaluate the salience of the five service quality dimensions for any service industry. Despite expectations to the contrary, previous research by the

developers of SERVQUAL (Parasuraman, et al., 1988-1989) has provided surprisingly consistent rankings of the dimensions across service industries. In virtually all the empirical work accomplished thus far, reliability stands above all others in importance, regardless of the specific service. Customers consistently rank reliability as the most important of the five dimensions (Bowen, et al., 1990, p. 373).

Despite the increasing focus on customer satisfaction, research into health care patients' perceptions of the dimensions of service quality is scarce. However, in 1984, researchers from New Zealand took a step towards addressing this deficiency. A total of 389 respondents were interviewed by telephone to identify patients' perceptions of the dimensions of service quality in health care. The findings indicated that the service quality dimensions identified in the study differed in number and dimensional structure from the widely adopted service quality dimensions first identified by Parasuraman, Berry and Zeithaml (1988) which were reliability, responsiveness, assurance, empathy, and tangibles. The service quality dimensions identified in the study were reliability, tangibles, assurance, empathy, food, access, outcome, admission, discharge, and responsiveness. In addition, health care patients perceive the service quality dimensions relating to the core product in health care delivery (for example, outcome and reliability) as more important than the service quality dimensions relating to the peripheral product in health care delivery (e.g., food, access, tangibles). Finally, the results of the study suggested that patients with different geographic, demographic, and behavioristic characteristics have different needs and wants during health care delivery

and therefore perceive different service quality dimensions as important (Clemes, et. al., 2002, p. 4).

Ethnicity and Culture in Health Care Research

Improvement of the health of racial and ethnic minority populations is a priority of the Public Health Service. This priority was underscored in the 1985 Report of the Secretary's Task Force on Black and Minority Health that outlined the magnitude of health disparities among minority populations and proposed approaches to these problems. In 1993, activities were begun to stress the critical role of information on race and ethnicity in public health surveillance and the need for consensus regarding the use of these concepts (Center for Disease Control, 1993, p. 3).

Most public health care systems aim at ensuring the population's good health care according to the individual's needs, regardless of their social position, gender, race, or ethnicity (Sundquist, 2001, p. 1). Reinvestment initiatives, changing demographics, and growth in urban areas are creating changes that offer new opportunities for improving health while requiring that health systems be adapted to residents' health needs (Andrulls, 2000, p. 1). However, determining how to adapt health services to meet the needs of the growing Hispanic/Latino population has proven to be the chief obstacle that most state Health Districts have had to face. Creating these obstacles are the immigrants' fear of reprisal by the Immigration and Naturalization Service (INS), language, cultural barriers, and lack of resources to bridge the gap between Hispanic/Latino health needs and the unfamiliar world of the American health system.

Since the late 1940's researchers have studied the health issues related to the Hispanic/Latino population. Weaver, in 1973, made a critical review of the literature on Mexican-American health care behavior that he expanded in 1976. Basically, he described three generations of health research on Hispanics. The first generation of researchers (Saunders, 1954; Simmons, 1952) investigated Hispanic health care behavior as a function of culture, giving great emphasis to folk medicine. Second generation researchers (Clark, 1959; Madsen, 1964), which took place during the middle and late 1950's, emphasized once again cultural factors. During the 1960's, the third generation of researchers (McLemore, 1963; Moustafa and Weiss, 1968) focused their research on non-cultural factors as major determinants of Hispanic health care behavior. Variables such as absence of health care facilities, physicians and insurance coverage as well as a lack of Spanish-speaking physicians, nurses and other health care providers were highlighted in these studies (Tajalli, 1984).

With the rise of Hispanic/Latino migration within the past twenty years, current researchers have expanded previous research by combining studies on health behavior and health issues with measures of satisfaction. This emphasis is consistent with a broader trend toward holding those who control and provide essential services more accountable to their customers. A notable example of this emphasis from the medical care field is found in Donabedian's (1980, 1982, 1985) discussions of "quality of care assessment"--a major tool in the accountability movement. He argues that the ultimate validator of the quality of care is its effectiveness in "achieving or producing health and satisfaction."

Novello, Wise and Kleinman (1991) view ethnicity/culture in health statistics as a way to remind people of who they are. Be it information on morbidity, disability, or mortality, the power of health-related data lies in its unblinking capacity to reflect the currents of daily life and their roots in common origins and social ties. It is not surprising therefore, that the analysis of health data is often conducted in terms of broad perceptions of ethnicity and race (p. 1).

Cultural Competency Techniques. Much of the cultural competency literature discusses the importance of cultural awareness, knowledge, attitudes, and skills but does not describe how a health system is supposed to become culturally competent. While overall the literature identifies a wide array of cultural competency techniques, most articles discuss only a single approach, making it difficult for health systems to possess an overview of the options available to them. The techniques most frequently discussed in the cultural competency literature can be grouped in the following categories (Brach and Fraserirector, 2000):

- *Interpreter Services* – Providing foreign language or American Sign Language interpreter services to improve communication among persons who speak different languages and come from different cultures.

- *Recruitment and Retention* – Minority staff, because of their shared cultural beliefs and common language may improve communication, create a more welcoming environment, and structure health systems to better reflect the needs of minority communities.

- *Training* – Cultural competency training programs aim to increase cultural awareness, knowledge, and skills, leading to changes in staff (both clinical and administrative) behavior and patient-staff interactions.

- *Coordinating with Traditional Healers* – Many minority Americans use traditional healers while they are seeking biomedical care.

- *Use of Community Health Workers* – Internationally, and across the United States, members of minority communities are used to reach out to other community members as well as to provide direct services such as health education and primary care.

- *Culturally Competent Health Promotion* – Health promotion seeks to encourage good health through healthy behaviors and risk reduction, early detection and treatment, and proper care of chronic or acute diseases.

- *Including Family and/or Community Members* – While patient autonomy has become a core principle of health care in the United States, some minority groups believe that family members should be involved in health care decision making.

- *Administrative and Organizational Accommodations* – A variety of administrative and organizational decisions related to clinic locations, hours of operation, network membership, physical environments, and written materials also can affect access to and utilization of health care.

Cultural Competency and Health Disparities. The literature reveals a consistent gap between majority and minority populations in terms of outcomes of health care. Black women are more likely than white women to die from breast cancer. And, infant mortality rates are 2.5 times greater for African Americans and 1.5 times greater for Native Americans than for white Americans. Influenza death rates are higher for African Americans and American Indians/Native Alaskans than they are for white Americans. Mortality for colorectal cancer is highest for African Americans, followed by Native Alaskans and then Hawaiians (Brach and Fraserirector, 2000).

Racial and ethnic disparities have many diverse causes. Low socioeconomic status (SES) is a major cause. Minority Americans are disproportionately represented among the poor, the unemployed, and the undereducated. Low SES is correlated with

poorer access to health care services and poorer health outcomes (Lillie-Blanton and Laveist, 1996). Conversely, minority Americans who are not socio-economically disadvantaged have systematically different health experiences from non-minority Americans even when they have similar medical conditions and insurance coverage. For example, disparities have been documented within health systems that provide equal financial benefits to all covered individuals, such as the Veterans Health Administration, Medicare, and single health plans. Since financial barriers should not be a factor in these cases, researchers have concluded that the health care delivery system, for whatever reasons, must be doing an inferior job in meeting the needs of racial and ethnic minorities than in meeting the needs of the non-minority population (Brach and Fraserirector, 2000). Bridging the gap in the racial and ethnic disparities would mean incorporating the techniques described previously for culturally competent services.

According to Saha, Komaromy, Koepsell and Bindman (1999), numerous studies have demonstrated racial inequalities in health care in the United States. Specifically, minority populations have less access to care, use fewer health care resources, and are less satisfied with the care they receive than the majority white population. Differences in health insurance coverage do not fully explain these disparities (p. 2).

Cafferty and Engstrom (2000) view ethnicity as a significant factor affecting health-seeking behavior. In their opinion, through socialization, ethnic groups teach group members ways of defining and responding to their problems, and they have

group-prescribed ways of viewing these problems and determining whether they are to be addressed, and if so by whom and how. Ethnicity, in their opinion, has been linked to preferences about who provides their medical care. Culture, defined as ethnic group membership, has also been found to influence "symptoms." Hence, sociocultural variables may lead to different interpretations of, and responses to, essentially the same experience (Cafferty and Engstron, 2000, p. 200).

In relation to Hispanics/Latinos, Cafferty and Engstron (2000) have found historical and cultural currents, which are deeply rooted in a "belief system," affect health problem definition by Hispanics/Latinos. The terms *popular medicine* and *folk medicine* refer to medical systems of indigenous rural and urban lower socioeconomic groups. This belief system is considered to be eclectic in nature because of its ability to assimilate practices from various popular and biomedical traditions, as it has done throughout the centuries. Beliefs and knowledge about diseases among Spanish-speaking persons living in the United States derive from medieval Spanish traditions brought to the "New World" by colonizers and influenced by indigenous Indian beliefs. Upon migration to the United States, these beliefs, in turn, have been incorporated with elements of Anglo popular traditions and scientific or biomedical knowledge (pp. 200-201).

Saha, et al. (1999) reported on results from a 1994 Commonwealth Fund's Minority Health Survey, a nationwide telephone survey of non-institutionalized adults. Data were collected from 2,201 white, black and Hispanic/Latino respondents who reported having a regular physician. It was found that patients from racial and ethnic

minority groups use fewer health care services and are less satisfied with their care than patients from the majority white population. These disparities may be attributable in part to racial or cultural differences between patients and their physicians (p.1).

Black respondents with black physicians were more likely than those with non-black physicians to rate their physicians as excellent and to report receiving preventive care and all needed medical care during the previous year. Hispanics/Latinos with Hispanic/Latino physicians were more likely than those with non-Hispanic/Latino physicians to be very satisfied with their healthcare overall. In addition, findings confirmed the importance of racial and cultural factors in the patient-physician relationship and reaffirm the role of black and Hispanic/Latino physicians in caring for black and Hispanic/Latino patients. Improving cultural competence among physicians may enhance the quality of health care for minority populations (Saha, et al., 1999, p. 1).

Racial inequalities in health care may be partly attributable to racial, cultural, and communication barriers between minority patients and white health care providers. Such barriers might arise from cultural or linguistic incongruity between patient and physician, from lack of mutual trust, or from racial discrimination. If these barriers existed, one might expect patients and physicians of similar racial or ethnic background to have better communication and more salubrious relationships than those of dissimilar background. Better relations might lead to greater patient satisfaction and more effective use of the health care system. While this reasoning seems plausible, little empirical evidence exists to support it. Saha, et al. (1999) investigated further to

determine the extent to which racial concordance between patient and physician affects patients' ratings and reported use of health care (p. 1).

A total of 3,120 white, black, and Hispanic/Latino individuals were surveyed. Nine percent of black respondents were of Caribbean heritage. Hispanics/Latinos were primarily of Mexican (53%) and Puerto Rican (16%) descent (Saha, et al., 1999, p. 1). A total of 2,331 respondents (75%) had a regular physician. Whites were more likely than nonwhites to have a regular physician (82% vs. 71%). Among the 2,201 respondents who were able to identify their physician's race, whites were much more likely than nonwhites to have a racially concordant physician (88% vs. 22%). Non-concordant physicians for blacks and Hispanics/Latinos were primarily white (82%) and Asian--14% (Saha, et al., 1999, p. 1).

O'Donnell and Giovanni (1999) conducted a study to determine ethnic differences in the preferences for services and the service delivery mechanisms at the Family Resource Centers (FRC's) in nine localities throughout the state of California. There were a total of 488 respondents who were current consumers of FRC's, past consumers, and a sample of families residing in the same area not known to have used the centers. Of the 488 respondents, 194 (40%) were Hispanics/Latinos, 136 (28%) were European American, 95 (19%) were Asian American, and 52 (11%) were African American. Excluded from the analysis were five (1%) Native Americans and six respondents (1%) of other ethnicities. The findings suggested that ethnic differences exist in service use, service preferences, and service delivery factors, with the majority of Hispanics/Latinos being drawn to centers that provide a broad repertoire of services.

Patient Assessments of Health Care. Patient assessments of health care are increasingly being used as indicators of the quality of care provided by health plans, providers and, more recently, public health organizations. These evaluations provide important information about how well health plans and clinicians meet the needs of the people they serve (Crofton, Lubalin and Dabry, 1999). Patient evaluations of care have been associated with the following (Zastowny, Roghmann, and Cafferata, 1989; Hall and Dornan, 1990; David and Rhee, 1998; CPHEN, 2001; Donaldson, 1999):

- Utilization
- Medical regimens
- Assessing the cultural competence of health care organizations
- Understanding the effects of health services that are provided and how these effects may differ for different patient populations

Research investigating Hispanic/Latino satisfaction with health services is almost nonexistent. Much of the available research that explores Hispanic/Latino satisfaction is based on health care and/or health outcomes and incorporates Donabedian's theory of quality of care assessment. Thus, a review of the available literature revealed two dominant themes. The first is assessing differences in health care, health outcomes, and satisfaction with health care across racial/ethnic groups. Another recurring theme is "access to care." These studies compare and contrast differences between and among racial/ethnic groups, and nearly all conclude that satisfaction with health care for the Hispanic/Latino population is generally lower than for any other ethnic/racial group (Lillie-Blanton and Goode, 1999; Davis, 2002; Saha,

Taggart, Komaromy and Bindman, 1999; Davis, 2001; Saha, Arbelaez and Cooper, 2003; Bethell, Carter, Lansky, Latzke and Gowen, 2003).

Race/Ethnicity. Public and private organizations have made strides in offering culturally competent services. Nevertheless, there are still serious incidents of racial and ethnic discrimination and differential treatment in health care settings. About one in six African Americans (16%) and almost one in 10 persons of color overall (9%) reported experiencing discrimination in health care settings based on a 2001 survey conducted in King County, Washington (Smyser and Ciske, 2001). Discrimination experiences ranged from incidents of differential treatment to rude behavior and racial slurs. Similar results were noted in a study of reported cases of discrimination in Atlanta, Boston, Los Angeles, and Salt Lake City (COMTEX, 2001). In examining the impact of racial/ethnic discrimination on health care delivery for Medicaid patients, researchers found that perceived racial/ethnic discrimination causes patient dissatisfaction and interferes with the patient-physician relationship (Bouknight, 2000; Tajilli, 1984; Saha, et al. 1999). Most researchers hypothesize that these disparities stem primarily from physician-patient interaction.

Physician-Patient Interaction. While results of much of the research comparing satisfaction among racial and ethnic groups is mixed (Morales, 2001), studies of physician-patient race concordance have shown that race concordance is predictive of patient satisfaction (Laveist and Nuru-Jeter, 2002; Saha, Komaromy, Koepsell and Bindman, 1999). A recent study from the John Hopkins Bloomberg School of Public Health found that patients who are of the same race as their physician

report a higher level of satisfaction with their physician (Laveist, 2002). Additionally, in many instances Hispanics/Latinos will opt to travel longer distances for the sake of a bilingual facility (Cafferty and Engstron, 2000). In race non-concordant relationships it was found that lower levels of satisfaction were reported from patients when they interacted (spending adequate time with patients and showing them respect) with their non-Hispanic/Latino physician (Carrasquillo, Ferry, Edwards, Glied, Saha, Arbelaez and Cooper, 2003; Laveist and Nuru-Jeter, 2002; Bethell, et al. 2003). Many Hispanics/Latinos perceive their non-Hispanic/Latino providers as not being willing to listen to them and provide them with the necessary information pertaining to their health care or health needs (Doescher, Saver, Franks and Fiscilla, 2000; Morales, Spritzer, Elliott, Hays, and Weech-Maldonado, 2001, 2003; Morales, Cunningham, Brown, Liu and Hays, 1999; Ashton, Haidet, Paterniti, Collins, Gordon, O'Malley, Petersen, Sharf, Suarez-Almazor, Wray and Street, 2003; Doty and Ives, 2002; Davis, 2002).

Physician Style and Trust. In studies that focused on physician's style and trust, Hispanic/Latino patients rated physician's accessibility and technical skills less favorably than whites (Selby, 2000; Murray-Garcia, Selby, Schmittdiel, Grumbach and Quesenberry, 2000). They also reported having less confidence and trust in their non-Hispanic providers (Bethell, et al., 2003; Doescher, et al. 2000; Doty and Ives, 2002) and have less positive perceptions of their physicians (Doescher, et al.). Researchers have found that this greater comfort with physicians of the same group is due primarily to an intrinsic sense of connection (Laveist, 2002).

Opposite results were found when examining sociodemographic characteristics in relation to satisfaction with care. Hall and Doran (1990), in a meta-analysis, examined the relation of patients' sociodemographic characteristics to their satisfaction with medical care. Results revealed that there was no significant relationship between patients' race/ethnicity and satisfaction with care. A similar study examined data from the National Consumer Assessment of Health Plans Survey (CAHPS) pertaining to racial/ethnic groups differences in adults, members of racial/ethnic minority groups, with the exception of Asians/ /Pacific Islanders, reported experiences with health care similar to those of whites (Morales, et al. 2001).

Access to Care. Particular problems in health care access for minorities have been noted by various authors, although it has not been consistently found that Hispanics/Latinos have less access than other minorities (Hafner-Eaton, 1993; Hayward, Shapiro, Freeman and Corey, 1988). Of the studies that have been undertaken to investigate access barriers to care, many researchers have found that language and ancillary barriers (e.g., transportation, waiting times for appointments, discrimination) account for differences in the level of satisfaction with services between various racial/ethnic groups (Flores, Abreu, Olivar, and Kastner, 1998).

Language. The majority of all Hispanics/Latinos speak Spanish at home and a significant proportion speak little or no English (Cafferty and Engstron, 2000, p. 198; PR Newswire, 2002, p. 2; Flores, et al., 1998; COMTEX, 2001, 2003; Davis, 2002; PEW Hispanic Center, 2002; Bockoven, 2001; Weech-Maldonado, et al. 2003; Marín and Marín, 1991, p. 6). Most recent immigrants rate their English language proficiency

as poor or absent (Flores, et al. 1998; Diaz, et al. 2001). In several instances the inability to speak English has resulted in difficulty in communicating with the medical staff causing Hispanics/Latinos not to receive the medical care they need, not understand how to manage medications, and to be misdiagnosed or incorrectly treated (Flores, et al. 1998; Diaz, et al., 2001; Online Athens, 2000; Bendixen & Associates, 2003; Halfon, et al., 1997; Bodipo-Memba, 2003; COMTEX, 2003).

Spanish-Speakers vs. Non-Spanish-Speakers. A great deal of the research investigating language barriers compares Spanish-speaking individuals to non-Spanish speakers. Hu and Covell (1986), when comparing outpatients to patients in a hospital setting, found that outpatients whose primary language is English are more satisfied with their general care than patients whose primary language is Spanish. Results of studies in various other medical settings have indicated that Spanish-speaking individuals were dissatisfied with the lack of courtesy and respect displayed by the staff, the lack of information provided to them about where specific services are to be performed and dissatisfied with provider communication and discharge instructions they received. Many also had trouble with medications they received from clinics where they were not able to communicate with the provider or the staff (Diaz, et al. 2001; Flores, et al. 1998; Bockoven, 2001). Similar results were found in a study of patients using emergency room services. Non-English speakers were less satisfied with their care in the emergency department and less willing to return to the same emergency department if they had a problem that required immediate treatment. They also reported

more problems with emergency care (Carrasquillo, Orav, Brennan and Burstin, 1999; Sarver and Baker, 2000).

In a study administered to the Arkansas Department of Health (ADH) professionals in the seven counties most affected by the growing Hispanic/Latino population, results revealed service providers felt communication is a primary source of concern when trying to deliver services to Hispanics/Latinos. Providers felt that it takes longer to service the Hispanic/Latino customers on both initial intake and follow-up visits primarily because of translation issues. Their lack of familiarity with modern medical practice, terminology and individual medical histories create additional problems (Kelley and Cossman, 2000).

Interpreters. In attempting to bridge the language barriers in providing care, many researchers have investigated how the use of interpreters affects communication. Research has shown that access to interpreters during health care visits is generally limited (Davis, 2002). However, when interpreting services are utilized, studies have shown that effective communication is still not always possible (COMTEX, 2003). In a study to determine the effects of Spanish interpretation methods on patient satisfaction in an urban walk-in clinic, results indicated that language-concordant patients and patients using AT&T telephone interpreters reported higher levels of satisfaction than did Hispanics/Latinos using family or ad hoc interpreters (Lee, Batal, Maselli and Kutner, 2002). Opposite results were found when measuring satisfaction with interpretation in an ambulatory clinic. Patients were

significantly more satisfied with using family member and friends (Kuo and Fagan, 1999).

