

A PROGRAM EVALUATION
OF A
FREESTANDING EMERGENCY CLINIC

by

Philip L. Reynolds, B.A., B.S.N.

A THESIS

Presented to

the University of Oregon School of Nursing
in partial fulfillment
of the requirements of the degree of
Master of Nursing

June 8, 1980

APPROVED:

[REDACTED]

Marie Berger, M.S., Associate Professor, Thesis Advisor

[REDACTED]

Lenora Jones, Ph.D., Associate Professor, Walla Walla College,
First Reader

[REDACTED]

Linda Kaeser, M.S.W., Associate Professor, Second Reader

[REDACTED]

Sandra Stone, M.S., Associate Professor, Third Reader

[REDACTED]

Carol A. Lindeman, Ph.D., Dean, School of Nursing

This study was supported by a United States
Public Health Service Traineeship from
Grant Number 5 A11 NU00 250 03
and
Grant Number 5 A11 NU00 250 04

ACKNOWLEDGMENTS

Sincere appreciation is extended to Marie Berger, M.S., as thesis advisor, under whose guidance this study was prepared. The author also wishes to express gratitude to Lenoa Jones, Ph.D., Linda Kaeser, M.S.W., and Sandra Stone, M.S. for their helpful suggestions and comments.

Appreciation is also expressed to Jan Smith, graduate school secretary, for her helpfulness and understanding throughout this research study.

Acknowledgment is also extended to William Webster, Administrator and staff members of the freestanding emergency clinic.

Special appreciation is also expressed to my loving and devoted wife, Marles, my four children, Jewel, Theresa, Mark, and Christina, without whose support and help there would be no study.

p.l.r.

TABLE OF CONTENTS

	Page
Chapter I Introduction	1
Definitions	4
Chapter II Literature Review	5
Emergency Services	5
The Freestanding Clinic	6
Evaluative Research	7
Medical Evaluative Research	10
Chapter III Methodology	13
Setting of the Study	13
Determination of Goals	14
Design	14
Chapter IV Goal Evaluation	16
Goal I	16
Sample	16
Data Collection Instrument	17
Data Collection Procedure	17
Data Analysis	18
Comparison of Data with Freestanding Emergency Clinic	20
Summary and Conclusions	20
Goal II	22
Sample	22
Data Collection Instrument	23
Data Collection Procedure	23
Data Analysis	24
Comparison of Data with Freestanding Emergency Clinic	28
Summary and Conclusions	29

	Page
Goal III	31
Sample	31
Data Collection Instrument	31
Data Collection Procedure	31
Data Analysis	31
Comparison of Data with Freestanding Emergency Clinic	32
Summary and Conclusions	33
Goal IV	34
Sample	34
Data Collection Instrument	34
Data Collection Procedure	34
Data Analysis	34
Comparison of Data with Freestanding Emergency Clinic	36
Summary and Conclusions	36
Chapter V Summary, Conclusions and Recommendations .	37
Summary	37
Conclusions	38
Recommendations	38
Bibliography	40
Appendices	45
Appendix A Correspondence and Questionnaires .	46
Appendix B	55
Abstract	57

LIST OF TABLES

	Page
Table I: A Comparison of Hospital Emergency Room and Freestanding Clinic Fees . . .	19
Table II: Sample Population	22
Table III: Days and Closure Time of Thirteen Physicians with Scheduled Office Hours After 6:00 PM	25
Table IV: Medical Care on Weekends	25
Table V: Weekend Office Hours	26
Table VI: After Hours Care	26
Table VII: Location of After Hours Care	27
Table VIII: Medical Care Without an Appointment . .	28
Table IX: Postal Zip Code Areas	32
Table X: Patients with or without Primary Physician	32
Table XI: Pattern of Patient Referral	35

CHAPTER I

INTRODUCTION

In recent years, there has been much nationwide attention concerning the administration, delivery and financing of health care services. Burns (1971) cites some of the problems of delivering these services as follows: financial barriers which impede access to health services, rapidly escalating costs, inefficient distribution and inadequate manpower, fragmentation of services, wasteful use of resources, and a system devised for the convenience of the provider rather than the consumer. These problems have challenged traditional forms of health care, such as, hospitals, physician offices and outpatient clinics, to reassess their health care delivery system and to determine if they are meeting the needs of the public. These concerns have influenced the development of alternate programs. One such program is the "freestanding emergency clinic" which provides care apart from traditional forms of health care.

The freestanding emergency clinic is a facility, separate from the hospital emergency department, which serves patients with conditions of a semi-urgent, acute medical and minor surgical nature. Services range from the very sophisticated to no more than what could be expected in a

physician's office. The freestanding emergency clinic is designed to improve availability and accessibility of ambulatory care to those individuals who have a health care need.

As alternate programs for health care are developed, questions will be raised regarding their effectiveness. Consequently there is a corresponding need to develop strategies for program evaluation which will answer these questions. Since freestanding emergency clinics are a new form of health care delivery it appears appropriate to evaluate their impact.

The primary purpose of this study was to evaluate how well a specific freestanding clinic in Portland, Oregon, has achieved selected stated goals. The philosophy and original purpose of the clinic was reviewed with the administration and staff members. Four goals were identified for consideration in this study.

- 1) Medical care will be provided at a cost lower than hospital emergency rooms in the community.
- 2) Medical care will be provided at times when other ambulatory care settings are not available.
- 3) Individuals without a primary care physician will be provided access to

the medical care system.

- 4) Referral patterns to physicians in the community will be maintained and strengthened.

DEFINITIONS

The following words frequently utilized in this study are defined as:

Emergent

The patient has problems which indicate he/she should be seen at once.

Freestanding Emergency Clinic (FSEC)

A facility, separate from the hospital emergency department, which serves patients with conditions of a semi-urgent, acute medical and minor surgical nature.

Non-urgent

The patient has long-standing problems. He/she could be referred to a primary care physician or wait longer to be seen.

Urgent

The patient has problems which should be taken care of in a few minutes or hours.

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to review literature from four areas. First, emergency services will be examined followed by a literature review of freestanding emergency clinics. Third, evaluative research, is reviewed to increase understanding of different viewpoints regarding the type of research utilized in this study. Fourth, medical evaluative research is examined.

Emergency Services

The literature abounds with data which demonstrates the inappropriate use of hospital emergency rooms by individuals with problems of a non-urgent basis (Kelman 1976; Gibson 1973; Stratmann 1975). Health care administrators are searching for more efficient means by which the non-urgent patient can be treated in the hospital setting. Re-organization of the physical setting, use of triage, and use of physician assistants and nurse practitioners are only some of the alternatives.

