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Evaluation of a Pediatric Clinic Program

Fern Brody Hogan

EVALUATION OF A PEDIATRIC CLINIC PROGRAM

Fern Brody Hogan, R.N., B.S., C.N.A.

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Faculty Sponsor, Samuel Zibit, M.P.H.

Faculty Advisor, Richard Rickert, Ph.D.

Director, College for Individualized Education, Arlene Taich, Ph.D.

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A community health center opened a well baby clinic in January 1981. The pediatric clinic service was offered to mothers who had delivered a baby through the health center's obstetric clinic. The basic goal of this study is to identify barriers to pediatric clinic attendance. The researcher has attempted to provide a profile of the users of the pediatric clinic. Following this, an evaluation of the pediatric clinic's geographic and financial accessibility, as perceived by the users, was done one year after starting the pediatric service. Analysis of demographic data obtained for the profile showed no significant differences between mothers accepting and mothers declining the pediatric clinic service except in the area of annual income. Analysis of accessibility data showed that both prospective and present clients perceived the pediatric clinic to be accessible geographically and financially.

Many children of our society are not receiving the health care they need. In 1971 Dobbs reported that thirty-seven percent (37%) of the growing infants in this highly developed country were not receiving health care considered necessary for the maintenance and promotion of health (Dobbs, 1971, pp. 279-345). More recent studies have indicated that of the nation's 64 million children, seven (7) to fourteen (14) percent have no regular source of medical health care (Report to President, 1980, p. 96).

In 1976 the United Nations General Assembly (UNGA) had called attention to the fact that too many children are without access to adequate medical health services (Ellis, 1979, p. 73). The United States, one of the most highly developed nations, continues to have a child health care problem (Report to President, p. 96). Generally it is the financially poor child with the greatest risk of illness that does not have access to medical care services (Report to President, p. 97). Illness is more prevalent among the poor (Health in America, 1976, p. 118). When the UNGA asked that its member nations think of the children the nations responded by proclaiming 1979 as the International Year of the Child (IYC).

Following the proclamation President Carter appointed a United States National Commission on the IYC. The National Commission identified areas of concern for children. These areas were described as child nurturing, health education, juvenile justice, equal opportunity, cultural diversity, the impact of media on children, and development through recreation,

play, and cultural arts (Ellis, 1979, p. 73).

The Commission hoped to promote a national dialogue and eventually to take action that would lead to remedies in the conditions in our society that deprive our children of a healthy life. When the Commission evaluated the present status of our children, to determine how well or how poorly they are being cared for, it used twenty-year-old criteria that were formulated by the United Nations in the 1959 Declaration of the Rights of the Child. The use of the twenty-year-old criteria emphasizes the fact that child health care is not a new problem, it is a continuing one.

In the Commission's report to President Carter it was stated that nearly 10 million American children have no known source of primary health care (Report to President, p. 91). Prior to IYC, and in awareness of the need, the federal government provided funds to investigate health care problems, and has been attempting to address maternal and child health care concerns (Omenn, 1981, p. 24).

On the federal level, Public Law 93-641, the National Planning and Resources Development Act as amended by P.L. 96-79, mandates that each State have an advisory group called the Statewide Health Coordinating Council. Under P.L. 93-641 Health System Agencies (HSA) were initiated (HSA, Annual Report, 1979, preface). The federal law that authorized creation of the HSA requires an annual documentation of planned efforts, or an "Annual Implementation Plan" (AIP). Although the HSAs do address preventive child health care the St. Louis proposed HSA AIP plan for 1980

had only specific child health care objectives with reference to infant mortality and lead poisoning of children. There were no documented areas for preventive health care for preschool children in the 1980 plan (HSA AIP Draft, 1980, pp. 34-43).

The absence of preventive health care for children is recognized as a major problem. J. Young states that it is the "job of society to design and provide a health care system for children," and recommends comprehensive health education as well (Report to President, pp. 99-100). There is a need to develop medical health care programs for children for the prevention of illness. In addition, health education of both child and parent to accomplish health care is essential; the fostering of good health habits during formative years has a lifelong impact (Cockerham, 1978, p. 3). It is the consensus of opinion that to achieve prevention of illness, education and accessible health care, it is necessary to plan for health services for children which are of suitable quality, and cost affordable (Report to President, p. 96).

Identification of a Need for a Well-Baby Clinic

In August of 1978 an obstetrical clinic was established in a St. Louis Northwest County facility. The project was decided upon when both the community and the facility expressed the need for the service, and defined the resultant benefits that would be attained. For the health care facility, there would be an increase in the number of obstetrical patient admissions, for the community there would be the availability of experienced obstetrical practitioners, and accessibility to the health

facility at low cost.

At the time that the obstetrical clinic concept was formulated, the institution agreed to finance twenty (20) deliveries of infants per month. Since that time, the numbers of deliveries underwritten has been increased to fifty (50) monthly, or six hundred (600) deliveries annually.

As of October 1980, one thousand three hundred ninety-six (1,396) obstetrical clinic patients had been seen. Of this total, one thousand twenty-six (1,026) obstetric patients delivered viable infants. Only eight hundred fifty (850) of the mothers returned for a complete post-partum physical examination, leaving one hundred seventy-six (176) who did not complete the obstetrical clinic care routine. Concern was expressed by the clinic physician and the health facility for these patients and their newborn infants. There was also concern over the fact that there was no available record of pediatric care obtained for the infants, nor if in actuality any was delivered after the mother's discharge from the health facility.

Discussions with interested Pediatricians who were key informants, in acknowledgement of American Academy of Pediatricians. suggestions, and using references from the HSA, a routine of necessary visits to a well-baby pediatric clinic was devised (HSA AIP, 1976, p. 1-MC-65). The HSA suggestion of a clinic visit during the first eight weeks of life for a routine examination which would include advice, laboratory procedures, and follow-up family planning services was acceptable to the Pediatricians and to the facility. It was also decided that during the remainder

of the first year of life the infant would be seen five (5) additional times, or more often if there was need for it. During the second year, children would be seen annually. Included in the visits, after the first year, would be a physical examination and appropriate laboratory tests; developmental assessment; counseling and guidance to families about nutrition, accidents, hygiene, and child development. Immunizations would be given according to the recommendations of a Committee on Infectious Diseases. Other services provided would include routine dental examinations, vision and hearing tests.

Following the philosophy of the governing board of the facility that their hospital is a community resource with an objective of providing the community with services it needs, and based upon the above concerns, an investigation of the possible need for a pediatric clinic service was conducted by the researcher, who is an Assistant Director of Nursing at the facility.

Identification of an Unserved Pediatric Population

The investigation of need for a pediatric clinic service and of the target population was done by utilization of the obstetric clinic patient demographic data. A listing of patients seen in the obstetrical clinic, identified by zip code was compiled (See Table 1).

Through the use of zip code registrations for identification of residence, it became apparent that the largest number of the obstetric clinic mothers came from St. Charles and North St. Louis Counties. These are denoted by asterisks on Table 1.

Table 1

Obstetrical Clinic Admits by Zip Code and Year

Zip	Area, When Known	8/78-79	8/79-80	8/80-11/80	Total
63010	Arnold	1			1
63011	Ellisville		1	1	2
63020	DeSoto; Fenton			1	1
63026	Fenton		2		2
63031	Florissant	13	31	26	70*
63033	Florissant	5	18	15	38*
63034	Flor.; Berkley		2	4	6*
63067	Gerald		1		1
63040	Grover			1	1
63042	Hazelwood	7	13	13	33*
63043	Maryland Heights	7	14	8	29*
63044	Bridgeton	9	11	18	38*
63047	St. Ann	1			1
63049	High Ridge		1		1
63051	House Springs	1			1
63066	Morse Mill		1	1	2
63069	Pacific	3	1		4
63070	Pevely	1			1
63072	Robertsville	1			1
63074	St. Ann	9	16	11	36*
63080	Sullivan		1		1
63084	Union	3	3		6
63090	Washington			2	2
63106	St. Louis City	1	1	1	3
63107		2	1		3
63109			1		1
63110			4	2	6
63111		1			1
63112			2	4	6
63114	Overland; Brecken-ridge Hills; St. John	12	38	40	90*
63115	St. Louis City	2	2	1	5
63116		1	4	2	7
63117				1	1
63118		2	1		3
63120			2	1	3
63121	Normandy; Cool Valley Bel Ridge; Berkley	6	11	11	28*
63123	Afton		1		1
63125	LeMay	1			1
63126	BelRidge	1		1	2
63128	Spanish Lake	1	23	2	26
63129	Spanish Lake	1			1
63130	University City	2		1	3
63132	University City	1	1	1	3
63133	Pagedale	3	4	3	10
63134	Woodson Terrace	9	23	16	48*

Table 1

Obstetrical Clinic Admits by Zip Code and Year

Zip	Area, When Known	8/78-79	8/79-80	8/80-11/80	Total
63135	Calverton Park; Delwood; Ferguson	8	23	22	53
63136	Jennings; Ferguson	9	25	28	62
63137	Bellfontaine; Riverview	4	20	13	37
63138	Spanish Lake	1	20	18	39
63139	Spanish Lake	1	11	2	14
63140	Kinloch	1	1	1	3
63141	Creve Coeur	1	11	3	15
63143	Creve Coeur			1	1
63144	Brentwood	1		1	2
63147	Baden	1	4	5	10
63301	St. Charles	50	159	81	290*
63343	Elsberry	3	1	3	7
63347	Foley		1		1
63348	Foristelle		3	1	4
63349	Foley		1		1
63351	Jonesburg			1	1
63366	O'Fallon	14	27	14	55*
63369	Old Munroe City		3	1	4
63372	Troy		2	1	3
63373	Portage Des Sioux		1	1	2
63376	St. Peters	8	26	8	42*
63379	Troy		2	1	3
63383	Warrenton	3	4	1	8
63385	Wentzville	2		5	7
63386	West Alton	2	2		4
63389	Winfield		1	3	4
63390	Washington; Wright City	3	3	1	7
63572				1	1
63623				1	1
63631				1	1
63664				1	1
63701	Cape Girardeau		1		1
63885	Wentzville			3	3
65248	Fayette			1	1
62040	Granite City, IL		2		2
62206	Cahokia, IL		1		1
62208	Fairview Heights, IL		1		1
65565	Steelville		1		1
?	St. Clair	1			1
?	Montgomery		1		1
?	Barnhart		1		1
?	St. Louis, County			1	1
?	St. Louis City	2	8		10

An attempt was made to discover what low cost accessible pediatric health services are available to the target population. Following investigation of the pediatric health services available to the selected target population a working concept of a pediatric clinic was formulated. A proposal was made to the facility to establish a well-baby pediatric clinic and the health facility agreed to subsidize the service.

