ABSTRACT
               The Parent Child Center Management Information
System, the first operational MIS for a social action program
relating to child welfare, consists of three interlocking components:
a standard set of recordkeeping forms for the local Parent Child
Center; a set of quarterly reporting forms that interface with the
recordkeeping forms; and a series of management reports that can be
produced from data that are reported on the quarterly reporting
forms. The system links data reporting directly to management
decisionmaking. It focuses, standardizes, and channels the flow of
information needed for making rational decisions about funding,
budgeting, program evaluation, contract compliance, and program
planning; and the timing of the flow of this data is geared to cycles
of important management decisions. The system is seen as a
potentially valuable means of maximizing the benefits from limited
resources by timely reduction of managerial uncertainties.
Additionally, it links costs to services, permits management to see
how human resources are being used in a labor-intensive program, and
acts as an early warning system and makes hard facts available for
appropriate corrective action so that management-by-purpose can
replace management-by-exception. (Author/WM)

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FINAL REPORT:

Overview of the Parent Child Center

Management Information System

AAI Report No. 73-86

This report was prepared for:

The U.S. Department of Health, Education and Welfare
Office of the Secretary, Office of Child Development
Research and Evaluation Division

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    Cambridge, Massachusetts                     June 11, 1973

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Abstract of the PCC MIS Final Report

The PCC MIS consists of three interlocking components - (1) a standard set
of recordkeeping forms for local PCCs, (2) a set of quarterly reporting forms
that interface with the recordkeeping forms, and (3) a series of management
reports that can be produced from data that are reported on the quarterly re-
porting forms. Unlike less demanding "information reporting systems", the
PCC MIS links data reporting directly to management decision-making. It
focuses, standardizes and channels the flow of information needed for making
rational decisions about funding, budgeting, program evaluation, contract
compliance and program planning. The timing of the flow of this data is
geared to cycles of important management decisions. No research per se is
conducted by the system and one-shot questions or data requests that have
little continuous value to management decision-makers are not reported. In
short, the selection, collection, processing and display of data is governed
by management needs.

Every effort was made to ensure that the system is particularly useful to
local management as well as national management. Forms were simplified to
avoid an undue burden of paperwork in terms of system maintenance and data
processing. The system takes into consideration other reporting requirements
such as grant applications and budgets, and supports the completion of these
requirements. In addition, the system is constructed so that useful manage-
ment information flows toward the local PCCs as well as toward Washington.

The PCC MIS is designed to contribute to improved program management, planning
and evaluation. The system is seen as a potentially valuable means of maximi-
zing the benefits from limited resources by timely reduction of managerial
uncertainties. It links costs to services. It permits management to see how
human resources are being used in a labor intensive program -- a program in
which more than 2/3 of the operating costs are personnel costs. It acts as
an early warning system and makes hard facts available for appropriate cor-
rective action so that management-by-purpose can replace management-by-exception.
It channels requests for information through a system that manages infor-
mation in a positive way by establishing specific times for data reporting
and limitations on data to be reported.

The design of the PCC MIS makes it possible for the system to be transferable,
and responsive to calls for change in the future. While the PCC MIS was de-
signed as a comprehensive system, the interrelated parts of the PCC MIS have
been integrated in such a way that they are not so dependent upon one another that
a change to one part creates an untoward chain reaction in all other parts.
Moreover, the system has been documented in modular fashion so that it can be
transferred in whole or in part to other agencies and organizations with a need
to organize the flow of information so that it is a meaningful input to
management decision-making.

The PCC MIS is the first operational MIS for a social action program relating
to child welfare.

# Chapter I

## Introduction

The supply of good teachers and caregivers for child development programs is
elastic, but the current supply of good child care program management is not.
Good program management for child care programs--whether home based or center
based--requires a rare combination of skills. It requires the ability to
relate to the financiers (both governmental and non-governmental), staff, pro-
gram participants--children and parents alike, and the community. It demands
knowledge about child development and about intervention strategies to achieve
positive child development. It requires the leadership and insight to use
the available resources--people, space, equipment, and supplies--to their best
advantage in achieving program objectives. Finally, it involves a knowledge
of financial accounting, including the elements of program costs, and an under-
standing of the relationship between program costs and program operations.

Normal family experiences together with formal education and training, both
on-the-job and at colleges, are combining to meet the growing demand for good
teachers and caregivers for child care programs. By contrast, trial and
error is almost the only method of acquiring child care program management
skills. Not a single university or college in the country has a class in
the management of child care programs. Two or three colleges have a class
that they label a management course, but at the present time none of these
courses spends a single day on financial management, accounting, purchasing,
fraud control, recordkeeping, methods of deploying and supervising staff, or
administrative policies. Moreover, none of them even has a reading list that
could be used to acquire these skills through reading. Schools of Social Work
do not teach management skills, and Business Schools do not teach the child
development and human service program skills necessary for child care programs.

This was the dilemma faced by the Parent Child Center (PCC) Program in
1970-1. The PCC program had been established in 1967 by Presidential Di-
rective. It was developed in response to the increasing evidence that

the prenatal period and infancy are crucial influences on a child's sub-
sequent development. Financed by the Bureau of Head Start, the PCC program
was designed as a pilot demonstration to deliver comprehensive services to
low-income families with children under the age of three and to expectant
mothers. It had a projected five year life, but the shortage of good program
managers was creating problems for the demonstration project.

In 1970, at the time the Bureau of Head Start was transferred from the Office
of Economic Opportunity (OEO) to the Department of Health, Education and Wel-
fare (HEW)* it became apparent that:

- the financial records of the PCC Program both at the National Of-
  fice and grantee levels were inadequate and incomplete.

- local PCC recordkeeping systems for program operations were typically
  lacking in continuity and incapable of producing reliable program-
  wide statistics.

- both formal and informal communications between PCCs, Grantees,
  and the National Office of the PCC Program were poor. (In some cases
  monthly financial reports had not been submitted for more than 18
  months and written reports on program operations had never been
  submitted).

- Federal guidelines for the program were not being enforced with
  consistency, and

- program services in several localities were irregular and erratic.

In short, serious deficiencies in management and administration were revealed,
deficiencies that had been forecast by Kirchner Associates Inc. in their
report, "A National Survey of the Parent-Child Center Program" (March 1970).

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* The Bureau of Head Start was transferred to DHEW during the 1970 fiscal
year.

Tne PCC Management Information System (MIS) was one part of a much larger
effort to remedy the management and administrative deficiencies identified
in 1970. The effort came at an opportune time. The start-up phase of the
program was over. If the difficulties of translating untested program concepts
into several project models and implementing them in 35 highly diverse, low-
income communities had not been completely overcome, at least there were 35
projects in operation using several different modes of organization and
service delivery. Furthermore, the program was under new auspices and conse-
quently was more amenable to changes than it might have been earlier.


These circumstances were important considerations in determining the feasi-
bility of a Management Information System (MIS) for the Parent Child Center
(PCC) Program. They were even more important considerations in the design
and implementation of the PCC MIS.

A Parent Child Center Management Information System was first suggested as
an instrument for providing local and national program managers with timely,
relevant and accurate information for decision-making in November, 1970.
The PCC Program had a reporting system that was being operated on behalf of
the Bureau of Head Start by a private contractor. The reporting system, how-
ever, was not designed to meet the management information needs of local projects
and the Bureau of Head Start.


What was needed was a "Management Information System," rather than an "Infor-
mation Reporting System." A "Management Information System" differs from
an "Information Reporting System" in the purpose of information collection
and the use of the information once it is collected. An MIS links data col-
lection to key management decisions, such as funding, budgeting, resource
utilization and program planning. The selection of the data to collect and
the timing of the flow of the data are geared to important management

decisions. An information reporting system, on the other hand, simply makes useful information available to a variety of users. It does not link information to a decision-making process. It is not designed to draw the implications of data to a decision-maker's attention. While data from an information reporting system can be used ex post facto to justify the program and monitor for contract compliance, it does not anticipate problems or suggest appropriate courses for remedial action.

In the spring of 1971, a public RFP was issued for a feasibility study of a Management Information System for the Parent Child Center Program. Abt Associates Inc. was awarded the contract for the feasibility study in June, 1971.

This phase of the design and implementation of an MIS for the PCC program was finished in October, 1971. During the feasibility study Abt Associates Inc. visited a sample of eight Parent Child Centers, which represented a range of different types of low income communities and a variety of organizational and program service delivery models. The PCCs of Newark (New Jersey), the District of Columbia, Mt. Carmel (Illinois), Leitchfield (Kentucky), La Junta (Colorado), Boston (Massachusetts), Honolulu (Hawaii), and Cleveland (Ohio) were visited and studied in depth. All reporting requirements, recordkeeping procedures, staffing patterns, organizational structures, fiscal management mechanisms, and administrative procedures were examined. Procedures at the National Office of Parent Child Center Program, the Bureau of Head Start, and the Office of Child Development were also examined. More than twenty interviews were held with key management decision-makers in the Office of Child Dvelopment. These examinations were the basis of the series of policy recommendations and the suggested design for a PCC MIS published in a report titled Management Information for the Parent Child Center Program; Phase I: Findings and Recommendations (October 25, 1971).

The report was received with enthusiasm by the Office of Child Development, and was distributed to all PCCs, PCC grantees, PCC project advisors, and National Office staff members.

The design of the MIS was to build on the feasibility study. The feasibility study suggested nine important system features:

- The system should be demonstrably useful to both local and national program management decision-makers by providing relevant and accurate information on a timely basis.

- The system should be directly associated with funding and contract compliance.

- The system should generate a two-way flow of useful management information; toward local Parent Child Centers as well as toward Washington.

- Program operating costs should be determined quarterly by function of service.

- All PCCs should adopt a standardized recordkeeping system.

- Communication patterns must be enlarged and standardized.

- The system should be feasible, given the kinds and amounts of resources currently or potentially available to collect and process information.

- The system should be sensitive to the rich diversity in PCC programs and avoid undesirable reorientation of the PCC program as a consequence of the MIS.

- The system should be adaptable to possible future modifications of the PCC program.

The timing of the Phase II contract also had a bearing on the design of the PCC MIS. The original plan was to begin Phase II in early December, 1971. However, the contract was not signed until late January, 1972. Once the contract was signed, PCC and Bureau of Head Start program management felt that it was imperative that the system be in operation and generating management reports by November, 1972.

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Moreover, it was determined that the PCC MIS would have to be designed to
help management decision-makers who typically must make a great many decisions
that are ad hoc in nature and cannot be predicted even by the most thoughtful
and articulate of managers. Previous experience suggested that it was important
to involve local PCCs in the actual design of the MIS to insure maximum commit-
ment to and use of the system, regardless of the time constraints. Finally,
as a result of budget constraints, the project had to be tightly managed and
some elements of the original assignment would have to be either eliminated or
drastically altered.

Thus, constrained by time limitations, the need to involve a large circle of
participants and potential users, a complex set of decision-making procedures,
and an extremely tight budget, the alternatives available to the contractor
were limited. Abt Associates Inc. chose an innovative strategy to the
design and implementation of a management information system for the
Parent Child Center Program. It chose to design and implement the PCC
MIS concurrently. This was not the easiest nor the safest course, but it
held out the promise of producing the best results for the time and money
available.

The decision to design and implement the MIS concurrently produced at least
five positive benefits:

(1) It gave the system's users an opportunity to assess the system
under true operating conditions while still permitting them to modify
the system in meaningful ways at a time when the system was still
plastic.

(2) Because all system users had an opportunity to affect the design
of the system as they used it under true operating conditions, it was
possible for the system to become the user's, and not simply the
designer's, system. This is a particularly meaningful point, since
the system being implemented was an MIS that attempts to serve several
levels of management and not a service system or a system that serves
a single level of management.

(3)　The system required less design and documentation prior to implementation than the classical model.　As a result, it permitted a satisfactory MIS to be implemented and to yield results faster and at less cost (fewer debugging problems) than would otherwise have been possible.

(4)　Because the system was being shaped as it was being implemented, it was easier to implement than a classical system.　Progress was not unnecessarily impeded by users or potential users who felt threatened by a system that was difficult to alter or by a process that appeared to be closed.　Moreover, this strategy made it possible to pursue the formative objective of improving management without requiring anyone to "lose face."

(5)　The system has a greater likelihood of being used to make management decisions once implemented than a classical model would have, since it was shaped to meet the on-line needs of users.

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A classical model for MIS design and implementation calls for the following protocol:

- A complete design and documentation of the system at the outset.

- A management review of the design resulting in a "go/no go" decision.

- A field test of the design.

- Debugging prior to introducing the system to broader program or company involvement.　When the system is introduced at the program or corporate level, additional problems are likely to be identified.　These problems will require another round of debugging.

Chapter II

## Design Considerations

The decision to design and implement the Parent Child Center (PCC) Manage-
ment Information System (MIS) concurrently had a significant influence on
the design of the system. It influenced not only the process, but the pro-
duct. It meant that the design phase would be a fluid process which would
interact with incremental implementation. The design process would be spread
over several months and since implementation parallelled design, the strategy
eliminated the formal review of the design that frequently preceeds the
decision to implement.

The decision to design and implement concurrently also meant that the design
team must be capable of performing a number of different roles. They must
be capable of performing useful roles in implementation of the system as well
as in design of the system. They must be able to relate to local PCC staff
members, as well as to technicians; to accountants as well as to child devel-
opment specialists. They must have a management orientation, but be sensi-
tive to the rich diversity of the PCC program.

From the outset, this approach required that the design team have a sound
overview of the system's objectives. It also required that the system's
objectives remain constant. Changes in objectives would destroy the process.
At this stage of the development of the MIS, the participatory aspects of
system design must be confined to the specification of decisions and data
points, and the refinement of definitions and procedures. Basic questions
such as whether or not to focus on the management of resources by building the
system around the quarterly analysis of operating expenditures by the func-
tional services provided, could not be reopened. The basic decisions around
which the PCC MIS were built are the subject of this chapter.

## Limiting the Scope of the PCC MIS

The most fundamental design consideration built into the PCC MIS was the implicit decision to focus on program inputs and processes rather than on program outcomes (see Illustration I). The strategy places an emphasis on determining basic information about participant characteristics, staff characteristics, and financial resources as program inputs, and on recording services that participants receive as a result of program participation. It highlights the influences on children and parents that are presumed to affect parent and child development. Although changes in child and parenting outcomes are still seen as the true objectives of the Parent Child Center program, this strategy asserts that inputs and processes must be measured and monitored before program claims regarding child and parent outcomes can be made. Finally, it results from the belief that child and parent outcomes cannot be meaningfully measured at frequent enough intervals to make them cost-effective, on-going management tools.

Not all inputs and processes, of course, can be monitored cost-effectively either. Condition of premises, attitudes of staff toward children, and ability of staff to convey information to young children and to parents are critical processes, but they are difficult to measure cost-efficiently on a continuing basis. Likewise, most parent and child experiences defy meaningful measurement on a continuing basis. Moreover, some inputs and processes do not change frequently. Community resources, the size of a facility, and location of a facility are in this class. These inputs and processes require less frequent reporting than those that change more often.

As a consequence, some inputs and processes were not incorporated into the quarterly reporting system. This decision is not meant to imply that these inputs and processes are not important. Instead, their ommission stems from the frequency with which a variable is likely to change, the system's priorities, problems of potential information overload, and cost-effectiveness of system operation and maintainance. In most cases the omitted data are incorporated into the management decision-making process through on-site observations by managers or their surrogates and as part of the annual grant applications and reviews.