Kelman (1976) suggests that the problem is not the inappropriate use of the hospital emergency room but rather limits inherent in the existing forms of medical service delivery when individuals and/or families have health prob-

lems which they perceive as emergent. Gibson (1971) has identified some of the limits as: 1) mobility of families, leaving many individuals without a primary physician, 2) unavailability of physicians at night and on weekends, 3) physician specialization with resultant decrease in primary physicians, 4) inability for independent physicians to treat emergency conditions in his private office, 5) concentration of technical and human resources in hospitals which have twenty-four hour emergency service, and 6) the increasing acceptance, expectations and confidence by physicians and patients in emergency departments as the place for emergent or non-urgent care.

The Freestanding Clinic

The freestanding emergency clinic is a new concept in emergency care. Robert L. Gordon, M.D. in North Providence, Rhode Island opened the first such clinic in 1975 (Gordon 1979). Unsatisfied with emergency services in North Providence, he established a private emergency clinic. Realizing that his first location was not ideal, he opened Warwick Emergency Room in Southboro, Massachusetts. This clinic became an instant success. Another such clinic was opened soon after and since that time freestanding emergency clinics have flourished across the nation. Henry O. Harper Jr., M.D. established Medical Emergency Clinics, Inc. (MEC) which has

created a network of emergency clinics (Scalice 1979). The purpose of such a network was to provide the availability and accessibility of high quality medical care at a reasonable cost.

A recent national survey of freestanding emergency centers found that the primary reason these centers were established was to improve access to health care (Hurwitz, 1979). Other goals of freestanding emergency clinics have been to provide high quality health care at a reasonable cost and to be open at times the public would most need emergent health care.

Gordon (1979) found some hospitals have criticized the freestanding clinic concept. These clinics have been accused of "skimming the cream" of emergency patients from hospital emergency rooms. Their quality of care is also being questioned. Regardless of the criticism, freestanding emergency clinics are making a significant impact on emergency care.

Evaluative Research

Evaluative research is a specific form of applied research whose primary goal is not the discovery of knowledge but rather a testing of the application of knowledge (Suchman, 1967). Therefore the emphasis of evaluative research is upon the utility and factfinding concerning a specific planned program. Suchman makes a distinction between evaluation and

evaluative research. Evaluative research is defined as the "use of the scientific method for collecting data concerning the degree to which some specified activity achieves some desired effect" (1969, p. 15). Evaluation is the "general social process of making judgments of worth regardless of the basis for such judgments". Hyman and Wright (1967, p. 742) use the term evaluation research to refer to "factfinding methods that yield evidence that is objective, systematic and comprehensive". Greenberg (1968) and Lerman (1969) refer to the purpose of evaluative research as the procedure of gathering evidence to determine the effectiveness and success in achieving stated goals.

Several authors indicate that evaluative research is recognized as important (Suchman 1967; Caro 1971; Schulberg 1969). Changing social problems, changes within public agencies, changes in public demand and expectations and limited funds available to finance such programs have contributed to the urgency of evaluation.

Techniques and methods of evaluative research have developed to assess the value of existing and developing public and private programs.

A goal attainment model for planning and evaluating health care programs is discussed by Herzog (1959) and Schulberg (1969). This model measures the success or failure of a program as compared to present goals. James (1962) pre-

sents an evaluation process which is circular in nature. Beginning with valuation, one proceeds to goal setting, goal measurement, identifying goal-attaining activities, operationalizing goal activity and then evaluation.

Public and private agencies which fund social and health programs are requiring that evaluation be a part of the initial program submitted to them for funding. As these programs have developed and have become increasingly larger, a need has arisen to determine their impact on the target population. Therefore, there is a need to develop program evaluation strategies to determine the strengths and weaknesses and to measure success or failure.

Expectations from program evaluation vary depending upon the needs for an evaluation. While some writers assume that program evaluation has but one purpose and that is to determine if a program has any value, it can serve many different purposes. These purposes range from decisions about program installation, continuation, expansion, modification, rallying support for or against a program and to contribute an understanding of basic psychological and social processes (Anderson & Ball, 1978). Weiss (1972) discusses the importance of evaluations in providing informational data about programs on which decisions can be based. Evaluative research addresses itself to the question of "How well is the program meeting the purposes for which it was

established?" It measures the outcomes to determine to what extent the goals were attained in order to make decisions about the future of the program. Policy makers, program directors, and practitioners need to have questions answered to make knowledgeable informed decisions about their programs. Policy makers need information to judge the overall effectiveness of the program. Program directors use evaluative information to evaluate the procedures of the program while practitioners use this information to change or modify their activities or methods to produce more favorable outcomes.

Medical Evaluative Research

Evaluative research within the health care field has often been an attempt to assess and measure quality medical care. Donabedian (1966, p. 167) defines quality medical care as "value judgments that are applied to several aspects, properties, ingredient or dimensions of a process called medical care". This definition allows a wide degree of variation, although it should reflect current practices in the medical care system.

Traditionally quality medical care has been assessed by such outcome measures as infant mortality (Shapiro, et al, 1960) and surgical fatalities (Lipworth, 1963). These measures have presented data from which useful administrative

policy has been based. However, as medical evaluative research has gained momentum, it has been identified that new measures which provide greater indepth data and insights into quality medical care need to be developed.

While the emphasis has been on evaluating quality medical care, Donabedian (1966) suggests that other methodologies would provide a greater understanding. These methodologies could involve the assessment of the process of medical care and outcomes of that care, while another method assesses the structural setting in which care is provided. All of these lack rigor and precision, according to Donabedian (1966). He states that at this point continued research is needed to refine these methodologies.

While outcome measures have traditionally dominated most medical evaluative research studies, it appears evident that new approaches are needed. Much evaluative research examines those conditions that prevail before and after a program and seldom answer the questions about elements which make up the program.

The process model evaluates those components within a program which link it together (Weiss, 1966). Examination of each component within a program can provide data from which alternate strategies can be developed.

Evaluative research has not been totally embraced by governmental and private agencies. This disenchantment

stifles creative experimentation within evaluative practice. Not until it is known what types of evaluation impacts decision making, and under what conditions will evaluative research become effective (Weiss, 1966).

CHAPTER III

METHODOLOGYSetting of the Study

This study was conducted at a freestanding emergency clinic located in the southeast urban area of Portland, Oregon. The clinic is a satellite clinic of a local hospital. It is located a distance of four to seven miles from existing community hospitals which have twenty-four hour emergency care. The service area of the clinic was assumed to cover a radius of seven miles.

The emergency clinic contains six examination rooms one surgical room, a laboratory and X-ray room and office space for the physician and clerical workers. The clinic admits children and adults with all types of illnesses and injuries excluding severe trauma and cardiovascular problems. If these seriously ill patients present themselves for emergency medical treatment, they are assessed, stabilized and transported immediately by private vehicle or ambulance to the nearest hospital emergency room of the patient's choice.