Statement of the Problem

This is an exploratory study of the well-baby clinic, funded by the St. Louis Northwest County Community Health Center following the previously explained investigation. The study is planned to evaluate the effectiveness of the clinic that was planned to provide high quality, comprehensive health care to children of low income families, in the area served by the clinic. The clinic provides health care to children from newborn to thirteen years, whose parents meet financial eligibility criteria.

The assumptions of the study are:

1. The well-baby clinic will mainly attract mothers under 21 years of age, who are unwed, first time mothers.
2. The well-baby clinic will be deemed geographically and financially accesible by the eligible mothers.

CHAPTER II

LITERATURE REVIEW AND SURVEY OF PEDIATRIC CLINICS

HISTORY OF AMERICAN CHILD CARE

Health care for children seems to be less appealing as an issue than it was ten years ago. The lack of interest seems to be part of America's uncertainty about the future. A basic ambivalence toward the children is apparently reinforced by the uncertainty (Mahoney, 1980, p. 56). This is usually shown by some parents in the overprotection of their children while others display neglect. Both the uncertainty and the ambivalence affect us by hindering arrival at an agreement about the needs and method of investing our young (Mahoney, p. 56). Children do have significant problems that must be addressed. These problems may have changed and increased, but they have been present throughout our history.

Pilgrim parents saw human nature as corrupt, and children as corruptible. In that period of American History parents tried to influence the personality of the young, and to control their actions. Punitive measures were the most common methods by which to train and teach youngsters (Mahoney, p. 56).

During the 18th century parents were more lenient. The landed gentry of America started to indulge their offspring. By the middle of the 19th century wealthier Americans were worried about a child's psyche. The middle class was concerned about a child's ambition and ability to "get ahead" (Mahoney, p. 56). Social welfare reformers were the ones who were left to worry about the less fortunate children of the working poor, and about the indigent families in cities (Brenner, 1971, vol. 2). Social welfare reformers did accomplish a great deal at this time.

There were successful community-based infant care programs. There were also programs for maternal and child health care, and crippled children's services (Broadribb, 1967, p. 10).

In 1912 the United States Children's Bureau was established. This led in turn to the formation of the American Child Health Hygiene Association a few years later. Growth of the public's interest in children's health continued with the beginning of specialty medical care in obstetrics and pediatrics. These two specialties, through their practitioners and the public, were responsible for the first federal legislation for maternal and child care, the Sheppard-Towner Act of 1921 (Freeman, 1970, pp. 170-171). The Sheppard-Towner Act came into being because both public and private interests agreed that children needed health care (Mahoney, p. 56). These interests, the social reformers, government leaders, and medical personnel formed a coalition that spoke for the children by creation of this landmark legislation.

Present Status

Between 1920 and 1960 there were great advances in both medical and non-medical areas (Freyman, 1974, p. 10). It was through the improved technology, both medical and hygenic, that deaths and illnesses due to contagious infectious diseases were drastically reduced (Rosen, 1975, p. 46). Maternal and child health care aid at the local level increased. The 1960 War on Poverty seemed to start America on the way to ensure that no child would be excluded from medical care. By the late 1960's however, there were signs of a new change. The trend to increase

children's health care expenditures leveled off (Mahoney, p. 57). By the late 1970's real dollar support lessened. The allocation of federal monies had a massive shift. As the general economy began to show no growth signs aggressive advocates of other societal needs that were also vital began to siphon off larger portions of the governmental health expenditures. The problems of more and better housing, increased employment, and help for the aged had proponents that were well organized and very vocal. Child health care did not have a stable, steady, organized band or voice that could stand up to the shift in public attitude (Mahoney, p. 57).

It is interesting to this researcher that the public demand for child health care services has declined since the post World War II years. After the war everyone expected that there would be a baby boom. The expected boom did occur with an effect on industry, the economy, and therefore, upon the gross national product (Campbell, 1975, p. 203). Manufacturing and advertising processes were slanted toward the new market. Now the World War II baby boom is over. It is those children who are today's new generation of adults.

Decreasing Birthrate and its Effects

This new generation has been experiencing a decrease in birth rate. With the availability of effective contraception and new life styles the number of births has declined. The decline was also greatly influenced by concern over a population explosion, possible consequences on food supplies, by the possibility of the depletion of natural resources, by the increase of need for

financial aid to an increasing number of elderly, and by fear of nuclear weapons leading to a nuclear war. All of these, and many other fears, may have helped to lower the United States birth rate, just as they have effected other industrialized countries.

The effects of the decrease in the birth rate are currently being felt in the St. Louis area, as is witnessed by the recent merging and even closing of schools that have not been able to keep enrollments at former levels (Plott and Paul, Post-Dispatch, p. 1-4). Although this may not be the only reason for the school closings, it is a factor. Consequently, governments, both local and federal, have been making adjustments to compensate for a lowered birth rate.

Possible New Birthrate Trend

It may be helpful and wise to have a re-evaluation of birthrate done at this time. Recent facts, "not widely reported or circulated as yet, seem to show a possible new trend" (HAMSL, February, 1980, p. 1). A later report of the Hospital Association of Metropolitan St. Louis (HAMSL) in May, 1980 calls attention to an increase of 8.5 percent in births (HAMSL, May, 1980, p. 1). HAMSL notes that obstetric services had had the highest increase in a specific service provided by St. Louis area hospitals during a period of January to March 1980. (See Table 2.)

Table 2

Utilization of Hospital Services by Patient Day

	January to March 1979	January to March 1980	% Increase
Med/Surg	610,900	641,700	5.0
Pediatrics	47,800	50,500	5.6
Psychiatric	54,800	56,500	3.0
Obstetrics	33,900	36,800	8.5
Total all Services	745,400	787,500	5.1

SOURCE: HAMSL Report, May, 1980

This trend was first identified in a spot survey in February, 1980. At that time it was noted as "taking place state-wide, and possibly in other parts of the country" (HAMSL, February, 1980, p. 1). HAMSL investigated further, and in August, 1980 published a report that the U.S. birth rate is up and that population is on the increase (HAMSL, August, 1980, p. 2).

The HAMSL report is based on information received from the National Center for Health Statistics (NCHS). Other information from the National Center states that during May, 1980 there were an estimated two hundred ninety-four thousand (294,000) live births in the United States, an increase of three percent (3%) over the live births recorded in May, 1979. There were one million four hundred twenty-nine thousand (1,429,000) live births during the first five (5) months of 1980, a four percent (4%) increase over the comparable period of a year earlier, and during the twelve (12)

months preceeding May, 1980 there was a five percent (5%) increase. Over the same period ending May, 1979, as a result of the increase, nationally, births exceeded deaths (HAMSL, August, 1980, p. 2).

In the opening statement of an article published in the St. Louis Globe-Democrat, January 16-17, 1982, a fashion writer calls attention to what is termed a "mini-baby boom in the making" (Mueller, 1982). Mueller quotes statistical analysts predictions that the baby boom will continue through the 1980's, and that a birth rate of four million per year is expected by the end of the decade. Mueller also comments that these numbers would bring the birth rate close to the baby boom peak year of 1957 when there were 4.3 million births recorded.

Sylvia Porter, in a money management article, agrees. Porter discusses the "'80's baby boom" and describes it as "another upsurge in baby births that will approach, if not match, the great baby boom of the early post World Warr II years" (Porter, 1982, p. 42). Porter contends that the birth rate increase has come about because the women who were part of the late 1940's and early 1950's baby boom have reached a now or never stage, and have decided to have children now (Porter, p. 42).

In the National Center for Health Statistics (NCHS) "Advance Report of Final Natality Statistics, 1979" there were three million four hundred ninety-four thousand, three hundred ninety-eight (4,494,398) registered live births in the U.S. The figure represents a nearly five percent (5%) increase over registered live births in 1978, and the provisional data for 1980 indicates an

increase of about three percent (3%) over the final 1979 recorded numbers (NCHS, September, 1981, pp. 1-2).

If, as these sources suggest, there is a new trend, it is time to plan and carry through programing and a coordination of efforts to provide health care for our children. We cannot afford to relax or ignore the need for a planned program of comprehensive health care. Planning alone is not sufficient. Plans have been formulated before and not carried tnrough. We need to have planned, efficient working programs.

The United Nations Assembly urged action at national, state, and local levels, pointing to the need to improve the status of children (Report to President, p. 5). The United States has started to act upon recommendations, but it is a slow process that is still in need of coordination.

Present Child Care Planning at the National Level

In May, 1980, the United States National Commission on the International Year of the Child published its Report to the President. The panel members noted that the United States remains one of the few industrial nations in the world that has not adopted in principle, or in practice, the right to health care for all children. The panel advocated creation of a universal, comprehensive, maternal and child health insurance plan to cover all costs and aspects of health care for children (Young, p. 13-19).

State Level Participation

During 1979, programs were started in several of the states in recognition of the IYC. The programs included Children's Hospital and Health Center in San Diego, California, sponsoring a

two day conference for parents, discussing matters related to sudden infant death and sickle cell anemia. Children's Hospital of Denver, Colorado invited Pediatricians from an eleven (11) state region to attend a one day seminar to discuss health problems of children, and to participate on a child advocacy panel. Children's Hospital and Medical Center in Boston, Massachusetts presented a series of short features on local radio stations that covered topics such as neonatology, dialysis, adolescent medicine, and children's hospitals. The University of Texas Health Science Center in Dallas, Texas presented programs that included pertinent topics such as incest, child safety, the problems facing working parents, and infant care. In Birmingham, Alabama, the Children's Hospital hoped to initiate changes that would have an effect beyond 1979 by having programs about the problems of accident prevention, poision control, nutrition, and immunization of children that would be ongoing.

The last-named type of program planning appears to be most worthy. The need is for ongoing programs, not for a one or two day practitioner oriented seminar. The need is for day to day help with a child's health problems.

Missouri Involvement

The Missouri High-Risk Maternity and Child Care Program, known as the 1686 Program, has as its stated purpose the reduction of the incidence of mental retardation among children who are considered at increased risk because of certain adverse medical conditions during the prenatal or neonatal period. The 1686

Program provides "reimbursement to hospitals and physicians for medical costs" occuring during the course of specifically defined high-risk pregnancies, or those which "occur during the hospitalization of certain high-risk children following birth" for families who are financially eligible (Missouri Division of Health, 1686 High-Risk Program). The medical criteria for maternal eligibility includes pregnancy related conditions such as multiple pregnancies; severe diabetes or hypertension; iso-immunization related to the RH factor; hemorrhage after twenty (20) weeks of pregnancy; and spontaneous premature rupture of amniotic membranes. An infant during the neo-natal period is considered eligible if the birthweight is within 800 to 200 grams, and if the child is diagnosed as having a respiratory distress syndrome (1686 Program).