Ancillary Barriers. Very few authors have expanded their research on Hispanics/Latinos to include ancillary barriers, e.g., transportation, waiting times for appointments, and discrimination. While these barriers are not major predictors of the overall level of satisfaction with health services, research has revealed that these indicators can have an impact on the level of satisfaction. Research focusing on access to care for Hispanic/Latino children revealed that many parents have problems with getting transportation to clinics (Duffy and Alexander, 1999, p. 2; Online Athens, 2000; Flores, et al. 1998; Bockoven, 2001).

Conversely, in a survey that compared how Hispanics/Latinos and health care providers perceive different barriers to screening and preventive medicine, it was found that Hispanics/Latinos were no more likely than non-Hispanics/Latinos to identify transportation as a problem (Woodward, 2001). Flores, et al. (1998) and Woodward (2001) found that long waiting times at clinics were a major barrier to health care for Hispanic/Latino children and adults. While measuring satisfaction with source of family planning care, Radecki and Bernstein (1989) and Morales, et al (2001) found highest rates of agreement with unfavorable statements on waiting times and crowdedness by patients of subsidized clinics.

Conceptual Framework

The review of the literature provided a context for understanding the need for culturally competent research especially in the new Hispanic/Latino destinations. Although these studies are important, they do not adequately address all of the issues related to reporting satisfaction across the various racial/ethnic groups. For example, minority v. non-minority expectations for care, which is drawing national attention to the disparities in health care and health outcomes, has not been investigated. A recent report by the Institute of Medicine (2002) sets forth the racial and ethnic disparities in health care and points to the need for data collection and reporting to monitor progress. In 2002, The National Quality Forum addressed measurement issues and challenges in reporting healthcare quality for minority populations (Barr and Bankis, 2002).

Based on the literature reviewed, Donabedian's theory of quality assurance which incorporates structure, process, and outcome service quality dimensions from Parasuraman's SERVQUAL instrument, and the categories for culturally competent research, were adapted in developing the operational framework presented in Figure 10, page 101. It was also used to create the survey instrument (Appendix D) to gauge patient satisfaction at Chesterfield County's Health Department. Chesterfield County is one of Virginia's fastest growing communities and has been a major magnet of Hispanic/Latino immigrants due to its availability of safe places to live, its school system and the abundance of jobs. However, in order for the Health Department to further address the needs of these newest citizens and provide quality care, an

assessment needed to be undertaken in order to help the Department strategically plan the services they provide to all patients.

The conceptual framework was designed to show the relationships between the three approaches—structure, process, and outcome—and how it can be utilized to obtain information on satisfaction with service quality. Structure is the way the Health

Figure 10

Conceptual Framework for Patient Satisfaction Research

Dimensions	Structure	Process	Outcome
Staff Reliability		Administrative staff – service quality	
Staff Responsiveness		Courteousness of the doctor, nurses, clinical staff	
Staff Courtesy		Doctors, nurses, administrative staff – courteous and friendly	
Staff Communication		Medical staff's ability to communicate with patient	Satisfied Patient
Access to Health Department Services	Hours of operation, location, telephone access		
Health Department Facilities	Waiting Room Treatment Room		

Department is set up. Process is the detailed characteristics of health care processes—where assumptions can be made about the quality of care. Outcome is the best indicator of the patient's satisfaction and indicator of quality.

This study focused on determining the satisfaction levels of Hispanics/Latinos with the health services provided by Chesterfield County's Health Department. Perceptions were measured after a patient received services. The study addressed the following research question: How satisfied are the Hispanic/Latino customers with staff reliability, staff responsiveness, staff courtesy, staff communication, access to Health Department services, and with the Health Department facilities?

CHAPTER 3

METHODOLOGY

This study seeks to measure the overall satisfaction with health services among Hispanics/Latinos in order to make improvements, identify areas of need and provide a framework for intermediate and long-term planning efforts for Chesterfield County, Virginia's Health Department. The research was conducted during the first two weeks of March, 2005 at the Chesterfield County Health Department located at 9501 Lucy Corr Circle, Chesterfield, Virginia. This is a multi-method non-experimental research design combining a cross-sectional and qualitative data gathering technique. Quantitative and qualitative data were collected using self-administered patient satisfaction surveys and in-depth interviews. The self-administered surveys and in-depth interviews were offered in Spanish and English. The in-depth interviews were taped to assure the information obtained pertaining to the respondent's perspective on the services provided by the Health Department, was correct.

Population and Sample

At the request of the Chesterfield County Health Department, and to prevent the appearance of bias, the sample included all patients regardless of race or ethnicity that were either first time visitors or had visited the Chesterfield County Health Department within six months prior to the study. According to data collected by the Chesterfield County Health Department for 2002, there were a total of 4,146 patient visits per year which yields an average of 346 visits per month for patients enrolled in the Maternity

Services, Child Health Services, and Family Planning programs. Of this amount, 90 of these patient visits were for Hispanics/Latinos.

To assure the sample proportion (*p)* would be within ± .05 of the average population proportion (P) with a 95% level of confidence, it was determined the sample size for this study was n = 228. For Hispanics/Latinos, n = 73 and for non-Hispanics/Latinos n = 155 (Isaac and Michael, 1995, p. 201). Subjects consisted of patients that were 18 years of age or older and receive a service, or services, at Chesterfield County, Virginia's Health Department.

Research Instrument

The Spanish and English research instrument (Appendix E and F) was a self-designed survey to provide a more comprehensive approach to assess customer satisfaction of health services, collect demographic information, and to determine how to better deliver these services. The survey consisted of 46 questions (and several follow-up questions) with 23 questions pertaining to the six satisfaction dimensions. These dimensions were measured by a Likert-type response scales, ranging from strongly agree to strongly disagree.

Item identification was based on suggestions by staff from the Chesterfield County's Health Department, theoretical concepts introduced in the literature review, and information adapted from the following surveys: The Connecticut Surgical Group - Patient Satisfaction Survey (2004); SERVQUAL – an instrument for measuring quality service (1990); and The Patient's View on Health Care by RAND and UMQC (1994).

Authors of these surveys suggest satisfaction be assessed across the following dimensions: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowledge of the customer, and tangibles (appearance of physical facilities). Figure 11 lists the independent variables utilized in the study. Table 4, page 106 lists the dimensions/dependent variables used to measure satisfaction.

Figure 11

Independent Variables

Sex	Children
Age	Ethnic Background
Level of School Completed	Ability to Speak English
Income	Modes of Transportation
Marital Status	Length of residency in Chesterfield County, Virginia

Pilot Testing. A pilot test of the instrument was conducted in two phases. First, the instrument was pilot tested by three English speaking only employees from the Health Department. The object of which was to increase the face validity of the instrument and to improve questions, format, and scales. Next the instrument was translated into Spanish and pilot tested by three bilingual employees of Chesterfield County. To ensure reliability and validity of the translated instrument, a four-step process was followed:

1. *Forward Translation* – The instrument was translated into Spanish by a certified Spanish Language Translator who is also a native speaker.

2. *Backward Translation* – The translated instrument was given to two bilingual County employees to translate the survey back into English.

3. *Independent Review and Comparison* – Once the translated process was completed, the Spanish instrument was given to two additional bilingual County employees for review.

4. *Review by Committee* – After the review process was completed, the forward and backward translators and the reviewers, held a meeting to discuss problems found during the review process, to correct errors in grammar and syntax, and to resolve problems of equivalence found among the different versions.

Table 4

Dimensions of Patient Satisfaction/Dependent Variables

Dimension	Definition
Staff Reliability	The promptness of the service provided by staff of the Health Department to patients, their willingness to help, and the quality of care they provide.
Staff Responsiveness	The Health Department staff's willingness to answer all of the patients questions pertaining to advice on how to stay healthy, explaining prescribed medications, medical procedures, and the importance of seeking timely preventive care.
Staff Courtesy	Friendliness and courtesy of the staff of the Health Department
Staff Communication	The staff of the Health Department's communication and listening skills.
Access to Health Department Facilities	Convenience of the Health Department's hours of operation, location, ability to receive all of the medical services in one location, and the ability to reach the Health Department by telephone.
Health Department Facilities	Comfort of the Health Department's waiting and treatment rooms.

Reliability and Validity. Once final revisions were made to the research instrument, the degree of internal consistency was assessed to assure the indicators of the scale would

all measure the same dimensions and be highly correlated. The results for the indicators show that within the dimensions, the variables are highly correlated and measure something in common. The reliability coefficients (alphas) are listed in Table 5 and show that they were all > .70 reflecting the consistency of the scale.

Table 5

Item Statistics

Dimensions	Number of Indicators	Cronbach's Alpha
Staff Reliability	3	.8668
Staff Responsiveness	5	.9170
Staff Courtesy	5	.9340
Staff Communication	4	.9329
Access to Health Department Services	4	.7909
Health Department Facilities	2	.8771

Interview Protocol

To collect the qualitative data, an informal conversational interview was conducted after the respondent had completed the research instrument. The interview protocol (Appendix G and H) was self-designed and contained seven questions (in both English and Spanish) that were constructed to explore, in more depth, the respondents' perceptions and expectations of the Health Department services. These questions were primarily derivatives of questions that were contained in the research instrument. For

the Spanish translation, a certified Spanish translator, who is a native speaker, was asked to translate the questions and a bilingual County employee was asked to translate the questions back. Listed below are the English versions of the questions:

1. What other services would you like the Health Department to offer?
2. What would like to see changed and/or improved at the Health Department?
3. In your opinion, is there enough information about the Health Department services available in your native language?
4. Do you feel the Health Department needs to hire more bilingual staff?
5. In your opinion, should the Health Department have more than one location where services can be provided?
6. Should the Health Department extend its hours and/or days of operation?
7. Overall, do you receive quality services from the Health Department?

Responses to the interview questions were taped to prevent loss of data during the investigator's note taking. Respondents were made aware that the interview would be taped only to assure that pertinent data would not be lost during transcription.

Research Procedures

Permission to perform the research at the Health Department Facility was obtained from the Director of the Health Department. A recruitment letter (Appendix K and L) in English and Spanish, to be given to each subject explaining the survey and requesting participation from the patients, was developed by the Director of the Health Department. Prior to the administration of the survey, training was provided to a total

of approximately twelve volunteers, six of whom were bilingual. The survey instrument, interview protocol, informed consent document, recruitment letter, and interviewer guidelines were given to each prospective volunteer at the scheduled training session. A question and answer session was held on the documents provided. Topics reviewed during the training session were survey administration, face-to-face interviewing techniques, protecting the confidentiality of the subjects, and the need for the volunteers to be sensitive to the potential cultural differences between them and the subjects. Also, to enhance research participation, volunteers were asked to do the following:

- Make sure the subjects that were willing to participate were at least 18 years of age or older.
- Assure the subjects that participating in the survey would in no way affect their eligibility to receive services.
- Stress the importance of their participation.
- Make the subjects aware that they would receive a small gift for their participation.
- Approach each respondent in a friendly manner.
- Make sure the Informed Consent Document was signed by the subject.
- Assist the subjects with interpretation of the questions.

The research was conducted over a two-week period beginning Monday, March 7, 2005, and ending Friday, March 18, 2005. The lobby of the Health Department was used for data collection. Respondents were given a recruitment letter, by staff of the Health Department once they were called in for the initial screening process, asking

them to participate in the research after the subject had received services. If the subject(s) were willing to participate, they were then directed to the lobby area that was designated for the data collection. After a subject had read and signed the Research Subject Information and Consent Form, the survey was administered. Each survey took between 15 to 25 minutes to complete; the interview took between 5 to 15 minutes. At the end of the first week of data collection, Hispanic/Latino response rate was low. Intake workers of the Health Department were approached and asked for help in meeting the sample quota.

Treatment of the Data

Various research methods were used to analyze the Chesterfield County's Health Department Patient Satisfaction Survey. Preliminary analysis was conducted in several steps to find meaning in the data and to develop a conceptual scheme that is empirically grounded and richly descriptive (Royse, Thyer, Padgett, and Logan, (2006). Univariate analysis was used to summarize the data collected. Factor analysis based on principal component extraction followed by oblique rotation was used to examine the structure within the 23-item scale to summarize the data for data reduction. Internal consistency of the measurement scale was investigated through Cronbach's alpha coefficient. Exploratory and descriptive analysis was conducted using bivariate analysis. Next, multivariate exploratory analysis was utilized to investigate the results of the bivariate analysis. Last, non-parametric tests were used to confirm the exploratory work. Results of the open-ended questions and structured interview were

examined to detect prevalent themes. Table 6 presents a summary of the data analysis techniques by research hypothesis.

Table 6

Data Analysis

	Hypothesis	Variables	Statistical Tests
1.	There is no relationship between ethnic background and staff reliability.	10. The Health Department staff gives prompt service to patients. 11. The Health Department staff is always willing to help patients. 12. Overall, I received quality care from the Health Department staff.	Bivariate Analysis
2	There is no relationship between ethnic background and staff responsiveness.	13. All of my questions were answered. 14. The medical staff provided me with advice on how to stay health. 15. The medical staff explained my medications to me. 16. The medical staff explained the medical procedures that were performed. 17. Medical staff reminded me to seek timely preventive care.	Bivariate Analysis
3	There is no relationship between ethnic background and staff courtesy.	18. The receptionist and other office staff were friendly. 19. The receptionist and other office staff were courteous. 20. Medical staff was friendly. 21. Medical staff was courteous. 22. The medical staff made my visit comfortable and pleasant.	Bivariate Analysis
4	There is no relationship between ethnic background and staff communication.	23. The medical staff was able to communicate with me. 24. The receptionist and other office staff were able to communicate with me. 25. The medical staff listened	Bivariate Analysis

		to what I had to say. 26. The receptionist and other office staff listened to what I had to say.	
5	There is no relationship between ethnic background and access to Health Department services.	27. Health Department hours of operation are convenient. 28. The Health Department is conveniently located. 29. I like the ability to receive all of my services in one location. 30. I am able to reach the Health Department by telephone when I have problems.	Bivariate Analysis
6	There is no relationship between ethnic background and Health Department facilities.	31. Health Department' waiting rooms. 32. Health Department's treatment rooms.	Bivariate Analysis
7	It is hypothesized that the relationship between prompt service provided to patients and the set of independent predictor variables is impacted by introduction of the control variable—ethnic background.	*Dependent Variable* The staff of the Health Department gives prompt service to patients *Independent Variable* Age Sex Marital Status Ethnic Background Income Education Residency Transportation Children Encourage others to use Health Department Services Ability to Speak English *Control Variable* Ethnic Background	Multivariate Analysis - Elaboration
8	The set of predictor variables—transportation, waiting times for appointments, sex and ability to speak English does not explain	*Independent Variable:* Ethnic Background *Dependent Variables:*	Multivariate Analysis – Logistic Regression

	additional variance beyond race/ethnicity on the level of satisfaction with staff responsiveness, staff courtesy, and access to Health Department Services.	Staff Responsiveness Staff Courtesy Access to Health Department Services *Predictor Variables* Transportation Waiting Times for Appointments Sex Ability to Speak English	
9	The distribution of satisfaction outcomes does not differ significantly from a normal distribution.	Outcomes of the satisfaction measures	Kolmogorov-Smirnov One-Sample Test
10	There is no difference between Hispanics/Latinos and non-Hispanics/Latinos on their level of satisfaction of staff reliability, responsiveness, courtesy, communication, access to Health Department services and Health Department facilities.	*Independent Variable:* Ethnic Background *Satisfaction Dimensions*: Staff Reliability Staff Responsiveness Staff Courtesy Staff Communication Access to Health Department Services Health Department Facilities	Mann-Whitney Rank-Sum Test
11	There is not a difference in satisfaction responses among Hispanics/Latinos and non-Hispanics/Latinos.	*Independent Variable:* Ethnic Background *Dependent Variables:* Staff Reliability Staff Responsiveness Staff Courtesy Staff Communication Access to Health Department Services Health Department Facilities	Kruskal-Wallis Test

Univariate Analysis. Univariate analysis of all variables was performed to assess the distributional properties of each variable. Descriptive analysis of the data was performed to reveal patterns in the raw data and to analyze structure data for

frequencies and measures of central tendency--median and mode. In addition, the analysis was performed to describe subsets of the survey sample.

Bivariate Analysis. Several crosstabulations were performed to determine the relationship between the respondents and their responses on the measures of the six dimensions of patient satisfaction. To perform this test, the categories of the independent variable—ethnic background—was recoded into two categories—the Asian, African American, Caucasian and other race/ethnicity categories were recoded to non-Hispanic/Latino". Recoding was done to prevent making an error by rejecting the null hypothesis when in fact it is true. The ethnic background variable maintained its independence for this test and the patient satisfaction items were treated as dependent variables. In addition, the 23 subscales that measure the six patient satisfaction dimensions were collapsed into three categories.

The chi-square test of independence was used to determine whether there was a difference between the responses or outcomes when ethnic backgrounds of the subjects were cross-classified with the survey items. In determining if there was a difference, the statistical significance of the test was examined. For this test, if $p \leq .05$, the null hypothesis of no difference was not rejected.

Multivariate Analysis. Multivariate analysis was used to further investigate assertions on patient satisfaction. An analysis technique based on the logic of the elaboration paradigm was used to further explore the previously determined significant bivariate relationships. The elaboration techniques (process) also served three primary goals in the data analysis (Babbie, 1998; Frankfort-Nachmias and Leon-Guerrero, 2006):

1. To test the relationships for nonspuriousness.
2. To clarify the causal sequence of the bivariate relationship.
3. To specify the different conditions under which the original bivariate relationship might hold.

Logistic regression was used to estimate and test the influence of the ancillary barriers on the subjects' responses across the six satisfaction dimensions. In order to perform this test, the dependent variable "ethnic background" was dummy-coded to "0" for Hispanics/Latinos and "1" for non-Hispanics/Latinos. All of the variables for each of the six dimensions were restructured to form six indicators with each having one total score.

Nonparametric Analysis. Since the data is categorical, nonparametric statistics were used to examine the differences between the ethnic groups and their responses to the satisfaction measures. The Kolmogorov-Smirnov (K-S) Test was used to determine if the set of satisfaction measures differed significantly from a normal distribution. The K-S z score and the probability value were used to determine normality of the set of measures. Next, the Mann-Whitney Rank-Sum Test was used to compare the responses from Hispanics/Latinos and non-Hispanics/Latinos on the six satisfaction dimensions to determine if there was a significant difference between the groups on the ranks of their scores. Last, the Kruskal-Wallis Test was used to compare medians between all three ethnic groups. For the Mann-Whitney Rank-Sum and Kruskal-Wallis Tests, statistical significance was determined if $p \leq .05$.

Open-ended Questions and Interview Protocol. Various methods to analyze the open-ended questions and interview protocol were used to analyze responses. These methods consisted of organizing the data; generating categories, themes, and patterns; and coding the data. To generate categories, themes and patterns a "constant comparative method" was utilized incorporating two analytic subprocesses—unitizing and categorizing (Rudestam and Newton, 2001). Unitizing the data required certain information units (those pertinent to further explanation of any of the survey questions) to be isolated from the text. Next, information derived from the unitizing subprocess was organized into categories based on the similarity in meaning.

Summary

This chapter has explained the methods used in this quantitative/qualitative study to measure satisfaction of Hispanics/Latinos, and compare it to that of African Americans and Caucasians with health care services provided by Chesterfield County's Health Department. The chapter examined the subjects, a description of how and why the respondents were selected, measurement of critical variables, and the procedures for data collection and analysis. The next chapter presents the results obtained with the methods discussed throughout this chapter.

CHAPTER 4

FINDINGS

The statistical analyses reported in this chapter examined in detail the perceptions of the patients that receive services from the Chesterfield County Health Department and how satisfied the patients are with these services. Combinations of quantitative and qualitative methods were utilized to seek convergence on the results. Descriptive statistics are presented first and follows the order questions were asked on the survey with one exception, the analysis of the satisfaction variables are presented last. Next, the results of the data reduction are presented. This is followed by analysis of the data using various statistical techniques—crosstabulations, elaboration, logistic regression, Kolmogorov-Smirnov One Sample, Kruskal-Wallis, and Mann Whitney Tests. The analysis of the responses to the open-ended survey questions is presented after the descriptive statistics and the analysis of the structured interviews is presented after the results of the inferential statistical tests.

