

Enhancing the Capacity of Community Health Centers to Achieve High Performance



*Findings from the 2009 Commonwealth Fund
National Survey of Federally Qualified Health Centers*



Michelle M. Doty, Melinda K. Abrams,
Susan E. Hernandez, Kristof Stremikis, and Anne C. Beal

May 2010

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Findings from the 2009 Commonwealth Fund National Survey of Federally Qualified Health Centers

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ABSTRACT: Federally Qualified Health Centers (FQHCs) are community-based health centers that provide comprehensive primary care and behavioral and mental health services to patients regardless of ability to pay. Passage of federal health reform will likely increase demand for FQHC services. To assess these centers' ability to function as high-performing providers of care, in 2009 The Commonwealth Fund surveyed more than 1,000 FQHCs. Four-fifths responded to questions about access to care, coordination of care across settings, engagement in quality improvement and reporting, health information technology (HIT) adoption, and the ability to serve as patient-centered medical homes. Most FQHCs can provide timely on-site care; many have problems accessing off-site specialty care. Adoption of HIT is correlated with ability to monitor and improve patient care. Medical homes demonstrate significant advantages in coordination of off-site care. The survey highlights methods for strengthening FQHCs' ability to provide care. These include formalizing partnerships with hospitals, improving office systems, adopting the medical home model, and increasing use of HIT.

Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff. To learn more about new publications when they become available, visit the Fund's Web site and [register to receive e-mail alerts](#). Commonwealth Fund pub. no. 1392.

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ACKNOWLEDGMENTS

The authors would like to extend sincere thanks to the expert team at Harris Interactive for survey development and administration: Jordon Peugh, M.A., Nandita Murukutla, Ph.D., and Sandy Appelbaum, M.A. We would also like to thank our advisory committee, who provided advice on content and structure of the survey instrument, as well as invaluable insight on community health centers: Neil Calman, M.D., Marshall Chin, M.D., Kaytura L. Felix, M.D., Deborah Gurewich, Ph.D., Paul Kaye, M.D., Arthur Martinez, M.D., Sarah Scholle, Dr.P.H., M.P.H., Donald Shepard, Ph.D., Peter Shin, Ph.D., M.P.H., and David Stevens, M.D. We would also like to thank our reviewer, David Stevens, for his helpful comments. Finally, we thank The Commonwealth Fund's communications team for their invaluable editorial support.

Editorial support was provided by Liz Galst.

EXECUTIVE SUMMARY

Federally Qualified Health Centers (FQHCs) are community-based health centers that provide comprehensive primary health care and behavioral and mental health services to all patients regardless of their ability to pay or their health insurance status.¹ Located in medically underserved areas, FQHCs are a critical component of the health care safety net. FQHCs serve patient populations that are predominantly low-income, minority, and uninsured or rely heavily on public insurance. Over 1,000 health centers operate approximately 6,000 sites throughout the United States and territories. In 2010, these centers will serve an estimated 20 million patients.² The demand for health services provided by federally qualified health centers is likely to increase over time, particularly with the passage of the 2010 Patient Protection and Affordable Care Act, the nation's health care reform legislation.³ Since health centers play such a critical role in providing quality care to vulnerable populations, it is important to assess system capacity and spotlight areas where support for improvements can lead to increased access and quality of care.

In 2009, The Commonwealth Fund conducted a national survey of all federally qualified health centers in order to assess whether FQHCs have the capacity to function as high-performing sites of care. A total of 795 centers responded to questions about their patients' access to care, including after-hours or 24/7 care, as well as questions about obtaining specialist referrals and procedures; coordination of care among providers and across settings; and engagement in quality-improvement activities and performance reporting. The survey also assessed health information technology adoption, the ability to track patient information and manage patient care, and the identified opportunities to strengthen health center capacity to be patient-centered medical homes (PCMHs).

Survey findings indicate that many health centers can provide timely access to on-site care. Many centers face barriers, however, providing off-site specialty care services for their patients, even if these patients have insurance (Exhibit ES-1). Centers that are affiliated with hospitals, however, can more easily obtain off-site imaging or follow-up treatment for their patients. Affiliated centers also reported more timely communication with hospitals about the care their patients receive in the ER and hospital, such as being notified that their patients have been admitted and receiving a discharge summary from hospitals.

- Nearly all (91%) health centers reported it is somewhat or very difficult to get off-site specialist care for their uninsured patients; 71 percent and 49 percent of centers, respectively, reported it is difficult to get specialist care for their Medicaid fee-for-service patients and Medicare patients.
- Six of 10 centers without any hospital affiliation for referrals reported difficulty in obtaining off-site specialty care for their Medicare patients, compared with 46 percent that have hospital affiliations.

- Obtaining off-site specialty care for their uninsured patients remains difficult regardless of whether centers have referral affiliations.

The survey also finds that 40 percent of centers have electronic medical records (EMRs). Yet, the capacity for more advanced health information technology (HIT), such as electronically ordering prescriptions and tests, creating and maintaining patient registries, tracking patients and tests, and providing alerts or prompts remains highly variable among centers. Findings indicate that centers that have more advanced HIT systems are better able to track patient test results, generate information about their patients, and remind clinicians to provide patients with tests results or appropriate services at point of care (Exhibit ES-2). More advanced use of IT systems enables centers to better manage care coordination among providers and across settings of care, such as hospitals and ERs.

- Twice as many health centers with advanced HIT use indicate their providers receive alerts to provide patients with test results than do centers with the lowest IT functional capacity (51% vs. 25%).
- Forty-three percent of centers with advanced HIT use report that their providers will receive a prompt at point of care for appropriate services needed by patients; by comparison, just 10 percent of centers with low HIT use are able to do this.
- Fifty-five percent of centers with advanced HIT use can track referrals until a specialist consultation report returns to the referring provider; only 42 percent of centers with low IT use have this capacity.

