DEMOGRAPHICS AND DISEASE PROFILE IN AN URBAN PUBLIC PRIMARY CARE CLINIC: IMPLICATIONS FOR INDIGENT CARE, INSURANCE, AND HEALTH CARE DISPARITIES

A Research Project

By

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College of Health Professions

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I hereby recommend that the research project prepared under my supervision by Jon Robert Humiston entitled Demographics and Disease Profile in an Urban Public Primary Care Clinic: Implications for Indigent Care, Insurance, and Health Care Disparities

be accepted as partial fulfillment for the degree of Master of Physician Assistant.

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Abstract

Introduction: Research has been conducted on indigent populations across the United States as well as the health care facilities which treat said populations. Factors such as ethnicity, language barriers, employment, and adequate insurance coverage all play a role in providing health care to indigent populations. No research has been conducted in regard to the disease profile of clients at Healthy Options for Planeview (HOP) in Wichita, Kansas. HOP is a community health center for patients residing in the Planeview area. The purpose of this study was to collect and analyze the disease profiles and demographics of those who received medical care at HOP in 2006. It was hoped that the data would serve as a guide to aid in the future treatment of the indigent population in the area and to aid in allocation of resources for HOP. Methodology: A retrospective chart review was conducted on all patients who were seen for medical services during the calendar year 2006. Data such as race, gender, age, diagnosis, and patient management decisions were collected. Results: One-hundred-three unique patient encounters were analyzed. The data revealed that 69.3% were female, 78.4% Hispanic, and 79.8% were unemployed. Nearly forty percent had chronic medical conditions and 24% received a referral to another local community health center. The most frequent medical conditions seen were normal history and physicals (11.2%), followed by well child exams (8.39%), hypertension (7.7%), seasonal allergies (7.7%), and diabetes mellitus (4.2%). Spanish was the most common language spoken 68.3%. Conclusions: This first study revealed the patient demographics and disease profile of HOP. The data revealed HOP patients to be primarily indigent with chronic medical conditions with 26.5% necessitating a referral to a more comprehensive community health center.

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Introduction

The United State's health is being progressively affected by "barriers between quality health care and the uninsured and indigent populations."[1] The risk of mortality in the uninsured is 25% greater than the risk for those individuals with insurance resulting in 18,000 deaths in the United States per year.[1] In 2000, 38.4 million non-elderly Americans were uninsured. By 2005 over 46 million were without insurance.[2] Furthermore, from 2004 to 2005 the number of uninsured Americans increased by 1.3 million.[3] This trend shows that many Americans are without healthcare insurance, and many of the uninsured fall below the federal poverty level.[2] Individuals with low incomes are much more likely to lack health insurance. A comparison of the uninsured and different types of health insurance coverage from 2001-2005 is outlined in Table 1.

In 2005 24.4% of Americans with an income below $25,000 had no health insurance compared to just 8.5% of those with incomes above $75,000.[4] Research has shown that insured primary care services have the potential to mitigate the negative effects of income inequality on health status.[5] In 2001 one in six Americans lived in federally designated underserved areas and did not have access to a private primary care provider.[5] Adequate health insurance plays a significant role in the acquisition of regular health care for low income and minority groups. Differences in health insurance account for one-third of Hispanic-White disparities and two-fifths of Black-White disparities in acquiring regular health care.[6] Thus, increasing health care coverage would increase access to care and drastically reduce racial and ethnic disparities in the United States. [6] It is important to note that insurance is not the only factor that adds to these disparities; however, its role in possibly eliminating these disparities should not be ignored (Table 1).