Data Summary Analysis

Univariate Analysis

Demographics of the Sample. Demographic statistics for the 228 respondents that participated in the study are presented in Table 7, page 118. Results revealed that more than half of all respondents are female 25 or younger, single with children, have completed high school--with some reporting more advanced education, and had lived in

Table 7

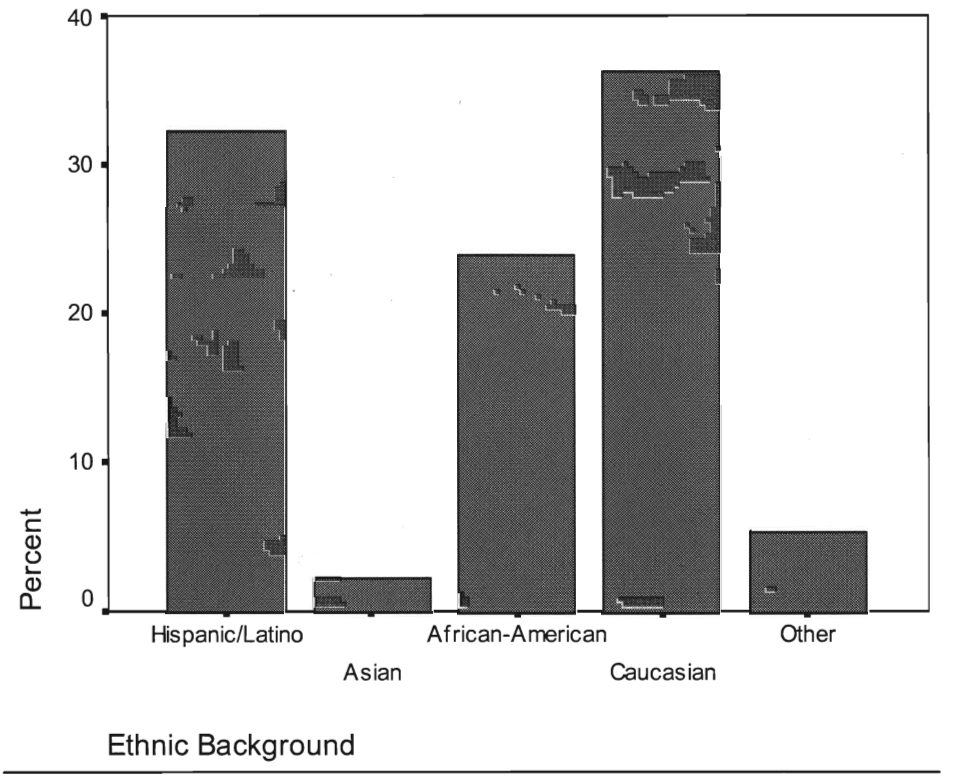
Respondent Demographic Characteristics

	Frequency	Percent
Sex		
Male	24	10.6
Female	200	89.4
Age		
25 or younger	180	80.7
26 or older	43	19.3
Highest Level of School		
Less than high school	53	23.7
High school or more	171	76.3
Total Household Income		
$19,000 or less	134	64.1
$20,000 or more	75	35.9
Marital Status		
Married	79	36.1
Not married	140	63.9
Have Children		
Yes	157	72.4
No	60	27.6
Residency		
5 years or less	114	51.8
6 years or more	106	48.2

the county five years or less. Most reported earnings of $19,000 or less. Subjects identified their ethnic background, as shown in Figure 12, as Hispanics/Latinos (31.7%), Asian (2.2%), African Americans (23.5%), Caucasian (35.7%), and Other (5.2%--African, African American/Caucasian, American Indian, Asian/Indian, Indian/German).

Figure 12

Respondent's Ethnic Background



Demographics of the Sample by Race/Ethnicity. Demographic statistics were further analyzed by race/ethnicity and results are presented in Table 8, page 119. The data in

this study confirms the preventive and primary care health-seeking behaviors of Hispanics/Latinos noted in previous studies (Decision 200 Campaign, 2000; Zuvekas,

Table 8

Respondent Demographic Characteristics by Ethnic Background

	Hispanics/Latinos		Asians		African Americans		Caucasians		Other	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Sex										
Male	11	15.1	1	20	6	11.3	4	4.9	2	16.7
Female	62	84.9	4	80	47	88.7	77	95.1	10	83.3
Age										
25 or Younger	30	41.7	3	60	23	43.4	35	43.2	7	58.3
26 or older	36	50	2	40	20	37.7	26	32.1	5	41.7
Highest Level of School										
Less than high school	26	35.6	-	-	14	26.4	25	30.9	-	-
High school or more	6	8.2	5	100	47	32.1	16	19.8	12	100
Total Household Income										
$19,000 or less	28	43.8	4	100	10	20	10	12.5	7	63.6
$20,000 or more	4	6.3	-	-	17	34	33	41.3	4	35.4
Marital Status										
Married	32	45.7	2	40	10	19.2	30	37.5	5	41.7
Not married	24	34.3	3	60	32	61.5	34	42.5	7	58.3
Have Children										
No	14	20	2	40	17	33.3	24	30.4	10	83.3
Yes	56	80	3	60	34	66.7	55	69.6	2	16.7
Residency										
Less than five years	37	52.1	2	50	22	42.3	12	14.8	7	58.3
Five years or more	9	12.7	2	50	13	25	45	55.6	5	41.7

1994). Of the ethnic groups represented in this study, females were more likely to seek care than males by extremely lopsided percentages. Nevertheless, Hispanic/Latino males tended to seek services more frequently than men of other races or ethnic groups.

Research examining the U.S. population as a whole, revealed the median age for Hispanics/Latinos is 25 and for non-Hispanics/Latinos is 36 (U.S. Bureau of the Census, 2000). Results of this study revealed more Asians, African Americans, Caucasians, and other ethnicities reported they were 25 or younger. There was only a slight difference between the two age categories for Hispanics/Latinos—approximately 42% reported being 25 or younger and 50% reported being 26 or older. This difference among the reported age categories, in most cases, indicates that Hispanics/Latinos receiving services at the Health Department are either first generation--median age 34--or third generation--median age 24 (Suro, et al., 2005). First generation Hispanics/Latinos generally are those that were born in a foreign country and immigrated to the United States. Third generation Hispanics/Latinos are those that were born to two U.S. born parents. However, results have also shown that the majority of the Hispanics/Latinos receiving services at the Health Department were born in Mexico and more than 50% reported living in the county five years or less.

Of the survey respondents, Hispanics/Latinos reported a lower educational attainment when compared to African Americans and Caucasians. Also consistent with the literature, a large percentage of Hispanics/Latinos reported incomes of $19,000 or less. Population research has shown that 22.5% of Hispanics/Latinos in the U.S. are living below the poverty line compared to 24.4% of African Americans and 8.2% of Caucasians (Suro, et. al., 2005). Due to their youth and educational level, most Hispanic/Latino workers are concentrated in low-skill jobs which might not afford them the opportunity to have health benefits. In addition, most are undocumented and lack

labor market experience. Foreign-born Hispanics/Latinos earn about $200 per week less than Caucasians and $75 per week less than African Americans (Suro, et. al, 2005).

Survey Data. Descriptive statistics were used to describe and summarize the data collected on the survey questions. The mode and/or median were used to describe the typical responses due to the wide variance among the numeric responses, or in instances where the data was either bimodal or multimodal. A discussion of the results of the responses can be found on page 119. A discussion of the general information collected on the survey follows.

Visits to the Health Department. Table 9 reflects that there was only a slight difference Hispanics/Latinos (80%) and non-Hispanic-Latinos (82.9%) that stated this was not the first time they had visited the Health Department. Table 10, page 123, reflects for those had visited the clinic before, 67.6% of Hispanics/Latinos had

Table 9

First Visit to the Health Health Department

	Hispanic/Latino		Non-Hispanic/Latino	
	No.	**Percent**	**No.**	**Percent**
Yes	14	20	26	17.1
No	56	80	126	82.9

visited the clinic five times or less, compared to 86.7% of non-Hispanics/Latinos. Of all the services received during these visits, 43.5% were for medical services. Figure 13, page 123, shows that of the available medical services, most respondents were seen

for maternity reasons and pregnancy testing. This is not consistent with previous research. For example in a study conducted in Chattanooga, Tennessee, Hispanic/Latina women experienced twelve or more pregnancies without ever receiving

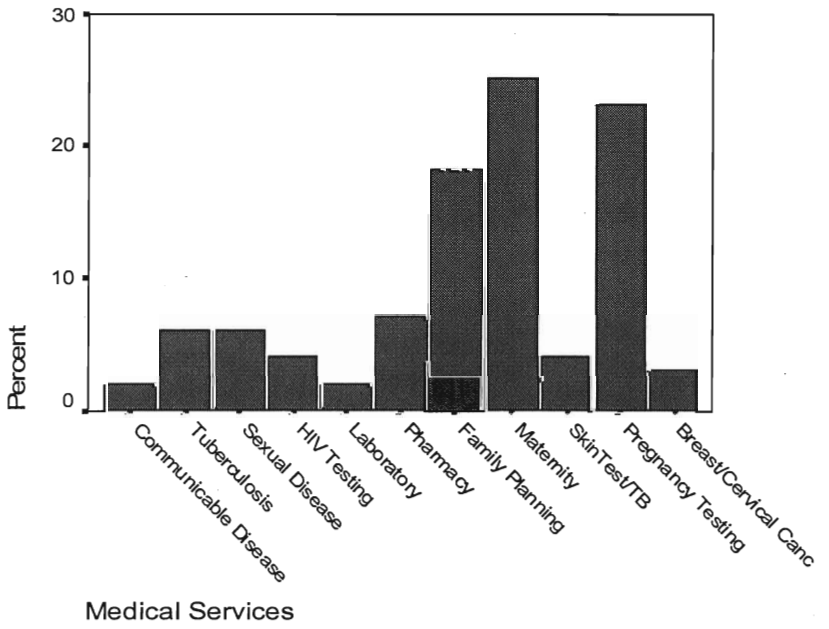
Table 10

Number of Visits by Respondents to the Health Department

	Hispanic/Latino		Non-Hispanic/Latino	
	No. of Visits	**Percent**	**No. of Visits**	**Percent**
0 – 5	25	67.6	91	86.7
6 – 10	11	29.7	10	9.5
11 or more	1	2.7	4	3.8

Figure 13

Medical Services Received by Patients of the Health Department



prenatal care (McLaughlin, 1999). Existing research on utilization-based measures of health care quality, more often than not, indicates that Hispanics/Latinos and other minority groups are less likely to receive recommended care, e.g., prenatal care, than Caucasians (Bethell, et. al, 2003).

Reasonableness of the Waiting Time to Receive a Service. Figure 14 reflects 31.7% of the respondents reported waiting 10 minutes or less to receive a service. In a follow-up question that asked if the waiting time was reasonable, results in

Figure 14

Time Waited to Receive Services at Chesterfield County's Health Department

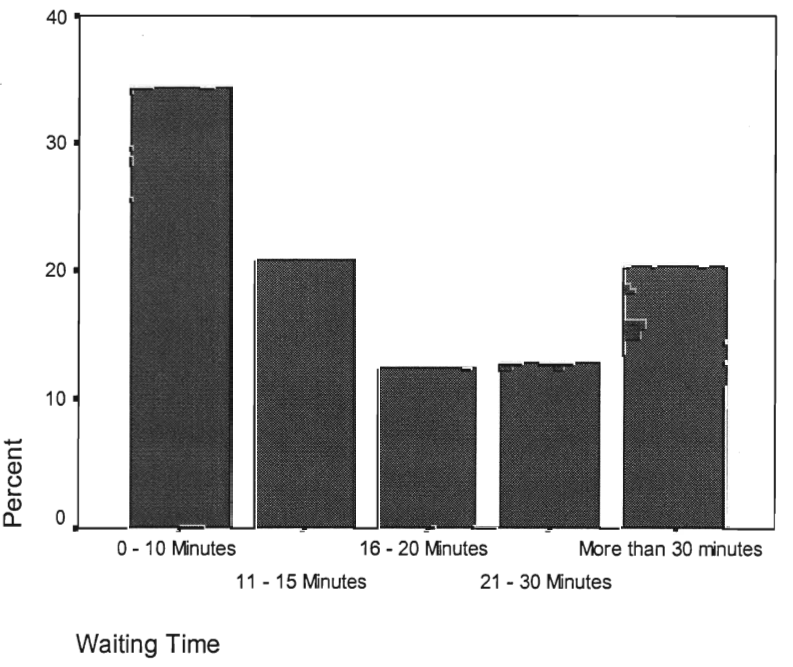


Table 11 reflects that more Hispanics/Latinos felt the waiting time was reasonable. According to the literature, Hispanics/Latinos can be considered present-oriented and this cultural value translates into often being late for appointments or in misperceiving the length of time spent at a task. In addition, for first-generation Hispanics/Latinos medical care may not have been available or may not have existed in

Table 11

Reasonableness of the Time Waited to Receive a Service by Race/Ethnicity

Waiting Time Reasonable	Race/Ethnicity Hispanic/ Latino	Race/Ethnicity Non-Hispanic/ Latino
Yes	63 90%	111 77.1%
No	7 10%	33 22.9%

Responses to Questions Pertaining to Services Received. Results in Table 12, page 126, indicated Hispanics/Latinos and non-Hispanics/Latinos all had questions about the services they received. Almost all reported they received instructions in their native language, and they were all aware of the services available at the Health Department. These findings are not consistent with much of the research on Hispanic/Latino health services. While research has been limited in nontraditional states, there have been a few case studies undertaken to investigate this phenomenon. In most instances, service providers have had great difficulty in reaching the Hispanic/Latino population. In

Table 12

Responses to Questions Pertaining to Services Received by Race/Ethnicity

Questions about Services	Race/Ethnicity Hispanic/ Latino	Non-Hispanic/ Latino
Yes	63	111
	90%	77.1%
No	7	33
	10%	22.9%
Provided with Instructions in the Native Language		
Yes	60	121
	87%	85.8%
No	9	20
	13%	14.2%
Awareness of the Services Offered		
Yes	54	111
	78.3%	75.5%
No	15	36
	21.7%	24.5%

other instances, one overarching issue has been the language barrier. Most studies recommend that coalitions be formed, such as those that were formed in Chesterfield County, to study the needs of the area's Hispanic/Latino community, how the current health care system can meet those needs, and what can be done to change the current situation (Online Athens, 2000).

Satisfaction with Health Services. Questions pertaining to satisfaction with the Health Department services are presented in Table 13. Satisfaction is reported by dimension.

Table 13
Satisfaction with Health Department Services

Satisfaction Measure	Strongly Agree No.	%	Agree No.	%	Neutral No.	%	Disagree No.	%	Strongly Disagree No.	%
Staff Reliability										
Prompt service	65	28.3	98	42.6	37	16.1	16	7.0	7	3.0
Willingness to help patients	78	33.9	100	43.5	29	12.6	7	3.0	5	2.2
Receive quality care	96	41.7	102	44.3	17	7.4	3	1.3	4	1.7
Staff Responsiveness										
Questions answered	96	41.7	102	44.3	17	7.4	3	1.3	4	1.7
Advice on health care	76	33.9	92	40.0	31	13.5	11	4.8	4	1.7
Medications were explained	79	34.3	77	33.5	40	17.4	8	3.5	3	1.3
Medical procedures were explained	85	37.0	89	38.7	26	11.3	6	2.6	5	2.2
Reminded to seek preventive care	76	33.0	88	38.3	36	15.7	7	3.0	4	1.7
Staff Courtesy										
Staff were friendly	88	38.3	93	40.4	24	10.4	10	4.3	5	2.2
Receptionist/office staff were courteous	78	33.9	100	43.5	27	11.7	6	2.6	6	2.6
Medical staff were friendly	96	41.7	97	42.2	16	7.0	6	2.6	2	0.9
Medical staff were courteous	91	39.6	98	42.6	17	7.4	5	2.2	3	1.3
Medical staff made visit comfortable and pleasant	93	40.4	89	38.7	27	11.7	6	2.6	2	0.9
Staff Communication										
Medical staff was able to communicate with me	101	43.9	98	42.6	12	5.2	2	0.9	5	2.2
Receptionist/office staff were able to communicate with me	100	43.5	95	41.3	12	5.2	7	3.0	4	1.7
Medical staff listened to what I had to say	103	44.8	92	40.0	15	6.5	3	1.3	3	1.3
Receptionist/office staff listened to what I had to say	98	42.6	92	40.0	17	7.4	6	2.6	5	2.2
Access to Health Department Services										
Hours of operation are convenient	80	34.8	96	41.7	23	10.0	15	6.5	4	1.7
Health Department is conveniently located	76	33.0	106	46.1	26	11.3	3	1.3	7	3.0
Like the ability to receive services in one location	101	43.9	92	40.0	16	7.0	2	0.9	5	2.2
Ability to reach the Health Department by phone	70	30.4	94	40.9	26	11.3	18	7.8	9	3.9
Health Department Facilities										
Waiting rooms	41	17.8	65		66	28.7	30	13.0	12	5.2
Treatment rooms	48	20.9	60	26.1	76	33.0	17	7.4	2	0.9

Note. Missing values were not reported because the values varied for each question.

Combining the strongly agree and agree categories, results indicate respondents that received services at the Health Department were most satisfied with the following:

- *Staff Reliability* – 86% of the respondents were satisfied with the quality of care they receive
- *Staff Responsiveness* – 86% of the respondents were satisfied that all of their questions about the service(s) they received were answered
- *Staff Courtesy* – 84% of the respondents reported that the medical staff was friendly

- *Staff Communication* – 87% of the respondents reported that the medical staff was able to communicate with them

- *Access to Health Department Services* – 84% of the respondents liked receiving their services in one location

- *Health Department Facilities* – Satisfaction with the Health Department Facilities were mixed--47% of the respondents were dissatisfied with the waiting rooms while 46% were satisfied. For the treatment rooms, 47% of the respondents were satisfied with the treatment rooms and 41% were not.

Miscellaneous Patient Information. In addition to soliciting a respondent's ethnic background, the respondent was also asked to list their country of birth. Data collected for this question was analyzed according to whether a respondent was Hispanic/Latino or non-Hispanic/Latino. Results in Table 14, page 129, reveal that more Hispanics/Latinos were born in Mexico with only a small percentage of Hispanics/Latinos listing the United States as their country of birth.

Ability to Speak English. Table 15, page 129, reflects that more than one-half of Hispanics/Latinos were not able to speak English very well. However, 21.3% of the Hispanics/Latinos respondents indicated an interpreter was available. In contrast, almost all non-Hispanics/Latinos reported they spoke English very well.

Table 14

Respondents Country of Birth

Country	Hispanic/Latino Responses Number	Percent	Non-Hispanic/Latino Responses Number	Percent
Brazil	1	1.9		
Cambodia	1	1.9		
Colombia	1	1.9		
Costa Rica	1	1.9		
Ecuador	1	1.9		
El Salvador	6	11.5		
Germany			2	1.3
Guatemala	8	15.4		
Honduras	4	7.7		
India			3	1.9
Jamaica			1	0.6
Korea			1	0.6
Mexico	19	36.5		
Nigeria			2	1.3
Paraguay	2	3.8		
Puerto Rico	2	3.8		
Trinidad	1	1.9		
Turkey			1	0.6
USA	4	7.7	142	91.6
Venezuela	1	1.9		
Vietnam			1	0.6

Table 15

Respondents' Ability to Speak English

Ability to Speak English	Race/Ethnicity Hispanic/ Latino	Non-Hispanic/ Latino
Very Well	25 34.7%	151 98.7%
Not Very Well	47 65.3%	2 1.3%

Transportation. Literature has suggested that one of the ancillary barriers to health care for Hispanics/Latinos is transportation. In most urban areas, this does not seem to promote a problem due to the availability of public transportation. However, in some non-traditional suburban areas, public transportation generally is nonexistent. This may not always pose a problem for Hispanics/Latinos. One of their cultural specific values—familism or *familismo* includes three types of value orientations with one being reliance on relatives for help and support (Clutter and Nieto, 2001; Delgado, 2001). This may not be an issue for the Hispanics/Latinos that reside in Chesterfield. As Table 16 indicates more than 60% of Hispanics/Latinos, and more than the majority of non-Hispanics/Latinos, have their own vehicle.

Table 16

Respondents' Mode of Transportation

Type of Transportation	Race/Ethnicity	
	Hispanic/ Latino	Non-Hispanic/ Latino
My Own Vehicle	43 60.6%	111 76.5%
Other Transportation	28 39.4%	36 23.5%

Encourage Others to Use Health Department Services. Table 17, page 131, reflects results were almost equal for this category. Hispanics/Latinos and non-Hispanics/Latinos reported they would encourage others to use the Health Department

services. Previous research has revealed that "trust" is one concern that has to be addressed when working with the Hispanic/Latino community. One way to gain trust in the provision of services is by word-of-mouth. Hispanics/Latinos have a general distrust of anything or anyone affiliated with the "government". This stems primarily from their experiences with governments in their countries of birth. To gain trust, a few members of an enclave are selected to test the service and report the results. If the experience is a positive one, then others will try it (Marin and Marin, 1991).