Public policy in Missouri has been placing emphasis on curative rather than preventive services for children. More than $100 million per year has been spent on curative services, versus about $16.7 million spent on preventive health services (Goodrich, 1982, p. 1). In the Goodrich article Keith Schaefer, Missouri Governor Bond's deputy social services director for children's programs, is quoted as saying, "Missouri must begin giving consideration to preventing rather than curing disease" (Goodrich, p. 1).

St. Louis Area Participation

In the St. Louis area, the St. Louis Regional Maternal and Child Health Council did a follow up study of the Missouri Division of Health 1686 Program (Holtgrewe, Follow-Up Study, 1974,

p. 1). At the time of the Holtgrewe study there were seven (7) hospitals in the City of St. Louis and St. Louis County that provided general maternity services, and had received the allowed medical cost reimbursement (Holtgrewe, p. 4). These facilities were Barnes Hospital, Jewish Hospital, St. John's Medical Center, Deaconess Hospital, St. Mary's Health Center, Normandy Osteopathic Hospital, and the City's Mac C. Starkloff Hospital.

Both Cardinal Glennon Memorial Hospital and St. Louis Children's Hospital are reimbursed for medical care costs for children cared for that meet the medical high-risk criteria.

Holtgrewe's study helps to identify a weak area of the 1686 Program, that is, the need for improved coordination related to identification, referral, and follow up of a high-risk child at the local level. Coordination of the program, at the time of the study and now, is handled centrally within the Missouri Division of Health in Jefferson City, where there is usually a shortage of community health staff (Holtgrewe, p. 4).

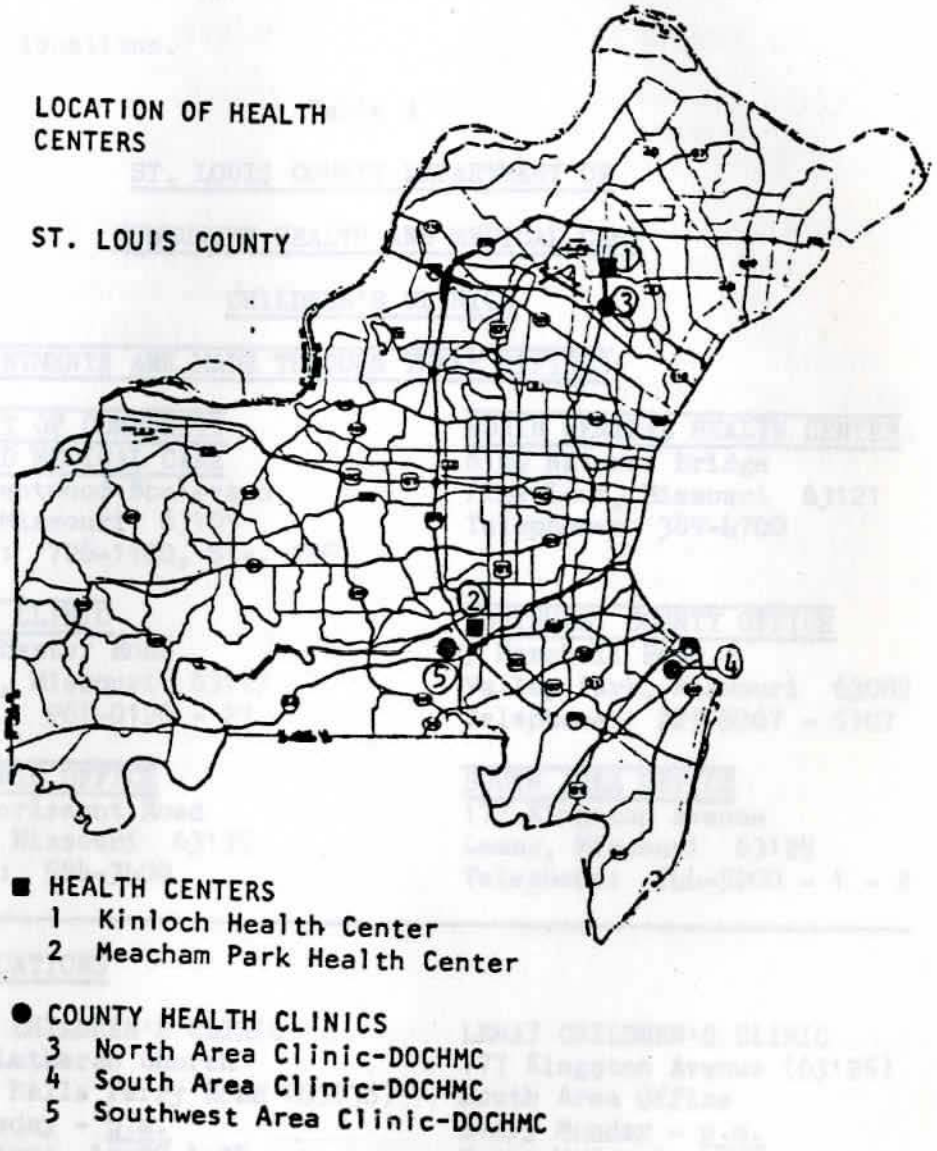
Reimbursements continue to be made only for high-risk program participants. There is no provision for well-baby care, and no coordinated governmental program for the well baby.

Survey of Area's Pediatric Clinics

A survey was done to determine the number and locations of child care clinics in the area. A map showing the locations of St. Louis County health centers was obtained from HSA publications.

Figure 1

Location of St. Louis County Health Centers



SOURCE: Health Systems Agency, AIP, 1980, p. 325.

A listing of the St. Louis County Department of Health and Medical Care (DHMC) Children's Clinics is provided in Table 3.

In summary the Health Department list provides the names of six area offices through which appointments can be made at thirteen (13) locations.

Table 3

ST. LOUIS COUNTY DEPARTMENT OF

COMMUNITY HEALTH AND MEDICAL CARE

CHILDREN'S CLINICS

ALL APPOINTMENTS ARE MADE THROUGH THESE OFFICES:

DEPARTMENT OF COMMUNITY HEALTH AND MEDICAL CARE
801 S. Brentwood Boulevard
Clayton, Missouri 63105
Telephone: 726-1100, Sta. 275

NORTH CENTRAL HEALTH CENTER
6150 Natural Bridge
Pine Lawn, Missouri 63121
Telephone: 389-4700

ROCK HILL CLINIC
9440 Manchester Road
Rock Hill, Missouri 63119
Telephone: 961-0126 - 27

SOUTHWEST COUNTY OFFICE
9 Marshall Road
Valley Park, Missouri 63088
Telephone: 225-5367 - 5107

NORTH CLINIC OFFICE
206 S. Florissant Road
Ferguson, Missouri 63135
Telephone: 524-3400

SOUTH AREA OFFICE
177 Kingston Avenue
Lemay, Missouri 63125
Telephone: 544-5200 - 1 - 2

CLINIC LOCATIONS

BLACKJACK CHILDREN'S CLINIC
Emmanual Lutheran Church
11100 Old Halls Ferry Road (63136)
Every Tuesday - p.m.
Registration: 12:00-1:00 p.m.

LEMAY CHILDREN'S CLINIC
177 Kingston Avenue (63125)
South Area Office
Every Monday - p.m.
Every Wednesday - p.m.
Registration: 11:30-12:30 p.m.

HAZELWOOD CHILDREN'S CLINIC
Hazelwood Community Center
1186 Teson Road (63042)
Every Thursday - p.m.
Registration: 12:00-1:00 p.m.

OVERLAND CHILDREN'S CLINIC
First Baptist Church of St.
John-Every Thursday - a.m.
8665 St. Charles Rock Road
Registration: 8:00-9:00 a.m.

FERGUSON CHILDREN'S CLINIC
January Wabash Park Community Bldg.
501 N. Florissant Road (63135)
Registration: 8:00-8:30 a.m.
Every Wednesday - p.m.
Registration: 12:00 noon

KINLOCH CHILDREN'S CLINIC
St. Michael's Center
8301 Booker Avenue (63140)
Every Monday - p.m.
Registration: 12:00-1:00 p.m.

KIRKWOOD CHILDREN'S CLINIC
St. John's Meacham Park Clinic
301 Electric Street (63119)
Every Friday - a.m.
Registration: 8:30-9:30 a.m.

ST. ANN CHILDREN'S CLINIC
St. Gregory Church
3500 St. Luke Lane (63074)
Every Wednesday - a.m.
Registration: 8:00-9:00 a.m.

VALLEY PARK CHILDREN'S CLINIC
Southwest County Health Office
#9 Marshall Road (63088)
2nd, 3rd, 4th, 5th Thursday - a.m.
Registration: 8:00-9:00 a.m.

Every Monday - p.m.
Registration: 11:30-12:30 p.m.

PINE LAWN CHILDREN'S CLINIC
6150 Natural Bridge (63121)
Every Monday - a.m.
Registration: 8:00-9:00 a.m.
Every Tuesday & Friday - p.m.

RIVERVIEW GARDENS CHILDREN'S CLINIC
1060 Chambers Rd. (63136)
Every Wednesday - p.m.
Registration: 11:30-12:30 p.m.

ROCK HILL CHILDREN'S CLINIC
9440 Manchester Road
Every Monday - a.m.
Every Tuesday - p.m.
ADOLESCENT CLINIC at Rock Hill Every Wednesday - a.m.

UNIVERSITY CITY CHILDREN'S CLINIC
Pershing School Comm. Ctr.
6761 Bartmer Ave. (63130)
Registration: 8:00-9:00 a.m.

SOURCE: St. Louis County Department of Community Health and Medical Care, 10-80.

Documentation from St. Charles relevant to this survey was not available. According to Schepers there is often a lag between the influx of new residents and the appearance of added health facilities and services for an area (Schepers, 1976, p. 9).

CHAPTER III

THEORETICAL ORIENTATION

The United States has made great advances in improving infant health. One indicator of the progress has been the decrease in the American infant mortality rate. In the early 1900's there were more than 100 deaths per 1000 live births. In 1979 the mortality rate declined to 13.0 per 1000 live births (Goodrich, p. 1). The chance that a child will be born alive and will have a first birthday is now better than at any other time in our history (Richmond, p. 18).