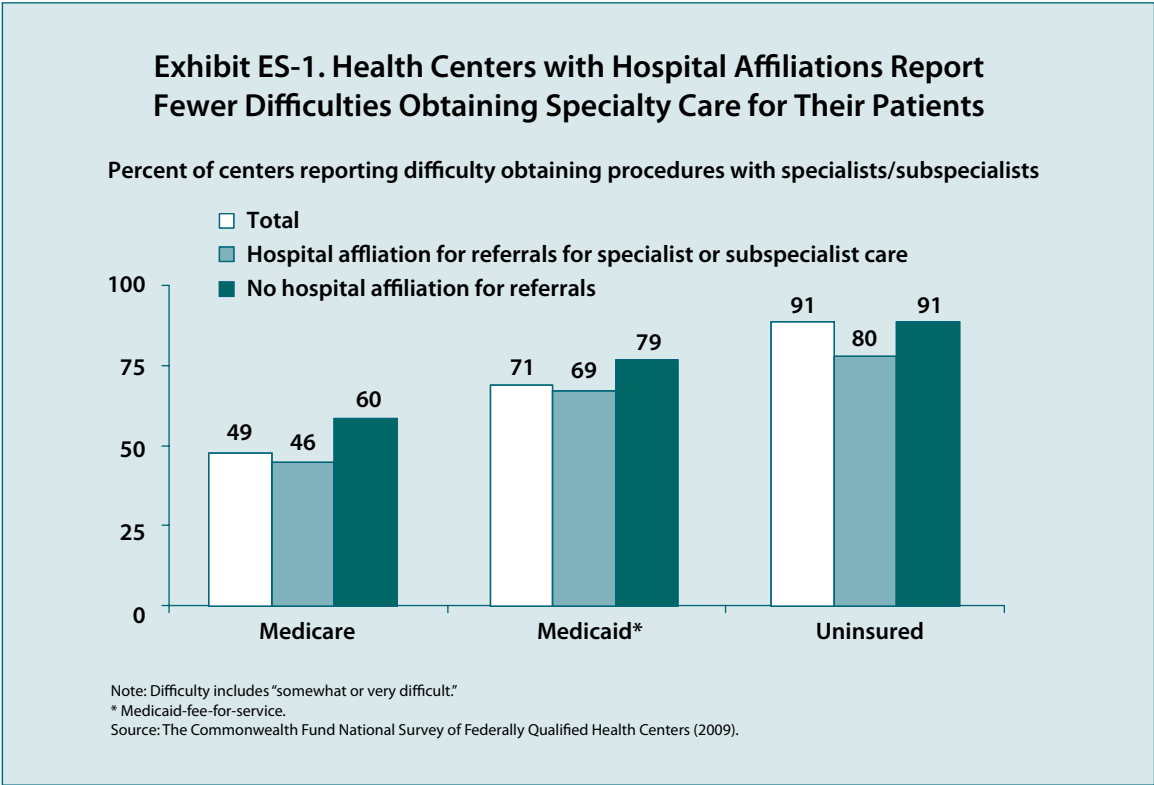
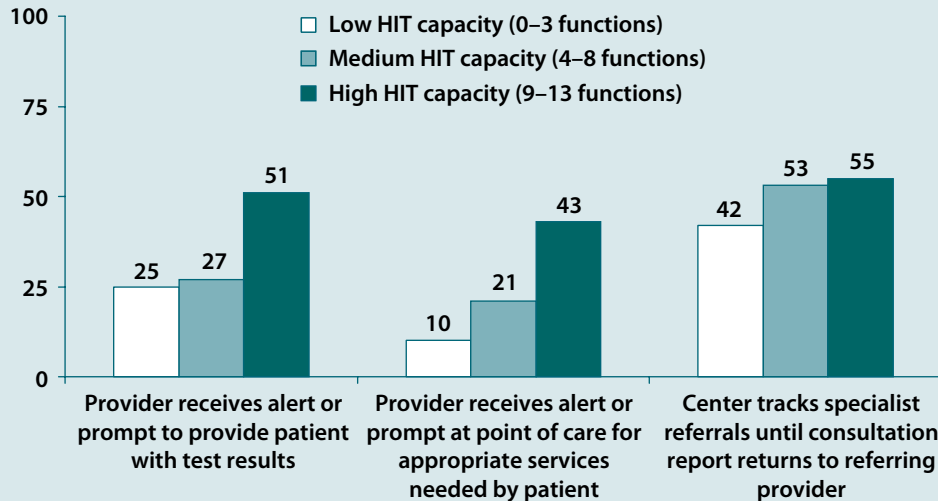


Exhibit ES-2. Clinics with Advanced Health Information Technology (HIT) Capacity Are More Likely to Alert and Prompt Providers to Provide Patients with Results and to Track Specialist Referrals

Percent of centers reporting the following usually occurs:

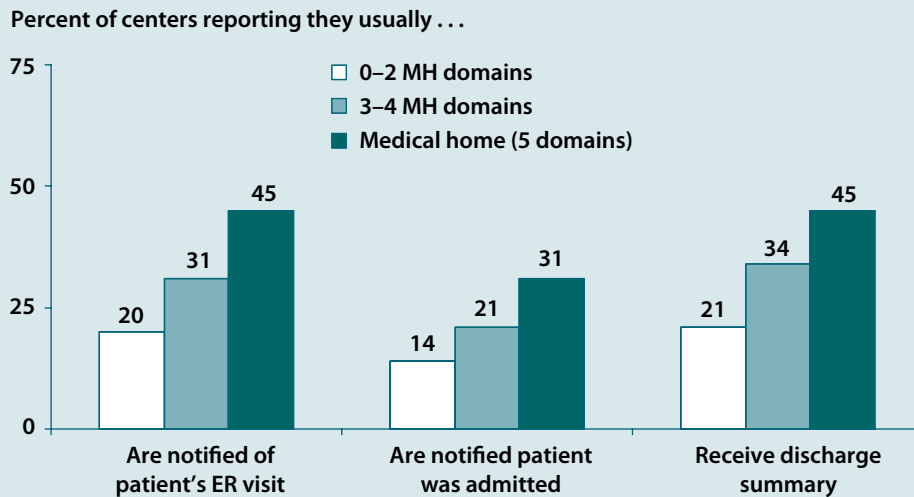


Note: Usually means 75% to 100% of the time.
Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