Table 17

Encourage Others to use Health Department Services By Race/Ethnicity

	Race/Ethnicity	
Encourage Others	**Hispanic/ Latino**	**Non-Hispanic/ Latino**
Yes	67 98.5%	140 94%
No	1 1.5%	9 6%

Additional Comments - Responses to the Open-Ended Question. Survey respondents were asked if they wanted to share anything else pertaining to their visit. Table 18, page 132, reflects there were only a few recurring themes (a detailed list of responses can be found in Appendix I) identified in these results (results were compiled for Hispanics/Latinos and non-Hispanics/Latinos). For Hispanics/Latinos, the most frequent theme was "the excellent service" they received (17.1%). For non-

Hispanics/Latinos, the most frequent comment pertained to the comfortableness of the visit and friendliness of the staff (9.1%).

Table 18

Additional Comments about the Visit to the Health Department

Response	Hispanic/ Latinos		Non-Hispanic/ Latinos	
	No.	Percent	No.	Percent
The staff at the Health Department always seems to be helpful with any questions or problems that I may have	3	7.3	2	3.6
I feel that there should be more services provided for patients making it easier and on time.	-	-	3	5.5
I am pleased that the staff handles situations with professionalism and quickness.	-	-	2	3.6
My visit here is very comfortable, I can ask questions of the staff and they are very friendly	3	7.3	5	9.1
This is my first visit and the service was excellent.	7	17.1	-	-
It was much better than previous clinics I have visited.	2	4.9	2	3.6

Factor Analysis. Factor analysis was used for data reduction. A principal components analysis was conducted on the 23-item scale to test for unidimensionality and to develop the most parsimonious set of variables to include in the analytic techniques used in the analysis (Hair, Anderson, Tatham, and Black, 1998). Factor loadings are shown in Table 19, page 133.

The 23 items of the satisfaction scale were subjected to principal components analysis (PCA) using SPSS. Prior to performing PCA, the suitability of data for factor

Table 19

Direct Oblimin Rotation of Two Factor Solution for Satisfaction Items

Item	Component 1	Component 2
Staff Reliability		
Prompt service	.352	.681
Willingness to help patients	.450	.635
Receive quality care	.541	.556
Staff Responsiveness		
Questions answered	.515	.544
Advice on health care		.824
Medications were explained		.768
Medical procedures were explained	.334	.719
Reminded to seek preventive care		.816
Staff Courtesy		
Staff were friendly	.781	
Receptionist/office staff were courteous	.823	
Medical staff were friendly	.816	.309
Medical staff were courteous	.811	
Medical staff made visit comfortable and pleasant	.763	.412
Staff Communication		
Medical staff was able to communicate with me	.741	
Receptionist/office staff were able to communicate with me	.818	
Medical staff listened to what I had to say	.795	.374
Receptionist/office staff listened to what I had to say	.802	.319
Access to Health Department Services		
Hours of operation are convenient	.340	.536
Health Department is conveniently located	.544	.340
Like the ability to receive services in one location	.517	.456
Ability to reach the Health Department by phone	.379	.579
Health Department Facilities		
Waiting Rooms		.546
Treatment rooms		.659
Percent of variance explained	33.6	28

analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients with a value of .3 and above. The Kaiser-Meyer-Oklin Measure of Sampling Adequacy (KMO) value was .93, exceeding the recommended value of .6 (Kaiser, 1970 and 1974); the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance—p = .000--supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of four components with eigenvalues exceeding 1, explaining 53%, 8.5%, 6.9%, and 4.4% of the variance respectively. An inspection of the screeplot revealed a clear break after the second component. Using Catell's (1966) scree test, it was decided to retain two components for further investigation. To aid in the interpretation of these two components, Varimax Rotation was performed. The rotated solution revealed the presence of simple structure (Thurstone, 1947), with both components showing a number of strong loadings, > .3, on only both components. The two component solution explained a total of 61.6% of the variance, with Component 1 contributing 33.6% and Component 2 contributing 28%. These results indicated the items have excellent face validity and would appear to be measuring their purported construct. Thus, based on the results of the analysis, the investigator chose to retain all of the satisfaction measures for the study.

Bivariate Analysis

Relationship between Ethnic Backgrounds and the Satisfaction Variables. Central to this analysis is the examination of satisfaction with Health Department services by ethnic background. Ethnic background was crosstabulated with all of the satisfaction

variables to determine if there were any statistically significant relationships and to determine if there were prevalent differences in satisfaction across the various racial/ethnic groups. Results of the crosstabulations, where the expected value was greater than 1.0 and more than 20% of the cells had expected values greater than 5, are not reported. This investigation sought to answer the following three questions (Frankfort-Nachmias and Leon-Guerrero, 2006):

1. Does there appear to be a relationship?
2. How strong is it?
3. What is the effect of the relationship?

Table 20, page 136, presents results of the bivariate tests and the analysis was guided by the following research question and hypothesis: How satisfied are Hispanics/Latinos, when compared to other race/ethnicities, with health services provided by Chesterfield County's Health Department?

H_0: There is no significant difference in the level of satisfaction with services provided by the Health Department among the various racial/ethnic groups.

Of the six dimensions of satisfaction, only one--staff reliability--contained a significant relationship. Staff reliability was measured by three items with only one resulting in a significant relationship—the Health Department staff gives prompt service to patients. Results in Table 20, page 136, revealed more Hispanics/Latinos were satisfied with the prompt service provided by the Health Department than non-Hispanics/Latinos. Conversely, non-Hispanics/Latinos showed a higher rate of dissatisfaction with the promptness of the service than Hispanics/Latinos. Literature on patient satisfaction

with health services by race/ethnicity indicates patients that seek services in public health facilities have registered complaints with providers about the length of time it takes to receive a service. In addition, previous findings have shown that Hispanics/Latinos have a lower level of satisfaction with the length of time it takes to receive services than non-Hispanics/Latinos (Morales, et al., 2001). Results of the chi-square analysis ($x^2 = 8.995$, df = 2, p = .011) reflected that a significant relationship exists between ethnic background and satisfaction with prompt service. The relationship between ethnic background and prompt service provided by the Health

Table 20

Satisfaction with Prompt Service Provided to Patients by Ethnic Background

	Ethnic Background	
Prompt Service Provided to Patients	**Hispanic/ Latino**	**Non-Hispanic/Latino**
Agree	57 82.6%	104 69.3%
Neutral	11 15.9%	24 16%
Disagree	1 1.4%	22 14.7%

Note. n = 219
Chi-square = 8.995, df = 2, p = .011
Gamma = .385

Department staff is strong which means that ethnic background is a good predictor of satisfaction with prompt service and these results can be generalized from the sample to

the population. Thus, the null hypothesis of no significant difference in the level of satisfaction is rejected.

Multivariate Analysis. Results of the bivariate analysis suggested that multivariate models were needed to further assess the relationship that was found to be statistically significant. An elaboration process was used to interpret and understand the nature of the existing relationships. In addition, Logistic regression analyses were performed to determine if the ancillary barriers (e.g., transportation, waiting times for appointments, language) had an effect on a patient's satisfaction with health services.

Elaboration. Elaboration is a process designed to further explore a bivariate relationship that involves the introduction of additional variables, called control variables (Nachmias and Guerrero, 2006). Ethnic background was used as the control variable and the following independent variables were used as predictors: sex, age, education, income, marital status, children, ability to speak English, residency, transportation, and encourage others to use Health Department services. The results of this process revealed that by controlling for all of the additional independent variables, the bivariate relationship under consideration was affected in only one instance. The analysis was guided by the following hypothesis:

H_0: There is not a relationship between the set of independent predictor variables and prompt service when controlling for ethnic background.

Results in Table 21, page 138, reveal that the relationship between length of residency and prompt service provided to patients is affected by introduction of the

control variable "ethnic background." As expected, Hispanics/Latinos that have lived in Chesterfield County six years or more are more satisfied with the prompt service they receive than those that have lived in the county five years or less. Conversely, for non-Hispanics/Latinos that have lived in Chesterfield County five years or less, they are more satisfied with the prompt service received.

Table 21

Relationship between Length of Residency and Prompt Service After Controlling for Ethnic Background

Prompt Service by Staff		Length of Residency 5 Years or Less	Length of Residency 6 Years or More
Hispanic/Latino	Agree	40 81.6%	16 84.2%
	Neutral	9 18.4%	2 10.5%
	Disagree	-	1 5.3%
Non-Hispanic/Latino	Agree	48 77.4%	54 64.3%
	Neutral	12 19.4%	12 14.3%
	Disagree	2 3.2%	18 21.4%

Note. n = 146
Hispanics/Latinos - Chi-square (x^2) = 3.110, p = .211; Gamma = -.055, p = .876
Non-Hispanics/Latinos - Chi-square(x^2) = .007; Gamma = .360, p = .022

As reported earlier, research has shown that Hispanics/Latinos are less satisfied with the services they receive than any other race/ethnicity. However, the results

clearly do not support findings of previous research studies. Results of the chi-square analysis revealed that when controlling for ethnic background, a significant relationship was found for non-Hispanics/Latinos (x^2 = 10.066, df = 2, p = .007). This indicates that residency is a good predictor of satisfaction with prompt service for non-Hispanics/Latinos and is further evidenced by the strength of the association (gamma = .360, p = .022). However, the opposite is true for Hispanics/Latinos. Results of the chi-square analysis (x^2 = 3.110, df = 2, p = .211) indicates that the relationship is not significant. Thus, these results can only be generalized for the non-Hispanic/Latino sample to the population and therefore, the null hypothesis is not rejected.

Logistic Regression. Theory has suggested that there are several ancillary barriers (e.g., transportation, waiting times for appointments, language) that have an impact on a patient's satisfaction with health services. To determine whether the ancillary barriers explained any additional variance beyond race/ethnicity and sex, logistic regression analyses were performed to predict the presence/absence of characteristics or outcomes based on values of the predictor variables. For this test, the dependent variables—staff responsiveness, staff courtesy, and access to Health Department services—were used due to the fact that it was previous research determined that there was a significant relationship between these variables and ethnic background. The dependent variable, access to Health Department services was tested based on the literature review. The hypothesis that guided the conduct of this test is as follows:

H_0: The set of predictor variables—transportation, waiting times for appointments, sex and ability to speak English does not explain additional variance beyond race/ethnicity on the level of satisfaction with staff responsiveness, staff courtesy, and access to Health Department Services.

Staff Responsiveness. Results of the logistic regression analysis presented in Table 22 reveals that in Block 1, ethnic background is a statistically significant predictor of satisfaction with staff responsiveness, Wald = 17.083, p = .000. Likewise the test of the overall model is statistically significant, LR chi-squared – 20.296, p = .000. In Block 2, the set of predictors—sex, ability to speak English, transportation, waiting time—does not explain additional variance beyond race on the

Table 22

Model Summary of Logistic Regression for Staff Responsiveness

Block	Step	Predicted Overall Percentage	Model Chi-square Statistic	df	Sig.	Variables	Hosmer and Lemeshow Goodness-of-Fit Test (Sig.)	Wald	df	Sig.
0	0	83.4				Constant		63.207	1	.000
1	Step	83.4	20.296	2	.000	Ethnic Background	.913	17.083	1	.000
	Block		20.296	2	.000	Sex		.796	1	.372
	Model		20.296	2	.000					
2	Step	84.6	1.791	3	.617	Ethnic Background	.732	6.274	1	.012
	Block		1.791	3	.617	Sex		1.263	1	.261
	Model		22.088	5	.001	Speak English		.198	1	.656
						Transportation		1.100	1	.294
						Waiting Time		.615	1	.433
						Constant		.022	1	.882

level of satisfaction with staff responsiveness. For all the predictor variables, $p > .05$. The overall model reflects a LR chi-squared = 22.088, and $p = .001$. Thus, the null hypothesis is rejected.

Staff Courtesy. Results of the logistic regression analysis presented in Table 23 reveals that in Block 1, ethnic background is a statistically significant predictor of satisfaction with staff responsiveness, Wald = 8.973, $p = .003$. Likewise the test of the overall model is statistically significant, LR chi-squared – 10.707, $p = .005$. In Block 2, the set of predictors—sex, ability to speak English, transportation, waiting time—does not explain additional variance beyond race on the level of satisfaction with staff responsiveness. For all of the predictor variables, $p > .05$.

Table 23

Model Summary Logistic Regression—Staff Courtesy

Block	Step	Predicted Overall Percentage	Model Chi-square Statistic	df	Sig.	Variables	B	S.E	Wald	df	Sig.
0	0	86.4				Constant	-1.850	.215	73.939	1	.000
1	Step	86.4	10.707	2	.005	Ethnic Background	-1.349	.450	8.973	1	.003
	Block		10.707	2	.005	Sex	-.478	.587	.665	1	.415
	Model		10.707	2	.005						
2	Step	86.4	4.301	3	.231	Ethnic Background	-.540	.719	.564	1	.453
	Block		4.301	3	.231	Sex	-.469	.604	.602	1	.438
	Model		15.009	5	.010	Speak English	1.118	.712	2.466	1	.116
						Transportation	.205	.482	.181	1	.671
						Waiting Time	-.707	.677	1.089	1	.297
						Constant	-1.005	1.211	.688	1	.407

The overall model reflects a LR chi-squared = 15.009, and p = .010. Thus, the null hypothesis is rejected.

Access to Health Department Services. Results of the logistic regression analysis presented in Table 24 reveals that in Block 1, race is not a statistically significant predictor of satisfaction with staff responsiveness, Wald = .241, p = .623. Likewise the test of the overall model is not statistically significant, LR chi-squared – 1.976, p = .372. In Block 2, the set of predictors—sex, ability to speak English, transportation, waiting time—does not explain additional variance beyond race on the level of satisfaction with access to Health Department services. For all of the predictor variables, p > .05 and the constant, race/ethnicity reflects p = .550. The

Table 24

Model Summary for Logistic Regression—Access to Services

Block	Step	Predicted Overall Percentage	Model Chi-square Statistic	df	Sig.	Variables	B	S.E	Wald	df	Sig.
	0	83.2				Constant	-1.596	.197	65.697	1	.000
1	Step	83.2	1.976	2	.372	Ethnic Background	.210	.427	.241	1	.623
	Block		1.976	2	.372	Sex	-.757	.532	2.027	1	.155
	Model		1.976	2	.372						
2	Step	83.2	1.350	3	.717	Ethnic Background	.379	.635	.357	1	.550
	Block		1.350	3	.717	Sex	-.823	.545	2.280	1	.131
	Model		3.326	5	.650	Speak English	.122	.715	.029	1	.864
						Transportation	.434	.434	.998	1	.318
						Waiting Time	.308	.489	.396	1	.529
						Constant	-.552	1.110	.247	1	.619

overall model reflects a LR chi-squared = 3.326, and p = .650. Thus, the null hypothesis is not rejected.

Nonparametric Analysis. To further explore the data in this analysis, nonparametric techniques were employed. The statistical model and measurement for this study did not meet the assumptions of the parametric tests--the observations were not independent, the observations were not drawn from normally distributed populations, the populations did not have the same variance, the data were not measured on an interval scale. Nonparametric tests, on the other hand, do not specify conditions about the parameters of the population from which a sample is drawn. These tests make assumptions about the data but they are fewer and much weaker than those associated with parametric tests. Moreover, nonparametric tests do not require measurement as strong as that required for the parametric tests—most nonparametric tests apply to data measured on either an ordinal or nominal scale (Siegel, 1956). For this analysis, the following nonparametric tests were used to further explore the categorical data in this study: Kolmogorov-Smirnov One-sample, Mann-Whitney Rank-Sum, Kruskal-Wallis H, and Friedman.

Kolmogorov-Smirnov One-Sample Test. The Kolmogorov-Smirnov one-sample test is a test of goodness-of-fit. That is, it is concerned with the degree of agreement between the distribution of a set of sample values (observed scores) and some specified theoretical distribution. It determines whether the scores in the sample can reasonably be thought to have come from a population having the same theoretical distribution (Siegel, 1956).

Since chi-square was used throughout the analysis, and this test makes no assumption about the underlying distribution of the data, the Kolmogorov-Smirnov test was used for comparative purposes and to determine normality of the satisfaction outcomes. The following hypothesis guided the test:

H_0: The distribution of satisfaction outcomes does not differ significantly from a normal distribution.

Results in Table 25 reflect that the Kolmogorov-Smirnov *z* indicates a range of probabilities from 1.208 to 9.787. The low significance value indicates that the distribution of final satisfaction scores differ significantly from normal. Therefore, data collected in the study can be analyzed using various nonparametric techniques. The null hypothesis is rejected.

Table 25

Kolmogorov-Smirnov One Sample Test Results

	K-S Z		
Distribution	**Low**	**High**	**2-tail Sig.**
Normal	2.760	4.253	.000
Uniform	4.443	9.787	.000
Poisson	1.208	2.789	.000
Exponential	4.963	6.645	.000

Mann-Whitney Rank-Sum Test. The Mann-Whitney Test is a nonparametric alternative to the independent-samples *t* test when a researcher wants to avoid the *t* test's assumptions or when the measurement in the research is weaker than interval

scaling. Like the *t* test, it tests the null hypothesis that two independent samples come from the same population. Rather than being based on parameters of a normal distribution like mean and variance, the statistics are based on ranks. The Mann-Whitney statistic, *U*, assesses whether the medians between two samples of observations are the same (Siegel, 1956; SPSS Base 10.0 Applications Guide, 1999).

To perform this test, respondents were grouped into two categories—Hispanics/Latinos and non-Hispanics/Latinos in order to determine if the two groups differed from each other based on ranked scores. The following hypothesis guided the analysis:

H_0: There is no difference between Hispanics/Latinos and non-Hispanics/Latinos on their level of satisfaction with staff reliability, responsiveness, courtesy, communication, access to Health Department services, and Health Department facilities.

Results in Table 26, page 146, indicate that the mean rank for Hispanics/Latinos is higher than the mean rank for non-Hispanics/Latinos indicating that Hispanic/Latino scores were higher than non-Hispanics/Latinos across two dimensions—staff responsiveness and staff courtesy. Since $p = .000$ in both of these cases, we can conclude that there is a difference between the scores for Hispanics/Latinos versus non-Hispanics/Latinos across two dimensions. Thus, the null hypothesis is rejected.

Table 26

Mann-Whitney Test Results

Satisfaction Dimension	Ethnic Background	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Staff Reliability	Hispanic/Latino	71	109.0	4899.0	-.478	.633
	Non-Hispanic/Latino	142	106.0			
Staff Responsiveness	Hispanic/Latino	59	114.85	2900.0	-4.517	.000
	Non-Hispanic/Latino	134	89.14			
Staff Courtesy	Hispanic/Latino	66	115.68	3618.0	-3.856	.000
	Non-Hispanic/Latino	137	95.41			
Staff Communication	Hispanic/Latino	73	101.81	4731.0	-.638	.524
	Non-Hispanic/Latino	132	103.66			
Access to Health Department Services	Hispanic/Latino	73	102.45	4777.5	-.158	.874
	Non-Hispanic/Latino	132	103.31			
Health Department Facilities	Hispanic/Latino	69	95.85	4198.5	-1.783	.075
	Non-Hispanic/Latino	135	105.9			

Kruskal-Wallis Test. The Kruskal-Wallis Test is a nonparametric version of the one-way analysis of variance for independent samples, calculated based on the sums of the ranks of the combined groups. It is an extremely useful test for deciding whether *k* independent samples are from different populations. Sample values almost invariably differ somewhat, and the question is whether the differences among the samples signify genuine population differences or whether they represent merely chance variations that are to be expected among several random samples from the same population. The technique tests the null hypothesis that the *k* samples come from the same population or

from identical populations with respect to averages. The test assumes that the variable under study has an underlying continuous distribution (Siegel, 1956; SPSS Base 10.0 Applications Guide, 1999).

This test was used primarily to determine whether the six satisfaction dimensions were related to each other and how they differed among Hispanics/Latinos and non-Hispanics/Latinos. The Kruskal-Wallis Test was performed based on the following hypothesis:

H_0: There is not a difference in satisfaction responses among Hispanics/Latinos and non-Hispanics/Latinos.

Results in Table 27, page 148, indicate that more non-Hispanic/Latino scores were <= median. The distribution of scores in two of the satisfaction dimensions—staff responsiveness and staff courtesy--did differ significantly from the predicted values. For staff responsiveness, chi-square (x^2) = 20.506, df = 1, p = .000. For staff courtesy, chi-square (x^2) = 14.944, df = 1, p = .000. The grand median overall is 1.0. However, each dimension deviates from approximately equal number of scores above and below the grand median indicating that some type of biasing factor might have been present for each section. Thus, the null hypothesis is rejected.

