Inequitable Access: Provider Characteristics and Reimbursement Policies of Primary Care Office Sites in Milwaukee

Alice R. Thomson, MS, MPH, RD, RN; Mary Jo Baisch, PhD, RN

ABSTRACT
Introduction: Availability of primary physician care is a key determinant of health care access. While inequities in access can be related to individual and health care system characteristics, this study focused on the organizational characteristics of the health care system and examined the availability and accessibility of primary care physician offices in Milwaukee, Wisconsin.

Methods: The study design was a secondary analysis of data extracted from a database of information about physician offices established for case management purposes. Analyzed data related to provider characteristics—geographic distribution, types of practice, hours of practice, and acceptance of new patients—and reimbursement policies.

Results: Results indicated there were barriers to primary care access in Milwaukee. Although the majority of physicians accepted new patients, most providers were available only during standard business hours, were located outside the center city, and limited acceptance of patients who were on Medicaid or had no health insurance.

Implications: Access improves when there is a medical home and a single clinician coordinating patient health care. This is the role of primary care, and this study supports the need for expanded availability of primary care practitioners.

INTRODUCTION
As reflected in the momentum for health reform, there is a need for equitable access to primary health care for all Americans. Inequities in care are related to differences in organizational characteristics of the health care system as well as individual patient characteristics such as income, educational level, race and ethnicity, and health insurance coverage. We conducted this study in 2006 to determine the accessibility of primary care physicians in Milwaukee County, Wisconsin, focusing on the organizational factors influencing access to primary care, including provider characteristics such as geographic distribution of primary care physician office sites, types of practice, hours of practice, and acceptance of new patients. We also studied reimbursement policies related to the payment sources accepted for primary care services.

Health issues continue to be a problem in Milwaukee. In the 2008 Wisconsin County Health Rankings, the city of Milwaukee ranked worse (68th) than Milwaukee County, which ranked 58th out of 72 counties in the state and the city for determinants of health care. Both the city and the county were ranked near the bottom with regard to the specific health care determinants: “did not receive needed health care” and other primary care outcome indicators (“poor diabetic care” and “no biennial mammography”). Results of this study could inform the organization of primary care practices to improve the accessibility of care in Milwaukee and Wisconsin.

Individual Characteristics
Two important individual characteristics impacting disparities in access to health care are poverty and race/ethnicity. The most important reason for disparities in access to health care is poverty. Residents of the city of Milwaukee were 2.5 times more likely to live in poverty than residents of Wisconsin as a whole. The difference in poverty rates was even more striking among children. The poverty and greater racial and ethnic diversity of the city of Milwaukee relative to the county, state, and nation is summarized in Table 1.
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Table 1. Comparison of the Demographics of the City of Milwaukee with Milwaukee County, Wisconsin, and Nation

<table>
<thead>
<tr>
<th></th>
<th>City of Milwaukee</th>
<th>Milwaukee County</th>
<th>Wisconsin</th>
<th>United States</th>
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</thead>
<tbody>
<tr>
<td>% Living in poverty</td>
<td>24.9%</td>
<td>15.3%</td>
<td>10.2%</td>
<td>12.4%</td>
</tr>
<tr>
<td>% Children living in poverty</td>
<td>32.0%</td>
<td>23.7%</td>
<td>11.2%</td>
<td>16.56%</td>
</tr>
<tr>
<td>% White</td>
<td>44.7%</td>
<td>65.6%</td>
<td>88.1%</td>
<td>75.1%</td>
</tr>
<tr>
<td>% African American</td>
<td>40.2%</td>
<td>24.6%</td>
<td>5.7%</td>
<td>12.3%</td>
</tr>
<tr>
<td>% Asian</td>
<td>3.6%</td>
<td>2.6%</td>
<td>2.0%</td>
<td>3.6%</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>14.5%</td>
<td>8.8%</td>
<td>4.5%</td>
<td>12.5%</td>
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Provider Characteristics

As defined by the Institute of Medicine,7 primary care practitioners can address a majority of health needs, facilitate the navigation of individuals through the health care system, and provide opportunities for health promotion and screening. The Commonwealth Fund 2006 Health Care Quality Survey found that access to care, receipt of routine preventive screenings, and management of chronic conditions all improve substantially when adults have a medical home and a single primary care provider.8 Organizational practice characteristics that are included as principles of patient centered medical homes include enhanced access to care, continuous care, care coordination, and enhanced payment for care coordination.