The emergency clinic is fully equipped to perform common procedures done at any hospital emergency department. The clinic is staffed seven days a week by a physician, nurse and secretary, with X-ray services provided by an on-call technician. The hours of the clinic are 6-10 PM

Monday through Thursday, 4-10 PM Fridays, and 1-10 PM Saturday, Sunday and holidays.

Each patient is evaluated by a physician and either treated, stabilized, referred or transferred for further treatment.

Emergency records are kept at the clinic. Physician radiological interpretation, most laboratory analysis and patient billing services are provided by the parent hospital.

Determination of Goals

Upon initial examination of documents regarding the freestanding emergency clinic, it was discovered that specific clinic goals were not stated. After much discussion in three meetings with administrative personnel, goals for the clinic were determined. Six goals were listed of which four were selected for this study. These goals were selected because of their measurability.

Design

The method of evaluation for each of the four goals is different. Each goal will be presented separately with its methodology, data analysis, results, summary and conclusion.

This study is divided into four major parts:

Goal I: Medical care will be provided at

a cost lower than hospital emergency rooms in the community.

Goal II: Medical care will be provided at times when other ambulatory care settings are not available.

Goal III: Individuals without a designated primary care physician will be provided access to the medical care system.

Goal IV: Referral patterns to physicians in the community will be maintained and strengthened.

Goal I was evaluated by two separate questionnaires-- a fourteen item questionnaire which was sent to local hospitals and a four item questionnaire which was sent to the chief physician radiologist at each hospital. Two questionnaires with five items were distributed for Goal II, the first being sent to physicians and the second sent to a local public health department.

Data was gathered from patient medical records at the freestanding emergency clinic for Goals III and IV.

CHAPTER IV

GOAL EVALUATION

The method of collecting data for each goal and summary of findings for each will be presented in this chapter.

GOAL I: MEDICAL CARE WILL BE PROVIDED AT A COST
LOWER THAN HOSPITAL EMERGENCY ROOMS IN THE COMMUNITY

Sample

All community hospitals and medical centers in the designated service area of this freestanding emergency clinic were requested to participate in this research. This included four hospitals of various sizes and distance from the clinic. Each hospital maintains a twenty-four hour emergency room staffed by a full component of medical personnel which provides emergency medical treatment to all members of the community that seek medical care.

Since the physician radiology interpretation fee for any X-ray taken at a hospital emergency room is a charge separate from the total emergency room fee and it represents part of the total emergency room cost to the patient, the chief physician radiologist at each hospital and medical center was requested to participate in this study.

Data Collection Instrument

After careful examination of this goal, a questionnaire was developed that would provide the data necessary to evaluate this goal. The hospital questionnaire was divided into four parts--basic emergency room fee, average radiology fee, average laboratory fee and supply charge for five items. In an effort to compare data between emergency room charges and those of the freestanding clinic, only those most frequent charges at the clinic were considered in the questionnaire. The radiology physician questionnaire dealt with the radiology interpretation fee for those radiology procedures listed on the hospital questionnaire. A copy of the cover letters and questionnaires are included in Appendix A.

Data Collection Procedure

To facilitate data collection each hospital questionnaire was hand carried to the designated administrator. A brief introduction of the research topic was given, allowing for any clarification of questions. Upon completion of the questionnaire, it was to be returned in a self addressed envelope. The questionnaire for each chief radiology physician was delivered to the radiology department of each hospital. Three weeks were allowed for the return of the questionnaires.

Data Analysis

Four questionnaires were sent to the hospitals in the designated service area of the freestanding clinic. Two questionnaires were returned. One hospital was reluctant to participate and did not while the other hospital indicated by letter that they would participate but did not.

Four questionnaires were sent to the chief physician radiologist in each of the participating hospitals. Two questionnaires were returned.

After the return of the questionnaires, the data was tabulated as shown in Table I.

The basic emergency room fee and emergency room physician fee are 39.3% less expensive at the freestanding clinic. All radiological exams are less expensive. They range from 8.3% to 39.8% less than average hospital costs. Laboratory fees are generally less expensive (6.5%-56.3%) with the exception of the combination of the hemaglobin and hematocrit procedures. The fee at the freestanding clinic is 34.5% more expensive.

Only two items--short leg cast and 4" ace bandage--within the supply category could be evaluated. The other three items--minor suture tray, metal forearm or collar splint and arm sling--are included in a more acute fee category in hospital emergency rooms. A short leg cast is 24.9%

TABLE I: A COMPARISON OF HOSPITAL EMERGENCY ROOM AND FREESTANDING CLINIC FEES

Average Fee	Hospital	Radiology Physician	Total	Freestanding Clinic	Percentage Difference between FSEC & Hospital higher or (lower)
Basic Emergency Room	\$26.25		\$26.25	\$28.00	
Emergency Room Physician	19.88		19.88		
	<u>\$46.13</u>		<u>\$46.13</u>	\$28.00	(39.3)
Radiology--two views					
a. Upper extremities	\$27.51	\$7.50	\$35.02	\$22.17	(36.7)
b. Lower extremities	30.71	7.50	38.21	23.02	(39.8)
c. Chest	30.14	9.25	39.39	29.83	(24.3)
d. Cervical, lumbar spine	42.44	11.50	53.94	49.47	(8.3)
Laboratory					
a. CBC and WBC	26.91		26.91	11.75	(56.3)
Hemaglobin	14.16		14.16	10.81	34.5
Hematocrit				10.81	
b. Culture and sensitivity-urine	29.46		29.46	27.56	(6.5)
c. Electrolytes	40.03		40.03	31.35	(26.7)
Supply					
a. Minor suture tray	--		--	--	--
b. Short leg cast	26.91		26.91	35.82	24.9
c. Metal forearm or colles splint	--		--	--	--
d. 4" ace bandage	11.07		11.07	4.75	(57.1)
e. Arm sling	--		--	--	--

more expensive at the freestanding clinic, while a 4" ace bandage is 57.1% less expensive at the clinic than at a hospital emergency room.

Comparison of Data with Freestanding Emergency Clinic

Costs at the freestanding emergency clinic are generally lower. For the routine examination without any radiological examinations, laboratory procedures, or supplies, the cost would be 39.3% less than hospital emergency rooms. With the addition of laboratory procedures and X-ray exams the cost does increase for the patient. However the cost does not increase to the degree that it would at the hospital emergency room.

Summary and Conclusions

Fees charged at hospital emergency rooms appeared to be generally more expensive. A number of variables maybe accountable for this. Hospitals have a larger physical plant, there is more sophisticated medical equipment and highly skilled personnel are available twenty-four hours each day to assist those patients with problems of an acute or emergent nature.

The freestanding clinic is the size of a physician's office, has less medical equipment, and personnel are not as highly trained in emergency room medical care.

For the patient with conditions of a semi-urgent, acute medical and minor surgical nature the freestanding emergency clinic is an alternative to the hospital emergency room.