Table 27

Kruskal-Wallis Test Results

Satisfaction Dimension	Ethnic Background	> Median	<= Median	Chi-square	df	Sig.
Staff Reliability	Hispanic/Latino	16	55	.229	1	.765
	Non-Hispanic/Latino	28	114			
Staff Responsiveness	Hispanic/Latino	21	38	20.506	1	.000
	Non-Hispanic/Latino	12	122			
Staff Courtesy	Hispanic/Latino	18	48	14.944	1	.000
	Non-Hispanic/Latino	10	127			
Staff Communication	Hispanic/Latino	2	71	.409	1	.793
	Non-Hispanic/Latino	6	126			
Access to Health Department Services	Hispanic/Latino	11	62	.025	1	.966
	Non-Hispanic/Latino	21	111			
Health Department Facilities	Hispanic/Latino	7	62	2.523	1	.112
	Non-Hispanic/Latino	27	108			

Analysis of the Structured Interview

Results of the structured interview are presented below (a detailed list of responses can be found in Appendix J). Respondents were asked a set of seven structured questions to ascertain their perceptions of the Health Department and the services that are provided. Responses were coded by race/ethnicity and grouped into Hispanic/Latino and non-Hispanic/Latino responses for ease of comparison. Interview results are as follows:

- *Additional Services that could be offered by the Health Department* – More non-Hispanics/Latinos (50%) than Hispanics/Latinos (21.5%) did not know of any other services the Health Department should offer. More Hispanics/Latinos (51.9%) than non-Hispanics/Latinos (24.2%) felt the Health Department covers the basic needs of each citizen.
- *Changes and/or Improvements* - More Hispanics/Latinos (51.2%) than non-Hispanics/Latinos (29.6%) felt the Health Department did not need to make any changes and/or improvements. Only a few non-Hispanics/Latinos (20.4%) when compared to Hispanics/Latinos (7%) felt that the Health Department should improve the promptness of the service they provide.
- *Information Provided in the Native Language* – There was only a slight difference in responses between Hispanics/Latinos (92.7%) and non-Hispanics/Latinos (92.3%) when asked if they felt the Health Department provides enough information in their native language.
- *Bilingual Staff* – More non-Hispanics/Latinos (56.2%) than Hispanics/Latinos (40%) felt the Health Department does not need to hire more bilingual staff. For those that felt they did, Hispanic/Latino responses (55.5%) were higher than those of non-Hispanics/Latinos (31.3%).
- *Potential Health Department Locations* – More non-Hispanics/Latinos (33.8%) than Hispanics/Latinos (27.7%) felt the Health Department

should have more than one location. When asked what area of the county would they prefer an annex of the Health Department to be located, more Hispanics/Latinos (53.2%) than non-Hispanics/Latinos (34.5%) responded the Health Department should have a location in the western end of the county.

- *Days and Times of Operation* – More non-Hispanics/Latinos (39.6%) than Hispanics/Latinos (34%) felt the Health Department should not extend its hours and/or days of operation. Of those that felt the days and times of operation should be extended, 29.8% of the Hispanics/Latinos and 23% of the non-Hispanics/Latinos felt the Health Department should extend its hours and/or days of operation.
- *Quality Service* – More Hispanics/Latinos (93.6%) than non-Hispanics/Latinos (87%) felt they receive quality service from the Health Department.

CHAPTER 5

DISCUSSION

This study examined a satisfaction with services scale for equivalence among three racial/ethnic groups within Chesterfield County, Virginia. The scale met the objective of the study which was to develop a simple and reliable instrument to collect information that described the characteristics of the Health Department's patients, the services they receive, their perception of the Health Department and the available services, and their level of satisfaction with the services provided.

Since this was the first time a study of this type had been conducted, the director of the Health Department requested the study be expanded to include all races/ethnicities. Cronbach's Alpha was used to determine the reliability of the scale. Statistical analyses were used to examine relationships between the independent and dependent variables. The survey was administered to 228 patients that met the study criteria—received services at Chesterfield County's Health Department, and were 18 years of age or older. Overall, the responses were adequate to perform the statistical tests.

Summary of the Major Findings

This study examined differences between Hispanics/Latinos and non-Hispanics/Latinos across six dimensions of satisfaction: staff reliability, staff responsiveness, staff courtesy, staff communication, access to Health Department services, and Health Department facilities. It was found that ethnic background

influenced satisfaction with services across two dimensions—staff responsiveness and staff courtesy. However, there were noted differences in the measured levels of satisfaction across the various racial/ethnic groups. African Americans and Caucasians level of satisfaction with staff responsiveness 33.6% and 25.2% higher than Hispanic/Latinos. For staff courtesy, African Americans and Caucasians levels of satisfaction were 21.3% and 20.2% higher than Hispanics/Latinos. Details of the results are presented in Table 28.

Table 28

Overall Satisfaction with Health Department Services by Ethnic Background

	Hispanics/Latinos		African-Americans		Caucasians		Other		Chi-square
Satisfaction Dimension	SA / A	D / SD	SA / A	D / SD	SA / A	D / SD	SA / A	D / SD	Asymp. Sig. (2-tailed)
Staff Reliability	77.5%	22.5%	86.3%	13.7%	77.6%	22.4%	73.3%	26.7%	0.549
Staff Responsiveness	64.4%	35.6%	98.0%	2.0%	89.6%	10.4%	76.5%	23.5%	0.000
Staff Courtesy	72.7%	27.3%	94.0%	2.0%	92.9%	7.1%	88.2%	11.8%	0.002
Staff Communication	97.3%	2.7%	97.8%	2.2%	94.6%	5.4%	92.3%	7.7%	0.672
Access to Health Department Services	84.9%	15.1%	91.1%	8.9%	82.4%	17.6%	69.2%	30.8%	0.257
	Hispanics/Latinos		African-Americans		Caucasians		Other		
	E / VG	F / P	E / VG	F / P	E / VG	F / P	E / VG	F / P	
Health Department Facilities	89.9%	10.1%	75.6%	24.4%	80.3%	19.7%	92.9%	1.7%	0.138

Note. SA - Strongly Agree; A - Agree; D - Disagree; SD - Strongly Disagree
E - Excellent; VG - Very Good; G - Good; F - Fair; P - Poor

This study also found that valid comparisons among Hispanics/Latinos, African Americans, and Caucasians is possible despite the fact there was only a single statistically significant difference found across the 23 measures. More specifically, only one measure (prompt service) was statistically significant and resulted in Hispanics/Latinos scoring 5% to 18% higher than respondents of the other racial/ethnic

groups. Research has shown that Hispanics/Latinos can be considered present-oriented, and this cultural value translates into often being late for appointments, or in misperceiving the length of time spent at a task (Marín and Marín, 1991). In addition, since patients placed more emphasis on the length of time it takes to deliver a service, staff of the Health Department should pay particular attention to this measure.

Previous methodological studies of patient satisfaction survey questions have found evidence that Hispanics/Latinos, African Americans, and Caucasians may not respond similarly. Most studies have suggested that Hispanic/Latino satisfaction with health care services is lower, overall, than that of African Americans and Caucasians. However, results of the univariate analysis conducted for this study indicated a high rate of satisfaction across the various racial/ethnic groups. Research has shown that when an organization adopts cultural competency techniques (interpreter services, minority staff, cultural competency training, etc.), as the Chesterfield County Health Department has done to address the needs of its minority customers, the level of satisfaction with the services provided increases—especially for Hispanics/Latinos (O'Donnell and Giovanni, 1999).

Additional analyses were performed to determine if there was an indirect causal link between the following independent variables--sex, age, education, income, length of residency, marital status, children, ability to speak English, transportation, and encouraging others to use Health Department services--and the one measure—prompt service. Ethnic background was used as a control variable and introduced into the relationship and resulted in a statistical interaction between the dependent variable—

prompt service and the independent variable—length of residency. The relationship held for non-Hispanics/Latinos who had lived in the county five years or less.

Since the data was categorical, the response scores were further examined to determine the effect of differences among the two racial/ethnic groups. Results revealed there was a significant difference across two of the six satisfaction dimensions—staff responsiveness and staff courtesy--between Hispanics/Latinos and non-Hispanics/Latinos. This was further investigated using logistic regression analysis, and in both instances—staff responsiveness and staff courtesy--ethnic background was a significant predictor of satisfaction. In addition, it was found that the overall model for these two dimensions, using ethnic background as the control variable and the set of predictors (sex, ability to speak English, transportation, waiting time), were statistically significant.

Research has shown that satisfaction is generally believed to reflect the relationship between expectations and experience. Since it was unknown what the respondents expectations are of the Health Department, respondents were interviewed after completing the survey instrument. Results of the in-depth interview revealed that respondents were satisfied with the services that are currently provided by the Health Department, and overall, their perception is that they receive quality service.

Limitations of the Study

The Respondents. Chesterfield County's Health Department has taken a reactive approach to provide services to the newest members of its community. While

seemingly they are providing quality service, it was difficult to be certain that a good understanding of patient satisfaction, from the patient's perspective, was ascertained. First, was the service perceived as being satisfactory because it is available, and in most instances free? Or, was it perceived as satisfactory in comparison to the type of services received (or not received) in their homeland? In addition, in previous studies, it has been found that Hispanics/Latinos are more likely to respond "yes" to patient satisfaction questions than non-Hispanics/Latinos regardless of whether the question indicated greater satisfaction or dissatisfaction. Thus, the responses provide support for the contention that Hispanics/Latinos are prone to more acquiescent responses than non-Hispanics/Latinos, or are biased toward more favorable responses (Morales, Reise, and Hays, 2000).

As noted in the literature review, there was some difficulty encountered in trying to access the Hispanic/Latino research respondents. First, Hispanics/Latinos have a variety of dialects which can potentially cause errors in translation. Next, legitimacy had to be established within a very short period of time to reduce the misgiving of the respondents about the ultimate reason for the study. The most willing Hispanic/Latino respondents were those that had some command of the English language. Some Hispanic/Latina females that were accompanied by their spouses were not willing to take the survey. Most Hispanics/Latinos did not want to be interviewed in a public space—they preferred to be in a private place where they could not be heard.

To facilitate the survey and interview process, respondents had to be made aware that they would receive a gift for taking the time to complete the survey and

interview. For some, they had to examine the gift before deciding to participate. In addition, the area designated for the conduct of the study had to be festively decorated because the sterility of the environment caused reservations in determining whether to communicate with the investigator and/or survey volunteers. Also, the name of the institution had to be displayed to establish legitimacy for the conduct of the study. For Chesterfield County staff volunteers, for them to gain access to a Hispanic/Latino patient, they had to remove their work badges before they could approach a respondent.

Survey Instrument and Structured Interview. For all intentional purposes, the survey was designed to provide a more comprehensive approach for the assessment of customer satisfaction with health services. However, most patients complained of the time (generally from 15 – 25 minutes) it took to complete the survey. Because of this, most respondents did not want to be interviewed. For those that elected to be interviewed the investigator and volunteers, in some instances, found themselves rushing through the interview just to assure they could solicit a response.

Generalizability. Previous research has indicated that Hispanic/Latino satisfaction, overall, with health care services is lower than that of African Americans and Caucasians. However, results of this study did not support this theory. The study has shown that race/ethnicity is not a major determinant of satisfaction. While the relationship between ethnic background and prompt service can be impacted by intervening factors, results only indicated that the relationships were conditional. Thus, due to the low number of significant relationships between ethnic background and the measures of satisfaction, caution is taken in generalizing the results of Hispanic/Latino

satisfaction with services provided by Chesterfield County's Health Department to the larger population. In addition, Chesterfield County's Health Department is unaware if it is meeting the needs of the total Hispanic/Latino population living in the area. Generally, only those immigrants that are documented will seek services.

Threats to Internal Validity. There were several threats to the internal validity that had the potential to create bias in the survey responses. For respondent's that could not read or understand the question, the investigator would have to find ways to help the respondent understand how to respond to the questions. Some respondents had to be probed the survey questions just to solicit a response. Lastly, some respondents would collaborate with others while completing the survey.

Managerial Implications and Recommendations

A number of managerial implications and recommendations are implicitly based on the preceding discussion. First, while the patient satisfaction survey takes quite a bit of time to complete, it possesses satisfactory psychometric properties. These same properties should be taken into consideration when developing a survey instrument to assure it offers psychometric efficacy and captures patient expectations (Mazor, Clauser, Field, Yood, and Gurwitz, 2002).

The instrument used for the conduct of this study should be utilized on repeated occasions to develop a local baseline of data so that departures from the norm can be observed. In other words, the Chesterfield County Health Department should conduct patient satisfaction studies regularly to compare findings from previous efforts. One

advantage of planned, periodic patient feedback is to detect trends in either increasing or decreasing levels of satisfaction with services (Royse, et al., 2006).

Health care providers that use patient satisfaction surveys should be aware that response biases may significantly impact the results of the survey giving the impression that patients are more satisfied than they actually are. This can lead to an overestimation of the level of satisfaction in the patient population. While there may not be an alternative to soliciting responses from Hispanic/Latino respondents that are not biased, what is important is that the type of respondent stays relatively consistent and representative (Royse, et al., 2006).

Effective strategic management of services provided by Chesterfield County's Health Department needs to uniquely conceptualize and measure service quality from the results of the patient satisfaction survey. Health care providers should have the ability to design, implement, and control effective positioning strategies that are largely based on providing the highest possible level of service quality and/or the greatest level of patient satisfaction. Practitioners are encouraged to develop measures of service quality, and to empirically validate their scales specific to their own research data prior to strategic planning efforts (Taylor, 1994).

While the Health Department met its unique challenge of addressing the needs of the Hispanic/Latino community, it should continue to implement quality improvement efforts to ensure success. First, the Health Department must continue to secure an initial supply of available human and financial resources that can be devoted to the improvement effort. Next, while public health agencies operate under stringent

operational requirements, effective quality improvement efforts may require greater administrative flexibility than is typically available within these organizations. Strategies to address these constraints are as follows:

- The Health Department should continue its collaborative efforts with private organizations (and continually look for new ones)—especially those that have fewer administrative constraints, and allow these private partners to assume responsibility for those tasks that are difficult for a public agency to perform.

- The Health Department should consider cultivating sufficient political support for their quality improvement efforts, with the Hispanic/Latino community, in order to secure exemptions from administrative requirements—at least on a temporary demonstration basis.

- For the Health Department to be optimally effective in improving the health of the Hispanic/Latino community, continuous quality methods (CQI) methods should be implemented across multiple organizations.

Historically, public health organizations have not faced the same pressures—from competitors, consumers, purchasers, and regulators—to improve quality, efficiency, and value in service delivery as have private medical care providers. However, public health organizations are no longer protected from these market and policy forces. Many public agencies have to demonstrate accountability for the public funds they receive from government sources for their activities. Public health organizations are now turning to quality improvement processes as strategies for surviving and thriving in the evolving health system (McLaughlin and Kaluzny, 1999). Chesterfield County's Health Department has recognized this need and should continue its quality efforts in the provision of health services.

Implications for Future Research

From a research perspective, studies of this type should be conducted as a precursor to strategic planning efforts. Efforts should be continued toward the development of multidimensional operationalizations of patient satisfaction and health care administrators should further investigate the nature of patient satisfaction in relation to service quality. Gaps in measuring the differences between the providers versus the receivers of health care should be identified and investigated (Taylor, 1994). It is also suggested that additional research is needed to determine whether these findings are typical of other public health facilities in non-traditional immigrant receiving states.

With the new focus on patients as customers, a serious reexamination of philosophy in the way health and human services professionals approach those who use services needs to be undertaken. Instead of a linear, unidirectional communication process from staff to patient, seeing patients as customers implies that an interactive feedback loop exists between the customer and the staff. Therefore, use should be made of patient focus groups to generate satisfaction issues or elements pertaining to service quality that are important to the patients (Ferguson, Capra, Bauer, and Banks, 2001). Last, this study also supports the need for regular detailed qualitative research as a means of reviewing the dimensions of quality by which satisfaction with health care services can be assessed. Additionally, this research should include the impact of

particular cultural competency techniques on outcomes with an emphasis on reducing racial and ethnic disparities.

Conclusion

Research has shown that there is a presence of racial and ethnic disparities in health care in non-traditional immigrant receiving states that presents a serious public policy problem requiring multiple approaches. Public health organizations and public health practices face continual challenges that require a recurring look at why and how to manage their services especially for Hispanics/Latinos. A review of the literature provides strong support that in addressing the needs of Hispanics/Latinos in public health systems, much emphasis should be placed on culturally competent techniques for service provision.

This study highlighted racial/ethnic differences in assessing satisfaction with the health care services provided by Chesterfield County's Health Department and provides insight for researchers and policymakers concerned with ensuring the quality of care for the growing Hispanic/Latino population in the non-traditional receiving states. Using a multi-method approach to gain more in-depth information to the research problem and subsequent analysis, the following was found:

- There were only a few significant differences between Hispanics/Latinos, African Americans, and Caucasians in their level of satisfaction.
- Results also indicated that the six dimensions of satisfaction are reliable and valid measures, and need to be incorporated into a more comprehensive service quality measurement plan.

- Throughout the study, it has been noted that the most prevailing problem the non-traditional receiving states have with the influx of Hispanics/Latinos is the language barrier. While Hispanics/Latinos do not assimilate at the rates of other foreign born immigrants, results indicate that in order to successfully provide health services much emphasis needs to be put on hiring bilingual staff.

In conclusion, the findings provided support for Donabedian's structure, process, and outcome model. Findings also demonstrated that attributes of providers and settings, irregardless of race/ethnicity in which care occurs, are major components of patient satisfaction. The Donabedian (1980, 1982, 1985, 2003) and Parasuraman, et al. (1988) theories, offer a structure that is helpful in planning and implementing the assessment of patient satisfaction. Findings also suggest that reducing racial inequalities in health care services requires emphasis be placed on the careful and appropriate implementation of sound cultural competency techniques in delivering health services (Brach and Fraserirector, 2000).

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Appendix A

NEW HISPANIC/LATINO DESTINATIONS			
Metropolitan Area	*1990*	*2000*	*% Change*
Albany, NY	14,440	23,798	65
Allentown, PA	26,697	50,607	90
Atlanta, GA	55,045	268,851	388
Baltimore, MD	28,538	51,329	80
Bergen-Passaic, NJ	145,094	237,869	64
Birmingham, AL	3,520	16,598	372
Boston, MA-NH	130,896	202,513	55
Charlotte, SC	9,817	77,092	685
Columbus, OH	10,003	28,115	181
Fort Lauderdale, FL	105,668	271,652	157
Fort Worth-Arlington, TX	147,431	309,851	110
Grand Rapids, MI	27,195	68,916	153
Greensboro-Winston Salem, NC	6,844	62,210	809
Greenville, SC	5,712	26,167	358
Harrisburg, PA	9,336	19,557	109
Hartford, CT	77,132	113,540	47
Indianapolis, IN	11,918	42,994	261
Jacksonville, FL	22,206	42,122	90
Kansas City, MO-KS	45,199	92,910	106
Knoxville, TN	3,433	8,628	151
Las Vegas, NV-AZ	86,570	322,038	272
Little Rock, AR	4,741	12,337	160
Louisville, KY-IN	5,040	16,479	227
Memphis, TN-AR-MS	7,546	27,520	265
Middlesex-Somerset-Hunterdon, NJ	70,021	131,122	87
Milwaukee, WI	48,276	94,511	96
Minneapolis-St. Paul, MN-WI	34,334	99,121	189
Monmouth-Ocean, NJ	35,619	63,813	79
Nashville, TN	7,250	40,139	454
Nassau-Suffolk, NY	157,118	282,693	80
New Haven, CT	30,629	53,331	74
Norfolk-Virginia Beach-Newport News, VA-NC	31,551	48,963	55
Oklahoma City, OK	32,851	72,998	122
Omaha, NE-IA	15,419	39,735	158
Orlando, FL	98,812	271,627	175
Portland-Vancouver, OR-WA	49,344	142,444	189
Providence, RI-MA	45,893	93,868	105
Raleigh-Durham, NC	9,923	72,580	631
Richmond, VA	8,788	23,283	165
Salt Lake City, UT	61,269	144,600	136
Sarasota, FL	15,186	38,682	155
Scranton, PA	3,239	7,467	131
Seattle-Bellevue, WA	53,479	126,675	137
Springfield, MA	48,024	74,227	55

Tacoma, WA	19,445	38,621	99
Tampa-St. Petersburg-Clearwater, FL	136,027	248,642	83
Tulsa, OK	14,498	38,570	166
Washington, DC-MD-VA-WV	221,458	432,003	95
West Palm Beach, FL	65,028	140,675	116
Wichita, KS	18,437	40,353	119
Wilmington, DE-MD	11,701	27,599	136
	2,333,640	**5,282,035**	**126**

Appendix B

Chesterfield County Health Department List of Health Services

Child Health Services

- Childhood Lead Screening
- Child Safety Seat Program
- Health-care Services for Children
- Newborn Metabolic Screening

Community Outreach

- Breast/Cervical Cancer Awareness Program
- Cardiovascular Risk Reduction Program
- HIV Services
- Nursing Home Screening
- Special Vaccination Programs

Dental Services

- Routine Examinations
- Preventive Education and Treatment
- Fillings
- Tooth Extractions
- Emergency Services
- Sealant Procedures
- Children's Services

Environmental Health Services

- Rabies Prevention
- Restaurant Inspections and Permitting
- Well and Septic Tank Inspections and Permitting
- West Nile Virus

Immunization Services

- Flu and Pneumonia Shots
- Hepatitis B
- Tetanus
- Skin Test (Tuberculin)
- Measles/Mumps/Rubella
- Childhood Immunizations
- Meningococcal Vaccine
- Immunization WIC Linkage Program
- Travel Immunizations

Medical Services

- Communicable Disease
- Tuberculosis
- Sexually Transmitted Disease
- HIV Testing and Counseling
- Laboratory
- Pharmacy
- Refugee Screening
- Family Planning
- Maternity
- Pregnancy Testing

School Health Services

- Individual and group health education and counseling.
- Coordination of care for students with chronic health conditions.
- Health screenings including hearing, vision, scoliosis and blood pressure.
- Special school-based immunization programs.
- Communicable disease investigation and follow-up.

