A STUDY OF FAMILY PERCEIVED NEEDS
AND INTERVENTIONS PROVIDED BY THE
COMPREHENSIVE HEALTH INVESTMENT PROJECT

by

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A STUDY OF FAMILY PERCEIVED NEEDS AND INTERVENTIONS PROVIDED BY THE COMPREHENSIVE HEALTH INVESTMENT PROJECT

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(ABSTRACT)

The demographics and perceived needs of the Comprehensive Health Investment Project participants were studied along with the interventions provided by the CHIP staff. Demographic information and perceived needs were calculated on 397 household heads. These families were followed for a year and the interventions provided to them during that year were recorded. Intervention records were collected quarterly and analyzed for comparisons with the family profile grid.

Results show a unique demographic makeup of CHIP participants. Sixty percent of household heads had one or more years of college; 66 percent were employed at the time of the study; 73 percent were receiving federal financial assistance of some kind. Health and nutrition of the family were the main concerns of the clients. Other needs included financial assistance, employment, and housing. Eleven percent of interventions provided by CHIP throughout the study year were directed towards financial assistance. Ten percent of services were
employment oriented. CHIP participants were also shown to use physicians during well times, not just during emergencies. Results and conclusions are discussed in detail.
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INTRODUCTION

In 1964 President Lyndon Johnson declared "War on Poverty." His war has been raging for some time now and unfortunately poverty appears to be winning. There are approximately 13 million, or one in five, American children living in poverty today. Fifty percent of black children are born into poverty. Twenty percent of America's children have no health insurance. One in seven children will not finish high school. One in five children will become a teen parent (Edelman, 1989).

Statistics like these are startling and frightening. Our families are feverishly fighting poverty and its detrimental effects everyday. Many indigent suffer from little or no education, lack of permanent full-time jobs, lack of permanent housing, lack of quality child-care, and inaccessible quality health care. There is a plethora of research demonstrating that the disadvantaged suffer from a number of severe health problems, higher than usual infant mortality and morbidity rates, inadequate immunization levels, preventable dental disease, higher rates of disability, unnecessary stress on family relationships, and high rates of mental illness (Tompkins, 1979; Eberstadt, 1988; Nugent, 1988; Chilman, 1991).
The numbers of impoverished are rapidly increasing. In 1987, 32.5 million Americans lived below the poverty line. That was 8 million more impoverished people than in 1978. The numbers increase each year. Poverty is increasing in every category — Whites, Blacks, Hispanics, families, single persons, rural and urban residents (Greenstein, 1989). Provision of health care, child care, education, jobs, and shelter for the poor becomes more difficult and more crucial as their numbers increase. Poverty among the family has many implications for the health care delivery system and social services.

EFFECT OF POVERTY ON HEALTH AND HEALTH CARE

Rising health care costs make quality care burdensome for middle- and upper-class persons, and virtually unattainable for the lower-class. Health insurance is a necessity in today's health care market. However, there exists some 37 million Americans without any health insurance and an additional 200 million Americans have inadequate health insurance for acute illness, catastrophic illness, or long-term care (Roybal, 1987). This population of uninsured and underinsured people is growing rapidly. Between 1982 and 1985 the uninsured population increased by 15 percent, from 30.3 million to 34.8 million persons (Edelman, 1988). Approximately 880,000 Virginians do not qualify for Medicaid nor have
any other form of health insurance (Baliles, 1990-1992). About 8 percent of Virginia’s population has insufficient health insurance coverage should unexpected illness occur. Children suffer the brunt of effects due to this lack of health insurance. Growing children are more susceptible to malnutrition, hypothermia, hyperthermia, childhood’s infectious diseases, abuse, neglect, and many other illnesses and injustices. Accessible quality medical care is crucial to children’s development.

Several programs have been designed to intervene in providing health care to children. Medicaid is one such program. Unfortunately, 4 million children do not qualify for Medicaid’s assistance (Waxman, 1989). Children receiving Aid to Families with Dependent Children (AFDC) or who are above the age of seven most likely will not receive Medicaid. States are required to provide Medicaid coverage to children born after September 30, 1983, in families with incomes and resources below the state welfare standards, up to age seven. As of July 1990, states must also cover pregnant women and infants up to age one with incomes below the federal poverty level (Waxman, 1989). However, many children do not qualify due to their parents’ small incomes.

Children from the “working poor” are quite often
ineligible for government assistance, but are also too poor to pay for adequate health care on their own. Even those children who do qualify for Medicaid assistance usually receive health care of lesser quality than care received by the nonpoor. A 1986 study revealed physician visits were less frequent among the poor irrespective of Medicaid, less care from private physicians or pediatricians was received during times when illness was absent, and less health care was received from the same physician. Moreover, care during times of illness was received at different locations than care during times of health (Levey, et al., 1986). This lack of treatment can result in poorer quality of care. Indigents are forced to seek out several free clinics and emergency rooms in order to receive complete care and no single physician is aware of the medical history and treatments of the poor individual.

Health professionals’ personal biases also influence the quality of care received among the poor. Some health professionals simply prefer not to treat the indigent because they are high risk patients or they possibly will not pay their bills. Administrative costs, malpractice costs and the high risk behavior of the indigent prevent some health professionals from treating the uninsured and Medicaid patients (Waxman, 1989). Some nurses perceive treating the poor as a
waste of time and medical care since the poor are likely to be back again soon with another problem (Price, Desmond & Eoff, 1989).