Although progress is encouraging, the United States is now ranked fourteenth among nations in infant mortality (Lythcott, 1981, p. 21). Lythcott also expresses concern that we are not "performing as well as we might in maternal and infant care" (Lythcott, p. 21). Many infants and mothers, especially those with low incomes, continue to be underserved (Green, 1980, p. 43). According to Lythcott, social and economic advances as well as medical achievements have helped the United States along a "continuum of increasing expectations, from life-or-death to the quality of the survivor," and to a social environment that will provide all children with an opportunity for optimal growth and development (Lythcott, p. 21).

In our democratic society the complex area of maternal and infant health has many medical, social, and economic implications (Surgeon General's Workshop, 1981, p. 3). Among the elements necessary for achievement of favorable decisions and goals is the need for strong leaders and interest groups to form coalitions, in both the private and public sectors, who are willing to work

toward advancing maternal and child health care objectives (Surgeon General's Workshop, p. 3).

In the private sector, the DePaul Community Health Center of Bridgeton, Missouri established a pediatric well-baby clinic that opened in January, 1981. The clinic was planned to provide high quality, preventive, periodic, low cost health care to area children who had been born to mothers through the obstetric clinic service.

This exploratory study is being done to obtain a profile of the pediatric clinic users and to evaluate the geographic and financial accessibility of the pediatric clinic service as perceived by the clinic users.

The hypotheses of this study are:

1. that the population using the pediatric service will consist primarily of young, unwed, first time mothers;
2. that these mothers will find the pediatric clinic geographically and financially accessible.

The first hypothesis is being examined because it it necessary to address the need for knowledge of differences between the mothers who will be users of the pediatric clinic, and those who decline to use the service, the non-users. The hypothesis is based on opinions of key professional staff members expressed in planning meetings. The experience of the staff gave the impression that the decision to use the offered service would be affected by a mother's age, education, marital and employment status, and whether the newborn was a first-born male child.

The second hypothesis in reference to accessibility is planned to be determined by response to questions put to users of the service. Geographic accessibility has been deemed adequate by the planners because the clinic is located at the crossroads of two (2) major highways, is on a public service bus route, and there is a road network available for cars (Schepers, p. 10). Financial accessibility will be evaluated in relation to an established percentage fee for service, based on annual income and family size.

CHAPTER IV

REASEARCH METHODOLOGY

OVERVIEW OF THE STUDY DESIGN

Scope and Limitations of the Study

Due to the broad scope of this study it was decided to have a two part survey.

In the first part (Experiment 1) of this investigative study, a review of clinic patient records was accomplished to ascertain possible differences between the obstetric clinic mothers who state that they will be users of the pediatric clinic, and mothers who state that they will be non-users of the offered service. The data collected provides a profile of demographics characteristic of the study population.

In the second part of the investigation, which will be recorded in two (2) categories, Experiments 2 and 3, direct questionnaires will be used to determine client perception of the pediatric clinic geographical and financial accessibility. By using this approach, Experiment 2 will provide data obtained from prospective pediatric clinic clients. Experiment 3 supplies study information from actual pediatric clinic clients.

Limitations of the studies identified by the investigator include the following:

1. The size of the samples are small, and therefore, the findings cannot be generalized to predict the responses of a larger population. However, the population is relatively homogenous and it is felt that the smaller sampling is both adequate and representative.
2. There is a lack of control for variables of family and

cultural influences, and pre-existing attitudes of the mothers.

3. The sampling is obtained from one organization in a specific geographical area of the county. Therefore the representativeness of the results are questionable.

Description of the Settings

The sample populations of this study will be composed of clinic patients who attend DePaul Community Health Center clinics. The DePaul Community Health Center is a 611 bed facility located in the northwest section of St. Louis County, Missouri. It is maintained by the Daughters of Charity of St. Vincent DePaul. After an initial move of DePaul Hospital to its present site in 1977, two corporative related facilities joined DePaul to establish a Health Center. Therefore, under the Health Center's administrative umbrella there are three distinct but united institutions. These institutions are known as St. Anne's, a geriatric care service, St. Vincent's, specializing in the care of psychiatric patients, and DePaul, used for the service of acute care patient needs.

The obstetric clinic was established in 1978 and at this time has the authority to accept fifty eligible patients monthly. Eligibility is evaluated by financial criteria and determined through the Social Service Department.

The pediatric clinic was established in January 1981. The pediatric clinic is open to all obstetric clinic patients delivering infants at the Health Center, and who meet the financial criteria.

The obstetric and the pediatric clinic services share office space. The space allocated by the Health Center is in the adjoining Professional Office Building.

Experiment 1 will obtain data from clinic registration records in the Social Service Department.

Experiment 2 will obtain data from prospective pediatric clinic population clients at the time of a pre-natal visit at the obstetric clinic.

Experiment 3 will obtain data from mothers of children brought to the pediatric clinic for a medical visit. These mothers are considered the pediatric clinic client population.

Overview of Data Collection

In the first part of the investigation, Experiment 1, to be done in order to obtain a profile of pediatric clinic users, a checklist format was devised for use with pediatric clinic registration records. The tool is to be used to determine ages of mothers, educational grade attainment, and the marital and employment status of mothers who will be users of the pediatric service. The same instrument will be used in conjunction with obstetric clinic records to obtain the same demographic data pertaining to non-users. A twenty-two (22) day time period, November 23, 1981 through December 14, 1981, is set to gather data to prevent variables of passage of time that would affect the validity of the data.

For the second portion of the investigation two questionnaires and a prospectus were submitted for review and examination to the Community Health Center's Administrators for presentation to the

Research Committee of the agency. Permission was granted for conduction of the study.

In Experiment 2 an inquiry into post-partum pediatric care, the first of the questionnaires, is directed toward expectant mothers currently using the obstetric clinic. The second of the questionnaires, used in Experiment 3, is an investigation of the clients perception of financial and geographic accessibility of the pediatric clinic. This questionnaire was given to mothers of pediatric clinic patients. For both Experiment 2 and Experiment 3 a six (6) week time period, February 15 through March 31, 1982, was set to gather data. This was to prevent variables of passage of time that would affect the validity of the data concerning mothers delivering infants and returning to the clinic service.

Pre-Tests

Prior to initiating the study twelve (12) questionnaires were completed by both prospective pediatric clinic clients (attending the obstetric clinic) and mother utilizing the pediatric clinic.

This pre-testing was performed to refine the proposed questionnaires with the aim of eliminating ambiquities of the terms. The pre-tests determined that the questionnaires were adequate. No changes or modifications were made in the questionnaires.

CHAPTER V

USER PROFILE: EXPERIMENT 1

METHOD

Selection and Description of the Population Sample

The population being investigated to determine a profile of users versus non-users was selected by random sample of the group of obstetric clinic patients delivering viable infants between November 23, 1981 and December 14, 1981. Records of thirty-five (35) subjects were reviewed for Experiment 1, this section of the investigation. This was a field study conducted in a systematic manner, but cannot be considered representative of all area residents.

Subjects

The thirty-five (35) subjects selected for Experiment 1 were obstetric clinic patients delivering viable infants at the community health center between November 23, 1981 and December 14, 1981. Two (2) of the thirty-five (35) mothers decided to place their infants up for adoption, leaving N 33 the total number for Experiment 1.

Procedure

Prior to admission for delivery, the obstetric clinic patient was presented with information concerning the pediatric clinic by a member of the obstetric clinic nursing staff. The expectant mothers were given a pediatric clinic application form during the ninth month of pregnancy. They were asked to complete the form prior to their expected date of confinement if they were interested in the pediatric clinic service. The mothers-to-be were encouraged to bring the form with them when they were admitted for delivery.

After delivery, and during the clinic patient's hospital stay, each of the mothers was visited by the Pediatric Nurse Practitioner (PNP) and a nurse aide from the pediatric clinic staff.

RESULTS OF EXPERIMENT 1

As stated earlier, the purpose of this portion of the investigative study was to determine differences between users and non-users of the pediatric clinic service, thereby providing a profile of each group. A descriptive analysis of the data was employed and a statistical analysis using a Chi square 2 X 2 test of association was used when answers were yes or no responses to determine relationships. Of the thirty-five (35) new mothers, twenty (20), fifty-seven percent (57%), registered to be users of the clinic. Thirteen (13), thirty-seven percent (37%), said they would not. Two (2) of the subjects, six percent (6%), planned to put their infants into an adoptive process and were deleted from the study at this point, providing N 33.

Age

The subjects ages ranged from fifteen (15) years to thirty-four (34) years. It was found that the ages of the users ranged from sixteen (16) to thirty-three (33) years. The ages of the non-users ranged from fifteen (15) to thirty-four (34) years.

Mean age of users was 20.6 years (sd 3.93) and mean age of non-users was 22 years (sd 5.84). Calculation by *t* tests determined no significant difference at the .05 level (t (32) = .76, p .05), as seen in Table 4.

Education Levels

Definitive data regarding educational levels was available from the records for only nineteem (19) of the twenty (20) users, and for twelve (12) of the thirteen (13) non-users. Education completed by the users ranged from eighth (8th) grade through

the sixteenth (16th) grade. Non-users reported education from ninth (9th) grade through the sixteenth (16th) grade and included one GED that was counted as a twelfth (12th) grade level. For non-users the grade level mean was 11.5 years (sd 1.78). Calculation by *t* test showed no significant difference (t (29) = .29, $p > .05$). This can be seen in Table 4 which summarizes these findings.

Table 4

Ages and Educational Levels of Mothers

	Users		Non-users	
	$\bar{x}$	sd	$\bar{x}$	sd
Age	20.6	3.93*	22.0	5.84**
(Range 15 to 34 years)				
(t (32) = .76, p > .05).				
Education level	11.3	1.97+	11.5	1.78++
(Range 8th to 16th grades)				
(t (29) = .29, p > .05).				

* = n 20

** = n 13

\+ = n 19, unable to ascertain 1 educational level properly and deleted.

++ = n 12, unable to ascertain 1 educational level properly and deleted.

There was no significant differences of the variables between the users and non-users.

Marital Status

Seventy percent (70%) of the users were married, as were fifty-four percent (54%) of the non-users. Chi square for this correlation was calculated to be .89 which proved insignificant at the .05 significant level (χ^2 = .89 (df 1) $p > .05$). The accompanying analysis is seen in Table 5.