Potentially measurable changes in children

## OUTCOMES

**AFFECTIVE DEVELOPMENT**
- Personality development
- Social skills
- Motivation for learning
- Aesthetic appreciation

**COGNITIVE DEVELOPMENT**
- Spatial reasoning
- Classificatory reasoning
- Relational-implicational reasoning
- Systematic reasoning
- Attention span

**CREATIVITY**
- Imagination/fantasy
- Fluency
- Flexibility

**PSYCHOMOTOR DEVELOPMENT**
- Eye-hand coordination
- Small muscle coordination
- Large muscle and motor coordination

**HEALTH**
- Physical
- Dental
- Vision, speech and hearing
- Diet

**WELL-BEING**
- Sense of security
- Minimization of environmental dangers
- Sense of personal worth

Zone of PCC influence

## PROCESSES ASSOCIATED WITH PCC

**ENVIRONMENTAL**

*Physical Environment*
- Condition of premises
- Indoor space per child
- Outdoor space per child
- Age-relatedness of furnishings, shelves, toys, books, etc.

*Human Environment*
- Attitude of staff toward children
- Allocation of staff time to individual activities
- Ethnic and cultural content of books, menus, music, etc.
- Ability of staff to convey information and ideas to young children and to parents
- Staff/child ratio

**EXPERIENTIAL**
- Parent-child interactions
- Peer group interactions
- Dramatic play
- Climbing and crawling
- Catching an object in motion
- Visual discrimination (e.g., identification of shapes, colors, numbers, and objects)
- Auditory discrimination (e.g., identifying different sounds)
- Clean up
- Toileting
- Eating
- Watching/listening
- Verbal communications
- Resting

**SPECIAL SERVICES**
- Medical services
- Dental services
- Meals and snacks
- Housing assistance and home repairs
- Family counseling
- Transportation
- Parent education and training
- Referrals to social services

Influence on the child

## INPUTS

**CHILD**
- Age
- Sex
- Special problems

**CHILD'S FAMILY**
- Size
- SES
- Head of household

**PCC STAFF**
- Background
- Ethnicity
- Education

**FACILITIES**
- Size
- Location
- Condition

**FINANCIAL RESOURCES AVAILABLE**
- Amount
- Timing
- Allocation

**COMMUNITY RESOURCES**
- Social services agencies
- Hospitals, clinics, and other health facilities
- Volunteers

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In order to measure inputs and processes, it was necessary to identify indicators of key inputs and processes and to define these indicators in such a way that they were quantifiable. When indicators are defined in a quantifiable manner, they can serve as measures of performance and contract compliance. This strategy has the advantage of providing information that lends itself to valid and precise comparisons of performance and contract compliance, and eventually to impact analysis.

Quantification of key indicators is affected by two considerations:

1. The indicators must be easily converted into close-ended questions.

2. Responses to these questions must be recorded on a scale composed of equal intervals.*

The condition that the questions are close-ended meant that available responses must be comprehensive and mutually exclusive. It also meant that the terms that are used must be well defined.

In addition to the range of information to be reported, careful consideration was given to the volume of information to be reported through the PCC MIS. The volume of data to be reported, verified, and transformed into useable form was considered to be the most critical variable in the system's design. Too little information was viewed as a constraint on the management value of the system, yet too much information could easily overload the system, destroying its prospects for generating valid data on a timely basis.

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* The requirement that the responses to the question must be recorded on a scale composed of equal intervals can best be illustrated with an example. The number of months terminated employees had worked at the PCC was selected as an indicator of program continuity and the success of personnel management procedures. The categories for the number of months worked are multiples of 3-month periods so that comparisons between time periods worked at the PCC will be of the same length of time.

## The Management Objectives of the PCC MIS

The identification of the National Office and local program management objectives for the PCC program was one of the purposes of the phase I feasibility study. Four principal management objectives were identified:

1. to demonstrate, through quarterly statistical reports, responsiveness to the child development needs of low-income families with infants or pregnant women.

2. to improve PCC program management.

3. to monitor for contract compliance.

4. to maximize the utilization of the resources available to PCCs in providing comprehensive child development services to eligible families, and particularly to focal participants (children 0 to 3 years of age and pregnant women).

In pursuit of these objectives, the PCC MIS was expected to

- identify the functions performed by the PCCs and attribute operating costs to those functions.

- report the scope and quantity of services provided by PCCs.

- link costs to services.

- make accurate, uniform data available for comparative purposes on a quarterly basis.

- standardize the basic recordkeeping and reporting system for all PCCs in a manner that permits maintenance by paraprofessionals

- produce useful information flow toward the local PCCs as well as toward Washington.

The identification of functions of service and the attribution of operating costs to those functions was viewed as a core concept. Known as functional cost analysis, this technique for analyzing operating expenses is particularly valuable to the planning and management of human service programs. Human service programs are invariably labor intensive. The Parent Child Center Program, for example, spends approximately 70 percent of its operating budget on salaries and fringe benefits. Good planning and management depends on a knowledge of how this 70 percent of the available resources is being utilized. Functional cost analysis provides this knowledge. It also permits comparisons between programs with common functions, even if there is not a complete match of functions.

Functional cost analysis requires a great deal of information. It requires information about the wages and accrued benefits due to each employee and consultant during the time period being evaluated. It requires an accounting of donated services and an estimate of their dollar value. It requires a determination of how each employee, volunteer and consultant used their work time by function of service. It also requires detailed cost data on non-personnel expenses. Much of this information was not being collected by the PCCs, and some of the information that was being collected was not in an appropriate form for the purposes of functional cost analysis.

The necessity for obtaining quarterly data on operating costs by function of service did much to shape the design of the PCC MIS. The need to collect and report data on the services provided by PCCs in a manner that permits the linking of costs to services also played a significant role in the design of the PCC MIS. This need for service data established data requirements for frequency of service by type of service and people served by type of service.

The objective of having accurate, uniform data for comparative purposes is closely associated with the desire to standardize the basic record-keeping and reporting system for all PCCs. The use of standard record-keeping forms, procedures, and definitions which link directly into quarterly reporting forms at a prearranged time goes a long way toward having accurate, uniform data for comparative purposes.

The requirement that the system produce useful information flow in two directions was accomplished by a provision for sharing functional cost and unit cost data calculated in Washington with the PCCs.

The management objectives established for the PCC MIS required a multi-functional system. That is to say, they require a system that meets several different sets of objectives. The idea of a multi-functional system is dangerously enticing. It sounds cost-effective, but it tends to overload the ability of a system to collect, report, and verify data. It tends to undermine the maintenance features of a system, sapping it of the purpose that keeps it alive.

This fundamental problem was overcome in the PCC MIS in two ways: (1) by confining the collection of data for impact analysis to annual in-take records and drastically limiting the number of these data items even on those record-keeping forms, and (2) by making contract compliance a basic management concern.

Unit Costs As a Management Tool in Human Service Programs

When Abt Associates Inc. was given the responsibility of recommending an approach to management decision-making for the Parent Child Center Program, we recommended costs and staff time use as yard-sticks to the appropriateness of management decisions. This recommendation was made with the full realization that many of the sought-for outcomes from the PCC program are difficult, if not impossible, to monitize. We did not feel, however, that the inability to monitize program outcomes is a barrier

to allocating resources on the basis of costs. Only through allocation on the basis of costs is the determination of cost efficiency and cost effectiveness feasible. Furthermore, it was felt that good program management, planning, and evaluation are impossible without a clear understanding of how available resources are being used to achieve sought-for outcomes. Finally, we felt that an understanding of resource utilization is particularly important in a program that is charged with the responsibility of demonstrating the feasibility of altering the life chances and life style opportunities of young children, for possible replication.

## Chapter III

### Technical Problems

Reliable and timely cost data for management and comparative purposes are
not easy to obtain. Accounting procedures are not usually designed to fur-
nish information for management decision-making and they are not uniform
among/projects. Budgets are not uniformly constructed and generally bear
only limited resemblance to actual project expenditures. Audit reports
are almost always too late to play an important role in management deci-
sion-making and they are frequently not much better than budgets for
making cost comparisons.

In the absence of reliable data on operating costs, policy-makers commonly
resort to representing total cash program expenditures per child enrolled
as the cost of program service. This procedure has serious limitations.
It combines capital costs with operating costs and it ignores the costs
of third party paid and contributed goods and services. Furthermore,
unless the length of the program year, the scope of program services, and
the number of units of service per day are standardized, it distorts com-
parisons between programs or projects that do not have the same mode
of operations.

The task of developing a cost finding and reporting system for the Parent
Child Center program was a difficult assignment. The successful completion
of this assignment is one of the strong features of the PCC MIS.

Meaningful cost analysis requires a complete and detailed reporting of
expenses. It also implies comparisons, and thus requires a clear under-
standing of what is being compared.

The complete costs associated with a comprehensive child development pro-
gram are difficult to trace and report. Complete cost reporting for

functional cost analysis imposes additional requirements on the way in
which costs can be reported. At least seven significant problems are
encountered:

- separating operating costs from capital costs;

- identifying and valuing donated goods and services;

- reporting costs that are shared with another program or
  agency;

- differentiating accrued expenses from cash expenditures;

- reconciling program accounting practice with actual experience;

- attributing total operating costs to the functions of ser-
  vice performed; and

- controlling on externalities when making cost comparisons.

## Separating operating costs from capital costs--

Most bookkeeping systems and cost reporting procedures (such as CAP 15
Forms) fail to keep capital costs separate from operating costs. They
include contracts for the rental and/or maintenance of equipment and other
property with service contracts in the same line items of expense. They
rarely distinguish properly between consumable supplies and depreciable
equipment. Yet, serious distortions in annual operating costs are intro-
duced when capital investments are treated as operating costs.

## Identifying and valuing donated goods and services--

The legislative authority for the PCC program specifies that for every
four dollars of Federal funds that are furnished, there must be one dol-
lar of non-Federal funds. These non-Federal funds may be donated goods
and services as well as cash contributions to the project. Yet, despite
the great need to document non-Federal contributions to the PCC program
operations for legal purposes, systematic accounting for these sources of

support is rare. Consistent application of guidelines for imputing value is even rarer.

## Reporting shared costs--

The problems of expenses, or costs incurred by more than one distinct operation of a single corporate body or by two or more different corporate bodies, is one of the most difficult problems associated with cost analysis.

To illustrate this problem, consider for example the difficulty of determining the operating costs of a Parent Child Center that is closely connected with an adult job-training center serving a rural area. The purpose of the job-training center is to train welfare recipients for jobs requiring possible skills. Many welfare recipients have young children, however, and these children must be cared for if unemployed female heads-of-household are to be eligible for job training. Hence, PCC services are used to make it possible for more unemployed persons to participate in a job-training program available at the job-training centers. Because the center is located in a rural area, a subsidized transportation system is initiated to transport participants to the training center. Young children are also permitted to accompany their parent on the bus as a means of getting to the day care center.

Obviously, the transportation system is a shared facility benefiting the PCC. The difficulty of prorating transportation costs is not easily resolved, however. It can be argued that the transportation program must be provided whether or not the PCC utilizes the service, and hence that none of the costs of the transportation service should be charged against the PCC. Conversely, it can be argued that if the PCC did not have access to transportation, it would have to pick up the cost equal to the entire costs of the transportation service. Hence, all transportation costs should be charged against the PCC.

Finally, there could be logical grounds for dividing the transportation charges to reflect the relative portion of the transportation costs bene-fiting each service. This alternative, however, has all the disadvantages of King Solomon's famous "half-a-baby solution," as it does not permit the transportation system to be duplicated if the two service systems separate, and it is open to year-to-year fluctuations reflecting changes in the balance of usage between the programs being served.

## Differentiating accrued expenses from cash expenditures--

All PCC grantees keep their accounting books on a cash basis. That is to say, they record expenses not when they occur but when a bill has been sub-mitted and when payment is actually made. This method of accounting has serious shortcomings. Accounting on a cash basis produces distortions from year to year, even of regular items of revenue and expense. Consider, for example, the situation of a cash-basis organization with a biweekly pay period in a year that starts on a Wednesday or a Thursday and ends on a Friday. Under these conditions, an organization would have to report 54 weeks' worth of salary expense. Or, to use another example, it is not uncommon for day care centers to pay annual or longer insurance premiums that cover a different time period from the grant or calendar year periods, hence introducing distortions. Finally, unpredictable variations in ex-penses which are caused by delayed billings are an even more important cause of distortions in a cash accounting system. Hence, the necessity for reporting expenditures on the basis of accrued expenses rather than cash expenditures constitutes a serious problem.

## Reconciling program accounting practice with actual experience--

Federal program accounting procedures do not permit PCCs to charge some expenditures to the project. Interest charges on loans made to pay em-ployees when the Federal check does not arrive on schedule and depreciation of capital holdings are outstanding examples of how Federal program accoun-ting practice can distort actual experience. A more fundamental problem,

however, is the grants management practice regarding vacations. Vacations are not considered fringe benefits. They must be taken during the program year and are charged as salary. However, since no work is being performed during the period of time that the vacation is being taken, quarterly reporting of expenditures overstates the reporting of resources spent on program services in some quarters and understates the value of services performed in other quarters. This is particularly true if most staff vacations occur in the same quarter.

Merged program accounting represents another serious barrier to meaningful cost analysis. Federal program accounting procedures permit grantees to pool non-Federal contributions among several projects. Thus, if the PCC does not generate the legal minimum share of non-Federal support, the excess non-Federal contribution of another project operated by the grantee can be transferred on paper to the PCC's account. This means that the reported expenditures may not be the actual expenditures. It may also mean that program accounts cannot be closed or audited until all of the programs being merged have completed their program years. This has the practical effect of complicating the audit procedure.

The failure to institute a common Chart of Accounts for PCC grantees is also a serious impediment to the accurate reporting of expenditures. In some cases, travel for field trips is considered an "Other Cost," while in others it is considered a travel cost. Sometimes telephone costs are posted as "Space and Utilities," other times they are posted as "Other Costs." Sometimes a bus is considered "Purchase, Lease and Rental of Equipment," other times it is posted as a "Travel" expenditure. The failure to post the same expenditures consistently is a serious problem.

Finally, the 35 PCC project grantees had 17 different program years (PYs). Their accounts were based on those program years and not on a standard fiscal year or a calendar year. Unless each PCC grantee does a "trial

balance" monthly, they cannot report expenses in a form that will permit accurate comparisons among PCCs. Moreover, it will be impossible to link costs to services unless each PCC has its quarterly reporting cycle for service data tied to its own quarterly cycle for financial reporting.

## Attributing total operating costs to the functions of service performed--

The problem of attributing operating costs to the functions of service performed is twofold: (1) can costs be reported in enough detail to permit them to be attributed to functions of service? and (2) can estimates of personnel time use substitute for a time and motion study?

Until recently many experts believed that functional cost accounting is a prerequisite to functional cost reporting. The designers of the PCC MIS did not accept this assumption. Nor did they accept the assumption that a time and motion study is needed as a basis for attributing personnel costs to functions of service.

The design team's previous experience in functional cost analysis suggested that the number of functional categories affects the accuracy of time use estimates and the requisite detail in cost reporting. The definitions of the functional categories and the process of introducing the functional categories is also critical to the potential success of functional cost reporting and estimates of personnel time utilization. Moreover, the time span between reports of staff time use affects the validity of results. Finally, establishing work policies, such as the actual length of a work week and how vacations, compensation time and overtime are handled, is an important ingredient of reliable time use estimates for functional cost analysis.