Demographics also play an important role in the accessibility of health care. More than 21 percent of Virginians live in Medically Underserved Areas (MUA’s) (Williams, 1990). Medically Underserved Areas are defined according to the (1) primary care physician to population ratio, (2) infant mortality rate, (3) percentage of the population living below the federal poverty level, (4) percentage of the population 65 years of age or older (Virginia Systems Agency, 1989). In these areas health care to the poor and nonpoor alike is hard to find. Some states have responded by trying to establish community health centers in underserved areas.

Unequally distributed health care services and lack of medical insurance make health care virtually impossible to attain for many of America’s poor. Some other factors that hinder the attainment of health care are (1) the lack of parental knowledge about the health care system, (2) the parental perceptions of the child’s health status, (3) inadequate or lack of day care, and (4) lack of transportation (Williams, 1990). Parents may not know how to use the health care system available to them, nor know what assistance is available to them. A child’s illness may be left untreated by the parent in
hopes that the illness will subside. Unfortunately, many times the illness only worsens and more intense medical treatment may become necessary.

Lack of day care and lack of transportation certainly affect when and where children receive health care. Finding adequate child care or transportation to the hospital, doctor's office or health center can be difficult for the poor. For parents who must take a bus to the hospital or community health center time becomes valuable. A simple visit to the doctor could become a day-long excursion; time off from work is also required. Having to take time off from work without pay as well as having to pay bus fare and medical bills costs quite a lot for those who do not have money to begin with. One can see that a simple visit to the doctor is suddenly no longer simple. Once at the hospital or clinic, indigents are often dehumanized. Because they are high risk and often cannot pay bills, indigents are quite often treated condescendingly. This discourages the poor from returning for treatment at a later date.

Poor patients are not seen as good patients and tend to be treated abruptly (Beeghley, 1983, p. 113). Sometimes teaching hospitals will use Medicaid patients as teaching materials, performing unnecessary operations which Medicaid will pay for. Finally, the fragmentation of medical services available to the poor is often very
discouraging. Indigents cannot afford a family physician and so seek out emergency rooms and free clinics. Often, several clinics must be utilized to get complete care. This fragmentation is not only time-consuming for the individual, but also deterring quality care by a single physician who is familiar with the patient’s history, medical problems and previous treatments (Beeghley, 1983).

EFFECT OF POVERTY ON FAMILY NEEDS

Several other needs are evident among the poor of our country. Some of the crucial ones are education, shelter, and employment. A Ford Foundation funded study reported that when asked what they saw as solutions to poverty, 40 percent of poor people polled responded that jobs were needed. The second most common answer was education and training (Saasta, 1989). Many indigents end up with jobs that are seasonal or temporary and part-time at best. Most are low-skilled, sporadic, and only pay minimum wage. Only a portion of these types of jobs will provide even limited medical coverage.

Unemployment, a major part of many poor individuals’ lives, creates severe strain on family relationships (Chilman, 1991). Husbands who are unemployed tend to have significantly more depression and anxiety than employed husbands; wives of unemployed men
tend to have more somatic complaints, hostility, depression, or anxiety during unemployment (Chilman, 1991). Poor people want to work. Many cannot, however, due to health problems, accidents, or the need to care for children or other dependents. Susan Rees, the executive director of the Coalition of Human Needs, explains that many "can't work because their 'job' is caring for someone else" (Saasta, 1989, p. 60).

Training and education are also very important in reducing poverty. The most common reason for dropping out of high school is the need to earn money immediately to support a family. More than 93 percent of the people over the age of 18 who have graduated from high school are not poor (Novak, 1989). Education is not only important for getting jobs, but for training in parenting and socialization. Each year a million girls get pregnant; a half-million have their babies. The two strongest predictors of who is going to be a teen parent are poverty and lack of basic educational skills (Edelman, 1989).

Lack of quality child care is a critical problem for low-income families. For the "working poor," finding affordable and accessible child care is difficult. Many leave children with relatives, sometimes permanently. The additional strain of paying for child care can propagate depression, irritability, and
explosiveness in parenting relationships (Chilman, 1991). Many of those who most desperately need substitute child care are single mothers. One-third of female-headed households were poor and cared for half of the poor children in this country in 1988 (Novak, 1989). These mothers often suffer from severe role overload due to responsibilities at home and at work. Some of them develop negative rejecting attitudes toward their children. Compared to married working mothers, single working mothers are prone to be more authoritarian and harsh in the discipline of their children and low in supportive and affectionate expressiveness (Chilman, 1991). Without permanent housing many persons are unable to receive social security checks or welfare checks. It is more difficult to apply for and be approved for financial assistance without a permanent address. Also, lack of facilities to clean up in or wash clothes in leaves persons disadvantaged for job interviews. Housing provides protection against the elements, security against crime to an extent, and privacy.

One homeless man revealed his despair with the following comments.

I have slept at the beach or at parks all together for about 2 months. I’m 20 years old and came to L. A. to look for a job. Since I don’t have a place to stay, it’s hard to keep up my appearance. I’ve been washing in sinks. When I go to apply for jobs, I’m turned down
because of my appearance....My possessions (blanket, backpack and sleeping bag) were all stolen. I was also robbed. That's how I lost my I.D. I feel depressed. I feel let down. (Larry Nelson in Jahiel, 1987)

CURRENT ASSISTANCE FOR THE POOR

A variety of programs have been designed and implemented to assist the poor out of poverty. These are in the spirit of Johnson's "War on Poverty" with a maturity gained from our previous mistakes and failures. Many of these programs have "band-aid" effects which only provide temporary relief from the immediate crisis. The increasing numbers of paupers facing us demand new innovative programs which help the poor help themselves. Brief descriptions of a few of the most widely used programs follows.