The survey also assesses FQHCs’ capacity to serve as patient-centered medical homes. These have been identified as models for delivering high-quality care and for reducing costs.^{4,5} Using the National Committee for Quality Assurance’s medical home measures as a guide, we created a scale to describe the stage of development of health centers as a “patient-centered medical home.” The findings indicate that although many federally qualified health centers possess capacity in a number of the PCMH domains, few report capacity in all five. Improved access, communication, and coordination between specialty care providers and local hospitals are characteristics of health centers with increased capacity to function as patient-centered medical homes. These findings point to the advantages of having the infrastructure and systems that are the hallmarks of medical homes in place when endeavoring to improve coordination of care beyond a health center’s walls.

- More than twice as many centers with all the attributes of a medical home are notified when their patients go to the ER, compared to centers with only a few PCMH attributes (45% vs. 20%) (Exhibit ES-3).
- A greater number of centers that have capacity in all five medical home domains receive a discharge summary from hospitals compared with centers that have just three to four domains or zero to two domains (45% vs. 34% vs. 21%, respectively).

Exhibit ES-3. Health Centers with Greater Medical Home Capacity Report Better Notification About Care Their Patients Receive in the ER and Hospital



Notes: Usually means 75% to 100% of the time. Medical home (MH) includes measures of access, patient tracking, and registry functions; test tracking, referral tracking, and performance reporting and improvement.
 Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Policy Recommendations

The health care reform bill passed recently by Congress calls for an increase in FQHC funding of \$11 billion over five years to support both services and expansions. Furthermore, community health centers should expect additional resources routed through various grant programs supporting workforce development and implementation of health information technology. The survey results show that this increased investment must be coupled with payment incentives and infrastructure support to ensure that existing and new centers continue to fulfill and strengthen their community-based mission as high-quality, comprehensive, patient-centered sites of primary care for our nation's most vulnerable populations.

Specifically, the survey results point to a number of ways in which federal and state leaders can help strengthen the nation's community health centers and achieve high performance. These priorities include: 1) developing a policy to support and facilitate health centers, specialty care providers, and public hospitals to formalize referral and coordination partnerships so that they can ensure mutual accountability for vulnerable patients; 2) encouraging health centers to improve office systems and processes that will enable them to function as patient-centered medical homes; 3) reforming payment to health centers in a way that will promote and sustain patient-centered medical homes; and, 4) forwarding adoption and use of health information technology (HIT), which will give health centers the ability to identify, track, and manage patients' health needs.