## Controlling on externalities when making cost comparisons--

There must be some mechanism for controlling the influence of exogenous variables on PCC costs. Differences in the scope of services, the

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density of the service area, or the regional costs of labor can easily
distort data used in cost comparisons. The presence or absence of an-
cillary community services for the target population can also affect
the meaning of data. The PCC MIS would need mechanisms for reducing
the influence of these externalities.

Not all of the technical problems were cost accounting problems. The
decision to process the data manually or by computer, for example, had
to be made. There were a number of inputs to this decision:

- the frequency and volume of the data to be processed

- the alternative costs of data handling under different
  circumstances

- the programming costs of computerized data processing

- the availability of computer services.

The outcome of this decision could have had system design implications.

Likewise, the timing, protocol and content of workshops and on-site
technical assistance (T-A) were technical problems as well as logistical
problems. What kinds of learning experiences were to be involved? What
kinds of questions should the workshops address? What could they afford
to ignore? How important was group dynamics? How much manipulation of
circumstances was needed? How much was unhealthy? When and on what
issues was consensus required? These and many more technical problems
were involved in the system's implementation.

Chapter IV

## The Solutions to Technical Cost Accounting Problems

The technical problems described in the previous chapter were the primary
obstacles to using cost accounting as a management tool for the Parent Child
Center Program. The solutions to these problems could not always be direct,
as the PCC program is a relatively small component of a much larger program
-- the Head Start Program -- and neither the Office of Child Development nor
the PCC grantees were willing to change basic operating procedures for the PCC
MIS. Hence, except on a few occasions when meaningful changes were instituted
by the PCC MIS, it was necessary to work around obstacles rather then confront-
ing them head-on.

### Separating operating costs from capital costs --
The problem of separating operating costs from capital costs was not easily
solved. The line items on the Office of the Secretary's Quarterly Grantee
Financial report, the OS-192, were not detailed enough to permit the separa-
tion of capital expenditures from operating expenditures. This difficulty
was compounded by the fact that budgets in grant applications submitted by
PCCs frequently did not follow grant application guidelines.

When we asked grantees why they did not follow grant application guidelines in
submitting budgets, we were told that the OEO guidelines that governed most of
their activities were different from the HEW guidelines governing the PCC grant
and they were not always sure which guidelines to follow. Moreover, OCD grants
management officers, who were handling very heavy work loads, did not always
demand that grantees correct these confusions in budgeting since it did not
appear to make any difference where line items were shown on the budget sheets
so long as the proposed expenditures were approved, legal expenses.

Abt Associates Inc. attempted to solve the problem of separating operating costs
from capital costs in three ways: (1) getting better information on project
budgeting to PCC directors and grantees; (2) encouraging OCD grants management
officers to enforce budgeting guidelines which separate capital expenditures
from operating expenditures, and (3) introducing a more detailed quarterly
reporting of grantee non-personnel expenditures. Progress was achieved on all

three fronts, but new Office of Management and Budget (OMB) "inform administrative Requirements for Grants-In-Aid to State and Local Governments". (Regulation A-102) issued for January, 1973, made it necessary to abandon efforts to introduce a more detailed reporting on grantee non-personnel expenditures. Instead, non-personnel expenses are taken from the annual budgets submitted by PCC grantees. Since all non-personnel costs, exclusive of occupancy and food costs, account for only about 5% of a PCC's operating expenses, this solution was found to be adequate for the purposes of the system. Item analysis based on audited expenses suggest that all errors introduced by this procedure are less than 2% on any functional activity performed by a PCC.

Identifying and Valuing Donated Goods and Services --

The process of identifying and attributing value to contributed goods and services is an important component of an accounting for PCC operating costs. One out of every five dollars spent on the PCC program at the local level must be non-Federal dollars. Most of these non-Federal dollars are donated goods and services. For this reason, we introduced donated goods and services vouchers to make it easier for PCCs to document contributions that are made to the program. These vouchers are designed to make it possible to record contributions in enough detail to make accurate reporting feasible and uncomplicated. In addition, PCC directors and grantees were told how important these records are to them and to the Federal Government. They were warned that they could expect future audits of these records. Finally, guidelines for valuing donated goods and services were sent to all PCCs and grantees and they were incorporated into the PCC MIS User's Manual.

Reporting Shared Expenses --

Problems of shared expenses were addressed during on-site inspections of PCC programs and grantees. Many PCCs have unique problems of shared staff. Some have multiple sources of Federal funding for multi-functional services that go beyond the PCC concept and program. For this reason, Abt Associates introduced a "Quarterly Report on Donated Services Volunteered or Paid for From Other Federal Agencies [Not Allowable as Non-Federal Share]" (see Illustration XVII in Appendix A). Shared non-personnel costs from other Federal Agencies are to be tracked on an annual basis through the grant application and the PCC MIS annual report. Otherwise it is not possible to generalize about the solutions to these problems, except

to state that shared expenses generally demand that more complete records and
documentation be kept than ordinarily would be required.

## Differentiating Accrued Expenses from Cash Expenditures --

Since child care is labor intensive, between 70% and 80% of all PCC operating
costs are personnel costs.  An additional 8% to 12% (in the special case of
Kotzebue, Alaska, located above the artic circle, 40%) of the operating costs
are non-personnel occupancy costs such as rent and utilities.  Hence, the key
to attributing PCC operating expenses to the time period when they are used,
as contrasted to when these expenses are paid and logged into the accounting
records, is to account for personnel and non-personnel occupancy costs on an
accrual basis.  Other expenses can be estimated without serious distortions.
This is exactly the strategy followed by the PCC MIS.

## Reconciling Program Accounting Practice with Actual Experience --

The most serious Federal grants management problem for the PCC MIS is the
practice of not considering  vacations fringe benefits.  Abt Associates Inc.
solved this problem by having employees report vacation time, and eliminating
this time from consideration when calculating personnel costs by functional
category.  The elimination of vacation time is then compensated for by treating
vacation expenses as fringe benefits within the system.  Thus, all wages and
benefits reported as having been accrued by employees are multiplied by a
factor that accounts for the costs of vacations to the project.

The problem of depreciation, on the other hand, was not addressed by the system.
Capital costs are not included in the system, although they could be at a later
time.

The problems of merged program accounting are particularly overcome by a person
by person accounting of personnel costs, the most important single element of
cost, by keeping close track of rent and utilities costs.  However, the elimina-
tion of the practice of merged accounting for Federal projects and the institu-
tion of a common, detailed chart of accounts for all HEW projects would be a
better and more complete solution to this problem.

Attributing Total Operating Costs to the Functions of Service Performed --

The previous experience of the design team was largely responsible for the
satisfactory solution of this problem. The identification and definition of
functional categories of services for the PCC program was based on two years
of research into the structure of child care services in a center setting.
The number of categories and the detailed definition of these categories
resulted from this research, as did the methodology for attributing operating
costs to functions of service.* Details of this process can be found in the
PCC MIS Documentation (Cambridge, Mass.: Abt Associates Inc., 1973), Vol. I.

Controlling on Externalities when Making Cost Comparisons --

Three devices are used in the PCC MIS to control externalities: (1) a narrative
report from PCC directors that is to highlight unusual circumstances that are
likely to distort statistical reporting, (2) the structure and definition of
reports on services to participants, and (3) the very process of viewing ope-
rating expenses by function of service. The definitions of services to parti-
cipants are structured so that some leeway is permitted in the types of services
that can be reported. This makes it possible for projects with unique sets of
services to gain appropriate credit for the delivery of those services.
However, the categories where these services can be reported are segmented from
core PCC services so that distortions do not result. Finally, the process was
designed so that services to participants can be linked to functions of service
to yield unit costs. Unit costs are calculated from functional costs rather
than from total costs. This procedure reduces the influence of externalities
to a minimum.

The solutions to other technical problems can be found in Chapter VI.

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* See Keith McClellan, "Considerations in Day Care Cost Analysis," Child Welfare,
  June, 1971, Vol. L, no. 6, pp. 341-348; Keith McClellan, Day Care Cost Analy-
  sis: A Manual of Instructions (Chicago: Welfare Council of Metropolitan
  Chicago, July, 1971); Keith McClellan, "Classifying Day Care Centers for Cost
  Analysis" (Mimo, 1971); W. David Warner, A Study in Child Care, 1971,
  (Cambridge, Mass.: Abt Assoicates Inc., 1971), Vol. III.

Chapter V

## Description of the PCC MIS

The Parent Child Center (PCC) Management Information System (MIS) consists
of three interlocking components --- (1) a standard set of recordkeeping
forms for local PCCs, (2) an interlocking set of quarterly reporting
forms, and (3) a series of management reports that can be generated
from the data that are reported on the quarterly reporting forms.  The
definitions and procedures that are required for uniform recordkeeping
and information reporting are contained in a User's Manual.  The organi-
zation of the system, the basic uses of the system for management decision-
making, the procedures for data validation and preparation, decision rules
for contingencies, file and maintenance procedures, resource requirements
for system operation, computations and estimating procedures, and report-
ing schedules are contained in a two volume set of PCC MIS Documentation.


### The Sub-System for Recordkeeping--
A set of eight different recordkeeping forms were introduced by the PCC
MIS for use by local PCCs in their day to day operations. Use of these
forms was made mandatory by a grant condition, and a half-time "data
coordinator" was designated at each PCC to maintain these records.


Three of the eight records are "In-Take" records.  They are to be
completed upon enrollment in the program or upon being hired by the PCC.
They are to be updated annually.  The "Family In-Take Record" provides
a profile of the participating family (see Illustration II).  It
establishes basic facts that demonstrate program eligibility, suggest
possible special family needs and inputs to child development and
parenting, and determine the program's service base.


The "Family Enrollment Record" (see Illustration III) is an adjunct
to the "Family In-Take Record."  It furnishes information for emergency
contacts, screening tests, family enrollment status and individual

enrollment status on focal participants.* In-Take information about
staff members is also collected on an "Employee In-Take Record" (see
Illustration IV). This information parallels that gathered on program
participants. It establishes the education, relevent experience, and
special attributes of PCC employees. Furthermore, the form makes it
possible to record employee advancements and on-the-job training once
employed by the PCC. Finally, it deals with job application, employment
status, termination and reinstatement in a systematic fashion.

The recordkeeping sub-system contains two records of services to parti-
cipants: the "Weekly Family Service Record" (see Illustration V) and the
"Family Health Services Record" (see Illustration VI). These records are
designed so that it is possible to link the delivery of PCC program services
to individual families. The ability to link services to individual families
opens important management possibilities, even though it complicates record-
keeping. This form of recordkeeping makes it possible to determine if all
of the services are going to a few families, if there is a relationship be-
tween the services delivered and changes in family well being, if there are
patterns of service delivery, and if enrolled families receive core services.
Given the comprehensive nature of the PCC program, the decision to link service
delivery to individual families creates a number of data collection problems.
It often means that subsidiary data collection forms are required or that a
single form is passed among several staff members who provide different kinds
of services to a single family. Neither the quarterly reports nor the manage-
ment reports dictate the collection of service data by participant family.
However, prudent guidelines for local PCC management would seem to recommend
that PCCs be able to tell if their services are well distributed among enrolled
participants or if some families are being neglected while other families are
receiving a disproportionate share of services. Furthermore, reliable impact
analysis is not feasible without records that establish that measureable change
could have been brought about as a result of PCC services.

The "Weekly Family Service Record" keeps track of the number of times
such services as meals, family counseling, transportation, infant educa-
tion, and parent education are provided to an individual family on a week

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*Focal participants are children under three years of age and pregnant women.

by week basis. It does not record the length or quality of infant
education session, the distance traveled when providing transportation,
or the type of family counseling provided. These are significant short-
comings of the data, and it proved to be impossible to remedy them without
doubling the information requirements, raising the qualifications of
data coordinators, and unduly complicating recordkeeping and reporting.
Furthermore, the appropriate refinement of service data to incorporate
considerations of length of service unit and the quality of a service
unit probably would have overloaded the system and caused its breakdown.
These weaknesses, however, do not destroy the value of keeping a record
of the services delivered to individual participants. It merely limits
their meaning.

The collection and reporting of "Family Health Services" data for PCC
participant families is complicated by the myriad of patterns of health
service delivery employed by the 35 PCCs. Most PCCs depend upon third
party delivered health services. Health maintenance organizations (HMO),
public health clinics, and out patient clinics of hospitals are common
sources of health services to PCC participants. Frequently the PCC
does not pay for these services nor even arrange for them. In many
cases the health provider is either sponsored by a separate Federal
grant or reimbursed by a Federal payment for service program such as
Medicaid. If so, the Federal agency that sponsors or reimburses the health
provider usually demands a report on services provided.

On the other hand, the PCC is charged with the responsibility of insuring
that PCC participants receive comprehensive services, including needed
health services. In some instances local PCCs purchase insurance, provide
health services themselves, or pay for needed health services to PCC parti-
cipants. In other cases, private and state sponsored health providers
furnish health services as part of the non-Federal share of PCC program
support. In any case, local PCC staff and program management need to
know if PCC participants are receiving needed health care so long as
the program attempts to live up to its responsibility of being compre-
hensive in its approach to child development and parenting.

The PCC MIS faces a dilemma when trying to respond to the cross currents of contrary demands posed by this complex set of circumstances. If it attempts to require a full medical report on health services provided to PCC participants by third party paid providers, it will be fostering the double counting of Federal services and perhaps unnecessarily increasing the reporting demands being made on already overworked medical and dental personnel. Moreover, there is an excellent possibility that such reporting demands will be ignored by third party paid health providers as they were under the previous PCC reporting system. If that should happen the PCC would have no leverage to gain compliance, since they are neither the financier nor the direct recipient of such services. On the other hand, if such health services are not recorded at all, the PCC will have no idea if their participants are receiving a comprehensive set of services or not. They may not know that the lack of needed health services is impairing the impact of other PCC services.

The compromise that was finally worked out left the PCCs short of the comprehensive health records that might be ideally warranted, but it makes it possible to obtain an indication of health services being received by PCC participants. However, even this level of knowledge is not likely to result from alternative strategies for health services recordkeeping.

The PCC MIS "Family Health Services Record for the Quarter" is intended to serve as an indicator of the Parent Child Center's role in providing medical and dental care for its participants. The form documents the type of health services provided by the PCC or the type of referral made by the PCC for individual participants. The form does not constitute a medical history. It is simply a record of services and referrals in which the PCC is directly involved. The record serves as an aid in reviewing the kinds of health services being provided to PCC participants as a direct result of PCC action. It does not distinguish between referrals and PCC paid for or provided health services. It does provide PCC program management with a statement of the PCCs overall role in the provision of health services to program participants.

The "Weekly Staff Utilization Record" (see Illustration VII) is one
of the most important records introduced by the PCC MIS.  It identifies
12 functional activities performed by PCCs:

- Administration (divided among Supervision of Personnel and
  Management; Program Planning and Research; and Fund Raising)

- Child Supervision and Education

- Parent Education and Training

- Social and Economic Services to Families

- In-Take, Evaluation and Referral

- Health Services

- Food Services

- Community Organization.

- Transportation

- Pure Research

- Occupancy (Maintenance and Housekeeping)

- Staff Development and On-the-Job Training.

There is also space for reporting "Leave"(vacation, sick time, etc.) and
Advocacy* or Non-PCC Funded Program activities.