AID TO FAMILIES WITH DEPENDENT CHILDREN

Aid to Families with Dependent Children (AFDC) is widely recognized by low-income families for its financial assistance. Still, AFDC has its shortcomings. To be eligible for AFDC assistance a child must have a parent who is either dead, continually absent from home or physically or mentally incapacitated (Beeghley, 1983). AFDC appears to be anti-family in orientation. It benefits broken families which is good for already existing broken families, but encourages intact families to sepa-
rate in order to receive aid. Aid to Families with Dependent Children is funded mostly by the federal government, but the eligibility criteria and benefit rates are determined by each state. So, AFDC is actually fifty separate programs with each state setting its own standards.

WIC

WIC (Women, Infants, and Children) has been widely praised for its efforts to improve the nutritional health of children and infants. WIC pays for certain nutritional items at any grocery store. Items include milk products, eggs, diapers, unsweetened cereal products, and juices. Despite its efforts, WIC serves only 40 percent of its eligible population (Edelman, 1988). WIC's outreach program has failed to identify all of those eligible for the program. Limited government funding has also confined WIC's efforts. As is common in several government-funded programs for low-income families, the need is greater than the supply of funds and resources.

MEDICAID

Medicaid is the largest effort to assist low-income families. This program provides health care for those who do not qualify for welfare but have insufficient
funds to pay for medical care by their own means. Many poor people are grateful for Medicaid, even if they have not needed medical attention. They view it as an "insurance policy" for a time when they may need medical care (Saasta, 1989). Eligibility for Medicaid is primarily based on family income. Eligibility of children, however, is also based on their age. Once a child is over the age of seven, it is more difficult for him to qualify for Medicaid’s assistance.

Medicaid has fallen short of its target, though. Even though its efforts to reach all children living in poverty have improved over the years, only about half of America’s children living in poverty receive assistance from Medicaid. The money to cover all the eligible children is simply not available right now to meet the need. Furthermore, Medicaid has been criticized for its failure to provide "mainstream" health care to the indigent (Levey, 1986). Levey refers to the standard or quality of health care afforded by the middle and upper classes as mainstream health care. This type of care includes continuous care at one facility and a regular physician who is aware of one’s medical history.

Possible causes for this failure are the discontinuity of services provided for the poor, the indigent’s own health habits, and the reliance on private physicians who are leery of Medicaid patients
due to administrative burdens and malpractice costs (Waxman, 1989; Price, Desmond & Eoff, 1989). Endeavors to improve Medicaid’s effectiveness include the implementation of the Early and Periodic Screening, Diagnosis and Treatment program (EPSDT).

Early and Periodic Screening, Diagnosis and Treatment

EPSDT is the largest and most ambitious federal child health program launched to date (Tompkins, 1979). It currently serves over 10 million children. Established in the late 1960's as part of the Medicaid program, EPSDT finances preventive and continuing health care for disadvantaged children. EPSDT incorporates proactive and comprehensive strategies including program outreach, Medicaid eligibility identification, case management, and support services (Williams, 1990).

EPSDT strives to: (1) reach all children eligible for Medicaid and encourage and help parents to participate, (2) determine each child's health care needs via observations and tests, (3) provide diagnostic services for each at risk child to determine what problems or needs exist and the exact nature and extent of any such problem, (4) provide preventive and treatment services for all children who need them, (5) plan and arrange for the early identification and treatment of future needs which might arise and provide education which will

EPSDT has been successful in meeting its objectives to a certain extent. However, like WIC and Medicaid, all of those eligible are not being reached. Some argue that EPSDT needs to improve its public outreach strategies in order to increase its effectiveness in the communities. Furthermore, some physicians are not attracted to EPSDT because of its low reimbursement levels (Jones & Nickerson, 1986). Without physician support and adequate public outreach, EPSDT’s effectiveness is stifled.

Free Clinics

Free clinics originated in the 1960’s out of community health centers. These clinics were established to provide free medical, dental and psychological care to anyone regardless of income. Clinics are usually staffed by volunteer health professionals. They have demonstrated some success over the years in improving access to health care for low-income families (Ginzberg, 1985). These free clinics have been beneficial to the disadvantaged in that they have no or very little "red tape", lenient eligibility requirements, and are located in close proximity to the indigent. Unfortunately, they often fail to attract quality personnel or enough
personnel to adequately meet the demands of the patients. Free health clinics provide a limited range of services since they usually do not have sophisticated facilities for anything other than primary care and education. Quite often these facilities are understaffed and overcrowded making patients wait for hours sometimes to receive treatment. Free clinics are also rare commodities. Currently, about one-third of America's largest cities have no public "free care" of any kind (Ginzberg, 1985).

PREPAYMENT PROGRAMS

Health Maintenance Organizations (HMO's) and Preferred Payer Organizations (PPO's) gained a lot of attention during the 1970's and 1980's. These systems of prepayment for health care provide comprehensive health care for a fixed cost to voluntarily enrolled persons. Government does not fund these programs, so the success of them depends on the personnel and the clientele. At their inception, it was thought that prepayment programs would provide quality care to the indigent at low costs. However, because PPO's and HMO's are profit-making businesses, some organizations are reluctant to serve low-income families.
HEAD START

Head Start was designed in the late 1960's to "interrupt the cycle of poverty" (Washington, 1985). As the first comprehensive, developmental preschool program, project Head Start is considered successful. This program strives to improve the health, emotional and social development, mental processes, expectations for success, social responsibility, interpersonal and intra-family relationships, and feelings of self-worth among preschool age children of disadvantaged families (Washington, 1985).