Table 5

Marital Status of Mothers

Marital Status	Users	Non-users	Total
Married	14	7	21
Unmarried	6	6	12
TOTALS	20	13	33

N = 33 (χ^2 = .89 (df 1) $p > .05$)

Employment Status

A comparison of employment status showed that of the N33 fifty percent (50%) of users were employed and thirty-one percent (31%) of the non-users were employed. Chi square for this correlation was calculated to be 1.19 showing no significant difference at the .05 significant level (χ^2 = 1.19 (df 1) $p > .05$). This is shown in Table 6.

Table 6

Employment Status of Mothers

Employment Status	Users	Non-users	Total
Employed Mothers	10	4	14
Unemployed Mothers	10	9	19
TOTALS	20	13	33

(χ^2 = 1.19 (df 1) $p > .05$)

First Born Child

Among the twenty (20) users sixty percent (60%) were first time mothers, while forty percent (40%) of the thirteen non-users had first born infants. Chi square for this correlation was calculated to be .29 (χ^2 = .29 (df 1) $p > .05$). This proved insignificant at the .05 significant level. The analysis is presented in Table 7.

Table 7

First Live Birth to Mother

First live birth?	Users	Non-users	Total
Yes	12	9	21
No	8	4	12
TOTALS	20	13	33

(χ^2 = .29 (df 1) $p > .05$).

Sex of Newborn Infant

A total of sixteen (16) male infants were born to the combined thirty-three (33) subjects. For the users fifty-five percent (55%) of the newborn infants were male, and forty-five percent (45%) of the non-users delivered male infants. Chi square correlation was calculated to be .86 which proved insignificant at the .05 significance level (χ^2 = .86 (df 1) $p > .05$). The analysis is shown in Table 8.

Table 8

Sex of the Newborn Infant

Sex of Newborn	Users	Non-users	Total
Male	11	5	16
Female	9	8	17
TOTALS	20	13	33

(χ^2 = .86 (df 1) $p > .05$).

Several additional factors not hypothesized to be relevant came to the surface. A post hoc analysis was done on three additional variables of race, religion, and annual income.

Race

There was no significant difference found between the groups in relation to race between mothers deciding to use the clinic and mother who decided against use. Fifteen percent (15%) of the users of the pediatric clinic were black, while thirty-one percent (31%) of the non-users were black. Eighty-five percent

(85%) of the users were Caucasians, and sixty-nine percent (69%) of the non-users were Caucasians. Chi square analysis for this correlation was calculated to be 1.8, therefore this correlation proved insignificant at the .05 significant level (χ^2 = 1.17 (df 1) $p > .05$). This is presented in Table 9.

Table 9

Race of Mothers

Race of Mother	Users	Non-users	Total
Black	3	4	7
Caucasian	17	9	26
TOTALS	20	13	33

(χ^2 = 1.17 (df 1) $p > .05$).

Religion

In an investigation of mothers' religious affiliation it was found that forty percent (40%) of the users were Catholic, and twenty-three percent (23%) of the non-users were Catholic. Chi square for this correlation was calculated to be 1.02 which showed no significant difference at the .05 level (χ^2 = 1.02 (df 1) $p > .05$). The accompanying analysis is presented in Table 10.

Table 10

Religion of Mothers

Religion of Mothers	Users	Non-users	Total
Catholic	8	3	11
Other	12	10	22
TOTALS	20	13	33

(χ^2 = 1.02 (df 1) $p > .05$).

Annual Income Levels

Upon inquiry into the subject of annual income levels it was found that thirty percent (30%) of the users had annual incomes ranging up to $8,000.00, fifty percent (50%) were in the $8,000.00 to $12,000.00 span, and the remaining twenty percent (20%) were Medicaid recipients. The probe of non-users income levels revealed that sixty-nine percent (69%) of the non-users had incomes ranging up to $8,000.00, sixteen percent (16%) were in the $8,000.00 to $12,000.00 bracket, and the remaining fifteen percent (15%) were Medicaid recipients. All Medicaid patients were deleted from calculations and Chi square for this correlation was calculated to be 5.2 which showed a significant difference at the .05 level of 3.84 (χ^2 = 5.2 (df 1) $p < .05$). The accompanying analysis is presented in Table 11.

Table 11

Annual Income Levels of Users and Non-user Mothers

Annual Income	Users[a]	Non-users[b]	Total
$0 up to $8,000.00	6	9	15
$8,000.00 to $12,000.00	10	2	12
TOTALS	16	11	27

a = n 16 after deletion of 4 Medicaid patients

b = n 11 after deletion of 2 Medicaid patients

N = 27

(χ^2 = 5.2 (df 1) $p < .05$).

Tabulation by percent of users versus non-users provided a profile of the group. This is presented in Table 12.

Table 12

Profile of Users and Non-users in Percentages

Area	Users	Non-users
Married	70%	54%
Employed	50%	31%
First live birth	60%	69%
Male infant	55%	38%
Black	15%	31%
Catholic	40%	23%
Medicaid	20%	15%
Annual Income		
Up to $8,000.00	30%	69%
$8,000.00 to $12,000.00	50%	18%

CHAPTER VI

ACCESSIBILITY SURVEY: EXPERIMENTS 2 AND 3

METHOD

Selection and Description of the Population

In recognition of the broad scope of the second part of this exploratory survey--the investigation of geographic and financial accessibility of the pediatric service as perceived by clinic clientel--two separate categories or subsections were established.

In the first category, Experiment 2, the target population was the undelivered obstetric clinic patient. The sample was obtained from the obstetric clinic patients arriving at the obstetric clinic for pre-natal appointments during a six-week period, February 15 through March 26, 1982. This study selection was made to obtain an insight into the post-partum plans of the expectant mothers based upon accessibility of the pediatric clinic.

The second category, Experiment 3, had as its target population mothers attending the pediatric clinic. The sample was obtained from mothers as they arrived to keep pediatric clinic appointments with their children during the same six-week period, February 15 through March 31, 1982.

Both of these experiments were field studies conducted in a systematic manner within the clinic setting and cannot be considered representative of all area residents.

Instruments

The tools were two one-page questionnaires, each specifically designed for one of the two population samples. On the reverse

side of all questionnaires was a consent to use of information statement requiring the signature of each participant. (See Form 1, Release of Information.)

Form 1

Release of Information

DEPAUL COMMUNITY HEALTH CENTER

RELEASE OF INFORMATION FOR EDUCATIONAL AND RESEARCH PROJECTS

I agree and consent to allow DePaul Community Health Center the use of any clinic information obtained for educational and research projects.

NAME:_____ DATE:_____

Both of the questionnaires were intentionally kept simple, utilizing "yes" or "no" questions because of the setting, the populations involved, and in regard to the participants ability to concentrate while in the setting. All participants were given the option of documenting additional comments or opinions. The open ended questions requiring comments are to be used to obtain information and to assist in evaluation of the service.

For Experiment 2, questionnaire 1 was prepared and addressed to the obstetric clinic patients, the prospective pediatric clinic clientel. The questions were designed to elicit information concerning expectant mothers' plans for pediatric care after the

birth of their children. (See Form 2, sample Questionnaire 1.)

Form 2

Questionnaire 1

For DePaul Community Health Center Obstetric Clinic Patients:

Do you plan to attend the DePaul Community Health Center Pediatric Clinic?

yes____ no____ don't know____ not sure____

If the answer is yes, please write the expected date of confinement (EDC).

EDC_____

If the answer is no, why not? Please circle any numbers that apply.

1. Have a Pediatrician.
2. Have own Doctor.
3. Plan to attend another clinic.
4. Hours of the DePaul clinic are inconvenient.
5. It is too far to travel.
6. Have no transportation.
7. A friend or relative knows how to take care of problems.
8. Other (please explain)_____

The questionnaire asked if the mother planned to attend the pediatric clinic and provided spaces for responses of "yes," "no," "don't know," and "not sure." If the answer was "yes" it was expected that the questionnaire would be considered completed after entry of the expected date of confinement (EDC) in the space provided. If the answer was "no" there were seven (7) possible

responses provided to detemine why. The participants were asked to circle any of the seven (7) listed responses that were applicable, or to explain by comment any other reasons. This option was designed to elicit further information that would indicate the reason for refusal of the offered service.

A total of two hundred forty (240) copies of Questionnaire 1 were dispensed and two hundred thirty-eight (238) were returned. Of the two hundred thirty-eight (238) returned two (2) questionnaires were deleted because of lack of response, leaving N 236.

In Experiment 3, the second category of this section of the study, Questionnaire 2 was utilized. This one-page questionnaire was addressed to the mothers presently attending the pediatric clinic with their children. (See Form 3, sample Questionnaire 2, page 47.) This sample population was asked to respond to questions regarding accessibility of the pediatric clinic services. The questions were in reference to transportation difficulties, the convenience of clinic hours, time spent waiting to see the Pediatric Nurse Practitioner versus time spent waiting to see the physician, whether the telephone service was satisfactory, if the clinic met medical needs, and if there was a problem in payment of pediatric clinic bills. The participants were given the option of documenting suggestions or comments about the pediatric clinic or about the clinic staff at the end of the questionnaire. This option was designed to elicit additional information concerning the clinic service which was not specified in the questionnaire.

A total of one hundred seventy-five (175) questionnaires were dispensed and one hundred seventy (170) were returned.

Form 3

Questionnaire 2

To DePaul Community Health Center Pediatric Clinic Mothers:

Please assist us in evaluation of our service by anwering these questions:

1. Do you ever have transportation difficulties?

   yes_____ no_____ Comment_____

2. Do you drive to the clinic? yes_____ no_____

3. Do you come to the clinic with someone? yes_____ no_____

   Carpool_____ Relative_____ Bus_____

4. Are the Pediatric Clinic hours convenient? yes_____ no_____

5. How long do you usually wait to be seen in the Pediatric clinic?

   Less than 1/2 hour to see the PNP?____ More than 1/2 hour?____

   Less than 1/2 hour for the Doctor?____ More than 1/2 hour?____

6. Is the telephone service satisfactory? yes_____ no_____

7. Does the clinic serve your needs for:

   Immunizations? yes___ no___ Well baby visits? yes___ no___

   Physical exam? yes___ no___ Sick baby visits? yes___ no___

8. Do you have a problem with payment of the bill? yes___ no___

   If yes, please comment _____

9. Do you have any suggestions or comments to make about the Pediatric Clinic of the staff?

_____

_____

Subjects

In Experiment 1 the subjects were two hundred thirty-six (236) expectant mothers seen in the obstetric clinic at varying stages of pregnancy. The obstetric clinic is open five (5) half-days each week for a total of four (4) hours each morning, therefore there were thirty (30) days of sample population available for the study between February 15 through March 26, 1982.