The Wisconsin Council on Medical Education and Workforce (WCMEW) anticipates the state will need an additional 13.5% primary care physicians by 2015 to adequately serve the needs of the population.9 WCMEW further reported that the physician shortage is already impacting the way primary care service is being delivered: wait times have lengthened, the acceptance of new patients has been limited, and advanced practice providers and physician assistants are being used more commonly. As a result of the primary care physician shortage in Wisconsin, many people in Milwaukee struggle to find access to primary health care.

While it is widely presumed that a health care safety net exists in the United States to provide minimal health care for all, the Institute of Medicine described this safety net—providing services for the uninsured and other vulnerable populations—as intact but “endangered.”12 Fifty-two percent of those uninsured for the entire year in Wisconsin reported having not had a check-up “in the past 2 years.” Twelve percent of those uninsured for the entire year reported having been treated in the emergency department in the past year, and 10% reported they did not receive needed medical care.11 In 2008, 25 free clinics in Milwaukee served approximately 16,000 patients a year via 48,000 visits,13 an increase in patients and visits of over 23% since 2006.14 Only 9 of these free clinics met the criteria of a medical home (open more than 20 hours per week),
further demonstrating the need for more consistent primary health care for these patients.

In Milwaukee County between 2005 and 2007, 16% of all residents (over 150,000 individuals) were enrolled in Medicaid, compared to 9% of all Wisconsin residents.\(^\text{15}\) Medicaid providers in Milwaukee County are reimbursed either through a contract with a health maintenance organization (HMO) or through fee-for-service payment mechanisms. The state of Wisconsin has required HMO enrollment for its Medicaid recipients in Milwaukee County since 1985, and this mechanism covers the vast majority of county Medicaid enrollees.\(^\text{16}\) Regarding fee-for-service in Wisconsin, Medicaid pays 73% of the Medicare level of reimbursement. Although this reimbursement rate is higher than the national average of 62%, many clinicians in the state still do not accept Medicaid as a source of reimbursement for these patients who often have complex health care needs.\(^\text{17}\)

For those living below the federal poverty guidelines who did not have health insurance and were not eligible for Medicaid, Milwaukee County offered a General Assistance Medical Program (GAMP).\(^\text{18}\) In 2008, the income eligibility for single adults for GAMP was restricted to those making about $10,000 or less annually. (The County Executive closed GAMP with 2008 budget cuts, and the state in turn developed the Wisconsin BadgerCare Plus Core Plan to accommodate this same population of very low-income adults.)

Organizational characteristics that impact disparities in health care delivery, such as the geographic distribution of providers, often parallels the income and racial segregation of underserved communities.\(^\text{19}\) Many residents of Milwaukee therefore are unable to get or to pay for health care.

**METHODS**

The study was a secondary analysis of survey data elicited to identify available primary physician practices for Milwaukee County. The initial survey was conducted in the summer of 2006 to obtain a referral list of primary care physician practices. Telephone calls were placed to every primary care practice in the local Yellow Pages\(^\text{20}\) listed under the headings of General and Family Practice, Obstetrics/Gynecology, Internal Medicine, and Pediatrics. The telephone book was chosen as the source of data because it was a commonly available source of information. Data collected included type of practice, office location(s), payment sources accepted, hours of service, and policies regarding new patient acceptance. Specific measures included length of office hours, including weekend/evening hours, and availability of urgent care. Data regarding reimbursement policies included the number of physicians accepting various types of payment sources accepted by physicians for more vulnerable populations—specifically Medicaid, GAMP, and/or sliding fee scales. Operational definitions for the variables investigated are included in Table 2. Upon a request for review, it was determined that the study did not require a Human Subjects Protocol Review because it was a study of business practices.