Head Start provides a network of services to low-income families. These services include social services, health care or medical services (i.e. health education, immunizations, dental care, primary health care, visual and auditory screenings, and physical therapy for the handicapped), pre-school education, and parent education (Williams, 1990). Head Start has four basic components – social services, health, education, and parent involvement (Washington, 1985). These components address a variety of issues including housing, health care, emotional support, family counseling, economic status, and child development. Project Head Start has been successful in lowering absenteeism in school, reducing the number of cases of anemia, increasing immunizations, improving nutritional practices, and generally improving the health of children who have

Project Head Start does fall short of the need, though. Due to insufficient government support and difficulties with outreach Head Start serves only 15 to 18 percent of its eligible population (Washington, 1985). Some have suggested that Head Start needs to focus on multicultural methods and curricula. Two-thirds of Head Start's enrollment is comprised of minority children (Washington, 1985). Others have suggested that Head Start strengthen its focus on paren-tal employability and preparation to enter the work-force, positive male role models, and positive family relationships. It has also been recommended that Head Start accommodate the desperate need for full-day care for infants, toddlers, preschool and school-age children (Washington & Oyemade, 1985).

PUBLIC SUBSIDIES OF HOUSING

Low-income housing is a very complex subject. In general, subsidized housing is located in deteriorating neighborhoods which are infested with crime. Many neighborhoods are being upgraded for middle and upper classes to move into or are being torn down to make room for more office and business space (Kemp, 1990). These renovations force low-income families out of their homes, often with little or no warning. Congress is in
the process of trying to provide protection to low-income tenants and to promote private ownership by the tenants of public housing. Congress is also encouraging private groups to build and rehabilitate existing housing by supplementing the private funds with federal money. However, these solutions are slow in coming and housing needs are rapidly increasing daily.

COMMUNITY-ORIENTED PRIMARY CARE

Community-oriented primary care is an attempt to integrate public health and primary care approaches to health care delivery to provide a more unified, comprehensive health care service to communities (Williams, 1990). This integration of approaches to health care provision attempts to incorporate a systematic identification of the health problems of a defined community. Once specific health problems have been identified, primary care physicians and health educators can address those problems in an orderly fashion (Nutting, 1987). The COPC model contains four important elements: (1) definition and characterization of the community; (2) identification of the community’s health problems; (3) modification of the health care program in response to the identified health needs; and (4) monitoring of the impact of the program modification (Institute of Medicine, 1989).
Community-oriented primary care (COPC) has evolved from the neighborhood health centers established in the 1960's as part of President Johnson's "War on Poverty." These health centers were designed to serve America's indigents who were eligible for Medicaid. Today's federally funded health centers care for the indigent population following the COPC model. Health Maintenance Organizations and Preferred Payment Organizations also follow the COPC model of health care. Pre-paid programs tailor their services around the needs of the community to streamline their costs. In turn, their savings filter down to the public so that services are rendered at affordable prices.

The COPC model of health care delivery has gained wide recognition in recent years as a viable alternative to traditional health care delivery practices. Its strategies for cost-effective health care have the potential to alleviate some of the problems involved with delivering health care to the indigent population. Services which are customized to the particular health care needs of the community are undoubtedly an advantage of the COPC model. Another favorable characteristic of community-oriented primary care is its adaptability to a variety of health care settings (Nutting, 1989). A third benefit of employing COPC strategies is its proactive approach to health care delivery. The
community is involved with modification of health care services. This promotes community awareness of health needs and services and hopefully promotes change in health practices among community residents. Nutting (1987) also points out that such strategies rejuvenate commitment and eagerness among health practitioners because they can actually see progress being made and the results of their efforts.

Several barriers exist which hinder the effectiveness of community-oriented primary care. These include difficulty in defining the community and its boundaries, limited resources at the disposal of the health practitioners, insufficient data systems, lack of provider knowledge of COPC practices and principles, difficulty in measuring the impact of COPC and insufficient reimbursement levels for providers (Nutting, 1989). A general lack of awareness of COPC advantages among health care practitioners due to educational shortcomings in the American medical education system also keeps the COPC model from being employed more extensively (Williams, 1990).

Community-oriented primary care practices have the potential for vastly improving maternal and child health. With the "feminization of poverty" in America today, pre-natal and infant care is urgent. More and more women and infants are joining the ranks of the
homeless and paupers of our society. The increasing divorce rates leave many women with young children on their own and in need of child care, food and shelter. The costs are too burdensome for many. Many young black girls, especially, are trying to take care of children without assistance from the father because the young father is also unemployed and in need of financial assistance (Geronimus, 1987). COFC has the ability to identify these problems and tailor health care around them.

COFC would decrease the fragmentation of services and provide continuous comprehensive care for the disadvantaged. COFC would also provide readily accessible pre-natal care to young mothers (Williams, 1990). The likelihood that the services would be used also increases with the employment of COFC (Williams, 1990). Health practitioners using the COFC strategies are equipped and ready to serve the disadvantaged of the community effectively and efficiently. The nature of COFC empowers young mothers to play an active role in their health care and in the health care of their children, thus promoting awareness and possibly change.

Many other programs have been implemented and show promise for relieving some of the immediate problems of the poor. However, most of these are "band aid" interventions and provide little or no permanent
amelioration. Other programs are slow in coming and cannot assist families with immediate needs.

Timothy Saasta (1989) reports, "The picture that poor people paint of the social welfare system is one in which they must piece together assistance from a variety of public and private sources in order to achieve a minimal standard of living for their families." New resources need to be tapped and innovative ideas for the delivery of services to the poor need to be explored. Future programs will most likely need to incorporate such strategies as case management, comprehensive, continual health care, parent education, early intervention and preventive health practices.