Of the eleven items that were compared between the hospitals and radiology physicians and the freestanding emergency clinic, nine items appeared to be less expensive at the clinic. It appears that the freestanding emergency clinic has met this goal.

GOAL II: MEDICAL CARE WILL BE PROVIDED AT TIMES WHEN
OTHER AMBULATORY CARE SETTINGS ARE NOT AVAILABLE

Sample

Sample population in this study were 199 physicians located in the service area of the freestanding emergency clinic (Table II). In order to qualify for the sample, subjects had to be a medical physician or doctor of osteopathy. These individuals had to have an office in the designated service area of the clinic yet separate from a hospital facility. A list of physicians was obtained from the local medical society office. Questionnaires were sent to all physicians excluding those in the practice of radiology, anesthesiology, pathology and emergency room service. Other physicians excluded were those under contract to health service organizations that provide care to a defined membership such as Kaiser Permanente Health Care Plan and Cascade Health Plan.

TABLE II: SAMPLE POPULATION

Questionnaires	Number	Percentage
Questionnaires sent	262	100
Returned questionnaires	208	79
Physicians retired, sick leave, etc. (not answered)	9	3
Unable to locate	1	-
Questionnaires answered	199	76

Also a similar questionnaire was sent to the administrator of the one and only identified public health care clinic in the service area. No private medical clinics other than physicians working in group practice were identified.

Data Collection Instrument

The sources of data for this study were responses to a five item questionnaire (Appendix A). Two separate questionnaires were sent, one to physicians and the other to a public health clinic.

The focus of this data collection instrument was to determine what ambulatory care settings were open during the hours of operation of the freestanding emergency clinic for patients with a perceived medical need. If patients were treated by physicians after their designated office hours, how and where this treatment was carried out was determined important. Hours of operation of community hospital emergency rooms were omitted since all hospitals provided twenty-four hour coverage.

Data Collection Procedure

A list of physicians in predetermined zip code areas, which included the designated service area of the emergency clinic, was obtained from the local medical society. The

address of each physician was reviewed to determine if he/she practiced in the designated service area. A list of those physicians in the service area was compiled. Two hundred sixty-two physicians were sent a cover letter and questionnaire requesting their participation in this research.

The questionnaire was to be returned to the researcher upon completion via an enclosed self addressed envelope.

One public health outpatient clinic was identified in the service area. A cover letter and questionnaire were sent to the appropriate designated administrator with a request to return the questionnaire to the researcher in a enclosed self addressed envelope. A three week period was allowed for the return of all questionnaires.

Data Analysis

One hundred ninety-nine physician questionnaires were returned answered. All information was tabulated into table format.

Item 1: Is your office open after 6:00 PM any day Monday through Friday? If yes, what day and hours opened?

Ninety-three percent (N=186) of the physicians did not have office hours after 6:00 PM. The remaining 7% (N=13) did hold office hours after 6:00 PM Monday through Friday (Table III).

TABLE III: DAYS AND CLOSURE TIME OF THIRTEEN PHYSICIANS
WITH SCHEDULED OFFICE HOURS AFTER 6:00 PM

Physician Office Closure Time	Mon	Tues	Wed	Thur	Fri
6:30 PM	2	2	2	2	0
7:00 PM	1	3	0	2	0
8:00 PM	3	3	3	3	0
9:00 PM	2	0	0	0	0

Item 2: Do you provide medical care in your office on weekends? If yes, which day (Saturday or Sunday) and hours of operation?

As can be seen in Table IV sixty-six percent of the physicians answering the questionnaire indicated that they did not provide office hours on Saturday or Sunday. Twenty-six percent stated yes while 8% indicated office hours for emergencies only. Of those physicians working weekends, 84% work on Saturdays with most working Saturday AM hours (Table V).

TABLE IV: MEDICAL CARE ON WEEKENDS

Response	Number	Percentage
Yes	51	26
Yes-emergency only	16	8
No	132	66
	<u>199</u>	<u>100</u>

TABLE V: WEEKEND OFFICE HOURS

Days	N	%	N	AM only	N	PM only	N	AM & PM
Saturday	37	73	29	78%	0	0	8	22%
Sunday	5	10	4	80%	0	0	1	20%
Saturday & Sunday	6	11						
Other	3	6						
	<u>51</u>	<u>100</u>						

Item 3: Do you provide after office hours care for
 a) only my own patients, b) any patients and c)
 none of these.

Eighty-one percent of the physicians mentioned that they treated their own patients after office hours. Four percent stated that they provided care to their and associate's patients. Medical care for any patient with an emergent medical need was provided by 37% of the physicians (Table VI).

TABLE VI: AFTER HOURS CARE

Patients	Number	Percentage
Physician's own patients	162	81
Physician's own and associate's patients	7	4
Any patients	73	37
None of these	18	9
No Answer	5	2

Item 4: Do you provide after office care: a) in office, b) by telephone, c) home visits, d) hospital emergency room, and e) other.

The hospital emergency room is the most common place to provide after hours medical care as reported by 91% of the physicians. Also 87% provided medical care by telephone, while 29% provided care in the office and 32% made occasional home visits (Table VII).

TABLE VII: LOCATION OF AFTER HOURS CARE

Where Service Provided	Number	Percentage
Hospital Emergency Room	181	91
Telephone	174	87
Home visits	64	32
Office	58	29
Other	22	11

Item 5: Do you provide medical care in your office to individuals without appointment who are not patients of yours, but present themselves with a medical need?

Sixty-four percent of the physicians provided medical care to any patient that would present him/herself with a medical need. Twenty-seven percent state that they provided only such care if they deemed it an emergency. Twenty-six

percent did not provide such care (Table VIII).

TABLE VIII: MEDICAL CARE WITHOUT AN APPOINTMENT

Physicians	Number	Percentage
Yes	127	64
Yes, if emergency	21	10
No	51	16
	<u>199</u>	<u>100</u>

The public health clinic identified in the service area of the freestanding clinic provided data regarding their clinic hours. The public health clinic did not provide medical care after 6:00 PM Monday through Friday, on weekends or holidays. After hours medical care was not offered. It serves a population that has no other means of health care for acute but not life-threatening illness. During day time hours, clients are seen by appointment only, except for school referrals for communicable disease checks.

Comparison of Data with Freestanding Emergency Clinic

The open hours of the freestanding clinic are Monday through Thursday 6 to 10 PM, Friday 4 to 10 PM, Saturday, Sunday, and holidays 1 to 10 PM.

Ninety-three percent of the physicians did not provide routine medical care after 6:00 PM. On weekends 66% did not provide routine medical care while 8% provided care if the

need is of an emergent nature. Of those physicians with office hours on Saturday, 78% were open in the mornings only. Eighty percent of those open on Sunday, provided care only in the mornings.