Table 1

Health Insurance Coverage, 2001 to 2005*

Year	Uninsured Number (millions)	Uninsured	Medicaid/ SHIP	Employer Sponsered Insurance	Individually Purchased Insurance	Medicare	Military Health Care
2005	46.6	15.9%	13.0%	59.5%	9.1%	13.7%	3.8%
2004	45.3	15.6%	13.0%	59.8%	9.3%	13.6%	3.7%
2003	45.0	15.6%	12.4%	60.4%	9.2%	13.7%	3.5%
2002	43.6	15.2%	11.6%	61.3%	9.3%	13.4%	3.5%
2001	41.2	14.6%	11.2%	62.6%	9.2%	13.5%	3.4%

* Based on Current Population Surveys. Percentages do not sum to 100% because some people have more than one type of coverage.[7]

Access to quality primary care is another factor that affects disparities in health care. Access to care is directly correlated with lower morbidity and mortality, and fewer hospitalizations and emergency room visits.[8] This leads to improved health and decreased healthcare costs, and thus is a central goal in reducing health care disparities and children's health. [8] Many children do not get adequate health care. Public health insurance programs and health care delivery programs provide much of the healthcare to children; however, state budgets in the United States are decreasing, threatening the practicability and reliability to give adequate primary care.[8] Immigrant families and families that live in rural or urban settings, compared with suburban; have the highest risk factors for developing disease, and studies have shown that higher risk factors are associated with poorer access to primary care.[6]

Literature Review

A review of the literature was conducted using Medline, ArticleFirst, and WorldCat from 1980 to present date. Only the most recent related literature was utilized. The search was conducted using the key terms socioeconomic factors**,** medically underserved area, medical indigency, poverty status and numerical data, medical safety

net, disparities in healthcare, and access to care. Several of the articles describe health disparities and the issues with access to care for the underserved and indigent population.[2, 3, 5, 6, 8, 9] According to "*Healthy People 2010 Objectives for Improving Health*", access to care is one of the most significant of health disparities in the United States, and the increasing number of uninsured people is a major factor.[1] This study also reported that in response to this trend, the free clinic movement and volunteerism is emerging as a the primary way to improve the access to care dilemma.[1] Another study in 2001, reported that health centers serve approximately 8.7 million of the 43 million without access to a primary care provider, but this coverage is inadequate since 34 million Americans living remain in rural or underserved areas without care.[5]

The health care delivery system or "safety net" policy contributes drastically to health care disparities in the United States. This policy is directed at reducing racial, ethnic, and indigent disparities with focus on increasing the health care delivery system in areas where these groups of people live, particularly underserved areas. [6] Programs that use available resources and interventions such as school-based programs in areas that need affordable healthcare may prove very beneficial in reducing indigent disparities.[6] Furthermore, improving the means through which community health care systems can give cultural competent care may also reduce these disparities.[6] Health centers have shown to be an adequate safety net for those in underserved populations, and reduce disparities in racial ethnic, income, and insurance status in access to primary care. They also provide invaluable preventive screening procedures.[5]

According to the *Journal of the American Academy of Physician Assistants in 2005*,

> "Approximately 1,000 free clinics, which provide both preventive and primary care for indigent populations and the working poor at reduced or no cost, have opened nationwide."[1]

The reason these local centers are so successful in eliminating disparities pertaining to access to care is because they establish themselves as a source for "usual" regular healthcare for these patients.[5]

Purpose of Study

Healthy Options for Planeview (HOP) was established in 1997 to assess the needs in Planeview, a community in southern Wichita, Kansas which is one of the State's most economically stressed and racially ethnically diverse areas, and has five thousand residents who speak 19 different languages. Most Planeview residents are considered low income working poor, and the average household income is $24,086. Over 31% have an income less than $15,000, and most of the families in Planview lack health insurance. It also serves as a center for health education and field site for various academic health programs at Wichita State University. One of the primary goals of the clinic is to provide adequate health care and social services to the diverse, low-income, indigent population in the area. This is a much needed goal since there are roughly 50,000 people in Sedgwick County that either lack health insurance or have very low incomes (*Visioneering Wichita,* 2004).

The facility was developed partly as an effort to bridge the gap in healthcare services to the uninsured and poor population in Planeview. Additionally most of the 1,500 families who reside in Planeview have no health insurance, and many of the residents are first and second-generation immigrants who are also burdened by language

barriers. The demographic breakdown in 2006 was as follows; 7% Black, 22% Asian, 37% Hispanic, 16% isolated Asians, and less than 2% isolated Hispanics. Healthy Options Planeview provides this population with culturally competent and linguistic healthcare uncharacteristic to most other underserved urban areas in the Midwest.

