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**To Examine the Rate of Establishing a Primary Care Home in
Uninsured Unassigned Patients Referred from the Emergency
Department**

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Abstract:

Background: Currently, over 45 million people in the United States are uninsured. Many among the uninsured population are not established with a primary care provider and therefore utilize the Emergency Department (ED) for non-emergency concerns.

Investigators have examined the impact a primary care referral has on subsequent ED utilization. At University of New Mexico Hospital (UNMH), Murnik et al asked if scheduling follow-up visits for uninsured patients using the ED to a primary care clinic would decrease subsequent ED utilization. The follow-up visits were scheduled using the Community Access Program for Central New Mexico (CAP-NM) a HIPAA compliant web-based system developed to share medical information from UNMH-ED and a consortium of six safety net community primary care clinics. Murnik et al results showed a 31% reduction of ED visits in referred patients compared to the control group. However, the number of clinic follow up visits for referred patients not was determined.

Purpose: To determine the number of visits made to a primary care home by uninsured, unassigned patients referred from the emergency department.

Methods:

CAP-NM data base included 484 patients given a referral to primary care clinic between January 27, 2005 and November 30, 2005. The establishment of a “primary care home” was defined as at least two visits within a two-year period. Referral counts were limited to those made from the UNMH Emergency Ward to one of the First Choice Community Healthcare clinics.

Results:

There were 203/484 (42%) of referred patients that made one or more First Choice visit in the two years following the CAP referral. Of the 203, 103 (50%) had one visit; 35 (17%) had two visits; 27 (13%) had three visits; 12 (6%) had 4 visits; 11 (5%) had 5 visits; 3 (1%) had 6 visits; 4 (2%) had 7 visits; 2 (1%) had 8 visits; 4 (2%) had 9 visits; 1 (0.5%) had 10 visits; 1 (0.5%) had 11 visits; and 1 (0.5%) had 13 visits. Therefore, there were 101 out of the 484 (21%) who had two or more visits, meeting the criteria of having established a “medical home.”

Conclusions: This study of the First Choice Community Healthcare Clinic shows that referral of uninsured patients from the emergency department to a primary care home results in only one fifth of patients establishing a medical home. Further research is needed to determine effective interventions to increase patients’ establishing such a home.

Introduction:

Over 45 million Americans, or 1 out of 7 Americans, are uninsured. Eighty percent come from working families. Twenty percent are children. Lacking health insurance can result in significant negative health consequences. Studies have shown uninsured adults are less likely than their insured peers to seek preventive screenings for breast, cervical, and colorectal cancer.³ In the May 3, 2006 issue of JAMA, Ross et al reports findings from a cross-sectional study using survey data collected by the Center for Disease Control, 194,943 adults were questioned about receiving clinically indicated healthcare services and the results were stratified by health insurance coverage. Disparity between the insured and uninsured groups were found to be statistically significant ($p < .01$). For example, the insured population reported 90% for cervical cancer screening, 70% for breast cancer screening, and 50% for colorectal cancer. In contrast, the uninsured in the study reported far lower rates: 77% for cervical cancer screening, 52% for breast cancer screening, and 29% for colorectal screening.

In addition to an increase in morbidity and mortality rates for uninsured patients, the estimated 61 million uninsured and underinsured has lead to many challenges to the health care system.⁴ For instance, ED overcrowding is a national problem associated with the large number of uninsured patients seeking treatment in the emergency room. Thus, there is an increase of cost for hospitals, health care providers, and society due to this problem.

Studies^(9,10) have demonstrated that a high number of visits to the ED are primary care in nature. The question has been posed as to how to decrease use of the ED for

primary care. At the University of New Mexico Hospital (UNMH), Murnik et al conducted an investigation to determine if an assignment to a family medicine home of uninsured, unassigned patients from the ED could decrease subsequent ED utilization. This research was a collaborative effort between the Department of Family and Community Medicine, the University of New Mexico Hospital Emergency Department (UNMH-ED) and the Community Access Program of Central New Mexico (CAP-NM). CAP-NM offers a web-based referral system utilized at the UNMH-ED developed to assign follow-up appointments for self-pay patients to one of five safety net provider organizations: the University of New Mexico Health Sciences Center, First Choice Community Healthcare, First Nations Health Source, Albuquerque Healthcare for the Homeless, and the Albuquerque Indian Health Service. The main goal of this consortium is to increase access to medical care to the estimated 140,000 uninsured population in a four-county region of central New Mexico. Results of the study showed a 31% reduction of ED use by the assigned patients vs. a control group.¹¹ However, the percentage of referred patients who established a primary care home was not determined in previous studies.

Methods:

This study was approved by the University of New Mexico's Human Research Review Committee (HRRC) for the use of the CAP-NM database for investigative research.

