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Optometry's role in the county health department

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Abstract

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OPTOMETRY'S ROLE IN THE COUNTY HEALTH DEPARTMENT

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OPTOMETRY'S ROLE IN THE COUNTY HEALTH DEPARTMENT

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ABSTRACT

This paper focuses on the overall structure and function of the county health department. The county or local health department is part of a much larger public health system consisting of state, national, and international agencies. Public health has progressed from a crisis management type of organization to a virtually all-encompassing system designed to meet the health care needs of the population as a whole. Vision care is becoming an increasingly vital component of the public health system, and as such, the organizational structure of most health departments must be examined and changed in order to meet the vision care needs of the population. This paper examines the Multnomah County Health Department's vision care program and makes recommendations for its continued successful operation.

Project Statement

The inclusion of optometry in the county health system is a relatively recent phenomenon. This study will present an historical overview, as well as the current status of optometry's role within this system. the structure and function of the county health department will be examined in order to develop a model which optimally incorporates optometry as an integral component. The Multnomah County Health Department will serve as the focus for the project. Multnomah County, in conjunction with Pacific University, began providing vision care services to its clients in September 1980. This study presents an extensive overview of the first year of operation of the County's Sabin Health Office. Administrative and financial functions as well as patient population demographics are examined in order to improve the current operation and to make specific recommendations for future operations.

Literature Review

The public health field has as its chief concern the health needs of populations. In all periods of its development, there has been involvement in (a) the search for the causes of disease, (b) the development of technical means for providing a healthy environment for the population as well as combating disease-producing organisms, and (c) the organization of health programs to bring technology to bear on the central health problems of the nation or the community.

These concerns expressed themselves in different ways in different periods of time, always reflecting the influences and social pressures of the day. In the United States, in the period 1900-1945, the public health field had much narrower interests than it has today. It restricted itself largely to improving unsanitary working and living conditions, and later to control the spread of communicable diseases; to health "education" about selected illnesses; to surveillance and control of the handling of water, food, and milk; to recording of vital statistics; and to the operation of clinics for detection and treatment of tuberculosis, venereal disease, and, for the poor, prenatal and well baby clinics.[1]

In the period following World War II, the scope of public health has changed dramatically. It is no longer the concern

only of the 1800 local and 50 state health departments, nor of only doctors, nurses, dentists, and other specialized health professionals. Public health today is everybody's concern, and has become an issue of the highest public and political salience.

Public health today includes such familiar topics as the costs of medical care and the complex problems of planning for the best of health care for the general population as well as for special groups such as the elderly and inner-city dwellers. It includes consideration of future hospitals needed to fulfill the promises of existing technical knowledge. It includes consideration of the chronic diseases, such as cancer and heart disease, that have replaced communicable diseases as the main causes of death in today's society. In addition, public health includes all microbiologic, chemical and physical dangers in the environment. It includes problems of population growth, the rate of which has become an international crises, and finally, it includes the social and behavioral aspects of life, endangered by contemporary stresses, addictive diseases, and emotional instability.[2]

Official public health action essentially occurs on four levels: Local, state, national, and international. This action began on the local level and specifically on the urban level since it is here that people and their

problems are concentrated. Although each political level has its own public health structure, no one of them is completely independent of the others.

The first half of the nineteenth century saw a gradual trend toward the full-time employment of persons to serve on local boards of health. This represented the first step in the formation of local health departments. Some of the earliest were established in Baltimore (1798), Charleston, S.C. (1815), and Philadelphia (1813).[3]

Public health organization on the rural level developed under somewhat different circumstances and much later than in urban areas. A series of severe Typhoid fever epidemics occurred in Yakima County, Washington in 1910-1911 which led to the establishment of one of the first county health departments in the country.[4] The basic soundness of the principle is indicated by the subsequent growth of local health units, which now serve most of the population of the United States.