After hours medical care is given to 88% of the physicians own patients or his associates patients. Thirty-seven percent provide after hours care to any patient with a medical need. This care is primarily given in the hospital emergency room (91%) or by telephone (87%). Many physicians occasionally saw patients in their home (32%) or office (29%).

Patients who did not have a primary physician were seen by a physician during office hours without an appointment by 64% of the physicians. Ten percent stated that they would see patients if the need was an emergency.

Summary and Conclusion

The hours of operation of the freestanding clinic did not seem to be competing with other ambulatory care settings other than hospital emergency rooms. From the findings it appeared evident that the majority of the physician offices are not open after 6:00 PM week days or on weekends. Only 37% provided medical care to any patient or the patient without a primary physician after hours. It was discovered the majority of afterhours medical care was provided at

hospital emergency rooms or by telephone. If a patient had a medical need during day time hours during the week, 64% of the physicians stated they would see patients.

The freestanding emergency clinic seemed to be providing medical care at hours when other ambulatory care settings are closed. From the concluding evidence, it appears that the medical care provided at the freestanding emergency clinic is not available to the general public in other ambulatory care settings.

GOAL III: INDIVIDUALS WITHOUT A DESIGNATED PRIMARY CARE PHYSICIAN WILL BE PROVIDED ACCESS TO THE MEDICAL CARE SYSTEM

Sample

Four months were randomly selected from the months July 1979 through February 1980. A total of 2,121 patients were seen during the selected four months and a random sample of 427 patient charts was chosen to review.

Data Collection Instrument

Data collected from the 427 selected charts was tabulated in two categories, first by postal zip code area and then by whether the patient indicated a primary physician.

Data Collection Procedure

Four hundred twenty-seven randomly selected charts from four randomly selected months between July 1979 through February 1980 were sampled. Data retrieved from each chart was postal zip code and indicated primary physician.

Data Analysis

Eighty-six percent of the patients came from a two and one half to three mile radius around the clinic (See map, Appendix B). The percentage of individuals who came from each postal zip code area is listed in Table IX.

TABLE IX: POSTAL ZIP CODE AREAS

Zip Code	Number	Percentage of Patients
97030	90	21
97060	25	6
97230	90	21
97233	119	28
97236	43	10
other	60	14
	<u>427</u>	<u>100%</u>

Forty-one percent of the patients indicated no primary physician (Table X).

TABLE X: PATIENTS WITH OR WITHOUT PRIMARY PHYSICIAN

Patients	Number	Percentage
Patients indicating Primary physician	252	59
Patients indicating no Primary physician	175	41
	<u>427</u>	<u>100%</u>

Comparison of Data with Freestanding Emergency Clinic

The majority of the patients admitted to the freestanding emergency clinic came from postal zip code areas within two and one half to three miles around the clinic.

Forty-one percent were without a designated primary care physician and were provided access to the medical care system via the freestanding emergency clinic.

Summary and Conclusion

The freestanding emergency clinic appears to provide medical care to individuals in the immediate vicinity. Many patients (41%) indicated that they did not have a primary physician and therefore the clinic provided immediate access to the medical care system when they had a perceived medical need. Since the clinic seems to be providing patient access to the medical care system to 41% of patients seeking medical care at the emergency clinic, Goal III is apparently being met.

GOAL IV: REFERRAL PATTERNS TO PHYSICIANS IN THE
COMMUNITY WILL BE MAINTAINED AND STRENGTHENED

Sample

Four hundred twenty-seven patient charts were randomly selected from a total of 2,121 patient charts during the time period July 1979 through February 1980. These medical records were also used to collect data for the previously stated Goal III.

Data Collection Instrument

Data collected from the randomly selected patient charts was tabulated according to the type of physician referral from the clinic that was indicated on the chart. Information was tabulated and recorded.

Data Collection Procedure

After randomly selecting the patient charts, each was reviewed and data collected regarding the type of physician referral indicated on the chart.

Data Analysis

Forty-eight percent of the patients admitted to the clinic were either referred back to their own physician or to other physicians in the community (Table XI). No referrals were made for 43% of the patients. The parent hospital received 2% of referrals in its emergency room for acute

TABLE XI: PATTERN OF PATIENT REFERRALS

Patient Referrals	Number	Percentage
Patient not referred to a Physician		
Patient with Primary Physician	99	23.2
Patient without Primary Physician	85	19.9
Subtotal	184	43.1
Patient referred to a Physician		
Patient with Primary Physician to same	117	27.5
Patient with Primary Physician to another	10	2.3
Patient without Primary Physi- cian to a physician	79	18.5
Subtotal	206	48.3
Follow-up at FSEC		
Patient with Primary Physician	12	2.8
Patient without Primary Physician	10	2.3
Subtotal	22	5.1
To parent Hospital Emergency Room		
Patient with Primary Physician	9	2.1
To Other Hospital Emergency Room		
Patient with Primary Physician	1	.2
To Other Ambulatory Care Facility		
Patient with Primary Physician	1	.25
Patient without Primary Physician	1	.25
Patients Not Seen		
	3	.7
Subtotal	15	3.5
Total	427	100%

care while other hospital emergency rooms received .2%. Some patients (5.2%) were referred back to the freestanding emergency clinic for follow-up care.

Comparison of Data with Freestanding Emergency Clinic

Approximately 56% of the patients admitted to the freestanding emergency clinic are either referred to their own physician, another physician, back to the freestanding emergency clinic or to another ambulatory care facility.

Forty-one percent of the patients admitted did not indicate a primary care physician. Of these patients 18.5% were referred to physicians in the community with 2.8% referred to other ambulatory care settings. Of patients indicating they had a primary physician, 2.3% were referred to other physicians in the community.

Summary and Conclusion

Approximately 20% of the patients were being referred to physicians in the community on a first time basis. Twenty-seven percent were referred back to their own primary care physician. Therefore, this would seem to indicate that patient referrals are made to physicians in the community for further medical assessment and follow-up. Thus, Goal IV was met.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONSSummary

The purpose of this study was to determine if four selected goals of a freestanding emergency clinic in Portland, Oregon were met. The literature review encompassed four subject areas--emergency services, freestanding emergency clinic, evaluative research and medical evaluative research. Data collecting tools were developed in the form of four separate questionnaires. The questions in the hospital questionnaire asked the hospital for emergency room fees. The physician radiologist questionnaire requested information regarding the physician radiology interpretation fee. Physicians in the service area of the clinic were asked to provide data regarding their office hours, after-hours medical care and most frequent place of after-hours medical treatment. A questionnaire sent to a public health department asked their clinic hours and pattern of after-hours medical care. Medical records at the clinic were reviewed as to postal zip code area, designation of primary physician and pattern of patient referral to other physicians and ambulatory care centers in the community.

Permission to conduct the study was granted by the hospital administrator of the parent hospital.