**COMPREHENSIVE HEALTH INVESTMENT PROJECT**

The Comprehensive Health Investment Project (CHIP) is a pilot project in the Roanoke Valley of Virginia. CHIP was established in 1988 by Cabell Brand, founder of Total Action Against Poverty, and Dr. Douglas Pierce, a Roanoke physician (Pierce, 1990). Its intention is to provide comprehensive, continual health care to children at or below 150 percent of the poverty line, as defined by the federal government.

This new program embodies the four elements of community-oriented primary care — definition and characterization of the community, identification of the
community's health problems, modification of the health care program in response to the identified community health needs, and monitoring of the impact of the program modification. CHIP integrates both public and private resources to serve approximately 1000 children, ages one to six. Its defined community is the Roanoke Standard Metropolitan Statistical Area which encompasses the cities of Roanoke and Salem and the counties of Roanoke, Craig and Botetourt.

CHIP was conceived to "make available community-based continuous, quality medical care to children and to maximize the appropriate use of community health resources by: (1) providing primary care to children within their communities; (2) increasing the use of the Health Department by those who are eligible; (3) improving immunization levels; and (4) decreasing inappropriate use of hospital emergency rooms" as spelled out in its mission (CHIP, 1986).

Participants in the CHIP program are children who are at or below 150% of the federal poverty level, are not covered by private insurance and have no routine health care. The health care providers are private and public health physicians, specialists and dentists in the community. These provide services and are then reimbursed at the Medicaid rate. Other participants include social service agencies and the Roanoke City and
Allegheny Health Districts. Some funding comes from Total Action Against Poverty (TAAP) which is a regional Community Action Agency.

CHIP attempts to meet the vast array of its participants' needs. CHIP's services include care coordination; immunizations; children's specialty services such as case-finding, initial eligibility determination, case management and counseling; WIC enrollment; nutritional education; patient education; pharmaceutical services; laboratory services; dental services; and outreach (Williams, 1990). CHIP has four basic components to its services - outreach and enrollment into the program, primary health care and supportive services, care coordination, and parental involvement (CHIP, 1988).

Eligible children are enrolled in CHIP via a two phase process. Most of the children have been referred to CHIP from a variety of sources around the Roanoke area. The enrollment process involves completing a family intake profile form, eligibility forms, and a self-administered health history questionnaire. A member of the CHIP staff, a nurse or outreach worker, is present to assist in the paperwork and to supervise the CHIP children while the parents are filling out the forms. The second step in the enrollment process is an orientation to the CHIP program. CHIP's services and goals for its enrollees are explained by the nurse
coordinator. The families are then asked to sign a medical record release and a patient/provider contract outlining CHIP's services and goals.

The immediate needs of the CHIP enrollee are identified by the parents and the nurse coordinator. Appropriate services are then made available through referrals to meet these needs. The nurse coordinator is also responsible for developing a plan of action to meet the other needs of the child. Parents choose a CHIP participating physician which will be their physician from then on during the course of their involvement with CHIP. The nurse coordinator handling the case closely monitors the child's attendance to the physician's office, making sure all appointments are kept, ascertaining the outcome of each doctor's visit and scheduling necessary follow-up visits. If transportation to the doctor's office is a problem for the family, then the nurse coordinator provides transportation.

Other services available to the CHIP families include employment counseling, day care, health education, prenatal care if necessary, preventive and supportive services. This intensive care coordination is designed to promote the efficient and effective utilization of health care resources by CHIP families (Williams, 1990).
CHIP has continually evolved since its inception. The number of participants and staff grow each year. CHIP's staff come from a variety of disciplines resulting in a strong network of knowledge to assist enrollees as best as possible. CHIP has also established a wide base of referrals to reach as many children as possible. The program is designed to assist 5000 children. However, CHIP is able to serve only a small portion of the eligible population due to a limited staff size. This and other problems exist in CHIP.

The interventions made available to the CHIP enrollees, their timing in the program and intensity are complex. The limited staff may not be aware of all the needs of the families and may not meet all those needs. Services may not be rendered in a timely fashion or may not have the intensity needed.
CHAPTER II

METHODOLOGY

PURPOSE

The purpose of this study was to determine the perceived needs and subsequent interventions delivered to CHIP families.

IMPORTANCE OF STUDY

It is necessary to understand the makeup of CHIP enrollees in order to tailor the services provided by CHIP to the needs of those enrollees. It becomes necessary to know what type of people participate in CHIP - their educational status, their employment status, and especially what they perceive their needs to be. Without knowing the population it is nearly impossible to successfully intervene in their lives. For this reason, it is necessary to perform a social diagnosis before program changes occur in CHIP.

LIMITATIONS

The quality and extent of data will be limited by several variables. First, intervention records and needs assessments are gathered, recorded, and maintained by the CHIP staff and not by the researcher. Because of
demands placed on CHIP staff and their other responsibilities within CHIP, one can anticipate that some information on enrollees will be missing or inaccurate. Second, due to lack of cooperation among parents of CHIP, enrollees needs assessments may be incomplete or in error.

DEFINITIONS

CHIP enrollee: a family with one or more children who is receiving assistance from CHIP.

Intervention: any service provided by a CHIP employee to a CHIP enrollee. Services may be provided by a personal contact (visit), a telephone call (phone), or by mail (mail).

Family Profile Grid: a two-part self-administered questionnaire of perceived needs and family history. Part A records personal information such as age, gender, educational status, and employment status of the head of the household. Part B is a checklist of financial, educational, medical, and emotional needs as perceived by the head of the household (See Appendix A).
Educational Interventions Record: a grid of each child's identification number, the individual interventions that child has received, and how each intervention was rendered, either by a visit, a telephone call, or by mail. These records are maintained by the nurse or outreach worker assigned to that child. The interventions listed are fifteen major areas of service previously identified by the CHIP staff. These services include nutrition/WIC enrollment, social services, child care, parenting skills, child development, vocational counseling, mental health, accompanying a doctor visit, budgeting, child health education, adult health education, housing, and employment (See Appendix E).