Each PCC staff member and paid consultant is required to allocate their
working hours to these 12 functional activities or to "leave" and
"Advocacy or Non-PCC Funded Programs."  Work time is to be distributed
in 15 minute blocks and small periods of time spent on coffee or other
work breaks are to be either omitted or absorbed into adjacent work
activities.  In general, staff members are urged not to worry too much
about the accuracy of amounts of time that comprise less than 5% of their

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*Advocacy is a special program component of the PCC program being tried
in seven PCCs.  See Sylvia M. Pechman, "Seven Parent and Child Centers,"
Children Today, March-April, 1972.

total work day, as it is unlikely to distort the total outcome of the
staff time utilization report. As a rule of thumb, staff members are
also asked to report staff time according to the primary purpose of the
activity they are engaged in. The question, "What did I intend to
accomplish?" is the key to staff time distribution according to functional
category. In cases where a staff member is attempting to accomplish
two or more objectives simultaneously, they are asked to split their time
among the appropriate functional categories.

It is highly unusual for an employee of a Parent Child Center to show
exactly the same distribution of time use each week. If this occurs, PCC
Directors and Data Coordinators are urged to clarify reporting procedures
and observe that employee's time use.

Each "Weekly Staff Utilization Record" can accomodate one months report-
ing of a staff member's time use. Staff members are asked to report the
number of hours they work, not simply the number of hours they get paid
for. They are asked to fill out the sheet weekly.

Definitions of the functional categories can be found in the User's Manual.

The "Donated Service Voucher" (see Illustration VIII) requests approxi-
mately the same kind of time use reporting of volunteers and third party
paid workers as the "Weekly Staff Utilization Record" requests of
employees. The "Donated Service Voucher" is designed so that it can double
as legal documentation of contributions that can be considered part of the
"non-Federal share" of the PCC budget.

The "Donated Goods Voucher" (see Illustration IX) is designed to document
non-personnel contributions to the PCC program. It doubles as legal
documentation of contributions and the line items link directly to both
the standard grant application (project budget) and the Office of the
Secretary's quarterly reporting form on project expenditures -- Form
HEW-"OS-192."

## The Sub-System for Quarterly Reporting

Every three calendar months (beginning September 1, 1972) each Parent
Child Center has been instructed to submit ten (10) quarterly reports
to a National Data Coordinator assigned to the Office of the Chief of
the Parent Child Center Program. These ten quarterly reports are to
be completed as of the last business day of the quarter and mailed by the
10th calendar day of the month following the end of the quarter.

The PCC MIS is on a quarterly schedule that is one month earlier than the
standard Federal quarterly cycle. This schedule was agreed upon so that
the Chief of the Parent Child Center Program can receive timely statistical
data for reporting and management decision-making demands that tend to
coincide with the start of a new Federal quarter.

Nearly all of the data reported on the ten quarterly MIS reports comes
directly from the seven (7) standard recordkeeping forms used by the
PCCs. The local Data Coordinator is primarily responsible for coordinating
quarterly reporting for the PCC, and all of the management and supervisory
staff of the Center are likely to be involved in the process. The very
process of aggregating and transferring data from the recordkeeping forms
to the reporting forms has management value. It helps to establish manage-
ment priorities and it forces key PCC management to review their perform-
ance in a systematic fashion.

The ten quarterly reports are:
- Report on Participant Characteristics
- Report on Staff Characteristics
- Report on Services to Participants I
- Report on Services to Participants II
- Report on Services to Participants III
- Staff Utilization Report
- Report on Donated Services (allowable as Non-Federal Share)
- Report on Donated Services Volunteered or Paid for From other
    Federal Agencies (Not allowable as Non-Federal-Share)
- Quarterly Financial Report
- Quarterly Narrative Report (by the PCC Director)

This sub-system was designed so that the ten quarterly reports are comple-
mentary. They furnish a relatively complete picture of the primary
inputs and processes that comprise the Parent Child Center approach to
child development and parenting. They also interlock so extensively
that more than 50 cross-checks for data validity are possible.

The "Quarterly Report on Participant Characteristics" (see Illustration X)
contains 15 data elements, 56 data points, and a possible 65 digits. It
establishes a Parent Child Center's service base and provides a basic
profile of the participant families being served. In particular it
reports the number of enrolled families and participants by ethnicity,
family turnover, reasons for termination and length of time terminated
families participated in the program. The report also provides a break-
down of children by age and other pertinent information about enrolled
families which may have a bearing on program operations and contract
compliance. This report may be used to review the composition of the
client population, to analyze changes in that population over time, and
to assess whether or not the orientation of the program is appropriate
for the size and composition of the PCC clientele. This report can be
used by the national office in preparing management reports that summarize
potential problems, link services to costs, calculate unit costs, and
describe the characteristics of PCC program participants.

The "Quarterly Report on Staff Characteristics" (see Illustration XI)
contains 13 data elements, 43 data points, and a possible 51 digits.
It provides basic information on PCC personnel including staff turnover,
reasons for termination and length of time staff members worked for the
PCC. The report also provides pertinent characteristics data such as
number of employees by sex, ethnicity, full-time or part-time work
status, and staff category information which is indicative of program
organization and operations.

This report can be used to evaluate staff turnover, conduct a general
review of the program, determine whether the composition of the staff is
appropriate to the goals and objectives of the program, and assess the

correlation between staff composition and composition of the PCC client
population. It can be used by the national office to prepare manage-
ment reports that summarize potential problems and describe PCC staff
characteristics. The report does not include data on volunteers,
consultants, and personnel hired through a service contract.

The "Quarterly Report on Services to Participants I" (see Illustration
XII) contains three sets of information. It contains information about
the duration and type of program operations, number of focal participants,
and the composition and degree of activity of the Policy Council. It pro-
vides the basic background data needed to review the subsequent two reports
on services to participants. It reports information that can be used to
identify potential problems and to interpret reports on program services.
Most of the information for this report comes from PAC notes and minutes.

The "Quarterly Report on Services to Participants II" (see Illustration
XIII) contains a summary of the quantities of major services provided
to PCC participants during the quarter. It furnishes detail on partici-
pation in parent education and training activities. It records infant
education sessions, parent-child interaction sessions, nutritional services,
and direct social and economic services to participant families.

In the context of the Quarterly Report on Services to Participants I,
it provides the basis for a review of services provided to participants.
In this regard, it may be significant to note that the PCC program is not
usually an every day service to every family, so it is important to view
services against the backdrop of service schedules. This report is a
vital input into calculations of unit costs of specific services such as
food and transportation.

The "Quarterly Report on Services to Participants III" (See Illustration
XIV) summarizes health services and referrals provided for PCC participants
by the PCC during the quarter. It lists the total number of participants
who receive each of 21 different kinds of medical and dental services.

Data are shown separately for focal mothers, other parents, other adults in the household, focal children, and siblings.

The "Quarterly Staff Utilization Report" (see Illustration XV) is a summary of the compensation paid by the PCC to each individual employee and consultant who worked for the PCC at any time during the quarter, together with a distribution of each individual's working hours by the function of the activities they worked at.

The data in this report may be used to review the use of PCC staff time on an individual basis to decide whether they are spending their time appropriately, given the person's skills and level of compensation, and the organization and priorities of the particular PCC. Since personnel costs account for at least 75% of the total budget in most PCCs, such a review of personnel time use is invaluable to effective program management. This report is also a critical component in the PCC MIS management reports. It is an input to eight of the ten basic quarterly management reports.

The "Quarterly Report on Donated Services" (see Illustration XVI) is a match to the Quarterly Staff Utilization Report. It records the same information as the Quarterly Staff Utilization Report, except that the "estimated dollar value of services" replaces the "dollar value of wages and salaries accrued" as an input.

Similarly, the "Quarterly Report on Donated Services Volunteered or Paid From Other Federal Agencies" (see Illustration XVII) records both (a) the value of personnel contributions paid by other Federal agencies and programs, and (b) the function use of the time spent by these individuals on PCC program activities for the PCC. The services of Neighborhood Youth Corps (NYC) workers and Concentrated Employment Program (CEP) trainees fall into this category. This report is an adjunct to the "Quarterly Report on Donated Services." It is a separate report because of our desire to be able to monitor the non-Federal share of a PCCs resources.

The ninth report in this sub-system is the "Grantee Quarterly Financial Report" (see Illustration XVIII). The "Grantee Quarterly Financial Report" represents a modest modification of the OS-192, and it was designed to replace the OS-192. It provides a breakdown of "travel" costs and of "Consumable Supplies" not previously furnished by the OS-192.

This form must be completed by the PCC's grantee and not by the PCC per se. It serves as a management tool for summarizing and reviewing the actual costs incurred. It is a means by which a grantee can communicate a financial summary of his operations to both the Office of Child Development and to the PCC. It is particularly valuable when compared to proposed costs and expenditure patterns. Finally, the "Grantee Quarterly Financial Report" is the source of non-personnel expenditures for functional cost analysis and unit cost calculations.

The form is most useful when grantees accrue their expenses on a project by project basis. It is least useful when they employ cash accounting and merged program accounting procedures that submerge and distort the expenses of individual projects. This form is not currently used.

The last quarterly report in this sub-system is the "Quarterly Narrative Report." Each quarter PCC Directors are asked to complete a three to five page narrative report to accompany the quarterly statistical and financial data. This narrative statement is intended to clarify and complement the quarterly reports. It is designed to serve as a mechanism for communicating problems to the Chief of the Parent Child Center Program, for highlighting process at the local level, and for describing unusual circumstances that are likely to distort statistical reporting. The "Quarterly Narrative Report" is to be a prod to documenting ideas, problems, and progress that cannot be adequately conveyed through statistics.

The Sub-System for Quarterly Management Reports--

Once Parent Child Centers have submitted their quarterly reports, the
national office of the PCC program or their surrogate must validate
these data, prepare them for processing, confront contingencies,
process these data (including making requisite computations and
estimates), distribute the output, and maintain data files.  This sub-
system encompasses all of these activities.  It focuses on the selection
of management information for quarterly management reports, the
processing of data necessary to produce those reports, and the distri-
bution of them.  It is the culmination of the activities initiated in the
previous two sub-systems.

Selection of Management Information

Sixteen (16) quarterly management reports are generated by this sub-system.
Ten (10) of these reports are issued on each Parent Child Center (PCC).
Six (6) reports are produced for the PCC program as a whole.

The ten quarterly management reports issued on each PCC are:
- Indicators of Potential Problems: Management Operating Problems
- Indicators of Potential Problems: Summary of Potential Problems
- Frequency of Service per Participant
- Cost Per Unit of Service
- PCC Cost Per Participant
- Total Cost Per Functional Activity
- Direct Cost Per Functional Activity
- Indirect Cost Per Functional Activity
- Non-Federal Cost Per Functional Activity
- Personnel Hours Per Functional Activity

The first "Indicators of Potential Problems" report (see Illustration
XIX) identifies whether or not individual PCCs have submitted required
reports and if there is a vacancy or turnover in key management personnel
at any given center.  The report is organized so that local and national
program managers can see potential problems in these areas at a glance.
It assumes that if a PCC has one of the characteristics that is flagged,

it has a potential organization, recordkeeping, or personnel problem
that will cause serious difficulties for PCC program operations, if it
is not corrected.

The second "Indicators of Potential Problems" report (see Illustration
XX) highlights possible difficulties associated with financial control,
contract compliance, or general program well-being. It is laid out in
exactly the same way as the first "Indicators of Potential Problems" report.
An individual Parent Child Center is flagged if its spending rate is
inappropriate, it is not producing the required non-Federal share of
project expenditures, it has too many families enrolled that are over
the poverty level, or it does not meet the expected criteria for any one
of seven other indicators of contract compliance or program well-being.
Like the first report it enables both local and national program managers
to identify potential problems at a glance.

Report number three, "Frequency of Service Per Participant" (see
Illustration XXI), presents the linkages between the quantities of
service delivered in each major service category (i.e., child care &
supervision, parent education & training, etc.). It displays the
quantity of units of infant education, for example, delivered over the
course of the quarter. It then shows the frequency of service at that
PCC per focal child enrolled per week during the quarter. The national
average for this service is also displayed for comparative purposes.

These frequency of service statistics can assist the PCC manager in
assessing how often different types of participants are receiving services
targeted and delivered to them. Some specialized services, such as "water
delivery" and "job placement" are subsumed under larger categories like
"Other Social, Economic and Health Services" because these individual
services are not delivered with enough frequency to warrant their being
listed separately.

Different time horizons are used with different major categories of
service because not all types of service can be readily assessed for a
common time period. Parent Education and Training, Social and Economic
Services to Families, Intake Evaluation and Referral, and Health Services
are usually scheduled for less frequent use by participants than is child
care and supervision.

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Report number four, "Cost Per Unit of Service" (see Illustration XXII),
shows the dollar cost for each PCC of each of the eight types of direct
services to participants delivered through the PCC program. It presents
the total cost per service category and the cost per relevant participant
per service category. It displays the direct cost or cost without overhead
(administration, occupancy, and staff development costs) and with overhead.
The report gives the national average costs in these categories, as well as
the local PCC's costs. Unit costs are not determined for every type of service
delivered because some of the services listed are not considered to be of
equal value, nor are they of the same quality (value) at all PCCs.

Report number five, "PCC Cost Per Participant" (see Illustration XXIII),
translates three sets of unit costs into annualized costs. It gives the
direct cost, the direct cost with overhead, and the non-Federal cost per
participant, per family, and per focal participant. Direct costs are the
operating costs, exclusive of depreciation, used directly to provide services
to participants. Direct costs with overhead are direct costs plus a portion
of the indirect costs of administration, occupancy, and staff development
and training. These overhead costs were distributed among all other functions
on the basis of the percentage of total direct costs spent performing each
direct service function at the indiviudal PCC. (This method of prorating
overhead costs to direct services is a common procedure for labor-intensive
activities that frequently use much of their space for multi-functional
purposes.) Non-Federal costs are the sum of the non-Federal dollars and
the imputed value of contributions of services and goods made to the PCC or
claimed on behalf of them by the grantee. Because of special legislation,
some Federal expenditures, Model Cities funds for example, are also considered
non-Federal funds. It provides the national average cost along with PCCs
cost so that comparisons can be made. Finally, it displays base statistics
on number of focal children, families, other children (siblings), and parti-
cipants so that PCC directors can compare their center's service base with
the national average.

Report number six, "Total Cost Per Functional Activity". (see Illustration
XXIV), examines the allocation of PCC resources among the various functional
activities of the center. It gives the total operating expenditure per
functional category and the percentage of total resources spent on that
functional category. To obtain these costs per functional category, the
value of wages and benefits accrued[*] to staff and consultants are distri-
buted among the fourteen functional categories for each person who performed
work for the PCC. The dollar value of these services are distributed to
functions according to the time utilization shown on the Quarterly Staff
Utilization Reports submitted by each PCC.

Next, the imputed value of donoted services as reported in the quarterly reports,
are used in determing the costs of services by function shown in the management
report. As with wages and benefits accrued to staff and consultants, the imputed
dollar value of donated services are prorated among the functional categories of
service according to the time use shown in the Quarterly Reports on Donated
Services.[**]

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[*] Accrued wages and benefits, of course, include payments to which employees
and consultants have an "unqualified right" regardless of whether or not
payment has been made. The PCCs report only the wages. The National
Data Coordinator calculates the dollar value of fringe benefits, using
data submitted as part of the grant application process, and adds those
costs to the wages paid prior to prorating personnel costs to functions.

[**]It should be noted that the non-cash contributions that frequently make up
a large share of non-Federal PCC expenditures are sometimes inflated by grantees
that have a difficult time generating the non-Federal share of the grant re-
quired by law. In these cases, those inflated costs will show up as expendi-
tures and will introduce a bias in the cost for delivering those services.