In Experiment 2 the subjects were one hundred seventy (170) pediatric clinic clients who brought children to the pediatric clinic. The pediatric clinic is open four (4) half-days each week, for a total of four (4) hours on Monday, Wednesday and Friday afternoons and four (4) hours each Saturday morning. The subjects were obtained from the twenty-three (23) days of sample population available for the study, between February 15 through March 31, 1982.

Procedure

In both Experiments 1 and 2 the questionnaires were mimeographed by the researcher and taken to the clinic area. The questionnaires were given to the respective clinic receptionists with verbal instructions for dispensing the questionnaires to clients. For both experiments the receptionists were instructed to state that the questionnaire was a voluntary effort, and it was being given in order to obtain information for the facility. No promise of change in service, or compensation for participation was made. The actual wording of the verbal question "Would you like to answer in order to help us evaluate our service?" was adhered to, as was an explanation and request for a signature on

the release of information form on the back of each questionnaire. As the clients entered the respective clinics the questionnaires were offered. If a woman wished to participate she was instructed to return the questionnaire to the receptionist as she completed the clinic visit.

A time limit of six weeks, February 15 through March 31, 1982, was set to gather data to prevent variables of passage of time that would affect the study such as delivery of an infant and attendance in the pediatric clinic by an obstetric clinic mother.

RESULTS OF EXPERIMENT 2

As stated earlier, this portion of the study, Experiment 2, was designed to gain insight into post-partum planning of the obstetric clinic expectant mothers. Data analysis of this section of the study was performed in a descriptive manner since time did not allow for refined statistical analysis. Of the two hundred forty (240) questionnaires given to the expectant mothers there were two hundred thirty-eight (238) returned. Two (2) of the participants left all available response spaces blank and were deleted from the study equalling N 236.

Do You Plan to Attend the DePaul Community Health Center Pediatric Clinic?

Each participant had the option of replying to the question above by marking a space beside an answer of "yes", "no", "don't know" or "not sure".

Of the two hundred and thirty-six (236) responses it was found that one hundred and twenty-six (126) or 53.4 percent planned to attend the pediatric clinic. Of the remaining one hundred and ten (110) respondees thirty-four (34) or 14.4 percent said they would not use the clinic, thirty-nine (39) "didn't know" and thirty-seven (37) were "not sure" of plans. Therefore, seventy-six (76) or 32.2 percent were tabulated as undecided. This is presented in Table 13.

Table 13

Expectant Mothers Planning to Attend the Pediatric Clinic

	Numbers	Percent
YES	126	53.4
NO	34	14.4
DON'T KNOW	39	32.2 undecided
NOT SURE	37	
TOTALS	236	100.0%

Expected Date of Confinement (EDC)

It was expected that there would be a documented EDC for all of the one hundred twenty-six (126) mothers who had responded "yes" to the preceeding question. In actuality, six (6) of the one hundred twenty-six (126) affirmative responders left the EDC blank or used a question mark, providing one hundred eighteen (118) of the expected one hundred twenty-six (126) responses. However, answers from others brought the total of documented EDC's to N 131. The answers ranged from January to October, and the data obtained was arranged in ordinal rank by EDC trimester and is presented in Table 14.

Table 14

Trimester Data

Plan to Use the Pediatric Clinic?		Yes	No	Don't Know	Not Sure
EDC	Jan.	1			
Third	Feb.	7			
Trimester	March	23	2	1	2
	April	13			2
	May	23			2
Second	June	21			1
	July	15			
	Aug.	5		1	1
First	Sep.	7		1	
Trimester	Oct.	3			
TOTALS		118	2	3	8

N 131

Reasons Given for Not Using the Pediatric Clinic

The participants who had replied that they did not plan to use the pediatric clinic were asked to provide a reason for the negative response. The participants could select from seven (7) listed responses, and had the option of multiple selections. In addition, the subjects had the option of using a provided space for an explanatory comment if none of the listed responses were perceived as being applicable. Seventy-eight (78) subjects from the N 236 population responded to the inquiry, with fifty-six (56) respondents or twenty-four percent (24%) of the N 236 using the seven (7) listed responses. The remaining twenty-two (22) subjects, or nine percent (9%) of N 236 wrote explanatory comments in the space provided. Therefore, the n 78, representing thirty-three percent (33%) of the N 236 did identify specific barriers to use of the pediatric clinic service.

From the n 78, among the fifty-six (56) subjects who utilized the seven (7) listed responses, there were forty-six (46) responders, or fifty-nine percent (59%) who had an alternative course of care planned, nine (9) subject or 11.5 percent claimed transportation as a reason, and one (1) subject, representing less than one percent identified clinic hours as a barrier to use. The remaining twenty-two (22) subjects who wrote specific comments represented twenty-eight percent (28%) of the n 78. Table 15 presents the data obtained.

Table 15

Reasons for Not Attending the Pediatric Clinic

Reason for Not Attending	Number Responding	% of Respondents
Instruction: Please circle any numbers that apply.		
1. Have a Pediatrician.	32*	41
2. Have own Doctor.	6*	8
3. Plan to attend another clinic.	7*	9
4. Hours of the DePaul clinic are inconvenient	1"	1
5. It is too far to travel.	7**	9
6. Have no transportation.	2**	3
7. A friend or relative knows how to take care of problems.	1*	1
8. Other (please explain).	22	28
TOTALS	78	100%

N 78

* = n 46 with alternative plans

** = n 9 transportation

" = n 1 clinic constraint

The twenty-two (22) specifically written comments were divided into two (2) groups in reference to accessibility, if seen as being applicable to that grouping, by the researcher. Six (6) of the twenty-two (22) responses were considered as being related to geographic accessibility, and three (3) of the twenty-two (22) were seen as referring to financial accessibility. A third group was formulated for the remaining thirteen (13) of the twenty-two

(22) comments. The responses, as given, are detailed in the three (3) groups below.

Geographic Accessibility

1. Expect to move to Texas
2. Husband transferred.
3. Transportation often might be a problem.
4. Far, but not too far.
5. Might be too far in an emergency.
6. Trying to find a Pediatrician in St. Charles.

Financial Accessibility

1. Don't know about medical expenses.
2. Have new insurance and don't know how good it is.
3. Like a special Pediatrician but not sure if insurance will cover his rates.

Other Reasons

1. Want to know more.
2. Would like some more information.
3. First time I heard of it.
4. Haven't thought about it yet.
5. & 6. Haven't made up my mind. (Two identical responses.)
7. Have to discuss with the babies father.
8. Need to discuss with my husband.
9. Thinking of going to a Pediatrician.
10. - 13. Planning to give the baby up for adoption. (Four identical responses.)

RESULTS OF EXPERIMENT 3

Experiment 3 was directed to the mothers of presently registered pediatric clinic patients, in an investigation of the mothers' perception of geographic and financial accessibility of the service. Data analysis of Experiment 3 was done in a descriptive manner since the items did not allow for refined statistical analysis. There were one hundred seventy-five (175) questionnaires dispensed and one hundred seventy (170) were completed and returned.

Transportation Difficulties

The item asking "Do you ever have transportation difficulties?" was followed by spaces for checkmark responses of "yes" or "no" and provided the option of a comment. There were one hundred and thirty-six (136) subjects, or eighty percent (80%) of N 170 who said there were no transportation difficulties. There were thirty-one (31) subjects who said they had problems, and three (3) wrote "sometimes" in the space provided for comments. All who had responded as having had any transportation problem at any time were calculated as having transportation problems, thereby creating a total of thirty-four (34) "yes" answers or twenty percent (20%) of N 170 who claimed transportation difficulties. The data is presented in Table 16.

Table 16

Transportation Difficulties

Do you ever have transportation difficulties?		Number	Percent
Answer:	Yes	34*	20
	No	136	80
TOTALS		170	100%

* Includes any response other than "No".

Although there were thirty-four (34) subjects who claimed transportation difficulties nineteen (19) specific notations were made in the comment spaces regarding transportation difficulties. These were found primarily to be mechanical car problems, followed by problems relating to lack of car availability. The following reports the comments in what the researcher deemdd appropriate grouping.

A. Mechanical car problem comments

1. Lousy car
2. Sometimes my car is broke
3. Car breaks down
4. Old car

B. Have a car but availability is a problem

1. When my mom is working
2. I have a car available every other week.
3. When my mother is working

4. Must depend on husband to drive us in, he works erratic hours.
5. Husband at work with our one car
6. Something always happens to my ride
7. If my husband is working
8. My husband works different hours and I never know until the day before.
9. Depends on work schedule
10. Only one car
11. Husband needs car for work
12. My husband works for himself and needs car
13. Only have one car. I have to get rides from in-laws and friends.

C. Have no car was comment of two (2) subjects.

These nineteen (19) comments could therefore be classified as four subjects or twenty-one percent (21%) of the n 19 were found to have mechanical car problems; thirteen (13) subjects, or sixty-eight percent (68%) of n 19 had problems because of car availability; and two (2) subjects or eleven percent (11%) of n 19 stated they had no car. This is shown in Table 17.

Table 17

Transportation Difficulty Reasons

Reasons for Transportation Difficulties	Number	Percent
Mechanical car problems	4	21
The car is not always available	13	68
No car	2	11
TOTALS	19	100%

Do You Drive to the Clinic?

The question of "Do you drive to the clinic?" followed by the inquiries of, "Do you come with someone, in a carpool, with a relative, or by bus?" were designed as part of transportation difficulty responses and related to geographic accessibility. In response to the question "Do you drive?" there were one hundred and thirty (130) "yes" responses, six (6) wrote the word "sometimes". The six (6) who responded with "sometimes" were included in the affirmative responses to provide a tally of eighty percent (80%) or one hundred and thirty-six (136) participants of N 170 who drive to the clinic. The remaining thirty-four (34) subjects or twenty percent (20%) of the N 170 said they did not drive. The next item asked if the subjects came to the clinic with someone. There were one hundred sixty-one (161) responses from the N 170 providing a ninety-five percent (95%) response. One hundred (100) of the n 161 responses, or sixty-two percent (62%), were affirmative. Sixty-one (61)

participants, thirty-eight percent (38%) of n 161 said "no", Ninety-one (91) of the one hundred (100) subjects, ninety-five percent (95%) who said they came to the clinic with "someone" identified the someone. Eighty-seven (87) subjects came with a relative, none participated in a carpool, one (1) came via a bus and two (2) noted being accompanied by husbands by writing the informaton in. The data is presented in Table 18.