Healthy Options for Planeview is an important tool in providing care to the indigent population in Wichita, Kansas. The clinic brings healthcare to the underserved in an attempt to increase access to healthcare and extend the healthcare delivery system to patients with health disparities such as language barriers, health care insurance coverage, poverty, and other ethno-racial factors. In order to fully implement HOP as a tool in the greater Wichita area and plan for future services it is important to analyze the demographics and disease profiles of the patients who seek care at HOP. Thus, it is imperative to have a baseline for healthcare providers to compare the disease states and demographics of future patient's in order to properly address and treat the population. Any future changes in HOP's disease profile or demographics would allow healthcare providers at HOP to "make modifications in treatments and educational approaches to compensate for the changing patient population".[9] The following research question was investigated:

- What was the demographic and disease profile of patients receiving healthcare at Healthy Options for Planeview in Wichita, Kansas in 2006?

Methods

Design

This retrospective chart review was administered at Healthy Options for Planeview in Wichita, Kansas between November, 2006 and December, 2006. Analysis and comparison of disease profiles and demographics were recorded and analyzed. The review included healthcare care received at HOP, disease profile, and demographics such as age, race, language, gender and zip code.

Participants and data analysis

Patients' who received care at Healthy Options for Planeview from January 2006-December 2006 were included in the study. A collection form was used to record information, which was based on the patient history and physical form (appendix). Parametric data were analyzed using descriptive statistics.

Results

One-hundred-three unique patient encounters were analyzed. Results of the study demonstrated that HOP had a patient profile of minority and ethnic background, and most lacked insurance coverage (due to unemployment). The mean age in years of the study population was 35.69, +/- SD 21.44. Most of the participants were Hispanic (78.4%). Likewise the chart review revealed that Spanish was the most common language spoken (68.3%). Furthermore, most of the patients were female (69.3%), and most were unemployed (79.8%). In regard to the zip code to which the patients belonged, most were from the 67210 area with a slightly smaller percentage coming from 67216 (47.1% and 32.4% respectively). A summary and breakdown of these demographic characteristics can be found in Table 2.

Table 2

Descriptive Statistics of Patient Population (n=103)

	Frequency	Percent	Mean(+/-SD)
Age			35.69 (21.443)
Race			
African American	7	6.9	
Asian /Pacific Islander	7	6.9	
Asian Subpopulation	1	1	
Caucasian	7	6.9	
Hispanic	80	78.4	
Language			
English	18	17.8	
Spanish	69	68.3	
Asian	6	5.9	
Other	8	7.9	
Gender			
Male	31	30.7	
Female	70	69.3	
Occupation			
Professional	1	1	
Service	14	14.1	
Sales	1	1	
Construction	2	2	
Production	2	2	
None	79	79.8	
Zip Code			
67204	2	2.0	
67207	3	2.9	
67209	1	1	
67210	48	47.1	
67211	4	3.9	
67212	2	2.0	
67214	4	3.9	
67216	33	32.4	
67217	2	2	
67218	2	2	
67219	1	1	

The next sets of characteristics analyzed were the disease state or diagnosis of the patient population. The data revealed that there was a variety of conditions the patients were treated for, with the most identified coming from four main categories. The highest percentage were normal history and physicals (11.2%), followed by well child exams (8.39%), hypertension (7.7%), and seasonal allergies (7.7%), and diabetes mellitus (4.2%). A significant number of patients had chronic conditions (39.8%). A summary of the descriptive data of disease/disorder or diagnosis can be found in Table 3.

Table 3

Descriptive Data of Disease/Disorder or Diagnosis (n=103)

Disease	Frequency	Percent
Abdominal Pain	3	2.09
Acute Bronchitis	2	1.4
Arthritis	1	.699
Asthma	2	1.4
Back Pain	5	3.5
Breast Mass	1	.699
Carbuncles	1	.699
Chest and Arm discomfort and numbness	1	.699
Chest Pain	1	.699
Chronic Bronchitis	1	.699
Clinically stable Diabetes Mellitus	1	.699
Coronary Fistula	1	.699
Cutaneous Candidiasis	1	.699
Dental Carie	1	.699
Depression	1	.699
Diabetes Mellitus	6	4.2
DJD	3	2.09
Dyspareunia	1	.699
Dysuria	1	.699
Ear Pain	1	.699
GERD	5	3.5
Heart Murmur	1	.699
Heart Palpitations	1	.699
History Bruising	1	.699
History HA	1	.699