Enhancing the Capacity of Community Health Centers to Achieve High Performance

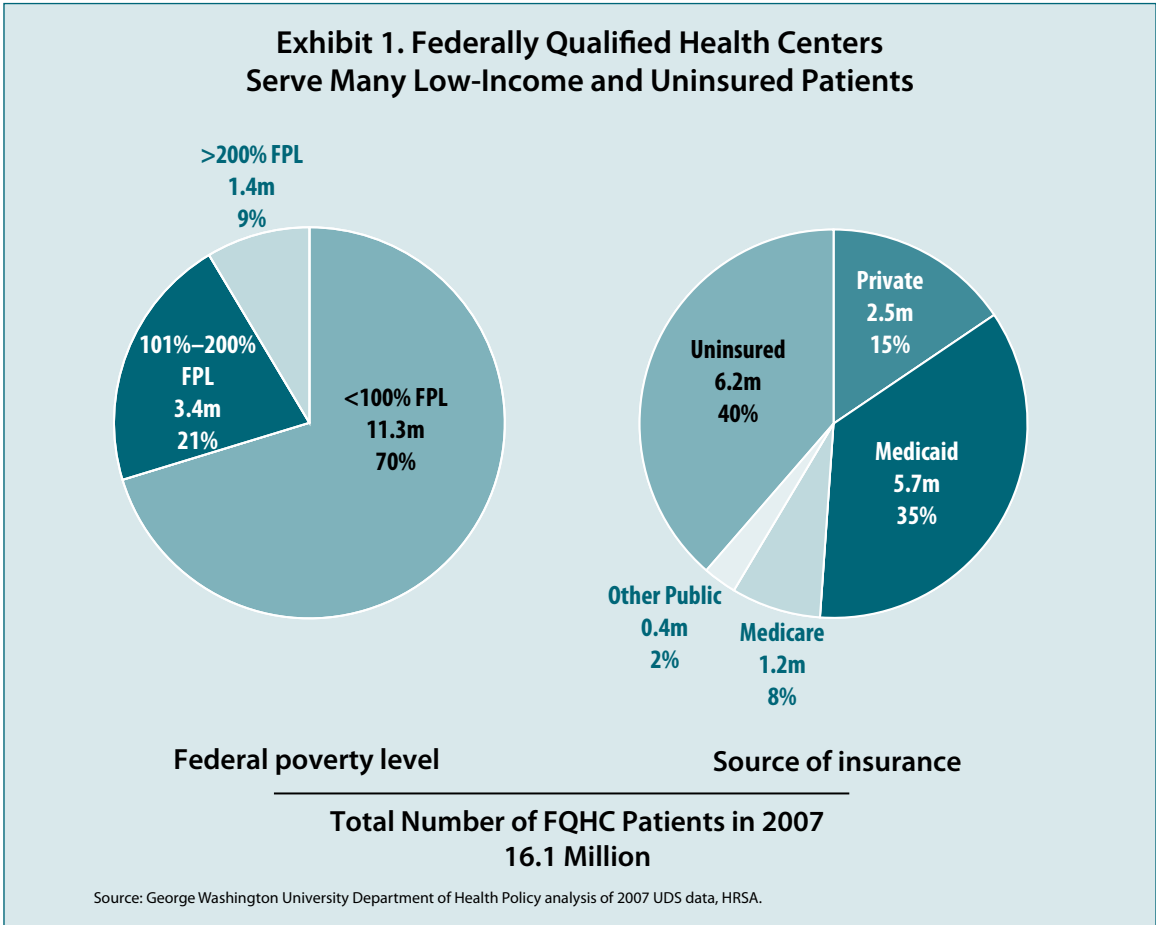
INTRODUCTION

Federally Qualified Health Centers (FQHCs) are community-based health centers that provide comprehensive primary health care and behavioral and mental health services to all patients regardless of their insurance status or ability to pay.⁶ Located in medically underserved areas, FQHCs are a critical component of the health care safety net. These centers serve patient populations that are predominantly low-income, minority, and uninsured or that rely heavily on public insurance. In 2007, over 1,000 health centers operated approximately 6,000 sites throughout the United States and territories and served an estimated 16 million patients. Of those patients, 90 percent live at or below 200 percent of the federal poverty level, 40 percent are uninsured, and 45 percent rely on public insurance (Exhibit 1).⁷

For the past 10 years, the federal government has stepped up its investment in community health centers to increase access and improve quality of care. A recent study found that federal investments made between 1996 and 2006 enabled centers to provide additional health care to uninsured or underinsured patients. These investments also translated into improved access to services such as 24-hour care, as well as mental health and substance abuse treatment and counseling.⁸

More recently, FQHCs received an additional \$2 billion in federal funding from the American Recovery and Reinvestment Act of 2009 in order to treat more uninsured patients during the recession, to upgrade their facilities, and to adopt health information technology systems.⁹ The recent passage of the health reform bill—the Patient Protection and Affordable Care Act—calls for an increase in FQHC funding of \$11 billion over five years, roughly doubling the program's federal budget. It is possible that the demand for health services in federally qualified health centers will increase much as it did in Massachusetts in 2006 after the passage of that state's comprehensive health reform.¹⁰ Since federally qualified health centers will continue to play a critical role in providing care to uninsured and underinsured patients and other vulnerable populations, describing FQHCs' current capacity and spotlighting areas where improvement can lead to improved access and quality of care are vitally important.

In 2009, The Commonwealth Fund conducted a national survey of all federally qualified health centers in order to assess whether they have the capacity to function as high-performing sites of care. A total of 795 centers responded to questions about their patients' access to care, including questions about after-hours or 24/7 care, about obtaining specialist referrals and procedures, about coordination of care between providers and across settings, and about engagement in quality improvement activities and performance reporting. The survey also assessed health information



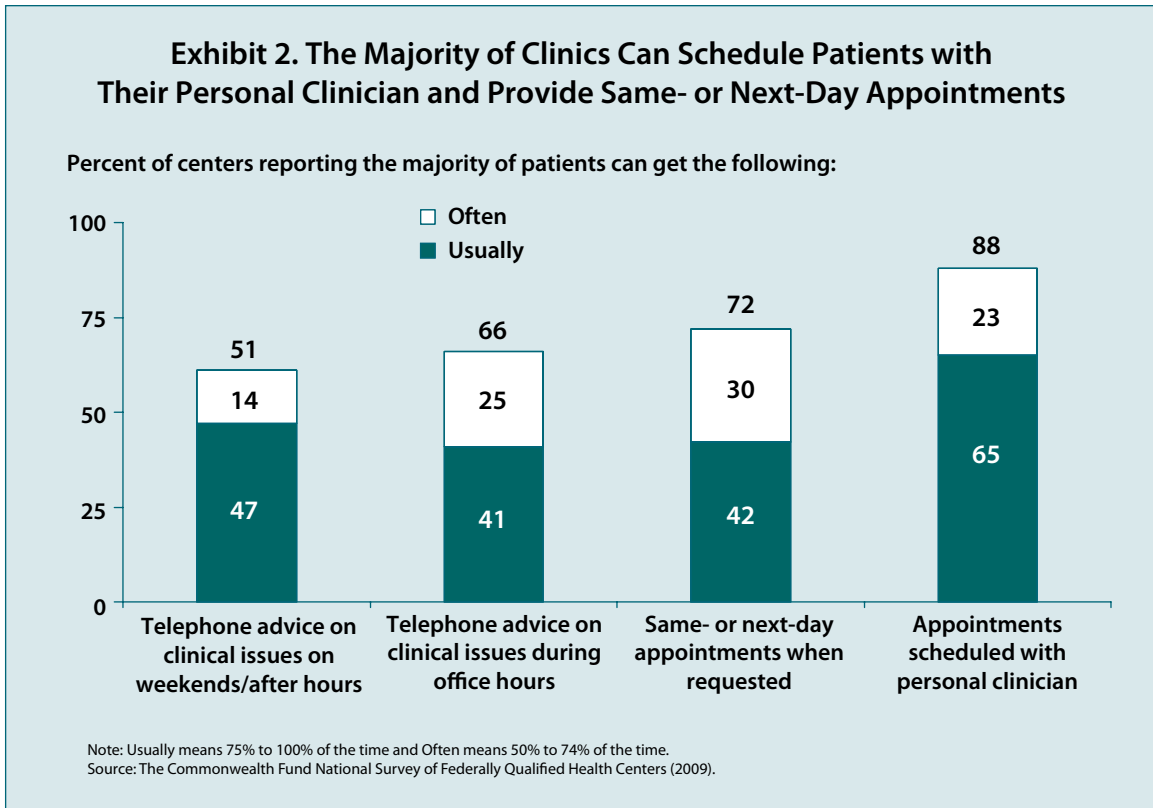
technology adoption, the ability to track and manage patient information, workforce issues, and the extent to which centers have attributes of a patient-centered medical home (PCMH).