Family Number: a personal identification number assigned to each family.

Personal Number: a personal identification number assigned to each individual CHIP child.
INSTRUMENTATION

Two instruments were used to collect data for this study. Both were designed and implemented prior to the inception of this study. The first instrument, the Family Profile Grid, has two sections. The first half of the Family Profile Grid, Form A, is a self-administered questionnaire of family history. This grid is recorded and filed with all other family records upon entry into the program. The Family Profile Grid Part A identifies the age, gender, race, educational status, and employment status of the head of the household. Also recorded is whether or not the enrollee presently receives assistance from Aid for Families with Dependent Children – AFDC; Women, Infants, and Children – WIC; Food Stamps; or Medicaid. A family identification number is recorded on this form, as well as all other records. A personal identification number is also recorded for each child receiving assistance from CHIP.

The Family Profile Grid Part B is a self-administered checklist of family needs as perceived by the head of the household. This record is also filed upon entry into the project. The needs include housing, financial assistance, employment, education, health or nutritional care, mental assistance, transportation, technical training, assistance in parenting or other
family relations, and other needs which are not listed. Part B of the Family Profile Grid can be filed for each child in the family participating in CHIP, since needs may vary for each family member.

The second instrument used in this study is the Educational Intervention record. This record is maintained by the nurse or outreach worker assigned to the individual child. As the nurse provides an intervention for the child or family, she records that intervention on a record listing each child's name, identification number, and the various interventions available. She records the manner in which the intervention was rendered, as well. An intervention can be delivered by a visit, by phone, or by mail. These records are collected quarterly for evaluation. Both records are continually maintained for each participant.

SUBJECTS

Subjects for this study met the following criteria: (1) they were all actively enrolled in CHIP at the commencement of data collection, January 1991; (2) they completed the family profile grid. Initially 397 families were enrolled in CHIP at the commencement of this study. Data was collected on all of these families.
PROTOCOL FOR DATA COLLECTION

As the result of a previous study by a graduate student at Virginia Polytechnic Institute and State University, patient files were reorganized and a new data collection system was implemented at CHIP. This data collection system includes administration of the family profile grid upon a client's entry into CHIP, and the maintenance of the educational intervention record.

An evaluation team consisting of two professors from Virginia Polytechnic Institute and State University, Dr. Kerry Redican and Dr. Charles Baffi, pulled the family profile grids from each family's file and refiled these separate from all other family records. This evaluation team also collected the educational intervention records quarterly for the year 1991.

TREATMENT OF DATA

The researcher of this study gained access to the family profile grids and the intervention records. A single grid was devised to record all the information from the two separate records. Data from this grid was then transferred onto two Number Cruncher Statistical software programs (See Appendix C).

A series of descriptive statistics was performed to analyze the data. Means, ranges, and frequency distributions were obtained for (1) the educational
interventions (e.g. child education, adult education, child care, budgeting, mental health, etc.); (2) household head demographics (e.g. employment status, educational status, age, race and gender of the head of the household, and dependence on government assistance) and (3) the perceived needs of the family (e.g. housing, financial assistance, employment, health and nutrition, mental health, family relationships, parenting, transportation, technical training, and others). All analysis is based the available data. Not all data was complete, however.

PROBLEMS WITH DATA COLLECTION

During the process of collecting data, the researcher encountered a number of problems. First, some data sources were inconsistent. For instance, nurses and outreach workers recorded data on the educational intervention records in various manners. As a result, some intervention records were not usable. Interventions had not been categorized by visit, phone, or mail. Likewise, some staff members would note that a CHIP participant had been dropped from the program while others would not. This lead to confusing data at times.

Second, much data was missing or incomplete. Frequently, the needs assessment of the family profile grid would be only partially completed or not completed
at all. Many household heads did not record their ages, race, or educational status. This also made data collection and analysis difficult and confusing.
CHAPTER III

RESULTS AND DISCUSSION

This chapter presents the results of this study divided into three categories: (1) household head demographics, (2) perceived family needs and (3) educational intervention frequencies.

HOUSEHOLD HEAD DEMOGRAPHICS

Of 284 respondents, the average age of the CHIP household head is 28 years (See Figure 1). Eleven percent of the CHIP participants surveyed are under the age of 20. Ages of household heads range between 14 and 64 years of age. Both 64 year old household heads are the grandmothers and guardians of CHIP participants. Fifty-four percent (N=168) of those household heads who responded to the survey are female; 312 persons responded to this question (See Figure 2). Of 243 respondents, a large majority are Caucasian. The results of the study show only 35 percent (N=85) of those surveyed are black. Less than one percent of those responding are Oriental (See Figure 3).

Fifty-five percent (N=146) of the 265 household heads who responded finished high school and went on to college. As can be seen in Figure 4, thirteen household heads, 5 percent of the respondents, completed their
Figure 1  AGE OF HOUSEHOLD HEADS

Based on 284 responses
Figure 2  GENDER OF HOUSEHOLD HEADS

Based on 512 responses
Figure 3  RACE OF HOUSEHOLD HEADS

Based on 248 responses
Figure 4  EDUCATION LEVEL OF HOUSEHOLD HEADS

Based on 268 responses
General Education Diplomas. Forty-eight percent (N=127) of those surveyed completed one year of college, either in a university setting, a community college, or a vocational school. Approximately 7 percent (N=19) of CHIP household heads completed two or more years of college. One household head completed a Master’s degree in Theology.