Table 18

Self Driver or With Someone

Inquiry	Yes	%	No	%	Total
Do you drive?	136	80	34	20	170*
Do you come with someone?	100	62	61	38	161**
Identification of someone:					
relative	87	96			
husband	2	2			
friend	1	1			
bus	1	1			
TOTALS	91	100%			

* Do you drive = N 170

** Come with someone = N 161

Convenience of Clinic Hours

In response to the question of whether the clinic hours were convenient there were one hundred and sixty-nine (169) responses from N 170.

Ninety-six percent (96%) of n 169 said the hours were convenient. Four (4) participants said they were not convenient, and two (2) responses of "sometimes" were written in. These six (6), or four percent (4%) of n 169, were calculated as having responded that the hours of the clinic were not convenient. The data is shown in Table 19.

Table 19

Convenience of Clinic Hours

Are Pediatric Clinic Hours Convenient?	Number	Percent
Yes	163	96
No	6*	4
TOTALS	169	100%

* includes two (2) responses of "sometimes"

Waiting to be Seen in the Pediatric Clinic

The inquiry asking about the amount of time spent waiting in the pediatric clinic to see the Pediatric Nurse Practitioner (PNP) or the physician provided response options of less than one-half hour or more than one-half hour. Some of the subjects checked one (1) of the areas, others checked two (2) replies, some left the spaces blank. Data provided by two hundred seventy-one (271) responses from N 170 showed one hundred forty-seven (147) subjects, fifty-four percent (54%) of the two hundred seventy-one (271), commented on time spent waiting to see the PNP and one hundred twenty-four (124 of the two hundred seventy-one (271), or forty-six

percent (46%), responded with comments regarding waiting to see the physician. Of the responses regarding the PNP, one hundred nine (109) subjects, or seventy-four percent (74%) of the one hundred forty-seven (147) subjects waiting to see the PNP, said they waited less than one-half hour. Among those who replied relating to see the physician seventy-one (71) subjects, or fifty-seven percent (57%) of the n 124 subjects waiting to see the doctor, said the waiting time was less than one-half hour. This is shown in Table 20.

Table 20

Pediatric Waiting Time

Waiting time:	For PNP	%	For Physician	%
Wait less than 1/2 hour	109	74	71	57
Wait more than 1/2 hour	38	26	53	43
TOTALS	147	100%	124	100%

Responses N 271

Telephone Service

The inquiry into satisfaction with the pediatric clinic telephone service was not answered by all of the one hundred seventy (170) subjects. There were one hundred and sixty-eight (168) responses received, showing ninety-nine percent (99%) of N 170 who said the service was satisfactory, the remaining one percent (1%) or two (2) subjects of N 170 left the space blank. Data is presented in Table 21.

Table 21

Telephone Service Satisfaction

Is the telephone service satisfactory?	Number	Percent
Response of Yes	168	99
Response of No	0	0
No response	2	1
TOTALS	170	100%
N 170		

Serving of Medical Needs

Four (4) types of medical services were listed and spaces were provided for the participants to check a response of "yes" or "no" to the question of whether the clinic did or did not serve the need. Of N 170 there were one hundred fifty-seven (157) who stated that needs for immunizations were being served; one hundred fifty-six (156) documented that the need for physical exams was being met; one hundred fifty-two (152) replied that their needs for well baby visits were met; and one hundred forty-two (142) had sick baby needs met. The question of the clinic meeting the listed needs was responded to in the affirmative by six hundred and seven (607), one hundred percent (100%) of the responses. There were no negative answers or comments. Data collected is presented in Table 22.

Table 22

Serving of Medical Needs

Medical Needs Served	Number of responses Yes	No	Percent of Subjects*
Medical Needs Served For:			
Immunizations	157	0	92
Physical Exams	156	0	92
Well Baby Visits	152	0	89
Sick Baby Visits	142	0	84
Total Responses	607		

* N 170

Problems With Bill Payment

There were one hundred sixty-eight (168) responses from N 170 to the item asking if there was a problem with payment of the clinic bill. All one hundred seventy (170) subjects had the option of checking a "yes" or "no" space, and if the response was "yes" they were asked to comment. There were one hundred and fifty (150) subjects or eighty-nine percent (89%) of N 168 who had no problem with payment of the bill. Of the remaining eighteen (18) subjects there were five (5) who had responded by writing the words "not usually", "not sure", or "sometimes" next to the selection spaces. These five (5) subjects were considered as having possible or potential payment problems and were calculated with the thirteen (13) actual affirmative responses to tally as a total of eighteen (18) subjects with

payment problems. This was eleven percent (11%) of n 168 who had responded, and also eleven percent (11%) of N 170. Table 23 presents the summarized data.

Table 23

Bill Payment Problem

Do You Have a Problem with Payment?	Number	Percent
Yes	18	11
No	150	89
TOTALS	168	100%

Of the five (5) participants who had written "sometimes" and were counted as having bill problems only two (2) had written comments. All of the thirteen who answered with a definitive "yes" wrote comments. In all there were fifteen (15) bill problem comments. These are listed below as stated by the subjects.

1. Husband lost his job, no income.
2. Husband has commission job, some weeks he doesn't make any money.
3. Husband only working one day a week.
4. Husband only gets paid on Friday and isn't home until 6:00 p.m.
5. My husband works for himself, if he doesn't work we don't get any money.
6. Husband is going to school (short on money).
7. Right now we need the service but husband not paid until tomorrow.

8. Sometimes don't have the money right away.
9. Insufficient funds.
10. Have applied for Medicaid.
11. The baby's father is unemployed.
12. Out of work.
13. Income lower and expenses higher than before.
14. We set up payments to fit our budget.
15. Problem is only with lab bills.

Suggestions or Comments Made on Questionnaire 2

In response to the request for suggestions or comments about the pediatric clinic or the clinic staff one hundred eight (108) of the subjects made a notation in the area provided. This was sixty-four percent (64%) of N 170 who responded, the remaining sixty-two (62) subjects or thirty-six percent (36%) of N 170 left the spaces blank. Of the sixty-four percent (64%) or n 108 who had responded there were twenty-nine (29) subjects or twenty-seven percent (27%) of the n 108 that responded by answering "no" or "none". The remaining seventy-nine (79) subjects or seventy-three percent (73%) made a variety of remarks. It was found that of the seventy-nine (79) subjects the remarks of seventy-one (71) subjects or ninety percent (90%) of n 79 were complimentary and appreciative of the staff and the service. Of the remaining eight (8) subject responses, ten percent (10%) of n 79 were comments or suggestions that identified a perception of need or want. The eight (8) comments and/or suggestions are listed below as they were written.

1. It would be nice to have longer clinic hours and perhaps a larger waiting room.
2. Should have clinic hours every day and some mornings.
3. Open another waiting room on busy days.
4. We have trouble understanding the doctor.
5. The doctor should be here when people arrive.
6. It shouldn't take so long.
7. Should have a class for first time mothers on care of baby.
8. Really need a class on baby care for first time and mother-to-be.

CHAPTER VII

SUMMARY AND RECOMMENDATIONS

FINDINGS AND DISCUSSION

Experiment 1 was undertaken to determine differences between users and non-users of the pediatric clinic. Demographic variables of the two groups were evaluated in order to obtain a profile of the users.

The hypothesis tested in Experiment 1 was that the decision to use or not use a pediatric clinic service offered to obstetric clinic mothers would be affected by the mother's age, educational level, marital and employment status, and whether the newborn was a first born. It was expected that the majority of the mothers who would decide to be users would be below twenty-one years of age, have a tenth grade education level, and be a single, unemployed parent. It additionally was thought that a mother might be more likely to use the pediatric clinic service if the infant was male, in order to obtain circumcision care instructions and service.

Pediatric clinic registration forms were utilized to obtain information about mothers who said they would use the clinic. Obstetric clinic records, from the Social Service Department of the facility, were reviewed to obtain information regarding non-users.

From the information obtained for use in Experiment 1 the investigation showed little significant difference in demographic data between users and non-users of the pediatric clinic services. There were no significant differences on variables between the users and the non-users. There was no significant difference found in age, education levels, or in marital and employment

status. Whether it was a first live birth, or a male infant showed no significant statistical difference.

However, the investigation did provide a profile of the groups. The profile obtained showed that most likely the user will be married, employed and delivering a male first born infant. She will be Caucasian and have an annual income of $8,000.00 to $12,000.00.

In relation to the hypothesis the profile of the users met expectations in some areas. As expected the average age was less than twenty-one, sixty percent (60%) of the deliveries were first births, and fifty-five percent (55%) were male infants.

In contrast to prediction there were several unexpected findings. The average expected grade level had been tenth (10th) grade or less. However, although it was not statistically significant, it was determined that the mean educational grade level of users was 11.3 and that the mean for non-users was an educational grade level of 11.5.

Although it had been presumed that the majority of the users would be single and unemployed, the study revealed otherwise. Only thirty percent (30%) of the users were single, and seventy percent (70%) were married. One-half or fifty percent (50%) of each group were employed.

Several additional factors, not originally considered for this study, came to light. These were factors relating to race, religion, and annual income.

No significant difference between users and non-users was found regarding race. Race did not appear to influence a subject's

decision to be a user. Fifteen percent (15%) of the users were black and eighty-five percent (85%) were white showing a lack of significant difference upon race as a factor in the decision to be a user. However, the black to white ratio of the pediatric clinic clients should be investigated more fully in another study. Influencing factors might be the black obstetric clinic patient percentage, the geographic location of the clinics, or perhaps the hours of clinic service.

An investigation of religious preferences of mothers determined that of the users forty percent (40%) were Catholic.

A significant difference appeared when it was discovered that fifty percent (50%) of user incomes were from $8,000.00 to $12,000.00, and that twenty percent (20%) of the users were Medicaid patients. Among non-users sixty-nine percent (69%) of the non-users had an annual income of up to $8,000.00 presenting questions that bear further investigation. For some reason the pediatric clinic is not being accepted by the lowest income group as readily as was expected. This may be due to lack of prenatal education perhaps because of late obstetrical clinic registration which should be examined further, or other possibilities. Among the other possibilities may be client misunderstanding of fees, fee arrangements, or perhaps fear of being unable to meet payment requirements. There is also the possibility that the geographic location of the clinic may have an influence. On the other hand, although a mother-to-be may be motivated and willing to participate in an obstetrical clinic for eight months, she may be unwilling to consider thirteen

years of pediatric services. It may be that preventive child health care services are available to the mother elsewhere, or closer to her residence. The mother may be planning to attend other clinics. Therefore, the testing of the second hypothesis, wherein some of these questions were addressed, followed.