Official state and local health departments customarily perform several basic tasks, including planning of program, organization and administration in connection with agency operations and the delivery of services, and evaluation of the programs that are in operation. Planning generally involves the assessment of health needs and already existing resources,

the definition of purposes and objectives of a proposed new program, and the determination of which of several needs is most urgent. Organizational and administrative tasks consist of policy-making, implementation of program plans, internal management of the agency, and coordination of activities with outside agencies. The agency assesses the quality and effectiveness of its programs through evaluation, and the results of such activity in turn influence planning and organization.

These basic tasks are performed to some extent by health agencies at both the state and local levels. However, a state agency is more likely to be concerned with policy, planning, legislation, consultation for local agencies, indirect services, financial support, organizational relationships, and research and evaluation. A local agency is more likely to provide direct services to the public such as medical care, preventive health care, and environmental control. Wide varieties of services and programs are provided by state and local health departments which are similar at both levels but have different functions.

There are 50 state health departments in the United States and several equivalent territorial agencies. More than 1,800 of the approximately 3,100 counties in the nation are covered by organized local health departments, and about 700 are covered by state health departments.[5]

There are basically three organizational patterns which characterize operative administrative relationships between local health departments and state or local governments. There is centralized organization where the local health department works directly under the state health department. Secondly, there is decentralized organization where the local government operates a health department either directly or in combination with the authority of a local board of health. The state health department would offer only consultation and advice to one or both of these organizations. And third, there is shared organizational control where again the local government operates a health department either directly or through a local board of health. These same departments then fall under the state department of health under certain well-defined circumstances. Sometimes the local department retains appointive and line authority over local health officers who are also responsible to local boards or commissions.[6]

Both state and local health departments generally have an executive officer or health officer and a board of health. In local health departments, the health officer is usually appointed by the mayor, the county governing body, the board of health, or he may be selected from the civil service rolls. The health officer then appoints subordinate personnel or they, too, may be selected through civil service procedures.

A large county health department may divide its area into health districts in order to facilitate the delivery of services to the public. Each subdivision has a district health officer who is directly responsible to the health officer of the local department.[7]

The larger and more complex programs necessitate a more formalized organizational structure with the combination of similar and related functions into divisions and bureaus. There is no standard organizational structure, although certain functional divisions are almost universally encountered. Thus there usually exist units responsible for health records and statistics, sanitary engineering, maternal and child health, nursing, laboratory service, epidemiologic service and health education. Increasingly there are also units for adult health, chronic disease, and medical care.[8] Usually, approximately one half of the funds and one half of the positions of the local health department are devoted to public health nursing.[9]

Public health programs and agencies basically have three organizational levels: Policy making, administrative, and functional. Policy making is primarily a function of legislative bodies concerned essentially with the broad aspects of public responsibilities and programs. The details of policy are usually left or delegated to boards, the members of which are generally appointed rather than elected.

At the administrative level most organizations are hierarchical in nature. The health officer or health director is at the top of this hierarchical structure and is responsible for the overall management of the agency and for the planning and implementation of its program. He has often been called an economic royalist, which means that he is entrusted with a considerable sum of other people's money and expected to find ways to put it to as profitable use as the law allows and the board approves.

In terms of functional organization, it is not possible to make a single rule concerning the number of subdivisions or bureaus that should be established. The decision varies with individuals, time, place and circumstances. Functional organization is an important aspect of any concern because it determines whether the chief executive is actually in command of or at the mercy of the organization. Generally speaking, a small number of divisions, giving a quantitatively limited but qualitatively strong span of control, is desirable; though this is not always possible in a large health department. Divisions are broken down into bureaus which are the basic functional unit of the department. The bureau has a homogeneous structure intended to perform a series of closely related tasks, in contrast with the division, whose function it is to coordinate the efforts of the bureaus.