Findings of the study were derived from information provided by the responses of participants to the four questionnaires.

Conclusions

The freestanding emergency clinic is providing an alternative within the medical care system. It provides after-hours care when most other ambulatory care centers, other than hospital emergency rooms, are closed. Cost is lower than hospital emergency rooms and patients are provided access to the medical care system. Immediate treatment is provided for acute minor surgical and medical problems. Physician follow-up is provided by physicians in the community.

Each of the four goals selected for review have been met. In terms of these goals the freestanding emergency clinic has accomplished its original purpose.

Recommendations

The following is a list of recommendations for further study.

1. A study to determine patient satisfaction with medical treatment or referral received.
2. A study to correlate age, sex, and marital status with patterns of patient usage of the clinic.

3. Replicate this study and collect data over an entire year.

4. Conduct a similar study at another freestanding emergency clinic with a similar population for comparison.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Anderson, S. B., & Ball, S. The Profession and Practice of Program Evaluation. San Francisco: Jossey-Bass Publishers, 1978.
- Bice, T. W., Eichhorn, R. L., & Klein, D. A. Evaluation of Public Health Programs, In M. Guttentag & E. L. Struening (Eds.), Handbook of Evaluation Research (Vol. 2). Beverly Hills, Calif.: Sage, 1975.
- Breyer, P. R. Neighborhood Health Centers: An Assessment. American Journal of Public Health, February, 1977, 2, 179-181.
- Britan, G. M. Experimental and Contextual Models of Program Evaluation. Journal of Evaluation and Program Planning, 1978, 1, 229-234.
- Burns, E. M. Health Insurance: Not if, or when, but what kind? American Journal of Public Health, November 1977, 61, 2164-2175.
- Campbell, D. T. & Stanley, J. C. Experimental and Quasi-Experimental Design for Research. Chicago: Rand McNally College Publishing, 1963.
- Caro, F. G. (Ed.). Readings in Evaluation Research. New York: Russell Sage Foundations, 1971.
- Deniston, O. L. & Rosenstock, I. M. Evaluating Health Programs. Public Health Reports. September, 1970, 85, 835-840.
- Deniston, O. L., Rosenstock, I. M. & Getting, V. A. Evaluation of Program Effectiveness. Public Health Reports. April, 1968, 83, 323-335.
- Deniston, O. L., Rosenstock, I. M., Welch, W., & Getting, V. A. Evaluation of Program Efficiency. Public Health Reports. July, 1968, 83, 603-610.
- Donabedian, A. Evaluating the Quality of Medical Care. Milbank Memorial Fund Quarterly. Summer, 1966, 3 part 2, 166-203.

- Edwards, W., Guttentag, M., & Snapper, K. A Decision-Theoretic Approach to Evaluation Research. In M. Guttentag & E. L. Struening (Eds.), Handbook of Evaluation Research (Vol. 1). Beverly Hills, Calif.: Sage, 1975.
- Flaherty, E. W., & Morell, J. A. Evaluation: Manifestations of a New Field. Journal of Evaluation and Program Planning, 1978, 1, 1-10.
- Gibson, G. Emergency Medical Services. EMS: A facet of Ambulatory Care. Hospital, J.A.H.A. May 16, 1973, 47, 59-66.
- Gibson, G. Status of Urban Services - I. Hospitals, J.A.H.A. December 1, 1971, 45, 49-54.
- Gordon, G. The Freestanding Emergency Center. Part III: Birthplace of a Timely Concept. Emergency. May, 1979, 44-45.
- Greenberg, B. G. Evaluation of Social Programs. Review of the International Statistical Institute, 1968, 260-277.
- Hawkins, J. D., Roffman, R. A., & Osborne, P. Decision Makers Judgements: The influence of Role, Evaluative Criteria, and Information Access. Evaluation Quarterly, August 1978, 2, 435-455.
- Herzog, E. Some Guide Lines for Evaluative Research. Washington D. C.: U. S. Department of Health, Education, and Welfare, 1959.
- Hurwitz, E. The Freestanding Emergency Center. Part IV: A National Survey. Emergency, May 1979, 45.
- Hyman, H. & C. R. Wright. Evaluating Social Action Programs, in Uses of Sociology (edited by Paul Lazarsfeld, William Sewell & Harold Wilensky), New York: Basic Books, 1967, 741-782.
- James, G. Evaluation in Public Health Practice. American Journal of Public Health, July, 1962, 52, 1145-1154.
- Kelman, H. R. & Lane, D. S. Use of the Hospital Emergency Room in Relation to Use of Private Physicians. American Journal of Public Health, September, 1976, 66, 891-894.

- Mc Killip, J. Impact Evaluation of Service Programs. Evaluation Quarterly. February, 1979, 3, 97-104.
- Mc Lean, C. Models and Procedures for Evaluating Government Provided Leisure Service. Journal of Evaluation and Program Planning. 1978, 1, 135-140.
- Lerman, P. Evaluative Studies of Institutions for Delinquents: Implications for Research and Social Policy. Social Work, July 1968, 13, 55-64.
- Lipworth, L., Lee, J. A. H. & Morris, J. N. Case Fatality in Teaching and nonteaching Hospitals. Medical Care, April-June, 1963, 1, 1956-1959.
- Nash, P. M. Evaluation of Employment Opportunities for Newly Licensed Nurses. Bethesda, Maryland: U. S. Department of Health, Education and Welfare, 1975.
- Polivka, L., & Steg, E. Program Evaluation and Policy Development. Evaluation Quarterly. November, 1978, 2, 696-706.
- Reynolds, R. A. Improving Access to Health Care Among the Poor--The Neighborhood Health Center Experience. Milbank Memorial Fund Quarterly. Winter, 1976, 47-81.
- Rossi, P. H., & Wright, S. R. Evaluation Research: An Assessment of Theory, Practice, and Politics. Evaluation Quarterly. February 1977, 1, 5-51.
- Scalice, B. The Freestanding Emergency Center. Part I: An Emergency Care Phenomenon. Emergency. May 1979, 39-40.
- Scalice, B. The Freestanding Emergency Center. Part II: Network Emergency Medicine. Emergency. May, 1979, 40-43.
- Schulberg, H. C., Sheldon, A., & Baker, F. (Eds.). Program Evaluation in the Health Fields. New York: Behavioral Publications, 1969.
- Scriven, M. The Methodology of Evaluation. In R. Tyler, R. M. Gagner, & M. Scriven (Eds.), Perspective of Curriculum Development. Chicago: Rand-Mc Nally, 1967.