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**Table 2. Operational Definitions for Dependent Variables**

<table>
<thead>
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<th>Office</th>
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<td>A location where doctors practiced that uses distinct telephone numbers—as opposed to offices housed in a common building (eg, hospital). A given practice might have several offices at different locations. If at least 1 physician in an office was taking new patients, the office as a whole was counted as accepting new patients. Offices were designated as family and/or general practice, internal medicine, obstetrics/gynecology, or pediatrics.</td>
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<th>Sources of Payment</th>
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<td>Medicaid: Acceptance by the office of any patients enrolled in Medicaid, even if it was not accepting new Medicaid patients at that time.</td>
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<tr>
<td>Sliding fee scale: Acceptance by the office of any type of discount or flexible payment plan for those with no insurance.</td>
</tr>
<tr>
<td>Local county medical assistance program: Acceptance by the office of any patients enrolled in the local medical assistance program, even if it was not accepting new patients at that time in the program.</td>
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<tr>
<th>Urgent Care Services</th>
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<td>Services available for acute care concerns on a walk-in basis.</td>
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<th>Office Hours</th>
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<tr>
<td>All hours of practice during the week including evening, weekends, and walk-in or urgent care.</td>
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<tr>
<td>Weekend hours: Any hours of practice on Saturday or Sunday.</td>
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<tr>
<td>Hours after 5 PM: Offices that are open beyond 5 PM, 6 PM or 7 PM on at least 1 evening between Monday through Friday.</td>
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RESULTS

A total of 234 offices were identified, and 231 (98.7%) were contacted. Their distribution by type of practice is summarized in Table 3. Of the offices contacted, 7 indicated they were ending their practice. Two offices operated by a large regional integrated health care system were moving from the central city to more suburban areas. Their office space was assumed by 2 of the federally qualified health centers.

Geography of Primary Care

Out of 234 offices surveyed, 46 (20%) were located in either a HPSA or MUA (Table 3). There were clear differences along specialty lines in the distribution of offices within and outside of the HPSAs and MUAs. Family practice offices were most likely to be in an HPSA or MUA followed by pediatric offices. The percentage of family practice offices located in HPSAs and MUAs was double that of the pediatric offices. Figure 1 is a map of the location of the various practice types in relation to the HPSAs and MUAs in Milwaukee County. The MUAs and HPSAs are in neighborhoods with more dense populations of African Americans and Hispanics in the city. This map illustrates that most of the central city practices are located along Wisconsin Avenue (downtown) and along other major thoroughfares (Oklahoma Avenue to the south and Capitol Drive to the north). The map also indicates the distances between various office locations.

Hours of Service

Extended Hours—The survey of 234 offices revealed the following regarding available hours: 49 (21%) physician offices offered hours past 5 pm, 20 (8.5%) offered week-
end hours, and 11 (4.7%) offered urgent care/walk-in hours (Figure 2). Of the physician offices open past 5 PM, only 13 (26.5%) offered hours past 7 PM.

Urgent Care—Eleven offices (4.7%) provided urgent care or walk-in services. None were located in the HPSAs or MUAs. Few of these offices were identified as urgent care providers in the “Physicians” section of the telephone book. Some were listed under “Urgent Care.”

Acceptance of New Patients
While most offices (84%) accepted new patients, about 70% of these had qualifications regarding their acceptance. These varied by type of practice and are illustrated in Figures 3-6. The qualifications included about 30% that did not accept patients with Medicaid or could not explain their policy regarding Medicaid (N=71). About 60% would not accept self-pay patients (N=141), eg, they had no sliding scale arrangements. Some offices imposed a delay of several months in scheduling new patient visits after the initial request for services. This segment could not be quantified because it was noted only on those occasions when the information was volunteered by front office staff.