Today optometry is evolving as an integral component of the public health team; however, there is room for improvement in many areas. The optometrist, as a consultant, can contribute to such programs as vision screening, rehabilitation, health education, health planning, and occupational health.[10] For many people, contact with a doctor of optometry may represent the initial opportunity to have major risk or chronic conditions detected or prevented. In the course of a basic optometric examination, half of the cranial nerves are routinely tested, while the others may be probed, if indicated, using non-invasive techniques.[11] Optometry must truly accept a major role as a primary care provider, recognizing that there exists a broad community health responsibility. Incorporation of long-range and more comprehensive vision programs would necessitate changes in the organizational structure of most health departments. It has been suggested that a bureau of vision care services, modeled after dental care bureaus, should be established at the state and local levels to provide program continuity and coordination.[12] This thesis will examine and consider various mechanisms for fully integrating vision care, and specifically optometry, into the public health system. The Multnomah County Health department along with other successful departments will be

studied to aid in developing a viable systems model designed to meet the vision care needs of the population.

Methodology

This research was compiled from personal interviews with the faculty advisor at the Sabin Health Office and with Multnomah County Health personnel at the Gill Building in Portland. Patient records at Sabin were reviewed and a questionaire was administered to each patient during the months of September and October 1981. For the patient record survey, every third record in the alphabetical files were pulled and data including age, sex, district of residence, family income, and number of previous visits were recorded. In all, 300 of the 900 current records on file were examined to obtain the baseline data.

The patient questionaire (attached) was used to verify the baseline demographic data and to obtain patient reaction to the planned move of the Sabin Clinic to a Southeast Portland multiservice center. The questionaire was anonymous and administered by the receptionist at Sabin. A total of 139 questionaires were returned representing nearly the entire patient population for September and October 1981. In addition to the interviews and patient surveys, much time was spent at the County Health Office reviewing budget reports, service contracts and agreements, and grant applications pertaining to optometry. An extensive literature search was performed

to serve as an introduction to the work. A project paper was presented to the Multnomah County Health staff to give them a retrospective view of the optometry service within the County system and to aid them in future management.

Patient Questionnaire
Sabin Optometry Clinic
September 1981

The Multnomah County health department is planning to move the Sabin Optometry Clinic to southeast Portland about January 1, 1982. The following brief questionnaire is designed to assist Pacific University in assessing patients' reaction to this move.

1. Age: _____

   Sex: ☐ M
   ☐ F

   Race: ☐ Black
   ☐ Hispanic
   ☐ Native American
   ☐ Oriental
   ☐ White
   ☐ Other

2. In which part of the county do you live?
   ☐ Northeast
   ☐ Southeast
   ☐ East County (east of 82nd Ave.)
   ☐ West County (west of Willamette River)

3. How many miles from this clinic do you live?
   ☐ Less than 5
   ☐ 5 to 10
   ☐ 10 to 15
   ☐ More than 15

4. How did you get to the clinic today?
   ☐ Private auto
   ☐ Bus
   ☐ Cab
   ☐ Walk
   ☐ Other (specify) _____

5. When the clinic moves to SE 43rd and Division, will you go there for your optometric care?
   ☐ Yes
   ☐ No

Discussion

In September 1980, the Multnomah County Health Department in conjunction with the Pacific University College of Optometry began providing vision care services in Northeast Portland at the Sabin Health Office. This report identifies the initial goals of the clinic, problems encountered in reaching these goals, and a synopsis of what actually transpired during the first year of operation.

Northeast Portland is defined geographically as the urban area whose borders are roughly the Columbia and Willamette Rivers on the north and west, the Banfield Freeway to the south and N.E. 82nd Avenue to the east. Demographically, the area has a high percentage of ethnic minorities, low-income and elderly individuals, all of whom require greater vision care services than the general population. The first two due largely to unmet need, the latter to a higher incidence of visual impairments.

The College of Optometry operated a clinic at the Albina Action Center (TAAC) from 1972 until 1980. The clinic, located at 707 N.E. Knott, served a low-income population residing in Northeast Portland. Most of the patients would not have received even basic vision care had it not been for the low-cost services provided by this clinic. There was a contractual arrangement for the provision of services between the College of Optometry and TAAC. Unfortunately, the fluctuation in available federal dollars to TAAC as well as

factors internal to TAAC contributed to fluctuations in operation of the clinic, and finally to a cessation of the entire operation. This action led to the proposal to expand vision care services in Northeast Portland by developing an optometric service within the Multnomah County Health Department structure. The purpose of the proposal was to provide education and training to the students at the Pacific University College of Optometry, and to provide patient care to persons who might not otherwise be able to afford such care.