- Sieber, J. A. Ethical Problems in Program Evaluation: Roles, not Models. Journal of Evaluation and Program Planning, 1978, 1, 117-120.
- Shapiro, S., et al. Further Observations on Prematurity and Perinatal Mortality in a General Population and in the Population of a Prepaid Group Practice Medical Care Plan. American Journal of Public Health, September, 1960, 50, 1304-1317.
- Shiver, J. M., Jacobs, W. F. Jr., & Cassidy, W. J. Center Provides Emergency Care Without Unneeded Inpatient Units. Hospitals, J.A.H.A., April 16, 1979, 116-119.
- Stratmann W. C., & Ullman, R. A Study of Consumer Attitudes About Health Care: The Role of the Emergency Room. Medical Care, December, 1975, 13, 1033-1041.
- Suchman, Edward A. Evaluating Educational Programs. The Urban Review, February, 1969, 3, 15-17.
- Suchman, E. A. Evaluative Research. New York: Russell Sage Foundations, 1967.
- Weikel, K. Evaluation of National Health Programs. American Journal of Public Health, September, 1971, 61, 1801-1803.
- Weiss, C. H. (Ed.). Evaluating Action Programs. Boston: Allyn and Bacon, Inc., 1972.
- Weiss, C. H. Evaluation Research. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.
- Weiss, C. H. Utilization of Evaluation: Toward Comparative Study. In F. G. Caro (Ed.), Readings in Evaluation Research. New York: Russell Sage Foundation, 1971.

APPENDICES

APPENDIX A

CORRESPONDENCE
AND
QUESTIONNAIRES

1650 S.E. Cochran Drive -47
Gresham, OR 97030
March 25, 1980

Hospital
Address

Dear Sir:

In partial completion of the requirements for a Masters Degree in Nursing Management and Administration at the University of Oregon School of Nursing, I am undertaking a program evaluation of a freestanding emergency clinic in Portland, Oregon.

The data to be collected will be by means of the enclosed questionnaire. This letter is a request for information regarding actual charges in your emergency department for those ambulatory patients not admitted to the hospital. All information will remain strictly confidential and anonymity of those participating in the study will be preserved.

Thank you for your cooperation and kind consideration.

Sincerely yours,

Philip L. Reynolds
Graduate Student

Philip Reynolds is a graduate student at the University of Oregon School of Nursing. Any assistance you can offer Mr. Reynolds in his research study will be greatly appreciated.

Marie Berger RN, M.S.
Thesis Advisor

QUESTIONNAIRE

Would you please provide the following information regarding actual charges made to ambulatory patients seen in your emergency room and not admitted to the hospital.

Basic emergency room fee _____.

Basic physician fee (if separate from the emergency room fee) _____.

Average radiology fee for two views of:

a. Upper extremities (arm, wrist, hand) _____.

b. Lower extremities (leg, ankle, foot) _____.

c. Chest _____.

d. Cervical and lumbar spine _____.

Average laboratory fee for:

a. CBC, WBC, hemoglobin, hematocrit _____.

b. Urine--culture & sensitivity _____.

c. Electrolytes _____.

Average supply charge for:

a. Minor suture tray _____.

b. Short leg cast _____.

c. Metal forearm or colles splint _____.

d. 4" Ace bandage _____.

e. Arm sling _____.

Thank you for assisting me in this data collection. Please return the questionnaire to me in the enclosed self addressed envelope.

1650 S.E. Cochran Drive -49
Gresham, OR 97030
March 25, 1980

Radiology Physician
Address

Dear Dr.:

In partial completion of the requirements for a Masters Degree in Nursing Management and Administration at the University of Oregon School of Nursing, I am undertaking a program evaluation of a freestanding emergency clinic in Portland, Oregon.

The data to be collected will be by the means of the enclosed questionnaire. This letter is a request for information regarding your average radiologist interpretation fee for the listed X-ray procedures. All information will remain confidential and anonymity of those participating in the study will be preserved.

Upon completion of the study, copies of this study will be placed in the library at the University of Oregon Medical School where it will be available for review by those interested.

Thank you for your cooperation.

Sincerely,

Philip L. Reynolds
Graduate Student

Philip Reynolds is a graduate student at the University of Oregon School of Nursing. Any assistance you can offer Mr. Reynolds in his research study will be greatly appreciated.

Marie Berger RN, M.S.
Thesis Advisor

QUESTIONNAIRE

Would you please provide the following information regarding actual radiology interpretation fee charged to ambulatory patients seen in your emergency room and not admitted to the hospital.

Average radiology fee for two views of:

- a. Upper extremities
(arm, wrist, hand) _____.
- b. Lower extremities
(leg, ankle, foot) _____.
- c. Chest _____.
- d. Cervical and lumbar spine _____.

Thank you for assisting me in this data collection. Please return the questionnaire to me in the enclosed self addressed envelope.

1650 S.E. Cochran Drive -51
Gresham, OR 97030
February 22, 1980

Physician
Address

Dear Dr.:

In partial completion of the requirements for a Masters Degree in Nursing Management and Administration at the University of Oregon School of Nursing, I am undertaking a program evaluation of a freestanding emergency clinic in Portland, Oregon.

The data to be collected will be by the means of the enclosed questionnaire. This letter is a request for information regarding your office hours and how you provide medical care to your patients after office hours. All information will remain confidential and anonymity of those participating in the study will be preserved.

Upon completion of the study, copies of this study will be placed in the library at the University of Oregon Medical School where it will be available for review by those interested.

Thank you for your cooperation.

Sincerely,

Philip L. Reynolds
Graduate Student

Philip Reynolds is a graduate student at the University of Oregon School of Nursing. Any assistance you can offer Mr. Reynolds in his research study will be greatly appreciated.

Marie Berger RN, M.S.
Thesis Advisor

QUESTIONNAIRE

Please circle the appropriate letter or fill in information.

1. Is your office open after 6:00 PM any day Monday through Friday?

a. yes

b. no

If yes, what day and hours opened _____

2. Do you provide medical care in your office on weekends?

a. yes

b. no

If yes, which day (Saturday or Sunday)

and hours of operation _____

3. Do you provide after office hours care for:

a. only my own patients b. any patients

c. both a. and b. d. none of these

4. Do you provide after office hours care in:

a. office

b. by telephone

c. home visits

d. hospital emergency room

e. other _____

5. Do you provide medical care in your office to individuals without appointment who are not patients of yours but present themselves with a medical need?

a. yes

b. no

comment _____

Thank you for assisting in this data collection. Please return the questionnaire to me in the enclosed self addressed envelope.

1650 S.E. Cochran Drive -53
Gresham, OR 97030
April 21, 1980

Nursing Supervisor
County Health Department
Address

Dear Ms.:

In partial completion of the requirements for a Masters Degree in Nursing Management and Administration at the University of Oregon School of Nursing, I am undertaking a program evaluation of a freestanding emergency clinic in Portland, Oregon.

The data to be collected will be by the means of the enclosed questionnaire. This letter is a request for information regarding the clinic hours and if you provide after hours medical care. All information will remain confidential and anonymity of those participating in the study will be preserved.