The second hypothesis, an assumption that mothers will find the pediatric clinic geographically and financially accessible, was tested by Experiments 2 and 3. The findings in this section of the study appear to meet expectations.

In Experiment 2 a slight majority of 53.4 percent (n 126) of the participating expectant obstetric clinic patients (N 236) do plan to utilize the pediatric clinic. This data is consistent with the hypothesis and will be helpful in projection and budgetary planning. The 14.4 percent of the participants (n 34) who stated they would not attend the pediatric clinic were primarily of interest. Of these thirty-two (32) of the total number of subjects reported that they have a pediatrician and six (6) subjects said they had a doctor. This will be discussed more fully in the section reporting alternate care choice responses.

The remaining 32.2 percent (n 76) are of prime importance to this study. These are the subjects who responded by saying they were undecided about their plans. It will be recommended that reasons for the indecision be further investigated and addressed.

The inquiry into the Expected Date of Confinement had been posed to allow for a feeling of increased participation after

a subject had responded by "yes" to planning to attend the pediatric clinic and originally there was no specific reason for the question. Later it was decided to utilize the data by determination of relationship of "yes" response to trimester of pregnancy. Data obtained will be used in projective budgetary forecasting.

In the section formulated to obtain data concerning post-partum pediatric plans the mothers who had circled or written comments were subjects that the research was directed toward. Of the seventy-eight (78) responses there were thirty-two (32) subjects who said they had a pediatrician and six (6) who responded with the statement that they have their own doctor.

One of the basic reasons for establishing the pediatric clinic was concern about the possible lack of post-partum care planning for pediatric medical health care by obstetric patients. The knowledge that the thirty-eight (38) subjects did have plans was encouraging. The fact that pediatricians had been pre-selected and their services were planned on by the mothers will be a point of interest to the pediatric clinic planners. The data in this study will also provide proof to staff pediatricians and other physicians that the clinic service does not encroach upon private practice, although this has not been a noted concern to date.

The seven (7) subjects who plan to attend another clinic are only of passing interest at this time. These mothers may have other children presently enrolled in the other clinic or there may be a clinic service available closer to home. The DePaul obstetric clinic accepts patients that have been referred by other area

obstetric clinics when the other clinics have closed enrollments, when a mother does not meet another clinic's financial criteria, or if she has not presented herself prior to a clinic gestation criteria. However, the identification of these patients has not been documented or researched in this study and may provide material for a future investigation.

In the last portion of this investigation the evidence is consistent with the hypothesis that the pediatric clinic clients find the service geographically and financially accessible.

The menu items relating to geographic accessibility were addressed by inquiries concerning transportation difficulties and mode of travel. Of the N 170 respondees eighty percent (80%) said they had no problems with transportation, and although the remaining n 34, twenty percent (20%) of N 170, assert to having problems, only nineteen (19) of the n 34 made clarifying comments. These nineteen (19) subjects, composed of fifty-six percent (56%) of the n 34, or eleven percent (11%) of the N 170, by not supporting the hypothesis, are of more interest and importance to the study.

Data provided by the eleven percent (11%) of N 170 showed that the largest number of the n 19 or eighty-nine percent (89%) of n 19 had access to a car but that the car was not always in working order, or it was not always available to them. Of the remaining eleven percent (11%) belonging to the n 19 grouping, or one percent (1%) of the subjects, n 2 of N 170, had no access to a car, and only n 1 of N 170 came by bus. These findings, in reference to the eleven percent (11%), can be of value in future

planning of the pediatric service, and may influence the direction of the planning.

During analysis of geographic accessibility data the question asking whether the subjects drive to the clinic was recognized as an item that could have been misinterpreted. The item should have been worded differently. In both the pre-test and in the experiment the participants apparently understood the researcher's intent as being an inquiry as to whether the client personally got behind the wheel of a car and drove to the clinic.

The above statement is based on the fact that there were one hundred and thirty-six (136) affirmative responses to this item, or eighty percent (80%) of N 170. These affirmations will provide parking problem insights and may influence future planning for that reason as well as others.

On the other hand, there is a possibility that the item was understood by some subjects as an inquiry into whether or not they arrive at the clinic via a gasoline powered vehicle. If the latter is true, it has influenced the responses. It may also have created an intermingling with the next item asking if the subject came with a companion. Although n 136 said they drive and n 34 said they did not drive (N 170), there were one hundred (100) subjects who said they came to the clinic with someone and sixty-one (61) who said they did not. Having had thirty-four (34) subjects who said they did not drive it was expected that that would be the number who would say they came to the clinic with someone; and that the someone would be identified by that number. However, of N 170 n 100 said they

were accompanied by someone and n 61 replied that they were unaccompanied. Looking at data from another angle, not as a response to how do subjects arrive, but in reference to the numbers of persons coming to the facility there is valuable information to be utilized.

Data concerning convenience of clinic hours was obtained from n 169 of N 170. The hours of the clinic were reported as being convenient by ninety-six percent (96%) or one hundred sixty-three (163) subjects. The remaining four percent (4%) or six (6) subjects were calculated as having said that the clinic hours were not convenient.

The item provided by the tool in reference to how long a subject spent waiting to see the PNP and the time spent waiting to see a physician had N 271 responses. Of these n 147 referred to the PNP, and n 124 were in reference to the doctor. It was found that seventy-four percent (74%) of the clients n 109 awaiting the PNP spent less than one-half hour waiting to see the PNP, and twenty-six percent (26%) equalling n 38 said they waited longer than one-half hour. The amount of time spent waiting to see the physician was documented by n 71 or fifty-seven percent (57%) as being less than one-half hour. The remaining n 53 or forty-three percent (43%) said the waiting period to see the physician was more than one-half hour. Data provides information that there is less time spent waiting for the PNP. However, interpretation of the information must be done cautiously. At the time the tool was designed it was expected that each subject would respond, thereby providing a possible N 170,

or if both professionals were being seen a possible N 340. Some of the subjects checked one response, some checked both, and in some cases the item was left blank. In retrospect the tool was lacking in clarity. There could be visits during which neither the PNP or the physician was seen, there could be visits when there was no need to see a physician. The item did not address these possibilities. However, the information obtained provided knowledge that of N 271 n 180 or sixty-six percent (66%) had not waited longer than one-half hour to be seen by one or the other of the professionals named. In the review and discussion of this item and the one immediately following, an inquiry into whether medical needs were being met, it became apparent that although the items were directed toward medical care accessibility they were not appropriate for this study which is an investigation of geographic and financial accessibility. The questions should be considered invalid for this study and the topic should be explored at a later date.

Financial accessibility to the pediatric clinic service was evaluated by the number of subjects who stated that there were problems in payment of the bill. Of the one hundred sixty-eight (168) respondees there were eighteen (18) or eleven percent (11%) who said there were problems. Fifteen (15) of these eighteen (18) subjects provided explanatory comments. Fourteen (14) of the eighteen (18) explanatory comments were related to low income because of lack of work, or because of unemployment of the subject or a husband. These general re-

sponses might be a reflection of the area economy and although it can be addressed by the study to some extent, the study cannot provide a complete solution. Only one comment was made in relation to actual clinic charges creating a bill problem. That comment being the statement that there was a problem with lab charges.

SUMMARY OF THE STUDY

The purpose of this research study was to obtain a profile of users of the pediatric clinic service, and to determine accessibility of the service to the mothers of the pediatric clinic patients. The study was conducted at a community health center located in the northwest portion of St. Louis, Missouri.

Data collection for the profile of users was done through use of health center and clinic records. The tools utilized for data collection relating to accessibility of the pediatric clinic were two (2) one-page questionnaires. The questionnaires consisted of limited response questions, with a provision for free-text comments. The information tested through the questionnaires included post-partum pediatric care planning, transportation difficulties, convenience of pediatric clinic hours, time spent waiting to be seen by the Pediatric Nurse Practitioner and/or the physician, satisfaction with the provided telephone service, maternal perception of the meeting of medical need, and problems encountered in payment of fees. The questionnaires were analyzed primarily by descriptive analysis.

The study sample for the profile was collected with the assistance of the Social Service Department of DePaul Community Health Center. This sample was composed of obstetric clinic mothers who delivered viable infants between November 23 and December 14, 1981. This aample population originally numbered thirty-five (35). Two (2) mothers were excluded because of their decision to place the newborn infants into an adoptive process. Therefore, the population utilized in this portion of the study

numbered thirty-three (33).

The study samples for the accessibility survey were collected with the assistance of nursing staff personnel working in both the obstetric and pediatric clinics. The samples were composed of clients presenting themselves for clinic appointments during the time of February 15 and March 31, 1982. The obstetric clinic sample population numbered two hundred thirty-eight (238). Two (2) of the expectant mothers were excluded since they made no response in any item area. Therefore, the population utilized for this section totaled two hundred thirty-six (236). The sample population utilized in the pediatric clinic study section numbered one hundred seventy (170).

CONCLUSIONS

The research study provided valuable information in the form of a profile of obstetric patients registering to use the pediatric clinic, and of clinic patient perception of the pediatric service accessibility. Data demonstrated that the obstetric clinic patient planning to be a user of the pediatric clinic was usually less than twenty-one years of age, married, employed, and delivering a male first born infant. In addition the user was usually Caucasian, non-Catholic, with an annual income between $8,000.00 and $12,000.00.

The accessibility survey data demonstrated that obstetric clinic patients were making post-partum pediatric care plans. Additionally, it was found that the majority of pediatric clinic mothers drove to the clinic, were accompanied by someone, and found the clinic hours convenient. Further, data demonstrated that to see the PNP usually entailed less waiting time than that spent waiting to see the physician, the mothers found the telephone service satisfactory, medical needs are being met, and there was little difficulty in payment of fees.

RECOMMENDATIONS

The purpose of this study was twofold. First, to provide a profile of obstetric patients who plan to utilize the pediatric clinic service. Second, to determine client perception of the accessibility of the pediatric clinic service.

The present study gives indication that there is a need for an informational pediatric clinic brochure. The brochure, detailing available services, hours and financial assistance availability, should be provided to both the obstetric and pediatric clientel. Transportation difficulty data bears further investigation. Identification of residences and distances would be part of that investigation. Provision of a van or bus to assist clients should also be studied. The numbers of subjects arriving accompanied by someone had created a noticeable crowding in the clinic areas. The report of this study to the pediatric planning committee may provide a solution to these problems, and other recommendations to the facility.

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