The County Health Department is recognized as having an expertise in identifying those who are in need of health care but unable to obtain such care due to socio-economic conditions. The College of Optometry, in turn, is recognized for its expertise in the provision of optometric health care at the primary, secondary, and tertiary levels of care, all of which had been determined as necessary to meet the needs of the expected patient population. The administration of the program was shared by both parties in keeping with their respective roles and areas of expertise.

The Health Department operated at the time of the original proposal, and continues to operate a multi-service health facility within the Albina Multiservice Center in Northeast Portland. A number of smaller neighborhood clinics are also in existence throughout the county. The Multiservice Center Clinic includes medical, dental, mental health, and social services which are

coordinated with an intake process that encompasses the smaller neighborhood clinics. The optometric service was organized using the medical and dental service as a model, but was serviced on a contractual basis by the College of Optometry. Under the terms of the contract, the Health Department was to provide physical space for the Optometry Clinic. Ideally, the space would have been located adjacent to the medical and dental clinics to maximize team health care delivery. However, this was not a possibility at the time, and the Optometry Clinic was located at the Sabin Health Office at 15th and Fremont in Northeast Portland.

As specified in the contract, the Health Department assumed responsibility for bringing the individual to the clinic for optometric care using their community outreach programs. In the patient intake process, the College provides professional assistance in the identification of those needing visual care. The College is responsible for the provision of comprehensive optometric services to include health maintenance/screening, primary, secondary and tertiary modes of care. A team of interns from the College provide the services under the direct supervision of a clinical faculty advisor.

The Health Department maintains the health records of its patients, and it was originally thought that the visual care portion of the record would be co-located with the general health record. However, due to the necessity for placing the optometry clinic outside of the multi-service center, it became necessary to

have a separate set of records for visual care. Presently, the College's "Optometric Case Record" is used as the visual care record within the Health Department. Several county health forms, including a health screening form and a client ledger are used along with the Optometric Case record. An optometric encounter record is also being developed to facilitate information flow as to diagnosis and treatment of patients.

Overall financial responsibility for the operation of the Clinic was assumed by the Health Department. Patients are not billed for services; however, fees are determined using a sliding scale, based on income and family size, with every patient paying at least one dollar for the examination. Fees are collected at the time of the office visit. Provisions for third-party systems and agency sponsorships are handled by the Health Department as a rule and are billed accordingly from the Health Department's main office in the Gill Building in downtown Portland. Ophthalmic laboratory costs and fees for professional services are the responsibility of the Health Department; however, the College maintains the current contract with the Opticraft Laboratory in Portland, formerly American Optical. The College actually pays for the laboratory materials and services out of professional service fee funds they receive from the Health Department. This arrangement provides for continuity with the various other Pacific University Clinics in dealing with the laboratory. The Health Department is also responsible for

providing the necessary routine expendable and replaceable supplies needed for the day-to-day operation of the clinic.

Administrative and program evaluation is jointly conducted by the College clinic administrators and the administrator of the County Health Department clinics as required by the Department. Educational evaluations are the responsibility of the clinical advisor and the appropriate accrediting agencies. Each patient's case must be approved by the clinical advisor before students can initiate therapy. Students are evaluated at the end of each term by the clinical advisor, and the clinical advisor is in turn evaluated annually by the Associate Director and Director of Clinics and by the Dean. Evaluation of services, therefore, is ultimately the responsibility of the College, but advisory resources within the administrative structure of the Multnomah County Health Department are utilized as well.