The survey results point to a number of policy priorities for bolstering health centers’ capacity to achieve and sustain even higher levels of performance.

STUDY FINDINGS

Federally Qualified Health Centers Serve a Vulnerable Patient Population

A critical component of the government safety net, federally qualified health centers serve the most vulnerable U.S. populations, including large numbers of uninsured and low-income populations. Of the 16 million patients served by these centers, more than six million, or 40 percent of center patients, were uninsured, while another 5.7 million were covered by Medicaid (Exhibit 1). Just 15 percent of patients seen at FQHCs had some form of private health care coverage. Minority groups composed a disproportionate share of the total community health center patient base, with African American and Hispanic/Latino patients overrepresented relative to national estimates.



Most Centers Provide Enhanced Access to On-Site Care

A core component of a well-organized, high-performing health care system is timely access to appropriate care.¹¹ The majority of health centers provide accessible care to their patients within their practice sites (Exhibit 2). Nearly three-fourths (72%) of centers indicated that their patients are usually or often able to receive a same- or next-day appointment when they request one. Two-thirds of centers indicated that their patients can usually or often get telephone advice on clinical issues during office hours, although just one-half (51%) of centers can provide this telephone service in the evening or on weekends.

Many health centers, however, offer their patients flexible hours in the mornings and evenings for sick/urgent care as well as for regular or preventive health care visits. Nearly two-thirds (64%) of health centers have evening hours (after 6 p.m.) available for sick/urgent visits and 60 percent have evening hours for regular or preventive visits (Appendix Table 1). Similarly, more than half of centers have early morning hours (before 8:30 a.m.) available for sick/urgent visits (58%) and regular or preventive care visits (55%).

Signaling a gap in the availability of after-hours care, far fewer health centers can provide office hours during the weekends for either sick/urgent care or regular visits. Less than half—44 percent—have weekend hours available for sick/urgent care, while 37 percent have weekend hours available for regular or well visits. Availability of nontraditional office hours is important for patients served by health centers who often cite lack of scheduling flexibility as a barrier to health care.¹²

Considerable evidence demonstrates that patients value strong interpersonal relationships with their clinicians and that patients with ongoing care relationships are more likely to adhere to medical advice, report better health care quality, and are less likely to file medical malpractice claims.¹³ In population surveys, having a personal clinician also is associated with better rates of preventive care, such as cholesterol and blood pressure checks and cancer screenings: individuals with diabetes that have a personal clinician are also more likely to receive recommended care.¹⁴ The survey finds that nearly two-thirds (65%) of all centers can usually schedule patients with their personal clinician and another quarter (23%) can do so often. These data suggest that FQHCs are making great strides in establishing ongoing patient–clinician relationships.

Access to Off-Site Specialty Care Remains a Barrier, Even for the Insured

Although most health centers are able to offer their patients enhanced on-site access to preventive care, many centers face difficulties obtaining off-site specialty care for their patients (Exhibit 3). Getting timely appointments is as difficult as obtaining procedures. Nearly all (91%) health centers reported that it is somewhat or very difficult to obtain procedures with specialists for their uninsured patients. Health centers also struggle to get specialty and subspecialty care services for their *insured* patients—71 percent of health centers indicated it is very difficult or somewhat difficult to get procedures for their Medicaid fee-for-service patients and half (49%) of centers find it difficult to obtain these services for their Medicare patients and half (49%) of centers find it difficult to obtain these services for their Medicare patients.