Payment Sources Accepted
Medicaid—The majority (70%) of surveyed offices accepted Medicaid (Figure 4). Again, many offices had qualifications to their acceptance of this source of payment (Figure 7). These qualifications varied by type of practice (ranging from 31% to 39%). Of those offices accepting Medicaid, 25% only accepted Medicaid direct fee-for-service coverage and 6% only accepted Medicaid managed care.

Sliding Fee Scales—Half or less of each type of practice offered a sliding scale payment option. More generous examples of these options reported by office staff included discounts to self-pay patients ranging from
10% to 45%. In some cases, patients were required to make a deposit of between 15% and full payment of the bill at the time of service in order to receive the discount. Two offices indicated the bill could be negotiated directly with the physician.

GAMP—Less than 10% of offices accepted the county-sponsored local medical assistance (N=23).

DISCUSSION
Hall et al. proposed that provider characteristics such as policies governing acceptance of new patients, hours of service, and ease of contact are critical in determining access to care. This study supported their findings in several ways and provided new information about provider characteristics and reimbursement policies.

Geographic Distribution
This study illustrates some of the complexities of analyzing the geographic distribution of physician practice sites. Many physicians provide care in several offices over the course of a work week, making it difficult to enumerate the number of practicing physicians in a given area. At the time of the last census, about 10% of city residents used the local bus system for their source of transportation in comparison to about 7% in the county and 2% in the state as a whole. We found that there may be several miles between the patient and the office within the city (Figure 1). When considering issues of access, it may be difficult for individual patients to determine the physician availability in relation to public transportation when physician schedules may vary daily.

Extended Hours
Few offices offered care outside of the traditional Monday through Friday, 8 AM to 5 PM work week. Hall et al. found that nearly two-thirds of providers in their survey did not offer extended hours. Our results indicated an even higher percentage (79%) did not offer extended hours. This clearly creates an accessibility issue for those whose employment circumstances preclude leaving work without loss of pay or risk of job loss as is frequently the case among hourly and/or lower-income employees.

Acceptance of New Patients and Availability of Contact Information
The process of gathering the data by telephone was chosen because the data was not otherwise available. At the time of this study, the Yellow Pages was still a central source of information used in seeking a health care provider. The Yellow Pages used for this survey did not provide information regarding either new patient acceptance or payment options either in the listings or in advertisements. These data were gathered by contacting offices directly via telephone. The process proved to be tedious, yet it is the means of gathering health provider information most available to many consumers. Those answering the telephones in primary care offices had varying levels of understanding of payment options.
Reimbursement Policies
The complexities of both private and public health insurance systems—particularly regarding Medicaid eligibility—make it difficult for consumers and front-office staff to ascertain whether a given payment source will cover services. Even though the vast majority of Medicaid patients in Milwaukee County are enrolled in HMO plans by state mandate, 25% of surveyed offices that accepted Medicaid reported not accepting patients with this form of Medicaid coverage. Capitated reimbursement rates and/or billing procedures of the Medicaid HMOs may be factors in acceptance of patients with this type of coverage.

Sliding Fee Scales
Information about the option for sliding fee scales was generally not published. In the study, we found great variation in the nature of these payment options. Some offices were relatively generous (eg, 45% discount for self-pay patients). Others put up considerable barriers to obtaining care (eg, requiring that a large deposit or full payment be made at the time of the visit). Requirements for immediate payment may create even greater accessibility barriers for urgent care services when a consumer is unable to plan for these episodic events.

Federally Funded Community Health Centers
Although these centers were not the focus of this study, in Milwaukee there are 3 federally funded (Section 330 of the US Public Health Service) community health centers offering services at 7 sites, and 1 federally funded “Health Care for the Homeless” program that offers services at an additional 5 sites in areas of the city where there are few other primary care practitioners. The services offered are mostly primary care: family practice, pediatrics, internal medicine, and obstetrics-gynecology. Other services offered include behavioral health, podiatry, pharmacy, and dental care. Hours vary, but Sixteenth Street Community Health Center (CHC), Milwaukee Health Services, and Health Care for the Homeless all offer evening hours at one of their sites. Hours vary by practice type, with pediatrics and family practice having the most hours open for service. Both Sixteenth Street CHC and Milwaukee Health Services provide urgent care in at least one of their clinics. Calls to the clinics indicated a wait ranging from 2 to 6 weeks for primary care appointments.