Looking at the employment status of CHIP families, the study shows that 66 percent (N=169) of household heads were employed at the time of the study; 260 persons responded to this question (See Figure 5). It could not be determined whether the family heads were employed part-time or full-time. The researcher also could not determine whether those unemployed were actively seeking employment, nor whether those employed considered themselves underemployed.

As can be seen from Figure 6, many families were receiving federal assistance upon entry into the program. Only 12 percent (N=44) of families were enrolled in AFDC. However, 37 percent (N=139) of CHIP families were receiving Medicaid assistance. A large percentage of families were receiving WIC and/or Foodstamps upon their entry into CHIP (44% (N=166) and 38% (N=145), respectively).
Figure 5  EMPLOYMENT STATUS OF HOUSEHOLD HEADS

Based on 250 responses
PERCEIVED FAMILY NEEDS

According to the results of the needs assessment or family profile grid, health and nutrition, financial assistance, and employment are the major concerns of CHIP household heads. Of the 256 families surveyed, half indicated health and nutrition needs. Thirty-six percent (N=93) and 35 percent (N=90) indicated needing financial assistance and help finding employment, respectively. One-third (N=85) of those families surveyed had housing needs. Only 29 percent (N=74) of CHIP families responded as needing transportation assistance. One fourth (N=64) of CHIP household heads cited mental health concerns and the need for technical training. Only 19 percent (N=49) and 11 percent (N=28) requested assistance in parenting and family relations, respectively. Thirteen percent (N=33) of those surveyed cited other needs not listed on the family profile grid (See Figure 7).

EDUCATIONAL INTERVENTION FREQUENCIES

In reviewing total quarterly interventions, July through December appear to be busy months at CHIP (See Figures 9a and 8b). All interventions increased in intensity over the latter six months of the year. On average, 112 contacts were made per intervention type in the 1991 year. Accompanying doctor visits had the least
Figure 7: FAMILY NEEDS ASSESSMENTS

House Money Job Health/ment Family Parent Trans Tech Other

No. of Families

40 50 100 150 200 250

No
Yes

147 147 174 174 193 193 199 199 220 220 240 240 250 250

64 46 71 27 61 124 123 124 123 165 165 162 162 172 172
number of contacts, thirty throughout the year. Child development interventions were the most abundant with 183 contacts made throughout the year. There were 935 contacts made with CHIP participants via a personal visit. Likewise, 662 contacts were made by way of a telephone call. Finally, 77 interventions were delivered via the mail (See Figures 9a and 9b).

Figures 10a through 13b represent the break down of interventions by delivery system for each quarter. Generally, the frequency of each intervention increased progressively with each quarter. Figures 10a and 10b show that 79 interventions were rendered via a personal contact, 82 via a telephone call, and 7 via the mail. In the second quarter these numbers increased. Figures 11a and 11b show that 99 visits were made; 98 phone conversations took place; and 8 contacts via the mail were made in the second quarter. We can see in Figures 12a and 12b that again the numbers increased. There were 190 visits, 250 phone calls, and 34 mail contacts in the third three month period. Finally, in the fourth quarter, CHIP staff made 390 visits, 230 telephone calls, and 24 mail contacts (See Figures 13a and 13b).
Figure 12a: Interventions by Delivery System

July - September, 1991

Legend:
- Mail
- Phone
- Visit
DISCUSSION

It appears that those CHIP families surveyed are atypical of indigent families in certain aspects. CHIP household heads are more educated than the average indigent household head. According to the U.S. Department of Health and Human Services only 10 percent of household heads living in poverty finish high school. Likewise, the national statistics show that only about 5 percent of disadvantaged household heads complete one or more years of college (U.S. Department of Health and Human Services, 1986). Sixty percent of those responding to the CHIP family profile finished high school and approximately 7 percent completed two or more years of college.

The employment rate of those CHIP household heads responding is slightly higher than the national average for disadvantaged families. Nationally, only about 42 percent of disadvantaged household heads are employed (U.S. Department of Health and Human Services, 1986). At the time of this study, 66 percent of CHIP household heads were employed. Predictions of underemployment cannot be made. Part-time and full-time employment distinctions also cannot be made, as mentioned earlier.

The percentage of families receiving federal assistance upon entry into the program is a little
surprising. Only 12 percent of the families were receiving AFDC assistance. Considering that 54 percent of CHIP household heads are single mothers and AFDC targets single-parent households, this percentage is surprisingly low. The number of those receiving Medicaid is also startling. Nationally about 50 percent of those children eligible receive Medicaid (Beeghley, 1983). CHIP only had 37 percent of its participants enrolled in Medicaid upon entry into the program. This percentage is slightly lower than expected since all participants should be eligible.

CHIP families did not indicate as much need for assistance as might be anticipated for disadvantaged families. Their primary concerns were health and nutritional assistance for their children, financial assistance, and help finding employment. Among the least of their concerns were family relations and parenting skills.

While one is unable to draw definite conclusions from this study, being descriptive by design, it appears that CHIP is focusing its interventions toward the immediate needs of CHIP families. While 36 percent of CHIP household heads expressed need of financial assistance, 11 percent of CHIP's contacts in 1991 were for WIC enrollment and budgeting assistance. These interventions assist families financially. Ten percent of the
contacts were in vocational counseling and assistance infinding employment. Thirty-five percent of CHIP's household heads requested assistance finding a job.