History of Dizziness	1	.699
Hives	1	.699
HTN	11	7.7
Irregular Periods	1	.699
Knee Pain	2	1.4
Low Blood Pressure	4	2.8
Lumps in Right Armpit	1	.699
M/S Pain	4	2.8
M/S Neck Pain	2	1.4
Migraine	1	.699
Moderately Elevated BP	1	.699
Muscle Spasm	2	1.4
Normal H&P	16	11.2
Obesity	3	2.09
Onychomycosis	2	1.4
Otitis Externa	1	.699
Pelvic Pain	1	.699
Poor Vision	1	.699
Reflux	1	.699
Seasonal Allergies	11	7.69
Sinusitis	1	.699
Skin infection	1	.699
Sprained Right Foot	1	.699
Subcutaneous Nodule	1	.699
Tension Headache	2	1.4
Thoracic Pain	1	.699
Upper Respiratory Congestion	1	.699
Upper Respiratory Infection	5	3.5
Vaginitis	2	1.4
Vertigo	1	.699
Viral Upper Respiratory Infection	3	2.09
Vitiligo	1	.699
Past Medical History		
None	51	49.5
Acute/Benign Cond.	11	10.7
Chronic Conditions	41	39.8

The remaining data collected centered on how patients were treated or referred. The highest percentages of patients were given patient education (41.2%), while 40.2% received either medication or had a therapeutic intervention performed. Most of the patients receiving care at HOP were not referred for further evaluation (73.5%). Of those

clinics that received patient referrals from HOP, Hunter Health Clinic received the most (16.7%). A summary of the descriptive data of treatment and referral can be found in Table 4.

Table 4

Descriptive Data of Treatment and Referral (n=103)

Treatment	Frequency	Percent
Medication and Therapeutic Intervention	41	40.2
Referral	7	6.9
Medication and Referral	1	1.0
Patient Education Only	42	41.2
None	11	10.8
Place of Refferal		
Unknown	2	2
None	75	73.5
Hunter Health Clinic	18	16.7
Brookside	6	5.9
Center for Health and Wellness	1	1
Central Clinic	1	1

Discussion

In summary HOP provided health care to the indigent population in Planeview, Kansas. The patients treated by HOP were ethnically diverse, unemployed, and spoke a non-native language. These patients had a variety of disease types, but most fell under the category of chronic disease. It was important to provide this baseline analysis at HOP for comparison of future patient populations and to document the health delivered to the indigent population in this area.

Summary of Results as Compared to the Literature

In this study most patients seen were women (69.3 percent), Hispanic in origin (78.4 %), unemployed (79.8%), and had chronic diseases (39.8 percent). When compared to studies of other free clinics, the majority of patients were women (55%), Hispanic (22%), and over half were unemployed.[10] According to Nadkarni, the average age in a Charlottesville North Carolina free clinic was less than 65 years old, 92.4 % white and/or black, 57.2% female, 8.3% unemployed, and 70% were treated for chronic illness.[11] This data is similar but does exhibit significant differences in race and those with chronic disease. This may be due to the fluctuations and settlement patterns in differing areas of the United States. For example according to Nadkarni in a clinic in Georgia targeting the homeless 73% were male and 63% were unemployed.[11] Variations in patient's population seem to account for these differences. Throughout the literature the majority of patients seen in free clinics were those with chronic diseases. The Charlottesville clinic study demonstrated a shift away from urgent care, towards chronic illnesses.[11] In a study of three free clinics; 55% were women, 45% of patients were between 20 and 44, 50% were unemployed, 22% were Hispanic, 40% were non-English speaking, and a staggering 81% were unemployed.[12] These numbers were very similar to the data at HOP.