In the Sabin Health Office, there are four optometry examination rooms, a room for ophthalmic dispensing of eyewear, a vision training/conference room, the clinical advisor's office, and a reception/waiting room, as well as offices for other county health personnel. An initial, one-time expenditure of $30,000 was allocated from federal grant monies to renovate the space now occupied by the Optometry Clinic. The clinic receives patients four days per week, Monday through Thursday, from ten until five o'clock. The staff consists of one clinical optometrist employed by Pacific University with funds provided by the Health Department, one

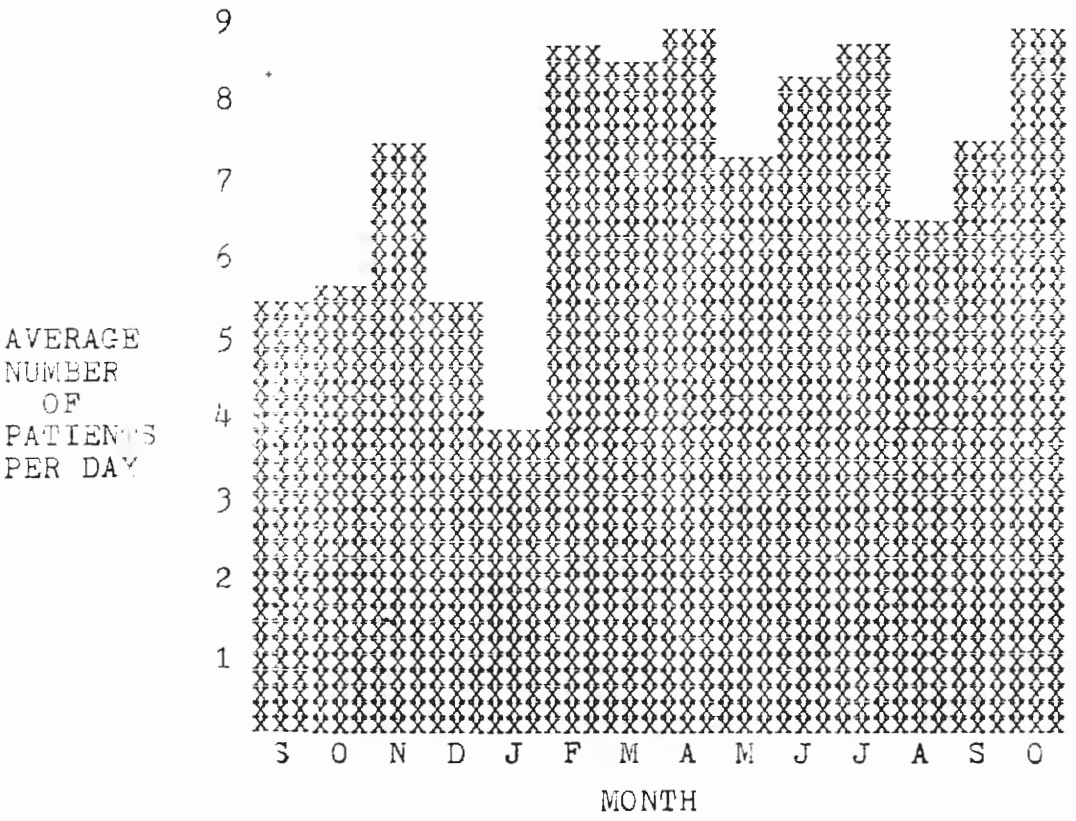
secretary employed by the Health Department, and four student interns who are assigned to the clinic on a rotating basis. The student interns are responsible for taking a complete case history on each patient, followed by the basic optometric exam, case analysis, case conference with the faculty advisor, and frame selection. The student also generates referral and consultation reports when necessary. This entire process takes about two hours for the student; therefore, he is able to examine three patients during the hours the clinic is open. At peak efficiency, the clinic should be able to examine about 12 patients per day.

The Sabin Optometry Clinic began seeing patients on 4 Sep 1981. The budget was constructed assuming there would be 3,000 examinations during the first fiscal year of operation, which was a 10-month period. This figure was derived utilizing an HEW report outlining the average number of exams per person per year in areas having shortages of vision care manpower, the number of full-time eye care practitioners in the Northeast Portland area, and most importantly, the patient load capabilities of the Sabin Health Office. During the period Sep 1980 through June 1981, there were only about 1,000 patient examinations performed. This is probably due to the fact that the clinic was not widely known to the people of Northeast Portland when it opened in September 1980. The number of patients receiving care at Sabin has increased steadily in the first 14 months of operation. Allowances must be