Vital Records

- Death Certificates
- Birth Certificates

Women, Infants and Children's Program (WIC)

- Women: Pregnant, Post Partum or Breast-feeding
- Infants: Under one year of age (birth to 12 months)
- Children: Under five years of age

Appendix C

List of CERCA Organizations

Asociacion Hispano Americana de Richmond
Bellwood Elementary School
BENOVA, Inc.
Bensley Elementary School
Better Housing Coalition
Beulah Elementary
Bon Air Baptist Church
Boys and Girls Club
Capital Area Training Consortium
CARAVAN – Bonsecours Caravan
Catholic Diocese of Richmond
CCHASM
Chesterfield – Central Library – Outreach
Chesterfield – Community Services Board
Chesterfield – Domestic Violence Coordinator
Chesterfield – Fire Department
Chesterfield – Health Department
Chesterfield - Juvenile Probation
Chesterfield - Planning Department
Chesterfield – Police Department
Chesterfield – Public Affairs Department
Chesterfield – Social Services
Chesterfield Adult Education
Chesterfield County Domestic Violence Resource Center
Chesterfield County Public Schools
Chesterfield County Public Schools ESL
Chesterfield County Youth Services
Chesterfield Education Forum
Chesterfield Extension Office
Chesterfield Fire and EMS
Chesterfield Head Start
Chesterfield Historical Museum
Chesterfield Infant Program
Chesterfield Mental Health
Chesterfield Support Services
Chesterfield/Colonial Heights Families First
Commonwealth Attorney's Office
Commonwealth Girl Scouts
Community Corrections

Cross Creek Apartments
Falling Creek Middle School
Families First
Human Resource Management
Human Resource Management - Chesterfield Education Forum
IDC
Institutional Advancement – Goyne Hall
J. A. Chalkley Elementary School
J. Sargeant Reynolds PRC
Chesterfield Youth Group Home
J. Sargeant Reynolds PRC
James River High School
John Tyler community College
Juvenile Detention Home
Meadowbrook High School – ESL
Meadowdale Library
Mission Bautista Hispana
Office of the Hispanic/Latino Apostolate
Parks and Recreation
Potter's Digital Wheel
Property Manager
Ramsey Memorial UMC
Refugee & Immigration Services
Richmond City Extension Office
Salem Church Middle School
Sherbourne United Methodist Church
St. Augustine's Catholic Church
Tri-City Literacy Council
United Way Services
Virginia Hispanic/Latino Chamber of Commerce
Winchester Greens Community Center
YMCA

Appendix D

SERVQUAL Questionnaire

Directions: Based on your experience as a consumer of _____services, please think about the kind of _____company that would deliver excellent quality of service. Think about the kind of _____company with which you would be pleased to do business. Please show the extent to which you think such a _____ company would possess the feature described by each statement. If you feel a feature is *not at all essential* for excellent_____companies such as the one you have in mind, circle the number **1**. If you feel a feature is *absolutely essential* for excellent _____companies, circle **7**. If your feelings are less strong, circle one of the numbers in the middle. There is no right or wrong answers—all we are interested in is a number that truly reflects your feelings regarding companies that would deliver excellent quality of service.

	Strongly Disagree						**Strongly Agree**
1. Excellent_____ Companies will have Modern-looking Equipment.	1	2	3	4	5	6	7
2. The physical facilities At excellent _____companies will be visually appealing.	1	2	3	4	5	6	7
3. Employees at excellent _____companies will be neat-appearing.	1	2	3	4	5	6	7
4. Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent _____ company.	1	2	3	4	5	6	7
5. Excellent_____ statements) will be visually appealing in an excellent _____company.	1	2	3	4	5	6	7

		Strongly Disagree						Strongly Agree
6.	When excellent _____companies promise to do something by a certain time, they will do so.	1	2	3	4	5	6	7
7.	When a customer has a Problem, excellent _____companies will show a sincere interest in solving it.	1	2	3	4	5	6	7
8.	Excellent _____companies will perform the service right the first time.	1	2	3	4	5	6	7
9.	Excellent_____ _____companies will provide their services at the time they promise to do so.	1	2	3	4	5	6	7
10.	Employees in excellent _____companies will tell customers exactly when services will be performed.	1	2	3	4	5	6	7
11.	Employees in excellent _____companies will give prompt service to customers.	1	2	3	4	5	6	7
12.	Employees in excellent _____companies will always be willing to help customers.	1	2	3	4	5	6	7
13.	Employees in excellent _____companies will never be too busy to respond to customers' requests.	1	2	3	4	5	6	7

		Strongly Disagree						Strongly Agree
14.	The behavior of Employees in excellent _____companies will instill confidence in customers.	1	2	3	4	5	6	7
15.	Customers of excellent _____companies will feel safe in their transactions.	1	2	3	4	5	6	7
16.	Employees in excellent _____companies will be consistently courteous with customers	1	2	3	4	5	6	7
17.	Employees in excellent _____companies will have the knowledge to answer customers' questions.	1	2	3	4	5	6	7
18.	Excellent _____companies will give customers individual attention.	1	2	3	4	5	6	7
19.	Excellent _____ companies will have operating hours convenient to all their customers.	1	2	3	4	5	6	7
20.	Excellent _____companies will have employees who give customers personal attention.	1	2	3	4	5	6	7
21.	Excellent _____ companies will have the knowledge to answer customers' questions.	1	2	3	4	5	6	7

		Strongly Disagree						Strongly Agree
22.	The employees of excellent _____ companies will understand the specific needs of their customers.	1	2	3	4	5	6	7

Directions: Listed below are five features pertaining to _____ companies and the services they offer. We would like to know how important each of these features is to *you* when you evaluate a _____ company's quality of service. Please allocate a total of 100 points among the five features *according to how important each feature is to you*—the more important a feature is to you, the more points you should allocate to it. Please ensure that the points you allocate to the five features add up to 100.

1. The appearance of the _____ company's physical facilities, equipment, personnel, and communication materials. _____ points

2. The _____ company's ability to Perform the promised service Dependably and accurately. _____ points

3. The _____ company's willingness To help customers and provide prompt service. _____ points

4. The knowledge and courtesy of the _____ company's employees and their ability to convey trust and confidence. _____ points

5. The caring, individualized attention the _____ company provides its customers. _____ points

Total points allocated

Which *one* feature among the above five is *most important* to you? (please enter the feature's number) _____

Which feature is *second* most important to you? _____

Which feature is *least important* to you? _____

Directions: The following set of statements relate to your feelings about XYZ Company. For each statement, please show the extent to which you believe XYZ Company has the feature described by the statement. Once again, circling a **1** means that you strongly disagree that XYZ Company has that feature, and circling a **7** means that you strongly agree. You may circle any of the numbers in the middle that show how strong your feelings are. There is no right or wrong answers—all we are interested in is a number that best shows your perceptions about XYZ Company

	Strongly Disagree						**Strongly Agree**
1. XYZ Co. has modern-looking equipment.	1	2	3	4	5	6	7
2. XYZ Co.'s physical facilities are visually appealing.	1	2	3	4	5	6	7
3. XYZ Co.'s employees are neat appearing.	1	2	3	4	5	6	7
4. Materials associated with the service (such as pamphlets or statements) are visually appealing at XYZ Co.	1	2	3	4	5	6	7
5. When XYZ Co. promises to do something by a certain time, it does so.	1	2	3	4	5	6	7
6. When you have a problem, XYZ Co. shows a sincere interest in solving it.	1	2	3	4	5	6	7
7. XYZ Co. performs the service right the first time.	1	2	3	4	5	6	7
8. XYZ Co. provides its services at the time it promises to do so.	1	2	3	4	5	6	7
9. XYZ Co. insists on error-free records.	1	2	3	4	5	6	7

		Strongly Disagree						Strongly Agree
10.	Employees in XYZ Co. tell you exactly when services will be performed.	1	2	3	4	5	6	7
11.	Employees in XYZ Co. give you prompt service.	1	2	3	4	5	6	7
12.	Employees in XYZ Co. are always willing to help you.	1	2	3	4	5	6	7
13.	Employees in XYZ Co. are never too busy to respond to your requests.	1	2	3	4	5	6	7
14.	The behavior of employees in XYZ Co. instills confidence in you.	1	2	3	4	5	6	7
15.	You feel safe in your transactions with XYZ Co.	1	2	3	4	5	6	7
16.	Employees in XYZ Co. are consistently courteous with you.	1	2	3	4	5	6	7
17.	Employees in XYZ Co. have the knowledge to answer your questions.	1	2	3	4	5	6	7
18.	XYZ Co. give you individual attention	1	2	3	4	5	6	7
19.	XYZ Co. has operating hours convenient to all its customers.	1	2	3	4	5	6	7
20.	XYZ Co. has employees who give you personal attention.	1	2	3	4	5	6	7

		Strongly Disagree						Strongly Agree
21.	XYZ Co. has your best interests at heart.	1	2	3	4	5	6	7
22.	Employees of XYZ Co. Understand your specific needs.	1	2	3	4	5	6	7

Source: "Delivering Quality Service: Balancing Customer Perceptions and Expectations," by Valerie A. Zeithaml, A. Parasuraman, and Leonard L. Berry, 1990, pp. 180-186.

Appendix E

Chesterfield County Health Department
Customer Service Survey

---

1. Is this your first visit to the Health Department? [ ] yes [ ] no

2. What services did you receive?_____

3. Services provided met my needs. [ ] strongly agree [ ] agree [ ] neutral [ ] disagree [ ] strongly disagree

4. Do you feel that the time you waited to receive these service(s) is reasonable? [ ] yes [ ] no

5. The staff was courteous. [ ] strongly agree [ ] agree [ ] neutral [ ] disagree [ ] strongly disagree

6. I received quality service. [ ] strongly agree [ ] agree [ ] neutral [ ] disagree [ ] strongly disagree

7. Facilities were adequate. [ ] strongly agree [ ] agree [ ] neutral [ ] disagree [ ] strongly disagree

8. What could we have done to make your visit better? _____

_____

_____

_____

_____

_____

_____

Appendix F

CHESTERFIELD COUNTY HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY

The purpose of this survey is to gather information about the services provided to our customers.

General Information

1. Is this your first visit to the Chesterfield County Health Department?

   [ ] Yes
   [ ] No → *If no:* How many times have you visited the Health Department within the past six months?

   _____

2. Have you ever visited a public health clinic before?

   [ ] Yes
   [ ] No

3. What is the reason for your visit today?

Child Health Services
[ ] Childhood Lead Screening
[ ] Child Safety Seat Program
[ ] Health-care Services for Children
[ ] Newborn Metabolic Screening

Dental
[ ] Dental Services

Medical Services
[ ] Communicable Disease
[ ] Tuberculosis
[ ] Sexually Transmitted Disease
[ ] HIV Testing and Counseling
[ ] Laboratory Only
[ ] Pharmacy Only
[ ] Refugee Screening
[ ] Family Planning
[ ] Maternity
[ ] Skin Testing/TB Screening
[ ] Pregnancy Testing

Environmental Health Services
[ ] Restaurant/Food Service Permit Application
[ ] Well/Septic Tank Permit Application

Immunization Services
[ ] Flu and Pneumonia Shots
[ ] Hepatitis B
[ ] Childhood Immunizations
[ ] College Immunizations
[ ] Immigration and Other Adult Immunizations
[ ] Overseas Travel Immunizations

Vital Records
[ ] Death Certificates
[ ] Birth Registrations

Women, Infants and Children's Program (WIC)
[ ] Women: Pregnant, Post Partum or Breast-feeding
[ ] Infants: Under one year of age (birth to 12 months
[ ] Children: Under five years of age

[ ] Breast and Cervical Cancer Screening Program [ ] Other_____

3. How long did you wait before a Health Department employee saw you today?
   - [ ] 0 – 10 minutes
   - [ ] 11 – 15 minutes
   - [ ] 16 – 20 minutes
   - [ ] 21 – 30 minutes
   - [ ] more than 30 minutes

4. Was the time you waited to be seen reasonable for you?
   - [ ] Yes
   - [ ] No → *If no:* What would you consider to be a reasonable amount of time?

     _____

5. Did you have questions about the services you received today?
   - [ ] Yes
   - [ ] No →

     If yes: Were all of your questions answered?
     - [ ] Yes
     - [ ] No →

     If no: In your opinion, why do you think your questions were not answered?

     _____

     _____

6. Did the staff provide you with written instructions, in your native language, pertaining to your visit today?
   - [ ] Yes
   - [ ] No →

     If no: Did you ask for instructions, in your native language, pertaining to your visit?
     - [ ] Yes →
     - [ ] No

     If yes: Were you given written instructions, in your native language, pertaining to your visit?
     - [ ] Yes
     - [ ] No →

     If no: Why?_____

     _____

7. Would you like for someone to give you instructions in your native language before you leave today?

   [ ] Yes
   [ ] No

8. Have you been made aware of all of the services offered by the Health Department?

   [ ] Yes
   [ ] No → *If no:* Would you like to have information pertaining to all of the services offered by the Health Department?

   [ ] Yes
   [ ] No → *If no:* Why?_____

   _____

Staff Reliability

Please circle the number that best describes your opinion on the reliability of the Health Department staff.

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
10. The Health Department staff gives prompt service to patients.....	1	2	3	4	5
11. The Health Department staff are always willing to help patients.....	1	2	3	4	5
12. Overall, I received quality care from the Health Department staff.....	1	2	3	4	5

Staff Responsiveness

Please circle the number that best describes your opinion on how responsive staff of the Health Department is to your needs.

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
13. All of my questions were answered.....	1	2	3	4	5
14. The medical staff provided me with advice on how to stay healthy.....	1	2	3	4	5
15. The medical staff explained my medications to me.....	1	2	3	4	5

16. The medical staff explained the medical procedures that were performed.....	1	2	3	4	5
17. Medical staff reminded me to seek timely preventive care.....	1	2	3	4	5

Staff Courtesy

Please circle the number that best describes your opinion on the courtesy of the Health Department staff.

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
18. The receptionist and other office staff were friendly.....	1	2	3	4	5
19. The receptionist and other office staff were courteous.....	1	2	3	4	5
20. Medical staff were friendly.....	1	2	3	4	5
21. Medical staff was courteous.....	1	2	3	4	5
22. The medical staff made my visit comfortable and pleasant.....	1	2	3	4	5

Staff Communication

Please circle the number that best describes your opinion on the Health Department staff's ability to communicate with its patients.

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
23. The medical staff was able to communicate with me.....	1	2	3	4	5
24. The receptionist and other office staff were able to communicate with me.....	1	2	3	4	5
25. The medical staff listened to what I had to say.....	1	2	3	4	5
26. The receptionist and other office staff listened to what I had to say.....	1	2	3	4	5

Access to Health Department Services

Please circle the number that best describes your opinion on access to services at the Health Department.

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
27. Health Department hours of operation are convenient.....	1	2	3	4	5
28. The Health Department is conveniently located.....	1	2	3	4	5
29. I like the ability to receive all of my services in one location.....	1	2	3	4	5
30. I am able to reach the Health Department by telephone when I have problems.....	1	2	3	4	5

Health Department Facilities

Please circle the number that best describes how you would rate the comfort of the Health Department facilities.

	Excellent	Very Good	Good	Fair	Poor
31. Health Department waiting rooms...	1	2	3	4	5
32. Health Department's treatment rooms.....	1	2	3	4	5

Patient Information

33. What is your sex?
    - [ ] Male
    - [ ] Female

34. Which of the following age categories describes you:
    - [ ] 25 or younger
    - [ ] 26 – 35
    - [ ] 36 – 55
    - [ ] 56 or older

35. What is the highest level of school you have completed?
    - [ ] No schooling
    - [ ] 8th grade or less
    - [ ] Some high school
    - [ ] High school
    - [ ] GED
    - [ ] Vocational/technical

[ ] Some college
[ ] College
[ ] Professional or graduate degree

36. What is your total household income?
[ ] No income
[ ] Less than $5,000
[ ] $5,000 - $9,999
[ ] $10,000 - $19,999
[ ] $20,000 - $39,999
[ ] $40,000 and up

37. What is your current marital status?
[ ] Married
[ ] Widowed
[ ] Divorced
[ ] Separated
[ ] Never Married

38. Do you have children?
[ ] Yes
[ ] No

39. What is your ethnic background?
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other _____

40. In what country were you born? _____

41. How well do you speak English?
[ ] Very well
[ ] Well
[ ] Not very well
[ ] Not at all

41a. Was an interpreter available that could assist you?
[ ] Yes
[ ] No

41b. Did you ask if an interpreter was available?
[ ] Yes
[ ] No

41c. Did you bring someone with you that could interpret for you?
[ ] Yes
[ ] No

42. How long have you lived in Chesterfield County?
    [ ] Less than one year
    [ ] one – 5 years
    [ ] 6 – 10 years
    [ ] more than 10 years

43. How did you get to the clinic today?
    [ ] My own car
    [ ] Borrowed a car
    [ ] Walked
    [ ] A friend drove me to the Health Department
    [ ] A relative drove me to the Health Department
    [ ] Taxi
    [ ] Other_____

44. Would you encourage others to use the medical services provided by the Health Department?
    [ ] Yes
    [ ] No → *If no:* Why? _____
    _____

Miscellaneous Information

45. What was the ethnic background of the Health Department staff members that provided you with service today? **Please check all that apply.**

46a. Information/Receptionist:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

46b. Registration Clerk:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

46c. Pharmacist:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American

46f. Nurse:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

46g. Nutritionist:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

46h. Lab Technician:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American

[ ] Caucasian
[ ] Other (please specify)_____

46d. Billing Clerk:

[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

46e. Doctor:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

[ ] Caucasian
[ ] Other (please specify)_____

46i. Staff member that provided service to you in the WIC office:
[ ] Hispanic/Latino
[ ] Asian
[ ] African-American
[ ] Caucasian
[ ] Other (please specify)_____

47. Is there anything else you would like for us to know about your visit to the Health Department today?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank you for taking the time to complete this survey.

Appendix G

DEPARTAMENTO DE SALUD CHESTERFIELD
ENCUESTA DE SATISFACCIÓN DEL PACIENTE

El propósito de esta encuesta es recopilar la información sobre los servicios proporcionados a nuestros clientes.