Finally, the accrued cost of non-personnel expenditures other than capital investments are assigned to functional categories and appear as part of the costs shown. The decision rules for prorating non-personnel expenditures to functional categories are published as part of the PCC MIS Documentation. They are based on the published methods designed and used heretofore on day care center functional cost analysis by David Warner (A Study in Child Care, Abt Associates Inc., 1971, Vol. III) and Keith McClellan (Day Care Cost Analysis: A Manual of Instructions, Welfare Council of Metropolitan Chicago, 1971).

It should be noted that the expenditures shown in the Management Report are accrued operating expenditures excluding depreciation. They will not, in all likelihood, correspond with the expenditures to-date shown on trial balance sheets. Most PCCs do not accrue expenses. Nor do they amortize insurance, leases, licensing, etc.; or handle vacations and other paid leave in the standardized fashion employed in the PCC MIS.

One of the great strengths of the PCC MIS is that it treats expenditures of all 35 PCCs consistently and in a manner that permits inter-program comparisons.

It provides the national average for comparative purposes and shows the PCC's deviation from the national norm. When combined with knowledge about appropriate distributions of PCC operating expenditures, this report can be a very useful management tool.

Report number seven, "Direct Cost Per Functional Activity" (see Illustration XXV), examines the allocation of PCC resources among the different direct cost or service functions. It can help PCC directors assess if the use of resources reflects the center's service priorities. The report displays both the actual dollar expenditures for the quarter and the percentage of direct expenses allocated to each service category. Again, the national average is provided for comparative purposes.

Report number eight, "Indirect Cost Per Functional Activity" (see Illustration XXVI), examines the allocation of indirect or overhead costs. It shows how overhead resources were spent and provides a basis for assessing the propriety of this expenditure pattern. Less than optimum use of available resources can take place in overhead functions as easily as they can in direct service functions.

Report number nine, "Non-Federal Cost Per Functional Activity", (see Illustration XXVII), examines the uses of non-Federal resources in the PCC. It focuses on the management of a resource that is frequently non-cash.

Finally, report number 10, "Personnel Hours Per Functional Activity" (see Illustration XXVIII), looks at personnel time as a resource. Frequently, the pattern of dollar expenditures for a PCC does not match the pattern of staff time use. Staff members are paid differing amounts per hour of work at different paces. Good management, particularly for a labor intensive enterprise, not only requires an understanding of how dollars are being spent but of how people's time is being used. This report fills that need. It shows that number of hours, percentage total hours, and donated hours per functional category of project service and overhead.

A second set of six (6) management reports are generated each quarter for PCC management at the national level. They give aggregate data for the PCC program as a whole, and specific comparison data between the 35 PCCs. These six reports are not currently made available to the 35 PCCs, although they may be at some future time.

The first of these reports for the national staff, Report A, presents unit cost data (see Illustration XXIX). It gives the cost per participant, per family, and per focal participants for all PCCs for the quarter at annual rates. It shows the total cost per service unit and the Federal cost per service unit in table form. The table also displays the median cost and the range. Finally, it displays these costs for each PCC. The PCCs are listed in rank order with the least expensive at the top and the most expensive at the bottom.

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The second report for national staff use, report B, presents a "Summary of Expenditures by Functional Category" (see Illustration XXX). The aggregate expenditure on each category of service is shown in dollars and as a percentage of total operating expenditures. The median, the range, and the quartile distribution of percentages by PCC (but without PCC names attached) are also displayed on this summary report.

Report C aggregates PCC program participant characteristics (see Illustration XXXI). It presents aggregate data on the age of children being served, the size of families being served, the number of families with female heads of household, the number of participant families receiving Aid to Families with Dependent Children (AFDC) or public assistance, and six other variables. Percentages of totals and mean scores are given when applicable.

Report D displays aggregate data on PCC program staff characteristics (see Illustration XXXII). It tells how many full and part-time paid employees the PCC program had by the following characteristics:

- Role
  - Professional
  - Non-Professional
- Primary Function
  - Administrative
  - Direct Service
  - Support Service
- Sex
  - Male
  - Female
- Employment Status
  - Full-time
  - Part-time
- Ethnicity
  - Mexican-American
  - Puerto Rican
  - Other Caucasian

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- Black
- American Indian
- Native Alaskan
- Polynesian
- Oriental
- Other

It also displays the temporary paid staff on PCC payrolls, the turnover
of PCC staff, and the reasons for staff turnover. It is not possible
to identify individual PCC performance from these data.

Report E gives the aggregate program-wide statistics on PCC program
services (see Illustration XXXIII). It gives the total and the mean
number of operating days during the quarter, the total and the mean
number of days child care services were provided, and so forth. In
all data are presented on 68 variables, including 34 independent
variables.

Finally, Report F gives a rank order distribution of the frequency
of service by PCC. It shows the median, the range, and the quarterly
distribution, as well as the national average.

Processing PCC MIS Quarterly Reports--

Due to (a) the limited volume and relative concentration of the PCC MIS
quarterly reports and (b) the number of individual calculations, elec-
tronic data processing of PCC MIS data is not cost-effective at this
time. The PCC MIS, however, was designed for conversion from a manual
to a computerized system.

At the present time, the following data processing procedures are being
used.

On the 15th calendar day following the end of a quarterly reporting
period, all quarterly reports not <u>received</u> by the national office or
their surrogate are considered late submissions. Projects failing to

submit their quarterly reports within the stipulated time period are
called immediately to determine why they have not met the deadline. If
necessary, telephone assistance is furnished to resolve problems and to
insure that steps are taken by the project to complete and submit
accurate reports within five days. In addition, a written notification
of non-receipt is mailed to PCC Directors who failed to comply with the
deadlines. These procedures are strictly enforced and are intended to
underscore the importance of timely submission of reports to facilitate
rapid data processing and turn-around.

Should a PCC not complete a quarterly report package, that project will
not be included in quarterly management output reports. National aver-
ages and summary reports of management statistics will be prepared on
the basis of the total number of PCCs reporting. Any reports received
after the 20th calendar day of the month cannot be processed.

When each set of quarterly reports is received, the date of receipt is
entered on all forms and data validation procedures are implemented.
Data validation procedures start with a preliminary review of a PCC's
report package to ascertain whether all reports have been included and if
all forms have been fully completed. An arithmetic figure must be re-
ported for every data point. Projects have been instructed to use zero
(0) as appropriate to indicate that a data point is not applicable or to
indicate that no quantity should be reported. If a data item is unknown,
the abbrevietion UNK is suggested to signal missing information. All
blanks and unknowns are considered unacceptable and require a call back
to the project. Preliminary review findings are recorded by the validator
on a data validation memorandum and mailed to the program (see Illustra-
tion XXXIV). The preliminary review process requires from 15 to 30 min-
utes per PCC.

A systematic list of internal cross-checks are then applied to each quar-
terly report. Tabluation errors, incorrect data resulting from improper
data reduction procedures, and inconsistent or inaccurate data are system-
atically identified and purged. The internal cross-checks require approxi-

mately 45 minutes to one hour per PCC. Call backs to individual PCCs
may be required to obtain corrected data, as a result of the cross-checks.
These phone calls are made within 24 hours of applying the internal cross-
checks.

A relatively large amount of time is spent on data validation on the
assumption that good data is the best foundation for sound management
decisions. It is felt that extra care in data validation pays high divi-
dends in the quality and value of system output.

The manual processing of PCC MIS data starts by prorating personnel costs
to functions of service. This is the most time-consuming aspect of PCC
MIS data processing. It involves converting the time use of individual
employees, consultants, and volunteers to dollar value. This is done by
changing the hours spent by individuals in each of the functional cate-
gories to a percentage of their total time on the job during the report-
ing period and then multiplying those percentages by the dollar value of
wages and salaries accrued to the employee during the reporting period.
Finally, the dollar value shown in each functional category for each
employee, consultant, and volunteer can be added for a personnel cost
per function of service for that PCC. Frequently 5,000 separate calcula-
tions are required to complete this process for each PCC.

Subsequently, non-personnel costs are added to personnel costs to arrive
at a cost per function of service. When this is done for all 35 PCCs,
the person(s) processing the data can complete Quarterly Management
Reports 4 through 10 and National Office Report B.

Frequency of service data is obtained from the Quarterly Report on
Services to Participants II; Quarterly Report on Participant Character-
istics; and Quarterly Report on Services to Participants I. The entire
set of quarterly reports from PCCs contribute to the "Indicators of
Potential Problems" reports.

## DISTRIBUTION

The output of the PCC MIS is distributed in two different forms.
Each Parent Child Center receives two copies of reports 1 through 10
that report that center's service and cost patterns. One of these reports
is for the project grantee; the other is for the PCC director and staff.
The project advisor is to have access to the PCC MIS data through the PCC
director.

The national office of the Parent Child Center Program is to receive
four copies of reports 1 through 10 on each PCC. It is also to receive five
copies of the aggregate data for the PCC program: Management Reports A
through F. One copy of each of the local program reports and one copy of
the aggregate data for the national PCC program is to go into the permanent files
maintained by the program. A similar set of reports is to be available
for the chief of the Parent Child Center Program, and a third set is to be
available for the grants management division of the Office of Child Develop-
ment. The fourth set of local project reports is to be divided among the
Program Coordinators of the Parent Child Center Program staff, to correspond
with their assignments. The two sets of national aggregate data--Management
Reports A through F--are to be available to the PCC Program Coordinator of
the national PCC program staff.

The Chief of the Parent Child Center program will be responsible
for additional dissemination of the quarter PCC MIS statistics to those
in the agency to whom he has responsibility (for example, the Director of
the Bureau of Head Start and the Director of the Bureau of Child Development
Services).

Chapter V

## PCC MIS Implementation

REGIONAL WORKSHOPS

Phased implementation of the PCC-MIS commenced with a series of three
regional workshops held at one month intervals beginning in March, 1972.
Directors and Data Coordinators from nine western area PCCs met in San
Francisco March 12-15; representatives from 14 different PCCs attended
the south-central workshop in Atlanta April 16-19; while the remaining
12 PCCs participated in the May 14-17 eastern area workshop held in
Washington, D.C.

Workshop sessions were designed not only to train local personnel in
recordkeeping and reporting procedures, but to allow PCCs to make cri-
ticisms and suggestions concerning the proposed content and procedures
for the MIS.      An important objective of the workshop series was to
elicit PCC commitment to successful operation of the MIS by including
local operators in the system design and by demonstrating potential
management uses of MIS data on both the local and the national levels.

The three workshops were conducted by a core team of five Abt staff
members who participated in the development and on-going refinement
of the system design and who were scheduled to later provide on-site
technical assistance.  Workshop size ranged from 30 to 45 participants
including local PCC staff, OCD and national PCC staff, and other PCC
affiliated personnel.

With the exception of two Alaska sites, all PCCs were represented at the
regional workshops by both the Director and the Data Coordinator.  Seve-
ral Project Advisors, grantee agency representatives and OCD regional
staff also attended, although their participation was not required.
National PCC Program Coordinators attended the western and eastern area
workshops, while the Chief of the Parent Child Center Program was present
at both the Atlanta and the Washington, D.C., sessions.  Members of the

PCC-MIS review panel also participated in the Atlanta and Washington workshops. Additionally, an OCD grants management specialist was present in Washington to clarify financial reporting requirements and to discuss the proposed plan to shift all PCCs to a common quarterly reporting cycle.

The presence of OCD and national PCC staff at all workshops proved critical in underscoring the need for the MIS and in calling for a strong commitment to its implementation. National staff also served as valuable resource persons regarding questions of contract compliance, PCC program guidelines, and national PCC policy. The workshops consequently serve: not only as an MIS training session but as a forum for group and individual discussion of broader issues of concern to both national staff and local PCC operators.

## Pre-Workshop Procedures

During the first two weeks of the contract, Abt Associates made telephone contact with the nine PCC Directors in the western region. These programs were informed that Abt Associates Inc. had been authorized to implement the MIS described in the Phase I report they had received earlier in the month. They were asked if they had read the Phase I report, and if they had any comments or recommendations to make regarding that report. Directors and Data Coordinators were then informed of plans for a regional workshop. The same procedure was followed with the remaining 26 PCCs and completed by February 28, 1972.

Three to four weeks prior to each workshop, participating PCCs were mailed a package of materials for pre-workshop preparation and a memorandum detailing workshop arrangements and agenda. The package included three draft data collection forms to be completed by PCCs prior to the workshop--

Family Intake, Staff Intake and Staff Time Utilization Records--together
with instructions for collecting the required data. This preparatory
exercise was adopted so that PCCs would come to the workshop already ex-
perienced with several components of the system and be alerted to poten-
tial implementation problems. Prior experience with the forms also expe-
dited workshop proceedings since participants could focus immediately on
critical issues and problems regarding data items, definitions and
instructions, and staff resources required to implement the system. A
sample of completed forms were brought to the workshops so that
Abt staff could perform a preliminary assessment of PCC capability in
recording accurate and complete data.

The Intake Records were selected for pre-workshop preparation since they
constitute the logical base on which to "build" a standardized recordkee-
ping system, and are linked to the fundamental, yet complex. issues of
focal participant definition, income eligibility, valuing donated goods and
services and so forth. The Staff Utilization Record was included as it is one
of the most critical and initially difficiult records to complete. PCC experience
with recording staff time prior to the workshops resulted in a discussion of
specific problems that might not have other wise been identified and provided
Abt staff with useful feedback leading to clarification of definitions and
recording procedures.

Delegate and Grantee Agencies, Project Advisors, ar I OCD regional repre-
sentatives were notified of Abt Associates authorization to implement
the MIS and were mailed a memorandum regarding the MIS workshops. While
these agencies and persons were not invited as a group to participate in
the workshops, requests to attend were handled on an individual basis.
Provisions were also made to address their specific concerns and needs as
potential system users during on-site technical assistance visits.

## Workshop Structure

Each regional workshop included an equivalent three full days of sessions
scheduled over a four day period. The workshops opened on a Sunday evening
with introductions and an overview of forthcoming events. A social hour
followed where participants became acquainted and shared PCC experiences
and problems. Monday and Tuesday sessions were devoted to a systematic
review of all MIS records and reports, combining whole group and small
group training sessions with non-directed learning experiences to insure
a maximum of active and attentive participation on the part of trainees.
The following activities were included:

- Simulated Management Decision-Making Exercise Using the PCC-
  MIS

- Systematic Review of Recordkeeping Forms

- Role Play Exercise Using Staff Utilization Records

- Systematic Review of Quarterly Reporting Forms

- Fiscal Reporting for the MIS

The agenda for the final half-day session on Wednesday was dictated, in
part, by the results and accomplishments from previous sessions. However,
the closing session typically covered the following topics: workshop
follow-up plans, preparation of local data collection plans, post-workshop
implementation schedules, potential data uses, and PCC estimates of tech-
nical assistance needs. Where possible, special meetings were arranged
for Directors to discuss subjects of common interest other than the MIS.
Specific workshop strategies are detailed below.

- ### Simulated Management Decision-Making Exercise

On Monday morning, participants were asked to take part in a simulated
management decision-making exercise designed to introduce the MIS in a
non-directed manner and to raise pertinent management questions--thereby

helping·to establish the need for an MIS. The simulation required thát
the PCC Directors and Data Coordinators be divided into evaluation teams
of four or six members. The teams were then asked to review hypothetical
information on two fictitious Parent Child Centers. Two packages of ma-
terials were prepared by Abt Associates including program narratives,
selected MIS records and quarterly reports, and sample management output
reports. The object of the simulation was to analyze the data and make
a decision about which of the two hypothetical centers should receive a
special "Improvement Grant" from a Federal agency.