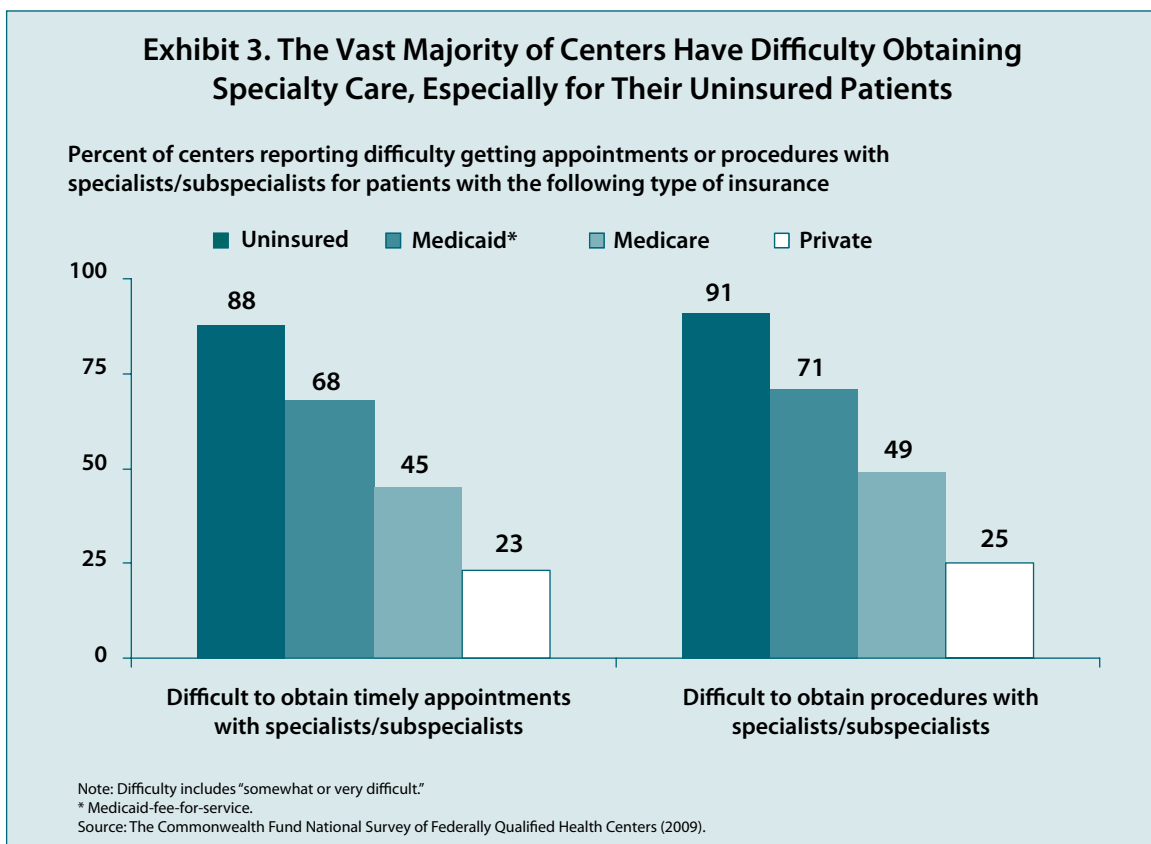
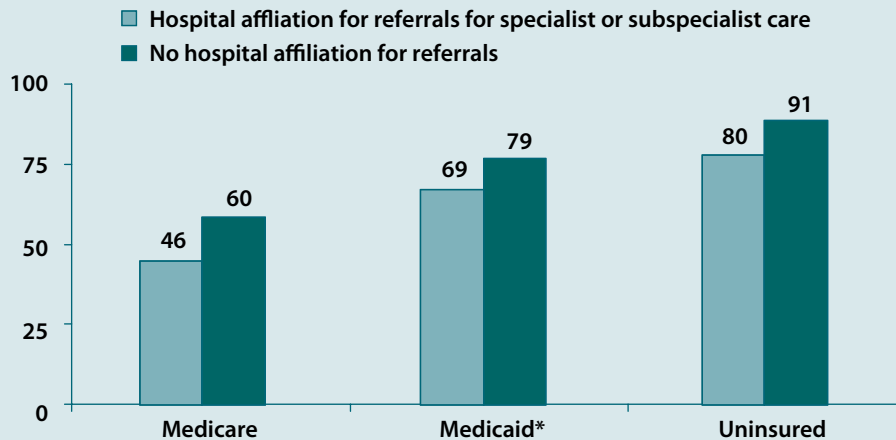


Exhibit 4. Health Centers with Hospital Affiliations Report Fewer Difficulties Obtaining Specialty Care for Their Patients

Percent of centers reporting difficulty obtaining procedures with specialists/subspecialists



Note: Difficulty includes "somewhat or very difficult."

* Medicaid-fee-for-service.

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

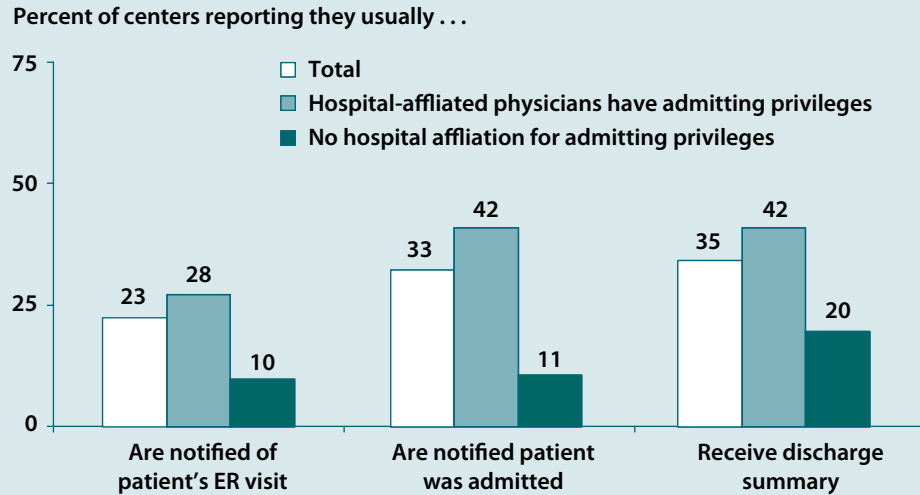
However, our study finds that having hospital affiliations can facilitate access to specialty medical services (Exhibit 4). Centers with hospital affiliations for referrals to specialist or subspecialist care reported less difficulty obtaining procedures for their Medicaid fee-for-service patients, compared to centers without an affiliation (69% vs. 79%). Forty-six percent of centers that have hospital affiliations for referrals reported difficulty in obtaining off-site specialty care for their Medicare patients, compared with 60 percent of centers without an affiliation. Obtaining specialty care for their uninsured patients, however, remains difficult regardless of whether centers have referral affiliations.

Health Centers Struggle to Provide Care Coordination Across Care Settings

Coordinating care among providers helps avoid duplicative tests and adverse drug interactions.^{15,16} Health centers struggle to provide effective care coordination for their patients across settings (Exhibit 5). Only 23 percent of centers reported that they are usually notified when their patient has had an emergency room (ER) visit, and only one-third are notified when their patient has been admitted; furthermore, only one-third (35%) of centers indicated that they receive discharge-summary reports from hospitals.