Información General

2. Es esta su primera visita al Departamento de Salud del Condado Chesterfield?
   [ ] Sí
   [ ] No → *Si no: Cuántas veces ha visitado el Departamento de Salud en los últimos seis meses?*

4. Ha usted visitado una clínica de salud pública antes?
   [ ] Sí
   [ ] No

5. Cuál es la razón de su visita de hoy?

Servicios de Salud Infantil
[ ] Examen de Plomo en la Niñez

[ ] Programa de Sillas de Seguridad Infantil
[ ] Servicios de Cuidado de la Salud para Niños
[ ] Examen Metabólico para Recién Nacidos

Dental
[ ] Servicios Dentales

Servicios Médicos

[ ] Enfermedades Infecciosas
[ ] Tuberculosis
[ ] Enfermedades de Transmisión Sexual
[ ] HIV Examen y Consejería (SIDA)
[ ] Solamente Laboratorio
[ ] Solamente farmacia
[ ] Examen de Refugiado

Servicios de Salud Ambiental
[ ] Restaurante/Aplicación Permiso Servicio Comidas
[ ] Pozos/Aplicación Permiso Tanques Sépticos

Servicios de Inmunización (Vacunas)
[ ] Vacunas de Flu y Neumonía
[ ] Hepatitis B
[ ] Vacunas para la Niñez
[ ] Inmunizaciones Escolares
[ ] Inmunizaciones de Inmigración y para otros Adultos
[ ] Inmunizaciones de Viajeros al Extranjero

Registros Vitales
[ ] Certificados de Defunción
[ ] Registraciones de Nacimientos

Programa Mujeres, Infantes y Niños (WIC)

[ ] Planificación Familiar

[ ] Maternidad
[ ] Prueba de la Piel/Examen de TB
[ ] Prueba de Embarazo
[ ] Programa de Revisión de Cáncer de Pecho y Útero

[ ] Mujeres: Embarazo, post-parto o amamantamiento
[ ] Infantes: Menores de un año (nacido a 12 meses)
[ ] Niños: Menores de cinco años de edad

[ ] Otro
_____

9. Cuánto tiempo esperó antes de que un empleado del Departamento de Salud lo viera a usted hoy?
   [ ] 0 – 10 minutos
   [ ] 11 – 15 minutos
   [ ] 16 – 20 minutos
   [ ] 21 – 30 minutos
   [ ] Más de 30 minutos

10. Le parece que el tiempo que esperó fue razonable?
    [ ] Sí
    [ ] No → *Si no: Cuál considera usted que sería un tiempo razonable?*
    _____

11. Tuvo usted preguntas acerca del servicio que recibió hoy?
    [ ] Sí
    [ ]No → *Si sí:* Fueron todas sus preguntas contestadas?
    [ ] Sí
    [ ] No → *Si no: En su opinión*, por qué cree que sus preguntas no fueron contestadas?
    _____
    _____

12. El personal le proporcionó instrucciones escritas, en su propio idioma, respecto a su visita de hoy?
    [ ] Sí
    [ ] No → *Si no:* Preguntó usted por las instrucciones en su propio idioma, respecto a su visita?
    [ ] Sí
    [ ] No → *Si sí:* Fueron las instrucciones escritas dadas a usted en su propio idioma respecto a su visita?
    [ ] Sí
    [ ] No

    Si no: Por qué_____
    _____

13. Le gustaría que alguien le diera instrucciones escritas en su propio idioma antes de que usted se vaya?
    [ ] Sí
    [ ] No

14. Ha usted sido informado de todos los servicios ofrecidos por el Departamento de Salud?

    [ ] Sí
    [ ] No → *Si no: Quisiera tener información pertinente a todos los servicios que ofrece el Departamento de Salud*?
        [ ] Sí
        [ ] No → *Si no: por qué*?_____

Confiabilidad del Personal

Por favor circule el número que mejor describa su opinión acerca de la confiabilidad del personal del Departamento de Salud.

	Total Acuerdo	**Acuerdo**	**Neutro Normal**	**Desacuerdo**	**Desacuerdo Total**
10. El personal del Departamento de Salud da servicios oportunos a los pacientes.....	1	2	3	4	5
11. El personal del Departamento de Salud está siempre dispuesto a ayudar a los pacientes.....	1	2	3	4	5
12. En conjunto, yo recibí cuidado de calidad del personal del Departamento de Salud.....	1	2	3	4	5

Receptibilidad del Personal

Por favor circule el número que mejor describa su opinión acerca de qué tan receptivo es el personal del Departamento de Salud a sus necesidades.

	Total Acuerdo	Acuerdo	Neutro Normal	Desacuerdo	Desacuerdo Total
13. Todas mis preguntas fueron contestadas.....	1	2	3	4	5
14. El personal médico me proporcionó consejo sobre cómo permanecer saludable.....	1	2	3	4	5
15. El personal médico me explicó mis medicamentos.....	1	2	3	4	5
16. El personal médico me explicó los procedimientos médicos que fueron practicados.....	1	2	3	4	5
17. El personal médico me recordó buscar cuidado preventivo oportuno.....	1	2	3	4	5

Cortesía del Personal

Por favor circule el número que mejor describa su opinión acerca de la cortesía del personal del Departamento de Salud.

	Total Acuerdo	Acuerdo	Neutro Normal	Desacuerdo	Desacuerdo Total
18. La recepcionista y otro personal de oficina fueron amigables.....	1	2	3	4	5
19. La recepcionista y otro personal de oficina fueron corteses.....	1	2	3	4	5
20. El personal médico fue amable.....	1	2	3	4	5
21. El personal médico fue cortés.....	1	2	3	4	5
22. El personal médico hizo mi visita confortable y placentera.....	1	2	3	4	5

Comunicación del Personal

Por favor circule el número que mejor describa su opinión acerca de la habilidad del personal del Departamento de Salud para comunicarse con sus pacientes.

	Total Acuerdo	Acuerdo	Neutro Normal	Desacuerdo	Desacuerdo Total
23. El personal médico pudo comunicarse conmigo……..	1	2	3	4	5
24. La recepcionista y otro personal de oficina pudieron comunicarse conmigo……..	1	2	3	4	5
25. Personal médico escuchó lo que yo tenía que decir…….	1	2	3	4	5
26. Recepcionista y otro personal de oficina escucharon lo que yo tenía que decir……..	1	2	3	4	5

Acceso a los Servicios del Departamento de Salud

Por favor circule el número que mejor describa su opinión acerca del acceso a los servicios en el Departamento de Salud.

	Total Acuerdo	Acuerdo	Neutro Normal	Desacuerdo	Desacuerdo Total
27. Las horas de operación del Departamento de Salud son convenientes.....	1	2	3	4	5
28. EL Departamento de Salud está convenientemente localizado…….	1	2	3	4	5
29. Me gusta la facilidad de poder recibir todos los servicios en un solo sitio…….....	1	2	3	4	5
30. Puedo contactar al Departamento de Salud por teléfono cuando yo tengo problemas.....	1	2	3	4	5

Servicios del Departamento de Salud

Por favor circule el número que mejor describa su opinión acerca de qué calificación usted le daría a la comodidad de los servicios del Departamento de Salud.

	Excelente	Muy Bueno	Bueno	Regular	Pobre
31. Salas de espera del Departamento de Salud.....	1	2	3	4	5
32. Cuartos de tratamiento del Departamento de Salud.....	1	2	3	4	5

Información del Paciente

33. Cuál es su sexo?
    [ ] Masculino
    [ ] Femenino

34. En cuál de las siguientes categorías de edades se describe usted?
    [ ] 25 ó más joven
    [ ] 26 – 35
    [ ] 36 – 55
    [ ] 56 ó más

35. Cuál es el nivel escolar más alto que usted ha completado?
    [ ] Sin escuela
    [ ] 8° grado o menos
    [ ] Algo de Escuela Secundaria
    [ ] Graduado de Escuela Secundaria
    [ ] GED
    [ ] Vocacional/técnico
    [ ] Algo de Universidad
    [ ] Universitario
    [ ] Profesional o con título

37. Cuál es el ingreso total de su hogar?
    [ ] Sin ingresos
    [ ] Menos de $5,000
    [ ] $5,000 - $9,999
    [ ] $10,000 - $19,999
    [ ] $20,000 - $39,999
    [ ] $40,000 y más

37. Cuál es su estado civil actual?
    [ ] Casado
    [ ] Viudo
    [ ] Divorciado

[ ] Separado
[ ] Nunca casado

38. Tiene niños?
[ ] Sí
[ ] No

39. Cuál es su origen étnico?
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro _____

40. En que país nació? _____

41. Qué tan bien habla inglés?
[ ] Muy bien
[ ] Bien
[ ] No tan bien → 41a. Hubo un intérprete disponible que pudiera ayudarle?
[ ] Sí
[ ] No → 41b. Preguntó si había disponibilidad de un intérprete?
[ ] Sí
[ ] No → 41c. Trajo con usted a alguien quien interpretara para usted?
[ ] Sí
[ ] No
[ ] Nada

42. Hace cuánto tiempo vive en el Condado Chesterfield?
[ ] Menos de un año
[ ] uno – 5 años
[ ] 6 – 10 años
[ ] más de 10 años

43. Cómo llegó a la clínica hoy?
[ ] Mi propio carro
[ ] Un carro prestado
[ ] Caminando
[ ] Un amigo me trajo al Departamento de Salud
[ ] Un familiar me trajo al Departamento de Salud

[ ] Taxi
[ ] Otro_____

46. Animaría usted a otros para que utilicen los servicios médicos proporcionados por el Departamento de Salud?

[ ] Sí
[ ] No → *Si no: Por qué?* _____

Información Variada

47. Cuál es el antecedente étnico de los miembros del personal del Departamento de Salud quienes le proporcionaron el servicio hoy? **Por favor señale todas las que apliquen.**

45a. Información/Recepcionista:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45b. Personal de Registro:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45c. Farmacéutico:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45d. Personal de Facturación:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45f. Enfermera:
[ ] Hispana/Latina
[ ] Asiática
[ ] Afro-Americana
[ ] Caucásica
[ ] Otro (por favor especifique)_____

45g. Nutricionista:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45h. Técnico de Laboratorio:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45i. Miembro personal quien le proporcionó servicio en la oficna WIC:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

45e. Doctor:
[ ] Hispano/Latino
[ ] Asiático
[ ] Afro-Americano
[ ] Caucásico
[ ] Otro (por favor especifique)_____

---

46. Hay alguna cosa que usted quisiera dejarnos saber hoy acerca de su visita al Departamento de Salud?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Gracias por tomarse el tiempo para responder esta encuesta.

Appendix H

INTERVIEW QUESTIONS		
Date:		
Start Time:		**End Time:**
Subject No.		
Interviewer:		
No.	***Question***	***Interviewer Comments***
1	What other services would you like for the Health Department to offer?	
2	What would you like to see changed and/or improved at the Health Department?	
3	In your opinion, is there enough information about the Health Department services available in your native language?	
4	Do you feel the Health Department needs to hire more bilingual staff?	
5	In your opinion, should the Health Department have more than one location where services can be provided?	
6	Should the Health Department extend its hours and/or days of operation?	
7	Overall, do you feel you receive quality service from the Health Department?	

Appendix I

A PREGUNTAS DE LA ENTREVISTA		
Fecha:		
Hora de Salida:		**Tiempo del Final:**
Número Sujeto:		
Entrevistador:		
Número	***Pregunta***	***Comentarios del Entrevistador***
1	¿Cuales otros servicios le gustaria que el departamento de la salud ofrezca?	
2	¿Cuales otros cambios le gustaria ver mejorado y/o cambiado en el departamento de salud?	
3	¿En su opinión, hay bastante información sobre los servicios del departamento de la salud disponibles en su lengua materna?	
4	¿Usted siente el departamento de la salud necesita emplear a un personal más bilingüe?	
5	¿En su opinión, debe el departamento de la salud tener más de una localización en donde los servicios pueden ser proporcionados?	
6	¿Debe el departamento de la salud ampliar sus horas y/o días de operación?	
7	¿Total, usted siente que recibe servicios de calidad del departamento de salud?	

Appendix J

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
1	How many times have you visited the Health Department within the past				
	0 - 5	16	61.5%	91	86.7%
	6 - 10	6	23.1%	10	9.5%
	11 or more	4	15.4%	4	3.8%
		26		105	
3	What is the reason for your visit today? *Response to "Other"*				
	Immunizations			6	17.6%
	Relinquishment of Records/Medical Form	1	20.0%	2	5.9%
	Medical Pickup			1	2.9%
	Blood Pressure Reading			1	2.9%
	With someone (sister, friend)			5	14.7%
	WIC			2	5.9%
	Check-up			2	5.9%
	Teen Clinic			1	2.9%
	To get some assistance/advice			1	2.9%
	Interpreting	1	20.0%	1	2.9%
	Social Services - benefits			1	2.9%
	Gynecology/Obstetrics	3	60.0%	11	32.4%
		5		34	
5	Was the time you waited to be seen reasonable for you? *Response to "No"/What would you consider to be a reasonable amount of time?*				
	5-10 minutes			5	15.6%
	11-15 minutes	2	40.0%	8	25.0%
	16-20 minutes	2	40.0%	5	15.6%
	30 minutes or less			7	21.9%
	40 minutes	1	20.0%	1	3.1%
	1 hour or less			3	9.4%
	More than 1 hour			1	3.1%
	When you have an appointment - asap			2	6.3%
		5		32	
6	Did you have questions about the services you received today? Response to "No"				

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	My questions were answered over the phone			1	6.7%
	Did not have questions about the service	4	100.0%	14	93.3%
		4		**15**	
7	**Did the staff provide you with written instructions, in your native language, pertaining to your visit today? *Response to "No"***				
	It was not needed	4	80.0%	7	87.5%
	There was no one who knew Turkish			1	12.5%
	Other people translated for me	1	20.0%		
		5		**8**	
9	**Have you been made aware of all of the services offered by the Health Department? *Response to "No"***				
	They don't help me with what I need now			1	12.5%
	No one informed me of health programs--I might be eligible			3	37.5%
	Information on services is available	1	100.0%	2	25.0%
	I only came for this one visit			1	12.5%
	I just came for my child to get his shots (immunizations)			1	12.5%
		1		**8**	
39	**What is your ethnic background? *Response to "Other"***				
	Indian/German			1	20.0%
	African-American/Caucasian			1	20.0%
	African			1	20.0%
	American Indian			1	20.0%
	Asian/Indian			1	20.0%
				5	
40	**In what country were you born?**				
	Brazil	1	1.9%		
	Cambodia	1	1.9%		
	India			3	1.9%
	Guatemala	8	15.4%		
	Mexico	19	36.5%		
	El Salvador	6	11.5%		

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	Colombia	1	1.9%		
	Paraguay	2	3.8%		
	Germany			2	1.3%
	Turkey			1	0.6%
	Puerto Rico	2	3.8%	2	1.3%
	USA	4	7.7%	142	91.6%
	Korea			1	0.6%
	Nigeria			2	1.3%
	Vitenam			1	0.6%
	Costa Rica	1	1.9%		
	Jamaica			1	0.6%
	Trinidad	1	1.9%		
	Ecuador	1	1.9%		
	Honduras	4	7.7%		
	Venezuela	1	1.9%		
		52		**155**	
43	**How did you get to the clinic today? *Response to "Other"***				
	Came with sister and friend			1	50.0%
	My mother brought me			1	50.0%
		0		**2**	
44	**Would you encourage others to use the medical services provided by the Health Department? *Response to "No"***				
	Case worker is awful			1	12.5%
	Health Department--too long of a process			1	12.5%
	It's a last resort			1	12.5%
	Not based and judged on a "fair" and "biased" system			1	12.5%
	Because I do not know myself what kind of other services the Health Department has			1	12.5%
	They suck			1	12.5%
	They gave me difficulty because I didn't have any identification	1	16.7%		
	They have a good service for Hispanics			1	12.5%
	I like the service better than Henrico			1	12.5%
	The service is good and they give you all the services	3	50.0%		
	Because I like the attention the Asian staff gives to the patients	2	33.3%		
		6		**8**	

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
45	**What was the ethnic background of the Health Department staff members that provided you with service today?** ***Response to "Other"***				
	Indian			1	1.8%
45a	**Information/Receptionist**				
	Dominican	1	2.4%		
45c	**Pharmacist**				
	Americans	1	2.4%		
45d	**Billing Clerk**				
	Americans			1	1.8%
45e	**Doctor**				
	Americans	1	2.4%		
45f	**Nurse**				
	Americans	1	2.4%		
45h	**Lab Technician**				
	Americans	1	2.4%		
45i	**Staff member that provided service to you in the WIC office**				
	Americans	1	2.4%		
46	**Is there anything else you would like for us to know about your visit to the Health Department today?**				
	Yes, I understand why people like me need some sort of income, but if I have no income and living with someone else, how can you demand to see my income in order for me to be seen and get the services that I do need.	1	2.4%		
	I am only satisfied with the service I received			1	1.8%
	The staff at the Health Department always seems to be helpful with any	3	7.3%	2	3.6%

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	They are good, just need some more billing workers.	1	2.4%		
	I feel that there should be more services provided for patients making it easier and on time. When the doctor sets up a time for an appointment, it should be kept. If feel if other patients are in need of specific medications and cannot afford them, they should be provided either at a discount or by monthly payments. The less fortunate doesn't always dig a hole to sit in on purpose. Anything we can do to help the American people, we should do.			3	5.5%
	The registration clerk has to be a little more kind.	1	2.4%		
	The service was slow but very interesting. I mean the people you meet. The waiting time to be called back could be be a little less--more in and out.			1	1.8%
	Very bad help with what I needed answered			1	1.8%
	Yes, friends told me before I came in about the attitude of the receptionist--she is sometimes in a bad mood. My opinion is maybe it is too much work or not the right person for the job.	1	2.4%		
	This place is clean and neat and also comfortable. I have been to the city and it's horrible--compared to that, this place is heaven.			1	1.8%
	I have noticed that there are more Hispanics working in the Health Department than there were a year ago. So far, they have been polite, helpful and very knowledgeable--a real asset to the department. I am sure it helps the Hispanics to feel more comfortable coming here.			1	1.8%
	Some of the office staff should treat you more like a person instead of an inconvenience.			1	1.8%

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	Considering the number of people that were here when I arrived, I am pleased that the staff handles situations with professionalism and quickness.			2	3.6%
	No. I was just taking a friend to get birth control medication.	1	2.4%		
	I came to the Health Department to find out if I have cervical cancer			1	1.8%
	No. This is my first visit and the service was excellent. Thank you.	7	17.1%		
	I don't think the whole WIC Office should close for lunch until 1:00pm. They should take separate lunch breaks. They should also talk to people nicer.			1	1.8%
	They really should speed up the process of Medicaid. I was pregnant and did not get approved for three months and I wasn't able to see a doctor and the Health Department was so booked up and at five months I lost my child--they could get back to you sooner. I even called the supervisor and the next day I received approval--that is ridiculous.			1	1.8%
	My visit here is very comfortable. I can ask questions of the staff and get them answered and don't have to worry about bad attitudes from the staff. They are very friendly people, they show their most concerns for me.	3	7.3%	5	9.1%
	Systems for waiting/service are very fair			1	1.8%
	Possible incorrect information regarding second visit--told I could walk-in for second immunization shot and once I got into the Health Department waiting area--I was told that there would possibly be no service on that day. More accurate up-to-date information would be helpful.			1	1.8%

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	It was much better than previous clinics I have visited. It is easy to find your way around and not get lost due to signs. The facilities were clean and the people were more civilized and not wild acting. More professionalism among people.	2	4.9%	2	3.6%
	The staff that does intake screening needs to be more friendly. She also needs to listen before she says no or I can't accept a document before she hears what the patient has to say. My visit in January 2005 was very humiliating and embarrassing because of her attitude and how loud she talked.			1	1.8%
	No	8	19.5%	14	25.5%
	I am glad we have services for people in need. I have been coming here on and off for 20 years.			1	1.8%
	While I do believe the wait is excessive compared to other doctor's offices, I believe that it is fitting because of the circumstances. I am more than willing to wait in order to save myself several hundred dollars because I am a nursing student and have no insurance. The nurses here are all very skilled and understanding.			1	1.8%
	Overall, the Health Department tries to accommodate everyone in a professional, courteous way and to be as proficient as possible. However, extended facilities for branches of clinics in Ettrick and the surrounding areas of Chesterfield are badly needed. Today, it is crowded in the waiting areas, which is not unusual but the patients are being called to be seen on a consistent basis which is good. As I end this survey, up to the point of the tape/written interview, the nurse is 20 minutes late so far in seeing me for my appointment just to get a routine shot. I appreciate the services, nevertheless, that I receive in a clean, informative and personable environment. I do hate to pay a taxicab fee to get here--not all the time. But, it would help to have a branch facility closer to me.			1	1.8%

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	The way I was greeted, and treated as I approached the receptionist desk was absolutely uncalled for. I was treated like I was a 10-year old child. The receptionist has a very bad attitude and a terrible way of talking to a six-year customer. People like this make the Health Department visits unpleasant.			1	1.8%
	I brought somebody to the clinic today.	1	2.4%		
	They said they could not give shots because I didn't have shot records but if I needed them they are the people that should have them because this is where I get the shots.			1	1.8%
	I didn't like the fact that they assumed I spoke Spanish and I was an illgal alien just because I'm Hispanic. I didn't appreciate them asking me for my green card when I am an American citizen.	1	2.4%		
	The nurse that gave my child her vaccines was very informative, listened to all of my questions and gave thorough and helpful answers and information. I will definitely come back to the Health Department for all of my child's future immunizations.			1	1.8%
	Need cleaner/better bathrooms			1	1.8%
	Maybe the WIC office waiting area should be enlarged to accommodate the patients and children. Too stuffy but everything else was fine. Thanks.			1	1.8%