Upon completion of the study, copies of this study will be placed in the library at the University of Oregon Medical School where it will be available for review by those interested.

Thank you for your cooperation.

Sincerely,

Philip L. Reynolds
Graduate Student

Philip Reynolds is a graduate student at the University of Oregon School of Nursing. Any assistance you can offer Mr. Reynolds in his research study will be greatly appreciated.

Marie Berger RN, M.S.
Thesis Advisor

QUESTIONNAIRE

Please circle the appropriate letter or fill in information.

1. Is your clinic open after 6:00 PM any day Monday through Friday?

- a. yes
- b. no

If yes, what day and hours opened _____

2. Do you provide medical care in your clinic on weekends?

- a. yes
- b. no

If yes, which day (Saturday or Sunday)

and hours of operation _____

3. Do you provide after clinic hours care for:

- a. established clinic patients
- b. any patients
- c. none of these

4. Do you provide after clinic hours:

- a. in clinic
- b. by telephone
- c. home visits
- d. none of these
- e. other _____

5. Do you provide medical care in your clinic to individuals without appointment, but present themselves with a medical need?

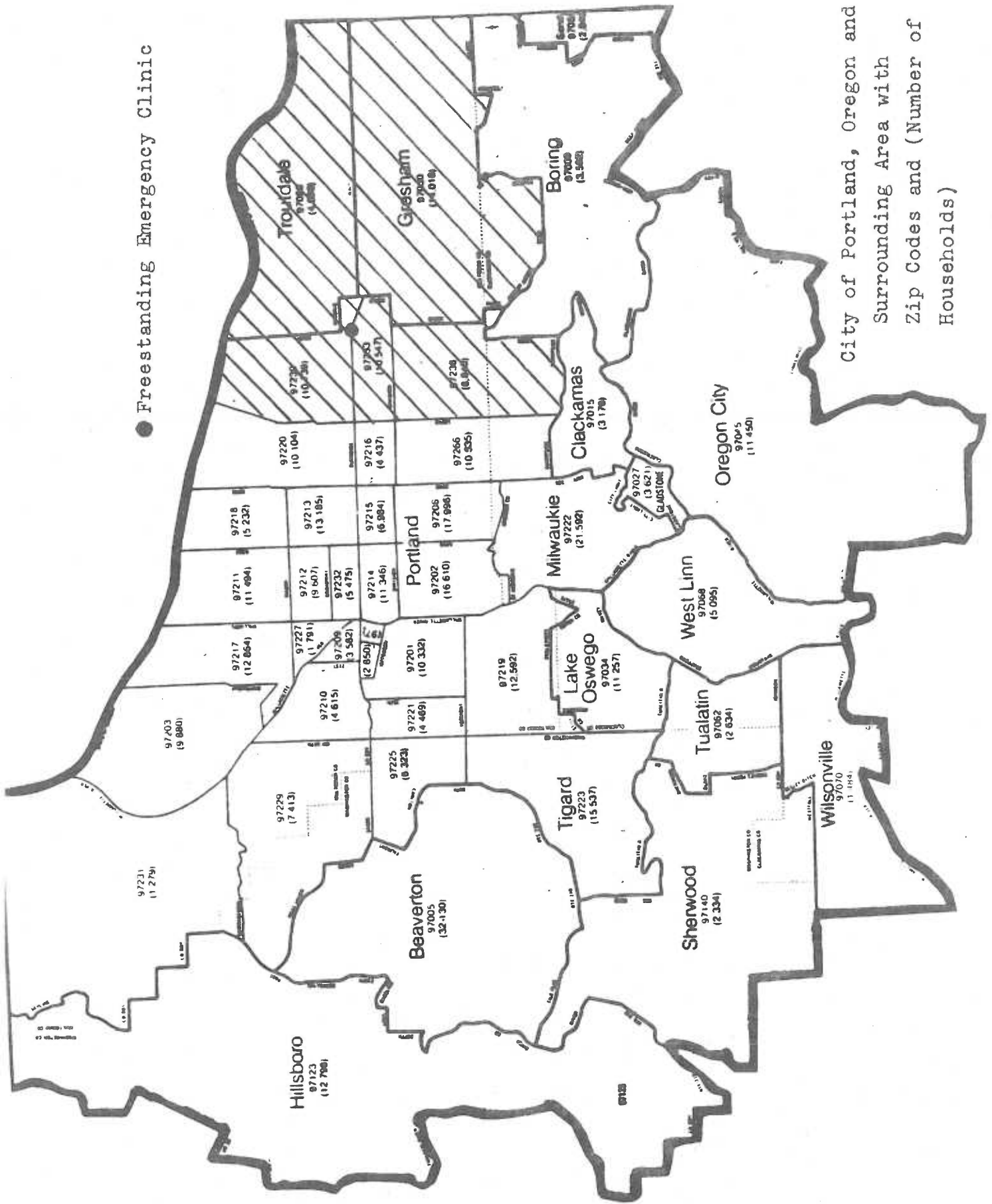
- a. yes
- b. no

comment _____

Thank you for assisting in this data collection. Please return the questionnaire to me in the enclosed self addressed envelope.

APPENDIX B

● Freestanding Emergency Clinic



City of Portland, Oregon and Surrounding Area with Zip Codes and (Number of Households)

ABSTRACT

AN ABSTRACT OF THE THESIS OF

PHILIP L. REYNOLDS

For the degree of Masters in Nursing

Date of receiving this degree: June 8, 1980

Title: A PROGRAM EVALUATION OF A FREESTANDING EMERGENCY
CLINIC

Approved:


Marie Berger, M.S., Thesis Advisor

The purpose of this study was to determine if four selected goals of a freestanding emergency clinic were met.

Goal I: Medical care will be provided at a cost lower than hospital emergency rooms in the community.

Questionnaires were sent to four hospitals and to the chief physician radiologist of each hospital to determine average emergency cost to a patient needing medical care.

Goal II: Medical care will be provided at times when other ambulatory care settings are not available.

Sample size was 262 physicians and one public health clinic.

Goal III: Individuals without a primary care physician will be provided access to the medical care system.

Goal IV: Referral patterns to physicians in the community will be maintained and strengthened.

For Goals III and IV 427 medical records were reviewed, gathering data regarding zip code, designation of primary physician, and pattern of patient referral to physicians in the community.

Findings

The findings are summarized as follows:

1. Costs to the patient for urgent or semi-urgent medical care at the freestanding emergency clinic are less expensive than hospital emergency rooms.
2. The freestanding emergency clinic is open hours when most other ambulatory care settings are closed other than hospital emergency rooms.
3. Individuals without a primary care physician are provided medical care when they have a perceived medical need.
4. Patients evaluated and/or treated at the freestanding emergency clinic are being referred to their own physician for follow-up or to other physicians in the community.

Recommendations for further study were included.