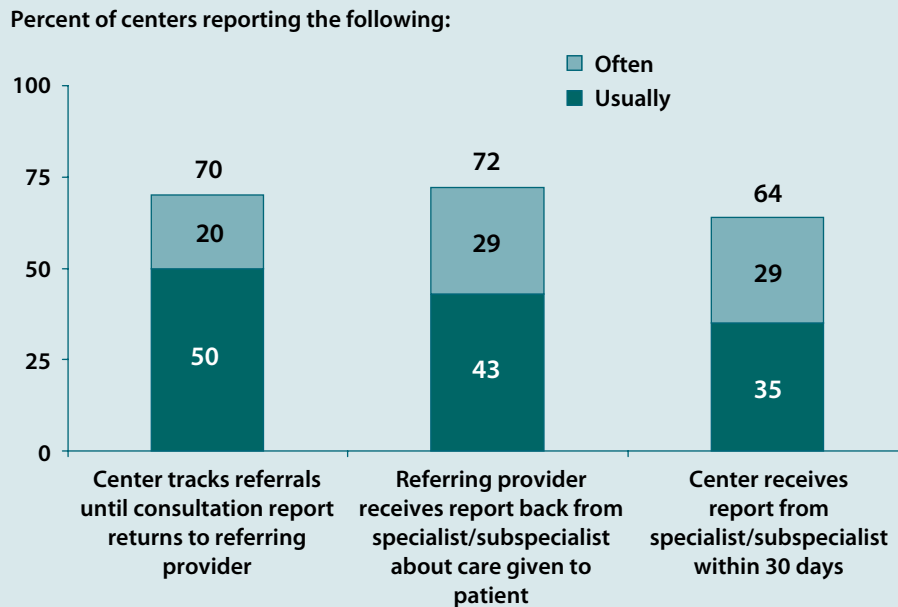
However, centers that have more formal arrangements with hospitals reported better communication with hospitals about the care their patients receive in the ER. Seventy percent of all health centers have hospital admitting privileges. Nearly three times as many health centers with physician admitting privileges (28%) reported that hospitals notify them that their patient has had

Exhibit 5. Health Centers with Admitting Privileges Are More Likely to Receive Notification About Patient Care



Notes: Usually means 75% to 100% of the time.
 Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Exhibit 6. The Majority of Centers Track and Receive Reports of Patient Care Provided by Off-Site Specialists



Note: Usually means 75% to 100% of the time and Often means 50% to 74% of the time.
 Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

an ER visit than do centers without this affiliation (10%). About four times as many centers with an affiliation (42%) indicated the hospital notified them that their patient has been admitted, compared to centers without an affiliation (11%). Furthermore, twice as many centers with admitting privileges (42%) receive a discharge summary or report from hospitals; centers without these privileges receive these reports only 20 percent of the time.

Many health centers have systems in place to track referrals to specialist and subspecialists (Exhibit 6). Seven of 10 centers indicated that they usually or often track referrals until the consultation report returns to the referring provider, and nearly three-quarters (72%) of centers indicated that the referring provider usually or often receives a report from the specialist about their patient's care. Yet, fewer centers find they receive these reports in a timely manner—just one third (35%) of centers usually receive specialists' reports within 30 days.

Even with hospital affiliations, coordination across sites of care remains difficult. Building stronger and more formal relationships can help overcome these barriers and may improve access to specialty care for patients as well as communication between health centers and hospitals. A recently discussed model of care—the accountable care organization (ACO)—is just one way to integrate outpatient primary care, specialty care, and hospital care in a formal structure that holds organizations jointly accountable for patients' health care quality and costs.¹⁷

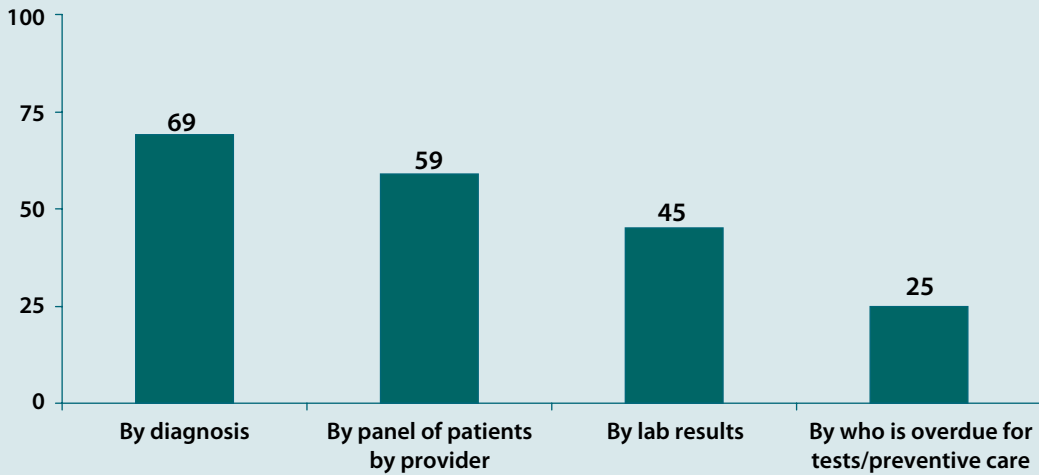
Most Health Centers Need to Improve Their Systems for Tracking Patients

The survey assessed a center's capacity to provide coordinated care by asking whether centers can easily collect, track, and monitor patient information. The survey asked—from easy to difficult—whether centers can generate lists of patients by diagnosis, medication, or by whether patients are overdue for preventive care services. Survey results showed that most centers can easily generate a list of patients by diagnosis (69%) or by provider (59%) using the records systems already in place (Exhibit 7). However, far fewer health centers are able to easily generate information about their patients by lab results (45%) or by which patients are overdue for tests or preventive care (25%).