Following a two hour review of narrative, statistical and financial
reports, each team was given the opportunity to interview the hypotheti-
cal Center Directors' role played by Abt Associates staff within the
guidelines of a prepared "profile." Following the fifteen minute inter-
views, each team was allowed one hour to make its decision about which
center it felt deserved the special grant. In order to assist teams in
evaluating the data and in linking data to decision-making, Abt Asso-
ciates prepared a rating scale and tabulation sheet to be used in asses-
sing center performance. Thirteen program operation dimensions were to
be rated including staff time use, management of non-Federal share,
appropriate program priorities and service delivery. Each team chairman
reported the team decision with a summary of the process and reasons for
reaching that decision. All participants were also asked to assess the
effectiveness of the role reversal simulation in introducing potential
management uses of the MIS data.

●   <u>Systematic Review of Recordkeeping and Reporting Forms</u>
Monday afternoon and Tuesday morning workshop sessions focused primarily
upon the systematic review of all local recordkeeping forms, file speci-
fications, and quarterly reporting procedures. This called for an in-depth
discussion of each data item including instructions for collecting the data
and justification for its inclusion in the system. This review was intended
to lead to common agreements about definitions and reporting procedures and

to afford PCCs an opportunity to participate directly in shaping the system. Directors and Data Coordiators were encouraged to respond to each data element, to request clarifications or to suggest revisions in the format or content of each record and report. These sessions also addressed the feasibility of substituting MIS records for other collection instruments currently in use and the interface between MIS quarterly reports and other reporting demands placed upon the PCCs.

● Role Play Exercise Using Staff Utilization Records

Prior to a detailed discussion of definitions and procedural questions associated with recording time use, Data Coordinators and Directors from different PCCs were paired with each other to carry out an exercise in using the Staff Utilization Records. Following an overview of the purpose of the form, participants were asked to actually complete a record documenting how they had used their time during the previous week. Data Coordinators and Directors then interviewed each other about their time use and estimated how they felt the other's time should have been recorded. Each pair compared results and discussed differences between self-completed records and those filled out by the partner on the basis of an interview. Problems and discrepancies identified through the exercise were discussed with the group as a whole leading to a clarification of functional categories and recording procedures.

● Fiscal Reporting for the MIS

A special session of the PCC-MIS was conducted to introduce the concept of functional cost analysis and to demonstrate both the management insight it provides and its value in making meaningful comparisons among different child care programs. Visual aids were used to compare allocation of resources by object category with the allocation of resources by functional category and to demonstrate the vital role of accurate staff time use documentation in labor intensive programs such as PCCs. Information requirements and fiscal reporting procedures essential for the functional cost analysis were outlined including wages and benefits accrued by paid employees and consultants, documentation of donated services and goods, accurate allocation of all staff, consultant and volunteer time to functional categories, and detailed cost data on non-personnel expenses. The session

included a review of the proposed MIS financial report calling for detailed line-item categories and instructions to insure standardized reporting of expenses. Specific examples taken from individual PCC budgets and fiscal reports were used to illustrate the inconsistent accounting and reporting practices currently used by the Parent Child Centers.

- **Final Session**

The final workshop session addressed follow-up procedures for local implementation of the MIS records and documentation of that process. Participants were given a schedule for phased introduction of each record in their use. These included the simulation and staff time utilization exercise conducted during the workshops. Data Collection Plan formats prepared by Abt Associates were distributed to the participants and were to be completed as the system became fully operational on the local level. Discussion during the final session also focused on the potential uses of the MIS data and development by each PCC of a local data use plan.

In preparation for on-site and telephone technical assistance, each PCC completed a form estimating the amount and type of assistance they felt would be required. The form also indicated preferred dates for on-site visits, advance notice required, and instructions for arranging transportation to the site. These "estimates of technical assistance needs" proved extremely valuable in preparing for the field effort, especially in arranging cost-effective travel schedules and in matching AAI staff skills with local PCC needs. Correct PCC addresses and phone numbers were also requested to facilitate later contact and to prepare an updated PCC directory for national distribution.

The purpose and scope of the Parent-Child Center Newsletter was also discussed during the final session. Consistent with the MIS objective of a two-way flow of information, the Newsletter was initiated to provide PCCs with a quarterly forum for exchanging information and ideas. The Newsletter would also be used to communicate progress with the MIS implementation and activities of the national PCC office and the OCD Participants were provided an opportunity to suggest subjects for inclusion in the newsletter and were encouraged to submit articles and photographs for publication.

## Workshop Outcomes

By the end of each three day workshop, PCC Directors and Data Coordinators had been introduced to major PCC-MIS design considerations and were trained in the procedures required to implement both MIS records and quarterly reports. The workshop sessions also provided Directors and Data Coordiators with the skills and techniques for training their own staff in the collection and reporting of MIS data.

In addition, the fundamental objective of involving all local PCCs in the system design was successfully met at each workshop. Participants made numerous recommendations for alterations in records and reports, including additional data items, deletions, format changes, and clarifications in definitions and instructions.

Because all participants could not feasibly be involved in decisions regarding problems and concerns voiced at each workshop, it was Abt Associates' responsibility to weigh the value of recommendations and make changes in the MIS consistent with the expressed needs of as many PCCs as possible. These changes were incorporated into the User's Manual revised following each workshop and distributed to all PCCs. All PCCs were given an opportunity to submit reactions to changes in the system or to recommend further changes through June 12, 1972.

TECHNICAL ASSISTANCE

At least two man-days of on-site technical assistance (TA) were delivered to each
Parent Child Center (except Cincinnati) during the period May through Septem-
ber 1972. Additional time on-site was required for multi-site grantees, es-
pecially those with centers located more than 25 miles apart and for those
programs experiencing unusual problems such as high staff turnover.

In several cases, where it was impossible or unwise to provide all TA at one
time, partial TA was delivered early in the field effort (June) followed with
additional assistance as systems became fully operational.

Six staff members who had participated in at least two regional workshops vis-
ited a minimum of five sites each. Every attempt was made to match the skills
of AAI staff members with the special technical needs of the PCCs in areas such
as computer programming, functional cost accounting, ability to relate to par-
ticular PCC staff, parents, and/or grantees. The decision to assign appropriate
staff to PCCS, however, precluded more cost effective serialized travel arrange-
ments originally proposed.


## Preparation for Site Visits

Prior to the major field effort scheduled for June-August, early on-site visits
were made to two western area PCCs to provide technical assistance and to "pre-
test" draft TA guidelines including tentative agendas, interview questionnaires,
and formats for documenting basic information regarding local operations, data
collection, data storage, data reporting, and inter-agency relationships. The
TA package was subsequently revised and formalized to reflect on-site experience
and emerging project needs. These materials are included in Appendix D.

Preliminary schedules and staff assignments for all technical assistance were
established during the month of June. Staff members assigned to each site as-
sumed responsibility for contacting the PCCs to confirm TA and for establishing
feasible travel schedules for each wave of on-site visits. Several weeks prior
to the scheduled visit, each PCC was called to reconfirm dates and to make de-
tailed arrangements for the two to three day effort. A tentative agenda was

reviewed with the PCC Director for the purpose of scheduling appropriate meetings and interviews with PCC staff, delegate and grantee agencies, PAC members, Project Advisors and other persons suggested by the PCC. Staff were also requested to gather basic program operation information not already on file.

## Provision of Technical Assistance

The following agenda served as a model for conducting on-site visits, although adjustments were frequently made to meet local program needs. Uniform formats included in the TA package were completed by field staff so that experiences and knowledge acquired during the course of on-site visits would not be lost. Every element of the local MIS system was documented to insure continuity in reporting and to provide a reference document for later communications and quarterly report validation.

- ### Director Interview

An initial interview with the PCC Director was conducted to review the proposed agenda and to complete a profile of the PCC designed to provide AAI staff with an overview of the local program. The following information was reviewed: number of sites and site location, participant enrollment, staff roster and organization chart, major service components and associated staff, types of services provided, fiscal reporting procedures and requirements, PYE and audit dates, other reporting requirements, and the status of the MIS implementation. The completed profile served as a basis for structuring a systematic review of data collection and reporting procedures leading to an early identification of potential problems.

- ### Meeting With All PCC Staff

AAI staff met with the entire staff to explain the need for an MIS, its value to local and national management decision-making, its unique features, and its implementation both locally and nationally. Basic forms and procedures for the local recordkeeping system were reviewed with appropriate staff while completed or sample weekly staff utilization records were discussed in depth with all staff. AAI staff were also required at many PCCs to respond to staff concerns about the MIS, and to additional time-consuming recordkeeping duties.

- **Meeting the Policy Advisory Council**

A modified version of the presentation outlined above was used to familiarize Policy Councils with the design and purpose of the PCC-MIS.

- **Review of Data Collection and File Keeping Procedures with Data Coordinators**

AAI staff systematically reviewed data collection and data storage procedures for all MIS records and reports with the Data Coordinator and other staff involved in collecting and compiling information. Staff inspected all files, adjunct forms, and routing procedures to insure adequate and efficient MIS implementation. Each step in the collection, compiling, and reporting process was verified and documented on an updated data collection plan. Where appropriate field staff also clarified definitions, designed adjunct forms, changed filing procedures and promoted changes in staff reporting responsibilities.

- **Meeting with Grantee and/or Delegate Agency**

Appropriate representatives (PCC liaison, Agency Director and/or fiscal officer) were interviewed by the AAI staff member to explain the new PCC-MIS and determine the interface with local grantee management and reporting needs. Specific issues addressed during the meeting included problems associated with changing the PCC PYE date, non-federal share documentation, recent audits (if any), and carryover and shortages in the PCC budget. General information about the Grantee agency was also gathered including number of grants administered and their PYE dates, the type of accounting system used, audit dates and, where applicable, an overview of computerized accounting and recordkeeping systems. Communications between grantee and PCC were discussed to determine how (if at all) fiscal information was shared with the PCC Director. Where appropriate AAI negotiated changes in PCC reporting requirements requested by the Grantee: every effort was made to substitute MIS quarterly report data.

## Technical Assistance Follow-Up

At the completion of each wave of on-site visits, field staff were thoroughly debriefed by the Project Directors to insure that technical assistance objectives were satisfactorily met and to review interview guides and data collection plans completed in the field. Special problems identified by staff members were discussed to determine whether satisfactory resolutions had been reached and what

follow-up procedures would be required. Completed TA packages were maintained on file to facilitate future communications. Follow-up letters were mailed to all PCCs to thank them for their cooperation and to confirm any decisions made during the visit.

## Field Staff Training

All Abt Associates staff members who provided on-site technical assistance had participated in at least two regional workshops and were, therefore, acquainted with PCC personnel, thoroughly familiar with PCC-MIS recordkeeping and reporting requirements, and cognizant of the problems and issues addressed during the conferences.

Two in-house briefings were conducted June 26-27 to train staff in special technical assistance procedures. Materials and guides prepared for on-site visits were distributed to staff and discussed in depth. Lessons gleaned from prior visits to six PCCs by senior staff were shared with the entire field staff and vital elements of the system were reviewed. Informal written materials summarizing outcomes were also prepared to assist staff in explaining the need for an MIS, and for responding to the most common and problematical questions raised by PCC staff and workshop participants. Staff members were also briefed on current PCC guidelines and other federal agency guidelines pertinent to PCC operations since previous workshop experience indicated that many programs were not fully aware of current regulations.

While some field staff were well experienced in cost accounting and reporting procedures, an intensive review of basic accounting principles was conducted to prepare staff for interviews with accountants, comptrollers, fiscal officers and bookkeepers and for a thorough inspection of financial records. Discussion focused on cash vs. accrual accounting systems, double and single entry ledgers, common payroll practices, and so forth. An outside consultant with experience in auditing large Community Action Agencies also familiarized the field staff with fiscal management practices commonly adopted by these grantees.

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PHASED IMPLEMENTATION

In order to help the local PCCs in instituting the new reporting and operating
procedures, Abt Associates developed a systematic phased implementation schedule
for each region. This schedule (as printed in the PCC Newsletter) is presented
on the following page. It was either included in a memorandum mailed to PCCs
following each workshop or reviewed at the close of the workshop. The phased
implementation was designed to allow PCCs adequate time to introduce the indi-
vidual MIS records to PCC staff; to work out data collection procedures; and to
identify and resolve problems prior to the July 1 on-line MIS data collection
and reporting. Abt Associates monitored the MIS implementation closely in each
area to insure that PCCs were on-schedule and to offer outside support in deal-
ing with unexpected problems, staff resistance to the new system and so forth.
The following major checkpoints were incorporated into the implementation and
monitoring schedule.

● Frequent Telephone Communications

Five AAI staff were available throughout the April-June implementation period
to answer questions about the records and reports, to review or clarify defin-
itions and instructions for data collection, and to assist PCCs with special
concerns or problems. Following each workshop AAI staff also initiated tele-
phone calls to each PCC to assess whether or not appropriate progress had been
made toward full system implementation. Implementation of the MIS was discussed
with the Directors rather than Data Coordinators both to reinforce chains of
authority and to avoid being threatening to Data Coordinators who might view
direct questions about the MIS as tests of their competency rather than as an
offer of assistance. All telephone communications were fully documented by AAI
staff including date of call; PCC staff member contacted; problems and issues
discussed; and outcomes. These records, extremely useful in managing information
exchanged or decisions reached during telephone calls, served as a reference
source for later calls and on-site technical assistance.

● Telephone Questionnaire

In addition to the above communications, an informal telephone questionnaire
was conducted with 22 PCCs in the western and south-central regions to (a)

# Parent and Child Center
# MIS Reporting Schedule

## WESTERN PCC MIS WORKSHOP PARTICIPANTS

*DEADLINES MET:*

April 3　Introduced the new voucher forms for "Donated Goods and Services".

April 3　Transferred current staff information to standard "Staff Intake Form" and "Employee Record Form".

April 3　Transferred current participant family characteristics information to "Characteristics of Participant Families: Annual In-Take Form" and "Participant Family Enrollment Records".

April 6　Informed Grantee of the new PCC MIS and discussed the system and its implications with them.

April 7　Introduced "Weekly Staff Utilization Records" (hopefully in place of current weekly time sheets).

April 7　Introduced "Weekly Family Service Record". (You might try assigning specific families to specific staff members, thereby decentralizing data collection responsibilities.)

May 3　Made out a "Parent Education and Training Record for the Quarter" on the basis of the quarter's experience to date.

May 5　Made out a "Family Health Services Record for the Quarter" on the basis of the quarter's experience to date.

May 9　Final date for arrangements for on-site Technical Assistance.

May 9　Made out and sent copies of the Quarterly Reports to the National PCC Data Coordinator using April data.

*DEADLINES TO BE MET:*

May 27　First Draft of a Data Collection Plan and Data Use Plan for your center.

June 12　Last day to initiate suggestions for changes in the PCC MIS Data Collection and Reporting Forms.

June 15　All revisions should have been made on your PCCs Data Collection and Data Use Plans and these plans should be available for local and national PCC staff use.

July 1　Beginning of On-line PCC MIS data collection and reporting.

## CENTRAL PCC MIS WORKSHOP PARTICIPANTS

*DEADLINES MET:*

May 1　Transferred current staff information to standard "Staff Intake" Form and "Employee Record" Form.