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	They shouldn't pressure people for identification because it's not an absolute necessity. There is no imminent national or public danger involved and hence why pressure customers/patients for ID? Is it likely that a fugitive from justice or a terrorist will come and seek treatment for a STD'? I think individual privacy, particularly because it deals with very sensitive personal matters should override government interest in data gathering and statistical analysis. In these times where personal liberty is being eroded in the name of national security, the war on drugs, etc. At least there should be a wall of defense to preserve an individual's personal health information and confidentiality (meaning not requiring identification to receive STD treatment).			1	1.8%
	About the requirements--we the Hispanics do not have much and do not make much--requirements should be minimal.	1	2.4%		
	Information for insurance qualitifications for FAMIS--for adults	1	2.4%		
	Information on English classes for individuals	1	2.4%		
	I am only satisfied with the serivce I received	1	2.4%		
	Yes, we are grateful for all the help that is there for those who need it. But please don't tell anyone from where they come because it's important, I think, that without your help, we would not last very long and what counts most in this life is the health of our children because they are our future.	1	2.4%		
	The services are good but they could be better if they would have other kinds of services or another clinic for other emergencies and illnesses here so we would not have to go to the hopsital or to Crossover. The WIC waiting room is very small. The bathrooms are very dirty. The bilingual Social Services receptionists and the bilingual person in the pharmacy all of them appear to be likeable. To sum it up, we are grateful for all that they do.	1	2.4%		
			0.0%		

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	Their new regulation regarding showing a pay stub of the person that is supporting you before receiving treatment. For those who can't get a pay stub, they have to pay for treatment the same day that they receive treatment.			1	1.8%
	I felt the Health Department really helped me out a lot today. It is however some 20 miles from my home and although I am able to get all my services at one time, not everything is available all the time.			1	1.8%
	I had a past due balance since 1999. I have never been notified until today--March 15, 2005--staff was very rude. They refused to see me because of the bill. That was wrong because I was never notified.			1	1.8%
	I do strongly feel that there should be more staff able to communicate with more nationalities and those of different ethnic backgrounds. It would also be helpful for the receptionist to question the patient on other services we could apply for or maybe we could be given a booklet of other services available to us (public) as health and social services customers.	1	2.4%		
	The wait time needs to have something done with it--maybe the possibility of evening and some Saturday hours. We are encouraged to make appointments with the Health Department but hours conflict with work hours and sometimes can result in loss of job.			1	1.8%
	I have been to a Health Department in another part of the state (Lynchburg) and Chesterfield is much better in every way. Everyone here is nice and the facility is very clean and well kept. I've only been here twice but both times have been very positive.			1	1.8%
	The Health Department's main entrance and the parking area needs to be clean and the cushions of the waiting room chairs have dirty spots all over.			1	1.8%

CHESTERFIELD COUNTY 'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
RESPONSES TO OPEN-ENDED QUESTIONS

Question Number		Hispanic/ Latino Responses	Percent	Non-Hispanic/ Latino Responses	Percent
	Please do the most possible to help us at the hours indicated and that way everything would be excellent.and if there is a only a problem, tell the receptionist so she can better talk to us about this (the new receptionist).	1	2.4%		
	They always try to give the best possible help. I know the staff can't always be friendly and clearly it is not all the staff because there are some that give us the best care possible that are friendly.	1	2.4%		
	I am really pleased that all the services are in one location	1	2.4%		
	I would like the Hispanic community to have more Hispanic nurses.	1	2.4%		
		41		55	

Appendix K

CHESTERFIELD COUNTY'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
INTERVIEW COMMENTS

Question Number		Hispanic/ Latino Responses	Percent	Non Hispanic/ Latino Responses	Percent
1	**What other services would you like for the Health Department to offer?**				
	Don't Know	17	21.5%	64	50.0%
	Cancer Services/Information			1	0.8%
	Low cost			1	0.8%
	If you could pay for a dental exam	1	1.3%	1	0.8%
	Elder Care			2	1.6%
	More health-related services	3	3.8%	2	1.6%
	Program for driver's licenses			1	0.8%
	The Health Department covers the basic needs of each citizen	41	51.9%	31	24.2%
	OB GYN services			2	1.6%
	WIC for everyone not based on income			1	0.8%
	Day Care	1	1.3%	2	1.6%
	Pediatric Services	3	3.8%	3	2.3%
	Wellness Clinic			2	1.6%
	Doing a good job--waiting times shorter	1	1.3%	2	1.6%
	It is my first visit to the Health Department and I am not familiar with the services or what the Health Department has to offer.	2	2.5%		
	Transportation Services			3	2.3%
	Expand building and add a café to eat			1	0.8%
	Really need to have all the services offered all the time			1	0.8%
	Services for military families			1	0.8%
	Provide more vitamins/nutrition for general health			1	0.8%
	Vision care/eye exams			2	1.6%
	Parenting classes			1	0.8%
	Exercise classes or work shops			1	0.8%
	Charging people who don't have insurance and can't get Medicaid	3	3.8%		
	Emergency care facility			1	0.8%
	Friendly staff who don't act like they are police (threatening/domineering manner)	1	1.3%	1	0.8%
	All that is related to health and hospitalization	1	1.3%		
	How to get a medical checkup without being pregnant	1	1.3%		
	More staff because there are a lot more people	1	1.3%		
	Mail bills/serve undocumented	2	2.5%		
	Something that helps more Hispanics	1	1.3%		
	Donations for adults				
		79		128	
2	**What would you like to see changed and/or improved at the Health Department?**				
	Yes, I would like to see some changes	1	2.3%		
	Everything is fine	22	51.2%	42	29.6%

CHESTERFIELD COUNTY'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
INTERVIEW COMMENTS

Question Number		Hispanic/ Latino Responses	Percent	Non Hispanic/ Latino Responses	Percent
	Don't like current changes			1	0.7%
	Maybe staff--more people			2	1.4%
	I would like to see more help with understanding programs and helping with what is available			2	1.4%
	Too many people involved		0.0%	1	0.7%
	Promptness of service	3	7.0%	29	20.4%
	Cost of birth control should be reduced			1	0.7%
	Need a section for little kids	1	2.3%	4	2.8%
	The approach of registering people--lady doing registration was rude			1	0.7%
	Ask for too many requirements to get services	1	2.3%		
	Waiting room area expanded	2	4.7%	7	4.9%
	Friendlier staff	1	2.3%	6	4.2%
	Single mothers don't always not work--need to look at that			1	0.7%
	More seating			1	0.7%
	The availability for the receptionist to answer the phone and greet patients right away			1	0.7%
	A number should be given out when you come in without an appointment, from the receptionist at the window, so everyone can stop being seen on a first come basis			2	1.4%
	Rude to ask for household income--it is not right			1	0.7%
	More diverse now--so good--ok			1	0.7%
	Everyone getting WIC			1	0.7%
	Need a payment plan			1	0.7%
	WIC Office expanded			1	0.7%
	Day care			1	0.7%
	More doctors medical staff (doctors, nurses)			2	1.4%
	Newer Facilities			1	0.7%
	If you call a case worker, they call you back within three months. I had the worst case worker--really bad.			1	0.7%
	Better way of helping you			1	0.7%
	More direct route of information--communication - direct line by phone			1	0.7%
	Expand hours to fit working schedules			4	2.8%
	More medical services like ultrasound	1	2.3%		
	Better arrangements calling people. Came here a year ago less private than other places.			1	0.7%
	Rules on income level for payment			1	0.7%
	Cleanliness and add color			2	1.4%
	Waiting rooms are not comfortable			1	0.7%
	Waiting room very hot			1	0.7%
	Intake staff financial screening/staff to be more nicer and listen more/nurses to be more private about customers			2	1.4%
	Check up more on qualifications for receipt of services			1	0.7%

CHESTERFIELD COUNTY'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
INTERVIEW COMMENTS

Question Number		Hispanic/ Latino Responses	Percent	Non Hispanic/ Latino Responses	Percent
	Waiting times have gotten better			1	0.7%
	Offer more services at different times	1	2.3%	1	0.7%
	Policy on planning/pay stub			1	0.7%
	Seating for handicapped people			1	0.7%
	Diversity--more people able to speak various languages			1	0.7%
	Educational TV in waiting area--more information about health issues			1	0.7%
	Scheduled appointments--if late they should still see you			1	0.7%
	Make two waiting areas in the lobby area. Easier to contact the Health Department by phone.			1	0.7%
	The Health Department is clean and facility great--staff is friendly			1	0.7%
	First time			1	0.7%
	Charge less--help "us"	1	2.3%	1	0.7%
	Their assumptions about ethnicity--especially about Hispanic/Latinos	1	2.3%		0.0%
	Have not had any problems			1	0.7%
	More chairs in the waiting area			1	0.7%
	Adult Health Care			1	0.7%
	Very nice and clean			1	0.7%
	Would like more space in offices			1	0.7%
	Shuttle bus service	1	2.3%		
	No requirement for ID	1	2.3%		
	More open appointments	1	2.3%		
	Talk to one person	1	2.3%		
	Cleanliness of the bathrooms and sometimes the nurses should not smoke	1	2.3%		
	I think nothing--everything is fine	1	2.3%		
	Children services	2	4.7%		
		43		142	
3	**In your opinion, is there enough information about the Health Department services available in your native language?**				
	Yes	51	92.7%	131	92.3%
	No	3	5.5%	9	6.3%
	I would like to see more information in English--more information is available in Spanish			1	0.7%
	Information needs to be available in a more conspicuous place			1	0.7%
	Yes, I think there are a lot of Spanish people to help	1	1.8%		
		55		142	
4	**Do you feel the Health Department needs to hire more bilingual staff?**				

CHESTERFIELD COUNTY'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
INTERVIEW COMMENTS

Question Number		Hispanic/ Latino Responses	Percent	Non Hispanic/ Latino Responses	Percent
	No	18	11.6%	77	18.3%
	Yes	25	16.1%	43	10.2%
	Can always hire more to help with questions			1	0.2%
	I think that they have enough bilingual staff. Hispanic/Latinos need to adapt.			1	0.2%
	Don't know			13	3.1%
	Maybe for the billing--maybe nurses			1	0.2%
	Need more on Fridays			1	0.2%
	The ones you have are enough but sometimes some feel they are discriminated by them.	1	0.6%		
	They need to balance it out because there are some patients that don't speak English or Spanish	1	0.6%		
		155		421	
5	**In your opinion, should the Health Department have more than one location where services can be provided?**				
	No	5	10.6%	14	9.7%
	Yes	13	27.7%	49	33.8%
	Western end of the county	25	53.2%	50	34.5%
	One closer to the city.			2	1.4%
	Yes because the poor have problems with transportation	1	2.1%	2	1.4%
	Could be open more			1	0.7%
	Yes, sometimes the clinic is very crowded			1	0.7%
	Yes, east end of county			1	0.7%
	Yes, satellite area office for working people			1	0.7%
	Yes in Matoaca and Bensley area			1	0.7%
	Yes, south Chesterfield			2	1.4%
	Yes, Midlothian	2	4.3%	2	1.4%
	Yes, closer to the west end in Richmond	1	2.1%	3	2.1%
	Yes, more in Chesterfield County			1	0.7%
	Definitely, need one further south near Ettrick.			3	2.1%
	Yes--Brandermill			3	2.1%
	Yes, more towards Hopewell			2	1.4%
	Yes, Chester			1	0.7%
	Yes, in the upper part of Chesterfield			1	0.7%
	Yes, Courthouse Road area			1	0.7%
	Yes, further into the rural part of the county			1	0.7%
	Yes, closer to I95 and Route 10			1	0.7%
	Yes, something closer to a main street			1	0.7%
	Yes, near the Jeff Davis area			1	0.7%
		47		145	

CHESTERFIELD COUNTY'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
INTERVIEW COMMENTS

Question Number		Hispanic/ Latino Responses	Percent	Non Hispanic/ Latino Responses	Percent
6	**Should the Health Department extend its hours and/or days of operation?**				
	No	16	34.0%	55	39.6%
	Yes--maternity is only two days--this schedule really throws you off			1	0.7%
	Yes, more hours and more days--need to open the clinic at least two Saturdays per month	1	2.1%	3	2.2%
	Yes	14	29.8%	32	23.0%
	Not sure			3	2.2%
	On Friday, stay open a little later--Monday through Thursday is fine			1	0.7%
	Yes, nights and Saturdays			4	2.9%
	Maybe half day on Saturday to accommodate working people	2	4.3%	8	5.8%
	Yes--teen days especially on Monday and Wednesday. Teens have jobs that make this schedule harder.			1	0.7%
	Yes, some days	1	2.1%	1	0.7%
	Yes--closed 11:00am - 1:00pm--should be 12:00am - 1:00pm			1	0.7%
	Yes, until 7:00pm in the evening			1	0.7%
	On some days and Wednesday and Saturday--more hours and days for WIC			1	0.7%
	Offer more evening hours	2	4.3%	4	2.9%
	Expand afternoon services			1	0.7%
	Flexible hours			1	0.7%
	Not very well familiar with the hours	1	2.1%		
	Most of them--more hours and weekend			3	2.2%
	More hours so more people can visit--all services offered daily	3	6.4%	6	4.3%
	Yes, because there are times people need to see a doctor after normal hours			1	0.7%
	Yes, one Saturday per month			2	1.4%
	Hours--late evenings and Saturdays--one half day			1	0.7%
	Missed three days of work--difficult for working people--should open on Saturdays			1	0.7%
	Maybe emergency services			1	0.7%
	Don't know--holiday closings are inconvenient			1	0.7%
	Hours yes, "I think they cut the hours"	1	2.1%		
	Maybe until 6:00pm			1	0.7%
	No, just more locations for convenience			1	0.7%
	Yes, Saturdays all day			2	1.4%
	Longer hours during the week--Saturday mornings 9:00am-12:00pm			1	0.7%
	Some days	1	2.1%		
	It is sufficient	3	6.4%		
	A little more	1	2.1%		
	Yes, during the week and on Saturday and Sunday	1	2.1%		
		47		139	

CHESTERFIELD COUNTY'S HEALTH DEPARTMENT
PATIENT SATISFACTION SURVEY
INTERVIEW COMMENTS

Question Number		Hispanic/ Latino Responses	Percent	Non Hispanic/ Latino Responses	Percent
7	Overall, do you feel you receive quality service from the Health Department?				
	Somewhat			1	0.7%
	Yes	44	93.6%	120	87.0%
	Better conditions			1	0.7%
	Yes, every time I come for food stamps, nutrition, etc., I never had any problems			1	0.7%
	It all depends--just have to wait a while until they complete all requirements before getting service			1	0.7%
	Yes, it is quicker now coming to the Health Department	1	2.1%	1	0.7%
	No. I make too much money as a single mom for the state to help.			1	0.7%
	Sometimes it is hard to get in touch with the Health Department by phone.			1	0.7%
	Yes, but need more information on about fees and family planning.			2	1.4%
	Somewhat--Health Department has changed so much			1	0.7%
	So-so--WIC could be better			1	0.7%
	Yes, but sometimes the people can be snooty			1	0.7%
	No	1	2.1%		0.0%
	Much better than the first time			1	0.7%
	For my first visit, they provided me with excellent services.			1	0.7%
	Yes, last experience good with doctor and nurse. The only problem is with financial screening.	1	2.1%		
	No--waiting for 1.5 hours and not seen. Advised it would be another hour			1	0.7%
	Staff has good intentions and are limited in what they can do--they want to help			1	0.7%
	Not today--some discrepancies			1	0.7%
	I think they do give good service--worse thing was not understanding			1	0.7%
		47		138	

Appendix L

CHESTERFIELD HEALTH DISTRICT
CHESTERFIELD COUNTY - CITY OF COLONIAL HEIGHTS - POWHATAN COUNTY
P. O. Box 100
Chesterfield, Virginia 23832

August 23, 2004

Office of Research Subjects Protection
Virginia Commonwealth University
1101 East Marshall Street, Room 1-023
P. O. Box 980568
Richmond, VA 23298

RE: Permission to Conduct Research
For Lynell H. McClinton

To Whom It May Concern:

I have reviewed the research protocol prepared by Lynell H. McClinton, principal investigator, and I am granting her permission to conduct her research in Chesterfield County's Health Department.

An area within the Health Department facility will be available where the study can be conducted safely and effectively according to the protocol.

If you have any questions, please feel free to contact me at (804) 751-4385.

Sincerely,

William R. Nelson, M.D., M.P.H.
Director

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

Appendix M

CHESTERFIELD HEALTH DISTRICT
CHESTERFIELD COUNTY - CITY OF COLONIAL HEIGHTS - POWHATAN COUNTY
P. O. Box 100
Chesterfield, Virginia 23832

December 3, 2004

Dear Patient:

This letter is to request your participation in a research study that is being conducted by Ms. Lynell McClinton, a Ph.D. candidate from Virginia Commonwealth University, and supported by Chesterfield County's Health Department.

The Health Department is committed to protecting, preserving and promoting optimum health for the community through excellence in public health service. Our mission requires a periodic assessment of the services we provide and how well we provide them. This research study will provide us with valuable information that will help guide us through our planning efforts to better serve you.

You must be 18 years old or older to volunteer to take part in this study. If you wish to participate in this study, please go to the waiting area and ask for Ms. McClinton and she will direct you to the study location. Once the survey has been completed, you will receive a small token of appreciation for your participation in the study.

Participation in the survey will have no effect on any benefits you may receive from the Health Department. We view this research study as an effort to improve not only services to our patients, but also to improve the provision of services by the Health Department staff.

Thank you for participating in this study.

Sincerely,

William R. Nelson, M.D., M.P.H.
Director

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

Appendix N

CHESTERFIELD HEALTH DISTRICT
CHESTERFIELD COUNTY - CITY OF COLONIAL HEIGHTS - POWHATAN COUNTY
P. O. Box 100
Chesterfield, Virginia 23832

Deciembre 3, 2004

Paciente Querido:

Esta carta es para solicitar su participación en un estudio de la investigación que esta siendo conducido por la Señora Lynell McClinton, candidato de Ph.D. de la universidad de la Commonwealth de Virginia, y apoyado por el departamento de la salud del condado de Chesterfield.

El departamento de la salud está confiado a proteger, a preservar y a promover la salud óptima para la comunidad con excelencia en servicio médico público. Nuestra misión requiere un valoración esporádico de los servicios que proporcionamos y que tan bien los proporcionamos. Este estudio de la investigación proporcionara de nosotros la información valiosa que ayudará a dirigirnos con nuestros esfuerzos para mejor servirlos a ustedes.

Usted debe tiener 18 años o mayor para ofrecerse voluntariamente a participar en este estudio. Si usted desea participar en este estudio, por favor vaye al área que se espera y pedir por la Señora MClinton y ella le dirigirá a la localización del estudio. Despues que ha terminado , usted recibirá un regalo pequeño por agradecemento para su participación en el estudio.

La participación en el estudio no tendrá ningún efecto en las ventajas que usted pueda recibir del departamento de la salud. Nosotros vemos este estudio de la investigación como esfuerzo de mejorar no solamente servicios a nuestros pacientes, pero también de mejorar la disposición de servicios del personal del departamento de la salud.

Gracias por participar en este estudio.

Sinceramente,

William R. Nelson MD

William R. Nelson, M.D., M.P.H.
Director

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Appendix O

Appendix O

VITA

Lynell Holland McClinton is an American citizen born on March 7, 1948 in Seguin, Texas. Upon graduation from Phyllis Wheatley High School in 1965, she attended San Antonio Jr. College in San Antonio, Texas earning a Certificate of Completion in Secretarial Science in 1967. She worked as a secretary for one year before returning to St. Mary's University where she earned a Bachelor of Business Administration in 1972. She worked in accounting and finance in various industries throughout the United States and Germany. She attended Virginia Commonwealth University from 1994-1998 earning a Certificate of Public Management in 1996 and a Master Public Administration in 1998. She has worked as a public administrator for Chesterfield County, Virginia since 1993.

Her professional associations include memberships in Pi Alpha Alpha, an honor society for Public Affairs and Administration, American Society of Public Administrators, Center for the Advancement of Research Methods and Analysis, Virginia Government and Finance Officers Association, and Virginia Recreation and Parks Society.