made for variations in the number of clinic days per month to align with Pacific University's academic schedule. Generally, the months of January, May, August, September and December have fewer available clinic days due to the beginning or ending of academic terms. A more revealing indicator of the utilization of services is the average number of patients examined per day during the month. This figure is obtained by dividing the total number of patients seen during the month by the number of clinic days in the month. Figure 1, on the following page, illustrates the average number of patients per day for the previous 14 months. The average number of patients examined per day throughout the 14-month period was about seven. This is considerably less than the clinic's peak patient load of 12 examinations per day, suggesting that the clinic operates at about 60 percent of its maximum capability as a rule, with a range of 32 percent to 73 percent during the last 14 months. A reasonable number of patient cancellations is to be expected; however, the main problem seems to be in identifying those who would benefit from visual services and getting them to the source. This could be accomplished by a more aggressive referral program by county health personnel combined with a clinical outreach program, i.e., screening schools, senior centers, etc., administered by the director of the Sabin Clinic.

A random sample of the patient population for the first year revealed that their demographic data matched very closely the

FIGURE 1


AVERAGE NUMBER OF PATIENTS PER DAY
9
8
7
6
5
4
3
2
1
S O N D J F M A M J J A S O
MONTH

demographic data of the population of Northeast Portland. Columns 1 and 2 in Table 1 illustrate this similarity for age groups. Column 3 reveals what might be expected of the various age groups in Northeast Portland based on the HEW Regulations for Designation of Areas Having Shortages of Vision Care Manpower, 1978.

TABLE 1

AGE CATEGORY	PERCENT OF NE POPULATION	PERCENT OF SABIN POPULATION	PERCENT OF EXPECTED PATIENT POPULATION (SEE TEXT)
19 and under	26%	30%	16%
20 - 29	15	20	12
30 - 39	11	12	10
40 - 49	12	11	16
50 - 64	16	16	25
65 +	11	10	21

This data suggests that we are perhaps missing a substantial portion of the elderly population who historically have a greater percentage of visually related problems. Further inspection of the demographic data shows that 75 percent of the patients lived in Northeast Portland or District II even though the Sabin Health Office is the only clinic in the Multnomah County Health system offering optometric services. Fourteen percent of the patients are from the Southeast section of Portland, District III; nine percent from the West County area, District I; and two percent from the East County area or District IV. About 60 percent of the patient

population is female, and only about 20 percent of the patients had been seen previously for optometric services in a clinic staffed by Pacific University. Most of the 20 percent had been patients at the Albina Action Center.

Despite the fact that the number of examinations performed during the first fiscal year of operation was only about one-third of that expected, the clinic is financially sound having met its budget for the year. In fact, optometry generates the largest amount of fees on a per-patient basis compared to all of the other primary care delivery systems in the Health Department. The 1980/81 FY Budget projected patient fees of $10,000 and Welfare payments of $10,000. In actual fact, at years end, patient fees collected were $10,268.48 and Welfare or Medicaid payments amounted to $9,937.30. Patient fees are collected at the time of the examination and are based on a sliding scale as explained previously. Medicaid is billed by the Human Services Division of the Health Department. Welfare patients account for at least 32 percent of the patient population. The Primary Care Grant for 1980/81 amounted to $100,000. Expenditures for that fiscal year were $38,710.22 for professional services to Pacific University, $8,710.22 of which was paid to the Opticraft Laboratory by Pacific for ophthalmic materials and services. The remaining operational expenditures primarily consisted of rent, building maintenance, supplies and salary and fringe benefits for one office employee. The 1981/82

fiscal year budget is shown in Table 2.