May 1　Transferred current participant family characteristics information to "Characteristics of Participant Families: Annual In-Take Record" and "Participant Family Enrollment Records".

May 5　Informed Grantee of the new PCC MIS and discuss the system and its implications with them.

May 5　Introduced "Weekly Staff Utilization Records" (hopefully in place of current weekly time sheets).

May 5　Introduced "Weekly Family Service Record". (You might try assigning specific staff members, thereby decentralizing data collection responsibilities.)

*DEADLINES TO BE MET:*

May 27　First Draft of a Data Collection Plan and Data Use Plan for your center.

May 31　Make out a "Parent Education and Training Record for the Quarter" on the basis of the quarter's experience to date.

May 31　Make out a "Family Health Services Record for the Quarter" on the basis of the quarter's experience to date.

June 6　Final date for arrangements for on-site Technical Assistance.

June 9　Make out and send copies of the Quarterly Reports to the National PCC Data Coordinator using May data.

June 12　Last day to initiate suggestions for changes in the PCC MIS Data Collection and Reporting Forms.

June 15　All revisions should have been made on your PCC's Data Collection and Data Use Plans and these plans should be available for local and national PCC staff use.

July 1　Beginning of On-line PCC MIS data collection and reporting.

## EASTERN PCC MIS WORKSHOP PARTICIPANTS

*PROPOSED DEADLINES TO BE MET:*

June 1　Inform Grantee of the new PCC MIS and discuss the system and its implications with them.

June 1　Introduce the new voucher forms for "Donated Goods and Services";

June 1　Transfer current staff information to standard "Staff Intake Form" and "Employee Record Form".

June 1　Transfer current participant family characteristics information to "Characteristics of Participant Families: Annual In-Take Form" and "Participant Family Enrollment Records".

June 7　Introduce "Weekly Staff Unitilization Records" (hopefully in place of current weekly time sheets).

June 7　Introduce "Weekly Family Service Record". (Perhaps by assigning specific families to specific staff members, thereby decentralizing data collection responsibilities).

June 12　Last day to initiate suggestion for changes in the PCC MIS Data Collection and Reporting Forms.

June 15　All revisions should have been made your PCC's Data Collection and Data Use Plans and these Plans should be available for local and national PCC use.

June 28　First draft of a Data Collection Plan Data Use Plan for your center.

July 1　Beginning of On-Line PCC MIS data collection and reporting

July 3　Make out a "Parent Education and Training Record for the Quarter" on the basis of the quarters' experience to date.

July 6　Make out a "Family Health Services Record for the Quarter" on the basis the quarter's experience to date.

July 10　Final date for arrangements for on-site Technical Assistance.

July 10　Make out and send copies of the Quarterly Reports to the National PCC Data Coordinator using June Data.

NOTE:　*While Abt Associates Inc. will not collecting the individual record-keeping forms maintained in the Parent Child Centers (PCCs), one of Abt's task assignments is to develop common forms to be maintained in the centers. The data on these forms will be held in strict confidence on the part of the coordinator in each Parent Child Center. All employees and parents should be made aware of each of these forms and their purpose. The PCC Data Coordinator should obtain consent of staff and participants prior to the completion of the requisite forms. Records maintained for the previous National Reporting System are no longer required.*

determine if local recordkeeping was being maintained on the new system and
(b) generate hard data on PCCs for use in the PCC Newsletter. The PCCs were
requested to compile information on nine MIS staff characteristics (number,
age, ethnicity, function and so forth); these data were later compiled and
graphically displayed in the second issue of the Newsletter.

● Data Collection Plan

Prior to on-line reporting, all PCCs were requested to complete a draft data
collection and reporting plan and to submit the plan to Abt Associates for re-
view. The data collection plan format developed by AAI calls for a detailed
illustration of how the MIS is implemented in each PCC. The completed plan doc-
uments the flow of information within the center, specificially indicating who
is responsible and at what intervals for: filling out the recordkeeping forms,
updating forms as changes occur, compiling the data, and completing the quarterly
reports. Filing procedures for each recordkeeping form are also specified.

The systematic, written documentation was intended to assist PCCs in "thinking
through" the implementation process, assigning specific data collection and re-
porting responsibilities to appropriate staff, and identifying potential trouble
spots early in the start-up phase. A data collection plan was also essential to
insure that a new person could assume the responsibility of Data Coordinator
without a loss of continuity in reporting. Finally, each program's completed
plan was used to prepare field staff for on-site technical assistance. Draft
data collection plans were revised and finalized during the on-site visits. Fi-
nal plans were to be maintained on file by both the national PCC office and local
programs.

● Trial Quarterly Reports

While telephone communications and other monitoring procedures were used to
assist PCCs in implementing MIS records, trial quarterly reports were required
to assess PCCs ability to accurately compile and report data from those records
on a timely basis. Each PCC made out and sent sample quarterly reports to the
National Data Coordinator using one month's data (April for the western region;
May for the south-central region; June for the eastern region). These reports
were reviewed by AAI staff and further telephone assistance was provided to in-
dividual PCCs as required. The trial quarterly reports were also used by the
field staff during on-site visits as a concrete reference document when reviewing
specific collection, tabulation, and reduction procedures related to quarterly re-
porting .

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<u>NEWSLETTER</u>

The National PCC Quarterly Newsletter was proposed as a component of the PCC-MIS in the Phase I <u>Final Report</u> to help produce useful information flow in two directions and to serve as a resource for local PCCs in eliminating trial and error learning. It reinforces the communication established by the MIS and serves as a regularized method of information exchange among centers. The newsletter was to be used by both national and local PCC staff to exchange information and to help facilitate the best use of good management information as it became available.

The initial newsletter, published several weeks following Abt Associates authorization to design and implement the PCC-MIS, was used to disseminate information about the proposed system and to elicit feedback from the local programs. The five page issue contained an open letter from the Chief of the Parent Child Center Program; an overview of the MIS, prepared by Abt Associates, including basic design consider- ations, and a schedule for forthcoming workshops. The first issue also included a <u>PCC Directory</u> to encourage centers to begin making direct contact with other centers within the entire PCC program.

The subsequent three issues, published in May, August and November, continued to carry highlights of the MIS implementation such as photographs and summaries of MIS regional workshops and the National PCC Conference. At the same time, the Newsletter was expanded to serve as a vehicle for all PCCs to share their suc- cesses, problems, questions, and suggestions. The twelve page issues included numerous articles and photographs prepared and submitted by PCC staff or drafted by the Abt Associates editor on the basis of telephone interviews.

Each Newsletter issue focused on a special "theme", although numerous articles addressing other subjects were included. The first issue was devoted to the new MIS; the second to "introducing the PCCs"; the third to the physical plant and interior design of PCC facilities; the fourth to health and nutrition programs. A list of additional themes or focal subjects for subsequent newsletters was also prepared by Abt Associates. Special features included in each Newsletter were (1) reported changes in PCC personnel, (2) updated PCC directories, (3) a parent's corner, (4) MIS information, and (5) news from OCD and the National PCC office.

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See Abt Associates Inc., <u>PCC MIS Documentation</u> (Cambridge, Massachusetts, Abt Associates Inc., 1973) Vol. I, p. 127-128.

In response to increasing demands for the Newsletter and a growing mailing list,
circulation was increased from 2,000 copies of the first issue to 5,000 for the
second issue. Copies were distributed to PCCs, the national office, Project
Advisors, Grantees and other persons in the field of child care who requested
copies. Although demand for the Newsletter increased with each issue, circula-
tion of the third and fourth issues was reduced to 3,000 and 2,000 copies,
respectively, due to budgetary constraints.

The purpose of the PCC-MIS User's Manual is to describe procedures for collecting, recording, and reporting critical information for making key management decisions in a uniform and timely manner. The User's Manual was drafted before the first regional workshop and the results of each workshop were reflected in it. It serves as a reference manual to insure uniformity of definitions and procedures at local Parent Child Centers.

The User's Manual has two sections. The first section includes a set of mandatory forms to be maintained in all Parent Child Centers and recommended procedures for data collection. These records are central to the system, both for operational purposes and statistical reporting and research purposes. While not sent to Washington, these records are the primary source of all required information reported quarterly to the National Data Coordinator and can support special studies of program impact. At the same time, the records are offered to individual programs for the value they may have to local operations. The recordkeeping forms are:

- Family Intake Record
- Family Enrollment Record
- Employee In-Take Record
- Weekly Family Service Record
- Family Health Services Record for the Quarter
- Weekly Staff Utilization Record
- Donated Service Voucher
- Donated Goods Voucher

The second section describes the procecures for submitting required quarterly reports to the U.S. Office of Child Development. When these reports are processed and displayed, they provide management reports on local program characteristics, services to participants, and operating costs. The quarterly reports are:

- Quarterly Narrative Report
- Quarterly Report on Participant Characteristics
- Quarterly Report on Staff Characteristics

- Quarterly Report on Services to Participants I
- Quarterly Report on Services to Participants II
- Quarterly Report on Services to Participants III
- Quarterly Staff Utilization Report
- Quarterly Report on Donated Services (Allowable as Non-Federal Share)
- Quarterly Report on Donated Services Volunteered or Paid For From Other Federal Agencies (Not Allowable as Non-Federal Share)
- Grantee Quarterly Financial Report*

Both sections are organized by the forms they describe. Each recordkeeping and reporting form is accompanied by a short explanation of the form's purpose; suggested procedures for completing the form; data collection procedures for the information to be shown on the form; standard definitions for items that appear on the form; recommendations for filing the records; and a sample completed form.

In order to accomodate future changes in the system, the Manual is printed on three hole paper and packaged "notebook" style with tab dividers. Single pages or sections can be added, deleted or altered without reprinting the entire manual. The Manual is color-coded to underscore the linkages between records and quarterly reports and to further distinguish forms associated with participants, staff and service data.

The Final User's Manual represents the combined contribution of national PCC staff, local program operators and AAI staff to the development and refinement of the recordkeeping and reporting system. Data collection forms were drafted for the Phase I final report based on interviews with OCD management, national staff and seven PCC programs and project advisors to assess information needs

for decision-making. These formats served as the basis for development of the first draft User's Manual introduced at the western-area workshop. The User's Manual was revised following each workshop and again following each review by the PCC-MIS Review Panel to incorporate recommendations for changes and improvement.

# Chapter VI

## PCC MIS Data Uses

Reliable cost and program service information has a variety of uses. It can be used to establish benchmarks for good program management. It can be used to evaluate the effectiveness and the efficiency of a program. It can be used for projecting resource requirements for continued program operation. It can be used to justify the continuation and/or expansion of a project or program, or conversely to justify the elimination of a project or program. When the efficacy of a program is at question, these data can be used for cost-benefit analysis. In addition, reliable cost and program information is invaluable to those who must account for expenditures.

## Cost Controls--

Perhaps the most basic management use of the PCC MIS data is for cost controls. The PCC MIS encourages three forms of cost controls: inventory controls, investment criteria, and management control.

Inventory controls are mechanisms for controlling expenditures on supplies, equipment, and other types of property. The PCC MIS initiates this form of control by requiring a chart of accounts that separates educational, office, health, and maintenance supplies from one another. A PCC director can exercise greater control in the use of supplies by calculating educational, office, health, and maintenance supplies separately as costs per enrollee and per average daily attendant. The former will give an indication of the reasonableness of the budgeted amount, while a comparison of the two unit costs can indicate over spending or misuse of supplies. If the cost per enrollee for a given type of supplies is reasonable and there is a large difference between the cost per enrollee and the cost per average daily attendant, then the program is over spending for that type of supplies. Corrections can be made by spending less for supplies--either through allocating less money or through tightening controls on the use of supplies to avoid misuage or stealing.

Investment criteria are rules of thumb that can be employed when making
investment decisions. For example, the advisability of making large capital
expenditures such as renovations and equipment purchases can be tested by
determining the annual cost savings they will achieve or the extra income they
will make possible and comparing that amount to the total cost of the anti-
cipated investment divided by its life expectancy and prorated per enrollee.
A market analysis may be required before making plans to enlarge. It seems
questionable for a center that is operating under capacity to expand unless
there is convincing evidence to the contrary.

One of the best investment criterion for the reasonablenesss of rental costs
for space for a child care center is to calculate the cost per licensed slot.
The cost of low enrollment and of absenteeism to the PCC can be calculated
by determining the rental cost per child enrolled, and per average daily at-
tendant and comparing those figures with the cost per licensed slot.

Management Controls--the PCC is not usually the legal recipient of Federal
funds. It is dependent upon either a grantee (often a Community Action Program
(CAP) Agency) or a delegate agency for paying bills, purchasing supplies,
and keeping abreast of PCC expenditures. In the past this dependent
relationship has occasionally created operating problems for PCCs and
grantees alike. PCCs have lacked ready access to pertinent financial
information, and grantees have lacked information about PCC actions. The
PCC MIS remedies these problems. It institutes procedures that require
PCCs and grantees to share information. These procedures make it possible
to pinpoint malfunctions in the flow of management information. Failure
to meet reporting requirements can be traced to individuals who can be
held accountable. This form of management control is indispensable to
good program management.

## Resource Allocation--

Because child care is a labor intensive activity, the most critical management resource is personnel time. When staff time is inappropriately managed, underenrollment, higher unit cost, and turnover of both staff and participants is likely.

Simple analysis of the staff time utilization records of the PCC MIS can yield high management dividends. If less than 12% of the operating expenses are spent on administration, it is likely that the center has either a reporting problem or a loss of management control. If more than 25% of the operating costs are spent on administration, there is likely to be inefficiency or "overkill" in the management process. Low rates of expenditure on fund raising correlates with a shortage of non-federal support for the PCC. Too large an investment in staff training and the on-the-job training of professional staff by professional staff often means that participants and paraprofessional staff are getting shortchanged, but a small investment in the training of paraprofessionals usually indicates both inefficiency and a lower than necessary quality of service to participants. High staff turnover disrupts the continuity of service, yet no staff turnover suggests that employees are not growing. A PCC that spends more than half of its operating budget on overhead (administration, occupancy, and staff training) is not delivering enough services.

### Cost-Efficiency--

Cost-efficiency analysis requires three sets of data: (1) operating costs and output under optimum conditions, (2) actual operating costs, and (3) actual output. The PCC MIS determines the operating costs of each Parent Child Center, measures the center's output, and calculates unit costs of output. The model outlined below can be used by a Parent Child Center director, the national office of the Parent Child Center Program, or both to establish a PCCs operating costs and output under ideal conditions.

## A Model for PCC Resource Planning

Management Problem:  Determination of the resources needed for next year's
PCC project.

| Inputs to the Decision | Constraints |
|---|---|
| 1. Number of participants to be served | ● The demand for services by eligible recipients |
| 2. Number of staff members required per participant | ● Licensing requirements that establish maximum staff-to-child ratios; the number of concurrent sessions or activities planned |
| 3. Number of sessions per day | ● (Center based activities) length of a session, and space requirements per person being served (often regulated by state law) |
| | ● (Home based activities) travel time, average client-to-staff ratios, length of session |
| 4. Number of sessions per participant per week | ● The minimum number of sessions necessary for making a worthwhile service available |
| 5. Number of operating days | ● Holidays and vacations |
| 6. Operating efficiency (i.e., average attendance and interruptions in service due to bad weather, etc.) | ● Over enrollment to increase operating efficiency may add to the costs of ancillary services such as health services |
| 7. The scope of ancillary services | ● The availability of these services in the community and their cost |

Calculating Number of Focal Participants to be Served

(number of staff members) x (number of participants per staff member) x (number of sessions per day) x (number of sessions per participant per week) x (operating efficiency) = total number of participants that can be served per week.