Overall Significance of the Study Findings and Opportunities for Further Research

The importance of this study largely lies in the fact it is the first study of its' kind to be done on the patients who utilize HOP for their healthcare needs. It is imperative to provide this baseline analysis at HOP so that a comparison of future patient populations can be conducted, and to ensure that adequate health care can be given to the indigent

population in this area. Overall HOP has similarities in patient demographics with other studies done on free clinics. It will be of interest to conduct another study at HOP to see if the trends change. More research needs to be done of this type on all the free clinics in Kansas so that proper allocation of resources can be properly channeled into these clinics.

Conclusion

The indigent populations in the United States do not have adequate health care. There is a rising number of American's who lack insurance. Free clinics are one way to address this problem at a local level. According to the U.S. Census Bureau, more than 45 million Americans are without health insurance, and a substantial amount that have no access to health care.[13] Free clinics are just one way in which to address this growing problem. HOP is one such clinic that is serving many uninsured and indigent inhabitants in the Wichita area. This population has many chronic diseases that do not get adequately treated due to the lack of insurance and healthcare access. This study analyzes the patient demographics that seek care at HOP, and will provide imperative insight into properly assisting this population in the future.

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Appendix

Healthy Options for Planeview History and Physical Form

HEALTHY OPTIONS FOR PLANEVIEW

MEDICAL HISTORY AND PHYSICAL EXAMINATION FORM

LAST NAME	RACE ☐ African American ☐ Alaskan Native ☐ American Indian ☐ Caucasian ☐ Asian/Pacific Islander ☐ Hispanic ☐ Asian Subpopulation ☐ Other:	LANGUAGE INTERPRETER NEEDED ☐ YES ☐ NO	DOB (MO/DAY/YR)	AGE
FIRST NAME – MIDDLE INITIAL	SEX ☐ Male ☐ Female	ADDRESS FOR CONTACT (including ZIP code)		
OCCUPATION		TELEPHONE	DATE	

IMPORTANT NOTICE

Before Completion Of The Medical History And Physical Examination Form, The Patient Is Hereby Notified That:

Medical services will be provided by a Physician Assistant (PA) licensed by the Kansas Board of Healing Arts and from time-to-time, physician assistant students will be involved in providing medical care. The PA and PA students are medical volunteers; therefore, will be providing limited and "free" medical services. However, medications and recommendations for treatment and/or further evaluation may be at the expense of the patient. Diagnoses and treatments made by the PA will be delivered in accordance with the rules and regulations set by the Kansas Board of Healing Arts for PA practice and will be conditioned upon a patient's understanding of this notice as evidenced by their signature below.

I (Patient) Understand and Consent to Treatment by a Physician Assistant. ☐ Yes ☐ No

Patient Signature:_____

Guardian Signature (if applicable):

PATIENT'S PHYSICIAN NAME:

PAST MEDICAL HISTORY

HEALTH PROBLEMS	MEDICATIONS	ALLERGIES

HISTORY OF PRESENT ILLNESS

CHIEF COMPLAINT:

PAGE 1 OF 2

MEDICAL HISTORY AND PHYSICAL EXAMINATION FORM

LAST NAME

HEIGHT	WEIGHT	BLOOD PRESSURE	PULSE

RESPIRATIONS	TEMPERATURE	CORRECTED VISION L20: R20:

PHYSICAL EXAMINATION:

NORMAL	(CHECK EACH ITEM)	ABNORMAL	DESCRIBE ABNORMAL FINDINGS
☐	GENERAL	☐	
☐	SKIN	☐	
☐	HEAD AND NECK	☐	
☐	EENT/ORAL CAVITY	☐	
☐	BREAST	☐	
☐	LUNGS/CHEST	☐	
☐	HEART	☐	
☐	ABDOMEN	☐	
☐	BACK	☐	
☐	EXTREMITIES	☐	
☐	GENITAL/RECTAL	☐	
☐	NEUROLOGIC	☐	
☐	OTHER	☐	

DIAGNOSIS

PLAN

REFERRAL: ☐ YES ☐ NO TO:	DATE
SIGNATURE (S) OF EXAMINING CLINICIAN (S)	DATE

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Vita

Name: Jon Robert Humiston

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2006-2008	Master – Physician Assistant (M.P.A) Wichita State University, Wichita, Kansas
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