CAP-NM developed a HIPAA-compliant; web-based information system used by the UNM-ED for referral of uninsured, unassigned patients to primary care medicine "homes" with a community clinic. Follow-up appointments were scheduled within one

to two days from ED visit and to the most accessible of the six safety net providers. Scheduling was available 24 hours a day, seven days a week. This study used the CAP-NM database to ascertain the percentage of referred patients out of UNMH-ED that subsequently establish a primary care home. In our study, we defined establishment of a primary care home as at least two visits to the clinic in two years.

It was decided that we would restrict our analysis to the participants assigned to First Choice Community Healthcare (FCCH), which included an estimated 80% of all CAP-NM participants. The data includes CAP visits starting in January 27, 2005. The establishment of a primary care home was defined as having made at least two visits in the two-year period. In order to have a complete two-year follow-up of the study patients, we utilized CAP referrals between January 27, 2005, and November 30, 2005. This resulted in a study sample size of 484 patients.

Results:

Table 1 records the number of First Choice clinic visits made by patients referred by the UNMH-ED over a two year period. This data does not specify if the study patients completed the initial referral appointment, or if they rescheduled or visited the clinic at a later date. Out of the 484 study patients, the majority (58%) did not show to a single clinic visit. The next largest percentage, (21%), of study patients were those who showed to one clinic visit. This left 21% of the study patients arriving for their primary care appointments two or more times, which qualified them as established in a primary care home.

We looked at the First Choice data to see how many visits were recorded within a thirty day period after referral. There were 130 of the 203 study patients who showed to one or more appointments within a thirty day period. There were an additional 73 who did not visit First Choice within thirty days, but did show at a later date. See Table 2.

Limitations

The data has the limitation of not being produced by a randomized control trial. A scientific limitation is the possible bias of referring ED physicians in the selection of CAP participants, for instance Murnik et al noted the patients referred were older on average. Moreover, other possible characteristic differences such as patient attitude toward follow- up appointment and existing comorbidities between referred vs. those not referred were not controlled for in the study design. These potential problems are lessened by the fact the research does not involve a comparison between referred patients and the control group. Rather, this study includes patients after scheduling has occurred.

Table 1. Number of visits by show ever

Frequency of visits	Number of patients	Percentage out of 484
0	281	58.06%
1	102	21.07%
2	35	7.23%
3	27	5.58%
4	12	2.48%
5	11	2.27%
6	3	0.62%
7	4	0.83%
8	2	0.41%
9	4	0.83%
10	1	0.21%
11	1	0.21%
12	0	0%
13	1	0.21%
Total	484	100%

Table 2. Percentage of First Choice visits within thirty days

Number of study patients who showed within 30 days of referral	Number of study patients who showed after 30 days of referral	Total number of study patients who showed one or more times.
64% (130 patients)	36% (73 patients)	203

Discussion

It is well known that ED overcrowding is a significant problem and many researchers have tested interventions designed to improve primary care use and decrease ED utilization for uninsured patients. For instance, Kaufman et al reported a significant reduction in hospitalization and cost when uninsured patients were assigned to primary care providers and were charged lower co-payments for visits, labs and medications; however the study failed to demonstrate a reduction in ED utilization.¹³

Moreover, investigators have demonstrated that the uninsured and underinsured tend not to be established with a primary care physician or medical home. Primary care physicians are defined as practitioners who are trained to provide initial contact, comprehensive and continuous care.⁵

The “medical home” model has been described as early as 1967 by the American Academy of Pediatrics’ Council on Pediatric Practice. The Council demonstrated the use of medical home model improved the effectiveness of caring for children with chronic medical conditions.⁶ The American College of Physicians (ACP) introduces the term “advanced medical home” in a policy monograph published in January 2006 to describe a patient centered, physician guided model of health care. The model calls for a change of emphasis from episodic compliant based care to more cost-efficient longitudinal care.⁷ The policy monograph discusses a number of the major problems with the health care system in the United States today and recommends a fundamental change in the way which primary care is delivered and financed. For example, recommendations include use

of evidence-based medicine and clinical support tools to guide decision making at the point of care based on patient-specific determinants.

Additionally, the American Academy of Family Physicians described the medical home in its Future of Family Medicine project. The results of the study advocated for a system-wide change toward establishment of patients to a primary care home for access to a consistent source of care for better health outcomes and protection against excessive health care cost.⁸

Research demonstrates that an efficient and cost effective way to provide health care includes patient assignment to a primary care home. However, many obstacles such as transportation, clinic hours, child care and cost contribute to the low number of patients who are established in a primary care home. This study demonstrates that establishment of a primary care home may require more effort than simply making a convenient appointment. Further research needs to be done to determine specific barriers and specific interventions that will increase the number of patients who can utilize primary care health services, thus, improving patient health care outcomes, decreasing cost, better management of preventative and long term health care, creating a healthier society.

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