TABLE 2

BUDGET FOR 1981/82 FISCAL YEAR

REVENUES		EXPENDITURES	
TITLE 19 WELFARE	$10,000	PROFESSIONAL SERVICES	$43,600
PATIENT FEES	14,500	OPHTHALMIC MATERIALS	30,000
PRIMARY CARE GRANT	74,221	OTHER OPERATIONAL COSTS	25,121
TOTAL:	$98,721	TOTAL:	$98,721

By law, revenues must equal expenditures; the clinic cannot show a profit or a deficit for the year. The budget projects $14,500 in patient fees and $10,000 in Medicaid payments based on 4,800 vision exams to be performed and 2,304 pairs of glasses to be dispensed. The financial projection is attainable due to the variability in sliding scale payments; however, to perform 4,300 vision exams requires 400 per month, and the clinic can handle at most about 220 per month in its present mode of operation, assuming a full appointment sheet and no cancellations. At best, this is unrealistic and should be modified.

In order to better serve the patient population of Multnomah County as a whole, the Health Department plans to move the Sabin Optometry Clinic to Southeast Portland about January 1, 1982. The clinic will be located in a multi-service center at the corner of S.E. 43rd and Division. There are naturally advantages and disadvantages to this relocation. The co-location of the optometry

service with other health disciplines in a multi-service center will benefit the patient in providing a more convenient in-house referral system between optometry and the other health care disciplines. It will also benefit the interns from Pacific University by exposing them to the multi-disciplinary or team approach to health care, and it will benefit the Health Department by consolidating services. The primary disadvantage is the possibility that the patients from Northeast Portland will be left without basic vision care. To investigate this problem, a questionaire was given to each of the patients seen in the Sabin Clinic during September and October, 1981. Seventy percent of the September patients were from District II, 18 percent from District III, nine percent from District I, and three percent from District IV. Most of the patients arrived at the clinic by private auto (74 percent), while a few had arrived by bus (18 percent). When asked whether the patients would go to the new center for their optometric care, 80 percent responded in the affirmative. Of those that said no, 72 percent said they did not know where they would seek future optometric care, while the others were divided between private eye care practitioners and the Pacific University Clinic in Portland. Table 3 summarizes the data from the questionaire. The clinic relocation may prove to be an inconvenience to some patients in District II; however, in the long run, it should be advantageous for the majority of present and future optometric patients and for the Health Department as well.

TABLE 3

SUMMARY OF SEPTEMBER-OCTOBER PATIENT POPULATION

MALE 43% FEMALE 57%

AGE		RACE		PATIENTS FROM	
0-19	24%	Black	33%	DISTRICT I	9%
20-29	18%	Hispanic	3%	DISTRICT II	70%
30-39	19%	Native American	2%	DISTRICT III	18%
40-49	12%	Oriental	6%	DISTRICT IV	3%
50-64	14%	White	56%		
65 +	13%				

HOW PATIENTS ARRIVED AT SABIN:

Private Auto	74%
Bus	18%
Walk	5%
Other	3%

WOULD PATIENTS GO TO THE NEW SOUTHEAST CENTER FOR CARE:

Yes	80%
No	20%

IF NOT, WHERE WOULD THEY GO FOR OPTOMETRIC CARE:

Private Practitioner	14%
Pacific Portland Clinic	14%
Unknown	72%

WHO REFERS PATIENTS TO SABIN:

County Health Personnel	46%
Friends or Relatives	31%
School Screenings	4%
Salvation Army	4%
CETA	1%
Other	14%

It may be possible and advantageous to maintain a small optometric service in the present Sabin Office; however, this would depend entirely upon available funds.

Conclusion

Overall, the integration of Optometry services into the Multnomah County Health System has occurred smoothly and efficiently. Optometry generates the greatest amount of fees on a per-patient basis compared to the other health delivery systems and has been determined to be cost effective. Specific recommendations would include streamlining the examination process to enable the clinic to see a greater number of patients in a day. This could be accomplished by cutting down the amount of time for an examination through the use of a full-time optician to fit glasses or through an extra student intern acting as optician for the day. The latter arrangement is utilized in Pacific University's other clinics, though primarily only for dispensing new frames or adjusting old ones. When the county optometry clinic is moved to the new multiservice center, current administrative procedures will have to be altered in order to increase the patient load and to allow for the new physical layout. This project is one of the first in the United States to incorporate optometry into a county health system and could hopefully be used as a model in developing other, similar programs.

FOOTNOTES

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