Fifty percent of those household heads who responded expressed concern for health and nutritional counseling. While health and nutrition interventions are not recorded on the educational intervention record used for this study, a previous study did look at physician utilization rates. This previous study showed that CHIP participants used physicians as much as 7 times more often than non-participants - 30 visits per year compared to 4 visits per year (Williams, 1990). This is partly due to the design and purpose of the Comprehensive Health Investment Project. CHIP participants are encouraged to maintain close relations with a family doctor of their choosing.

As can be seen in figures 8a and 8b, the number of interventions increased over the latter six months of 1991. This could be due to several factors. First, the latter six months contain many holidays - Christmas, Thanksgiving, and Halloween. Some families may have felt more pressed for financial assistance, parenting skills, or mental and emotional counseling. Holidays can be very stressful times for families. It is possible that CHIP families requested more assistance during the latter months and the CHIP staff responded
Accordingly.

A second explanation of the increases in the frequency of intervention distribution is an increased familiarity with the actual needs of the CHIP families. Family profile grids are not dated; therefore it is impossible to determine from this data when the families surveyed actually entered CHIP. It is possible that the majority of those families surveyed entered the program at the beginning of 1991. CHIP staff may require six months to familiarize themselves with the family before all services can be rendered sufficiently.

Finally, it is known that CHIP hired more staff during the latter months of 1991. The additional staff may have been able to relieve outreach workers of responsibilities outside of family service – i.e. paperwork, office maintenance chores, and new enrollee orientation. This would free up CHIP outreach workers to deliver more services to the families for which they are responsible.
CHAPTER IV
CONCLUSIONS

The Comprehensive Health Investment Project has a vast array of interventions available for its participating families. CHIP provides services in everything from parenting skills and child daycare to technical training and assistance finding employment to transportation and comprehensive medical services. CHIP is trying to meet all possible needs of the participating families. Some families perceive their needs to be only in certain areas; therefore, CHIP staff may provide services which the family may not feel are necessary. Family needs change over time, however. It is impossible for one survey administered upon entry into the CHIP program to determine all the needs of the family for an entire year or more.

Due to the design of the study, one is unable to conclude whether or not the effort extended by CHIP staff is sufficiently meeting the needs of CHIP families. This conclusion would have to be based on the perceptions of CHIP families. It appears, however, that CHIP is targeting the most essential needs of its clients. At least ten percent of interventions are aimed at meeting the financial needs of CHIP enrollees. This financial assistance is not in the form of money
directly from CHIP. Financial assistance provided by CHIP personnel includes enrollment into the WIC program to help pay for groceries and budgeting assistance. It is the intention of CHIP to help its enrollees better budget the resources available to them.

Ten percent of interventions during the 1991 year assisted enrollees with employment. CHIP personnel provided vocational counseling to direct household heads towards employment for which they are suited. The CHIP staff also provided direct assistance finding a job.

More of the interventions need to focus on meeting health and nutritional counseling, financial assistance, employment assistance, and housing demands since these are the needs of primary concern to the household heads surveyed. Although family relations and parenting skills are important, CHIP's household heads do not feel they are needed as much. These interventions could possibly be restructured so as not to demand as much time from the outreach workers at CHIP.
SUMMARY

The purpose of this study was to describe participants' needs as determined by the self-administered needs assessment completed by CHIP enrollees and to investigate the interventions provided by the CHIP staff. Demographic and perceived needs of each family were recorded on a self-administered survey upon entry into the program. These surveys and the quarterly educational intervention records completed by the outreach nurses were collected.

All the information was compiled into a single grid and entered into a Number Cruncher Statistical Software program for analysis. Means, ranges, and frequency distributions were calculated for the demographical data, the perceived needs, and the educational interventions.

The results show an atypical makeup of CHIP enrollees. Most family heads were well educated and employed at the time of the study. The majority of families were not receiving federal financial assistance upon entry into the program. Surprisingly, most household heads did not perceive their families as being in need. The biggest concerns, as might be expected, were health and nutrition, finances, employment, and housing.

The Comprehensive Health Investment Project has
structured its interventions around these family concerns as well as other concerns. CHIP outreach workers directed at least twenty percent of educational interventions toward employment and financial assistance. Physician utilization by CHIP participants is greater than that of non-participants according to a previous study (Williams, 1990).

Further analysis is needed to determine the extent to which CHIP is meeting the needs of its participants. This researcher recommends future study of the Comprehensive Health Investment Project. Future studies should be designed in such a way as to determine the perceived needs of CHIP families and the perceptions families have of CHIP's services. The question needs to be asked "Is CHIP meeting the needs of its participants according to the perception of the household heads?"
REFERENCES


APPENDIX A

Family Profile Grid A
APPENDIX B

Family Profile Grid B
APPENDIX C

Educational Interventions Record
APPENDIX D

Compilation Grid
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>Age in number of years</td>
</tr>
<tr>
<td>GENDER</td>
<td>Male, Female</td>
</tr>
<tr>
<td>EDUCATION LEVEL</td>
<td>Lower, Middle, Upper</td>
</tr>
<tr>
<td>EMPLOYMENT STAKE</td>
<td>Employee, Employer, Other</td>
</tr>
</tbody>
</table>

**Example**

<table>
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<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>34</td>
</tr>
<tr>
<td>GENDER</td>
<td>Male</td>
</tr>
<tr>
<td>EDUCATION LEVEL</td>
<td>Lower</td>
</tr>
<tr>
<td>EMPLOYMENT STAKE</td>
<td>Employee</td>
</tr>
</tbody>
</table>

**Note:**
- AGE: 1 = Male, 2 = Female
- EDUCATION LEVEL: 1 = Lower, 2 = Middle, 3 = Upper
- EMPLOYMENT STAKE: 1 = Employee, 2 = Employer, 3 = Other
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