Space Constraints

(amount of useable indoor space available) ÷ (the number of sq. feet required per participant) = the number of participants that can be served per session.

## Social and Health Service Delivery Requirements
(number of participants enrolled) x (desired frequency of service per quarter) x
(operating efficiency) = Service Delivery Requirements Per Quarter.


## Food Services
(number of sessions per day where meals are served    x (number of persons per
sessions) x (number of sessions per week) x (operating efficiency) = number of meals
per week to be served.

## Parent Education and Training
(number of Families Enrolled x 2 parents per family - number of Female Heads of
Household) = (number of parents enrolled) x (number of sessions per month) x (number
of months per year this service is offered) x (operating efficiency) -(number of persons
per Parent Education and Training session) = Total number of Parent Education and
Training.


## Conversion to Dollars and Determining the Operating Efficiency
All of these totals can be converted to dollars by multiplying them by the
unit costs shown in the management output reports. It is also possible to
construct a budget from the facts already ascertained. If one calculates the
unit costs from an ideal construct of the PCC developed along the lines
outlined above, and compares those unit costs with the unit costs shown through
experience, it is possible to determine how cost efficient the PCC is currently
being operated.

The model outlined above is also proposed for use in making refunding decisions
regarding PCC grant applications.



## The Context for using the PCC MIS in Management Decision-Making--

The PCC MIS was designed to deal with management decisions at three
levels of decision-making. It was designed to serve PCCs and their
supporting agents, the national PCC program office, and Federal Government
Policy-Makers and Program Planners.

The PCC MIS was also designed to contribute to a wide-variety of
different types of management decisions. Refunding/annual planning,
contract compliance, day-to-day operations (such as best use of available
resources), long range planning, and justification for the continued
use of public funds are all covered by the system.

Finally, the PCC MIS is designed so that each of its three sub-systems
can be used independently from the system as a whole as tools for
management decision-making. The recordkeeping system can be used to
track staff and participant turnover, ascertain frequencies of service,
and establish patterns of personnel time use. It can be used to link
services to individual families. The quarterly reports provide a
profile of each PCC's staff, participants, services, and personnel
time use. Some of this information is lost in the conversions to
management reports. The management reports afford insight into potential
operating problems, frequency of service per participant, unit costs,
costs per functional activity, overhead rates and influences on direct
costs, and the PCC program as a whole.

Data uses at each of the three levels of management decision-making are dis-
cussed below. At each level of decision-making types of management
decisions are discussed, and selected uses of each sub-system in management
decision-making are suggested.


## Selected PCC MIS Data Uses for Parent Child Centers and their Supporting Agents

PCC directors, policy councils, project advisors, delegate agencies, and
grantees have a regular need for information that they can use in making
management decisions. To one degree or another each of these decision-
makers are asked to make long range decisions, annual planning decision,
and day-to-day project operating decisions. Each of these types of
decisions, in turn, involve questions of best use of available resources,
contract compliance, cash flow, and project objectives.

## Best Use of Available resources at the local level.--

Management decisions that depend upon judgements about the best use
of available resources are probably the most basic kind of management
problems that local management decision-makers and policy-makers are
asked to address. Fundamental decisions such as:

- "Should the organization and operation of the program be changed in any way?";
- "Are personnel costs too high?";
- "Should the mix of para-prc essional and professional staff members be changed?".
- "Are work tasks organized properly?"; and
- 'Has the proper amount of time been spent by staff on administrative functions and on direct service functions?" /

are in this catagory of management problems.. They are essentially resource allocation questions and require three sets of information for a sound decision:   (1)  a list of program and project priorities, (2)  a statement of how resources are currently being allocated, and (3)  an estimate of how proposed changes will affect the allocation of available or potentially available resources.

The PCC MIS provides the second set of information necessary for making resource allocation decisions and it furnishes decision-makers with an experimental base for predicting the resource requirements of alternative allocation strategies.   The management reports contain the best information on overall resource utilization on a project basis.   They link costs to services.   They prorate personnel costs and non-personnel costs to functions of service.   They show overhead costs and prorate overhead to direct service costs, and they give unit costs.   All of these pieces of information are useful to making resource allocation decisions.

Local PCC allocation decisions, however, often require greater detail for sound management decision-making.   If this is the case, the quarterly reports and the local PCC MIS records will be useful.   The quarterly reports show how much each staff member was paid during a given quarter and they tell how that staff member used his or her time (see "Quarterly Report," Illustration XV). The quarterly reports also show how volunteer's and third party paid helper's time is utilized during the the quarter (see "Quarterly Report on Donated Services Volunteered or Paid from Other Federal Agencies," Illustration XVII).   The "Grantee Quarterly Financial Report" presents a picture of how non-personnel expenditures are allocated.

Finally, the local recordkeeping sub-system yields the most detailed information on resource allocation. The "Weekly Staff Utilization Record" (Illustration VII) documents the use of staff time by individual staff member on a weekly basis. Together with the "Donated Service Voucher" (Illustration VIII), the "Donated Goods Voucher" (Illustration IX), and the accounting records of original entry, this record gives a complete picture of resource allocation on a week by week, month by month basis.

Taken together, the management reports, the quarterly reports, and the local records of the PCC MIS provide a complete accounting of time use and costs for a PCC. Of course, different allocation decisions require different levels of data aggregation. Some of the decisions, such as "Are personnel costs too high?", can be made from the "Grantee Quarterly Financial Report," whereas others, such as "Are work tasks organized properly?", require an analysis of "Weekly Staff Utilization Records."

Contract Compliance--

As the primary sponsor of the PCC program, the Federal government has established conditions which must be met by all Parent Child Center. These conditions are contract obligations, and failure to comply with them can lead to legal action.

While Federal requirements allow PCCs a wide latitude for decision-making in most areas, they are quite specific in other areas. Four Federal requirements tower abe e a series of possible grant conditions as contract obligations. These four requirements are:

- 20% of total PCC project costs must be met from non-Federal sources
- each participating family must have at least one child under three years of age or an expectant mother enrolled in the program
- 90% of the participant families must be either on welfare or below the poverty income level; and
- at least 51% of the PCC's policy council must be made up from program participants.

The PCC MIS is designed so that local and national program managers can determine at a glance if they are complying with Federal contract requirements. The "Family In-Take Record" (Illustration II) establishes program eligibility and items on the "Quarterly Report on Participant Characteristics" (Illustration X) provide a cross check on family eligibility. All other basic contract compliance questions are answered in "Quarterly Management Report Number 2" (Illustration XX).

The "Quarterly Report on Staff Characteristics" (Illustration XI) furnishes the information needed to compile and check the progress of "Affirmative Action Plans" required of Equal Opportunity Employers.

Cash flow.--

Whenever employees have to be paid and non-personnel expenses are incurred, there is a potential cash flow problem for management. The amount and timing of income must either correspond to or be greater than expenditures incurred and paid, if an organization is to remain economically solvant.

The PCC MIS addresses this problem in two ways. It calculates each PCC's spending rate and "flags" or draws to attention any PCC that is either overspending or underspending according to the funds committed by the Federal Government and the agreed to spending plan for those funds. It also tracks the non-Federal share of each project's operating budget. PCCs that are not generating enough non-Federal resources are "flagged" on "Quarterly Management Report Number 2." Finally, "Quarterly Management Report Number 9" analyzes how non-Federal resources are being generated and spent.

Project objectives.--

The very structure of the PCC program establishes many local project objectives. It dictates that PCCs provide one, or a combination, of three types of infant education--(1) infant education in a group setting, (2) infant education in an individualized setting, or (3) parent-child interaction sessions. It also dictates that PCCs provide parent education and training sessions, social and economic services to families, evaluation and referral services, health services, and food services. Delivery of each of these sets of service is a project objective.

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The PCC MIS formalizes these objectives and measures services that constitute efforts to achieve them. "Quarterly Management Report Number 3: Frequency of Service Per Participant" (Illustration XXI) indicates both the scope of services provided by a PCC and the frequency of those services during any given quarter.

Other project objectives, such as employment of indigenous paraprofessionals, the use of fair employment practices, and continuity of services, can be monitored by reviewing the PCCs "Quarterly Report on Staff Characteristcs" (Illustration XI), its "Quarterly Report on Services to Participants I" (Illustration XII), and the "Employee In-Take Records" (Illustration IV).

Project objectives for participant families can be monitored on the "Weekly Family Service Record" (Illustration V) and the "Family Health Services Record" (Illustration VI). An objective of making project opportunities available to children with handicapping conditions can be monitored by checking the third page of "Family In-Take Record" (Illustration II).

### Selected PCC MIS Data Uses for the National PCC Program Office

The chief of the PCC program, PCC program coordinators, the Office of Child Development Grants Management Division, and the Director of Project Head Start are all primary users of the PCC MIS at the national level of the program. They are called upon to make refunding decisions, monitor contract compliance, identify potential operating problems that require remedy, recommend changes in program structure, and justify continued use of public funds.

### Refunding decisions.--

Refunding decisions are or at least should be made on the basis of performance and proposed plans. The PCC MIS establishes the performance of every PCC. It identifies potential problems in recordkeeping, reporting, continuity of service, spending rate, contract compliance, and program well-being. It reports levels of service, unit costs of service, per participant costs, overhead rates, and how resources have been utilized.

## Contract Compliance.--

The PCC MIS tells national program officials at a glance if local PCCs are meeting their contractual obligations (Illustration XX).

## Identification of potential operating problems that require remedy.--

The first two quarterly management reports summarize possible operating problems that require remedy (Illustrations XIX and XX). More complex and less critical operating problems can also be identified through the process of verifying quarterly report data. For this reason, Abt Associates Inc. suggests that PCC Program Coordinators be involved in processing PCC MIS data.

## Recommend Changes in Program Structure.--

Recommendations in program structure should emanate from two sources: program performance and new theory about child development and parenting. The PCC MIS cannot help with the second source of recommended changes, but it is the prime source of systematic information about the program's performance strengths and weaknesses. Some of these findings flow naturally from the PCC MIS management reports. Others will have to be garnered through analysis of PCC MIS data. For example, it seems probable that the cost per participant correlates highly with the degree of staff professionalism and the adult-child ratio in effect at a center. However, it is not clear to what extent changes in child and parenting outcomes are associated with professional levels of knowledge and low adult-child ratios and answers to these questions could fundamentally alter PCC program structure. A large part of the answer to these questions can be gained from an analysis of PCC MIS data.

## Justification for the Continued Use of Public Funds.--

The PCC MIS Quarterly Managements Reports that summarize the management statistics for the PCC program are an excellent source of data for justifying the continued use of public funds. They present ...

per participant, per family, and per local participant at annual rates. They show how much Federal money has gone toward direct services, as compared to support services. They profile the characteristics of the participants in the PCC program and of the staff members who provide services to participants. They detail program services and they aggregate ... cost accounting data.

These data are in a form that permits ... aggregated presentation to the office of the secretary or to Congress. They are also in a form that permits ... more extended display of program accomplishments for those that seek greater detail.

### Selected ... PCC Data for the National Policy Maker

The office of the Secretary of Health, Education, and Welfare, and the management of the Human Development Services, and of HEW, the Examination offices ... the President and the Congress of the United States are the most important Federal policy makers and program planners that may have ... PCC data. These policy makers are more likely to be interested in ... program impact and output than in procedures, although ... National ... program are ... than ... important participants.

The PCC represents a special case in national policy-making in that it is ... supported Federal program, the Head Start Program. Unlike ... to operate ... alternative mode of service ... with ... the Head Start Program. The Federal ... different and ... fundamentally held ... service ... program ... national significant ... relationship with ... family.

... program must ... Congress ... that necessary for the Head Start program. If most significant if the administration in a given and ... service ... will ... if ... service

to parents and families, not just services to kids. It views cost in terms of participant sessions, and total participation, not simply costs per child. It presents resource uses in terms of a broader range of objectives than Head Start.

- ...Program Directors ...need ...training in program management, and they need "how ..." materials they can use once they ...become ...

- The ...requirement of ...MIS reports ...needs to be lodged in the ...Office of Child Development

- The ...grantees need to be placed on a common quarterly funding cycle so that ...accounts can be kept up-to-date with less difficulty

- The Department of Health, Education and Welfare should ...system a common, ...chart of accounts for its grantees ...or at the very least ...Grants management should ...employ its own budgetary guidelines for reporting expenditures.

- ...more attention be given to program planning and constructive program ...development ...during the ...annual grant renewal process ...should ...be fully utilized ...administrative and program planning ...

- ...more ...careful ...attention ...they ...can ...have ...the ...organizational structure ...that is not anywhere adequate...

...

as does the apparent relationship between a high volume of child care and supervision services and a lower than national average cost per unit of service.

Because recordkeeping and reporting are time consuming and expensive, many people have argued that these functions detract from service delivery. But the opposite seems to be true; projects that neglect recordkeeping and reporting tend to be less organized and less efficient than projects that keep good records and use them in making decisions. The [illegible] MIS helps local [illegible] capitalize on good records. This emphasis on recordkeeping should be maintained.

The procedures and techniques developed for the [illegible] MIS probably have transferable uses. To the extent possible, the insights and experience gained as a result of this project [illegible] transferred and built upon. For example, the experience with the "data coordinator" deserves special attention.

The [illegible] MIS [illegible] recordkeeping and reporting responsibilities in a "data coordinator." [illegible] of previous [illegible] experience with [illegible] The [illegible] daily, weekly and monthly, [illegible]

[illegible] management [illegible] believe [illegible] projects [illegible] part of a management team [illegible]

The data coordinator need not be a college graduate or an accountant.
Ideally, that person should be persistant, compulsive, and concerned about de-
tails. Legal secretaries often make good data coordinators, as do bookkeepers,
shipping clerks, store clerks, or any one who is concerned about upkeep
of property and record maintenance.

During the design and implementation phase of the ICC MIS project, data coor-
dinators were involved in the system design and trained in data collection and
reporting. They were also given a limited amount of training in the use of
the data being collected.

Our experience with data coordinators in the ICC MIS suggests that such a
person can play an important role in improving the management of human service
programs. It is frequently difficult to hire good experienced multi-functional
center directors. They do not exist in very large numbers, and they are almost
all currently employed in good positions. On the other hand, the presence of
a trained data coordinator, who is part of a management team, can easily make
it possible to develop potential management on-the-job while holding center
personnel accountable through reliable recordkeeping and timely reporting.

It has been observed that the federal government frequently

- Demands large quantities of information from federally
  funded programs on short notice;

- Requires information made of past events without prior notice
  that information would be required or suggestion that records be
  kept on it;

- [illegible] information [illegible]
  having the process burdensome;

- [illegible] coordinate their [illegible] information [illegible]
  demanding input into reporting; and

- Is unaware of the time and money required to comply with
  their requests.

The PCC MIS attempts to address these concerns.  But, it is important to restrict additional reporting requirements to a minimum.  The design of the PCC MIS makes it possible for the system to be responsive to calls for changes, but each change requires changes in recordkeeping and reporting procedures, and affects the value of the system for longitudinal analysis.  Moreover, the addition of each new piece of information threatens the integrity of the total system, by altering printouts, data relationships, and the prospects for information overload.

Finally, PCC MIS should not be considered an end itself.  It was designed to be a management tool.  When it stops functioning in this way it should be abandoned.