Limitations
Because this survey did not enumerate individual physicians, some physicians—and, in turn, their offices—may be listed under 2 types of practice, such as internal medicine and family medicine. Some primary care practices were not listed in the Yellow Pages telephone book under the heading “Physicians,” including federally qualified community health centers and free health clinics, which were listed as clinics. They were, therefore, not included in the database because individuals seeking health services may not look under other headings. The data was also limited by the brief verbal nature of the original survey.

CONCLUSION
Implications for Practice
Consumers increasingly are expected to play ever-greater roles in directing and managing their own care. Information that consumers need to locate an accessible physician—such as policies regarding new patient acceptance, payment sources, and business hours—generally need to be obtained by calling the physician office directly. Consumers need information that is easily readable and informative and that helps direct them to available primary care providers.

The findings of this study clearly point to a number of directives needed to address barriers to quality health care. Office managers need to routinely (and repeatedly) train and educate “frontline” office staff in a way that ensures their ability to provide complete, accurate, and timely information about the services their practice provides, as well as the accepted payment sources and procedures. Further, more accessible and reliable methods of disseminating this information are needed. Online directories are one such method. Unlike the telephone book or other sources, this information source can be updated frequently and provide detailed information. This method, however, is not suitable for those lacking access to and/or proficiency in computer technology. A recent survey of low-income clinic patients indicated that, although interested, many did not use the Internet to seek health information because they did not have access to computers and/or the Internet.

Access to primary care has been shown to mitigate the effects of health care disparities by providing continuous coordination of care that, in part, helps a vulnerable patient to navigate a highly fragmented health care system. Health care advocates providing care coordination must work aggressively to ensure their patients have a medical home. It should not be assumed that consumers are able to locate their own sources of primary care.

To address the nationwide shortage of accessible primary care clinicians, advocacy is needed for policies that support practice settings that are (1) located in HPSAs and MUAs, (2) willing to accept discounted
payment options, (3) able to accommodate Medicaid recipients, and (4) open for extended/flexible business hours. There is an increasing role for nurse practitioners to fill the void of primary care practitioners in urban areas. These practitioners have been found to be highly effective.\(^2\) Strategies, including accessible public transportation options and/or incentives to encourage physicians to locate their practices in central city neighborhoods, are needed to improve primary care access.

**Recommendations for Further Research**

Further research is needed to enumerate the number of physicians available, including the number of FTEs available in the community as a whole and within the HPSAs and MUAs. Shi and Starfield found that mortality in urban areas is related, in part, to the supply of physicians.\(^2\) More analysis is needed regarding the implementation of sliding fee scales and their impact on access to care. Another area warranting investigation is the quality of primary care services.

As the Internet becomes a more common source for information, this may be a more easily updated venue for information about physician availability. Studies are needed to determine the best sources for providing this type of information from the standpoint of both the consumer and the primary care practitioner.

Primary care services are difficult to access for many health care consumers. Information about primary care should be more accessible such as through online directories.\(^2\) Health professionals should not assume that health care consumers can locate their own sources of care. Reimbursement should be available for any needed case management. Access to primary care practices should be enhanced with extended hours, ease of contact and scheduling appointments, and acceptance of new patients regardless of their payment source. Primary care should reflect the concept of the advanced medical home. Making primary care more accessible can make the entire health care system more efficient and effective.

Many researchers have recognized that health insurance does not, by itself, ensure access to care. In particular, Hall et al.\(^2\) expanded the definition of health care access to include more than health insurance or a usual source of care: they included office practice policies governing acceptance of new patients, hours of service, and ease of contact accessibility as critical in determining access to care. This study continues the efforts of Hall et al.\(^2\) to more fully describe the characteristics that impact access to health care and reduce disparities.

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