The survey also gauged a center's ability to monitor and track patient lab tests, imaging results, or follow-up appointments (Exhibit 8). Most (69%) health centers reported that they can usually or often track ordered lab tests until the results reach clinicians. But fewer than half (46%) of centers indicated that their providers receive an alert or prompt to notify patients of test results. Many centers have limited access to processes that can prompt clinicians to provide appropriate preventive or follow-up care to patients. Just one-quarter (23%) of centers said providers can usually receive prompts about what appropriate services are needed by the patient at the time of service. Only 18 percent usually send patients reminder notices for preventive or follow-up care. This is unfortunate. Research shows that patients who receive reminders from their clinician are more likely to get preventive care such as cholesterol or blood pressure checks and cancer screenings.¹⁸

Exhibit 7. The Majority of Clinics Have Patient Registries, But Only 25 Percent Can Determine Which Patients Are Overdue for Tests or Preventive Care

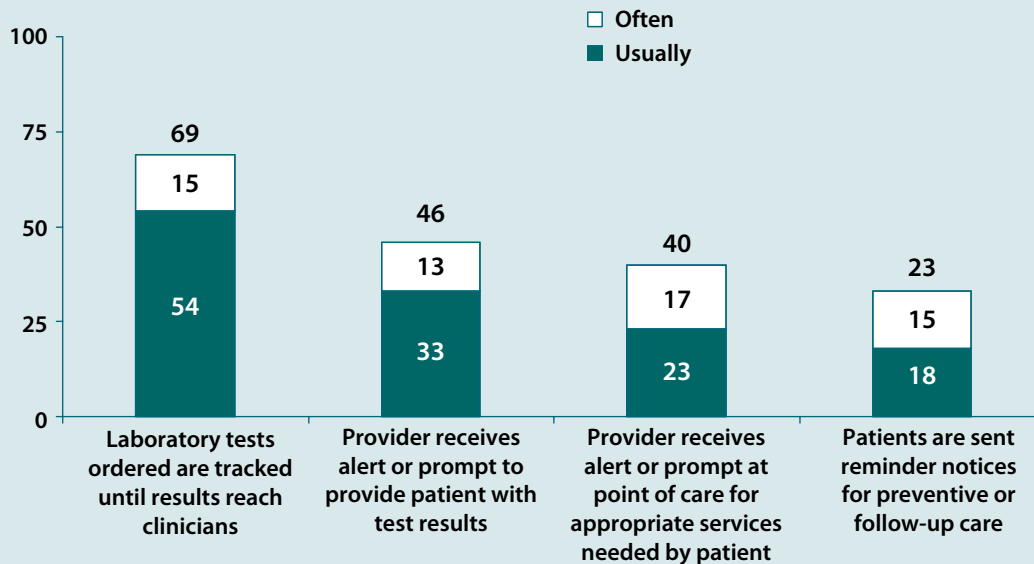
Percent of centers reporting it is easy to generate clinical information about the majority of their patients



Note: Easy means they can generate information about the majority of patients in less than 24 hours.
Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Exhibit 8. Many Clinics Track Lab Tests and Results But Have Limited Access to Alerts and Prompts to Provide Patient Results or Preventive Care Reminders

Percent of centers reporting the following:



Note: Usually means 75% to 100% of the time and Often means 50% to 74% of the time.
Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Adoption of Advanced Health Information Technology Is Highly Variable

The American Recovery and Reinvestment Act of 2009 (ARRA) provides \$2 billion in funding for 2009 and 2010 to help FQHCs serve the recently uninsured, to adopt and expand health information technology (HIT), and to improve infrastructure. The survey points to ways to strengthen current HIT system capacity that funding from ARRA can readily address.

Information systems offer clinicians valuable tools to better manage and coordinate the care of their patients. The survey asked about the use of health information technology and found that 40 percent of FQHCs reported using electronic medical records (EMRs) in their centers (Exhibit 9). This finding suggests that EMR use in community health centers has increased significantly in recent years. (The first national survey of FQHCs, conducted in 2006, found that only 26 percent of centers had some EMR capacity.¹⁹) The study also shows that EMR use in FQHCs almost parallels its use by clinicians who practice outside of FQHCs: a 2009 national survey of primary care physicians found that 46 percent of physicians not practicing in FQHCs are now using electronic medical records in their facilities.²⁰

Advanced use of HIT remains highly variable among centers. The survey asked whether centers had 13 different electronic systems for ordering prescriptions and tests, creating and maintaining patient registries, tracking patients and tests, and providing alerts or prompts. The survey found that 39 percent reported having zero to three HIT functions, 31 percent reported four to eight functions, and 30 percent reported nine to 13 functions. Impressively, more FQHCs have medium and high IT capacity (31% and 20%, respectively) than practitioners in other settings, according to a national sample of doctors.

Research has shown that computerized order entry and decision support have the potential to lower costs and save lives.²¹ Health centers were asked to describe their computerized systems to order medications, tests, and other functions. More than half (57%) of centers reported routinely using EMR to access patients' laboratory tests results. Forty-five percent routinely use EMRs to order laboratory tests electronically. However, fewer than four of 10 (38%) health centers use computerized systems to electronically enter clinical notes, issue medication alerts or prompts (38%), list medications taken by a patient (38%), and electronically prescribe medications (35%). These rates are comparable to those in a national survey of clinicians not practicing in community health centers (CHCs).

Respondents were also asked to describe their electronic systems for patient registries and tracking (Exhibit 9). A majority of centers reported using computerized processes to generate lists of patients by diagnosis (80%) and lab results (59%), substantially more than non-CHC providers (42% and 29%, respectively). Fewer (46%) CHCs reported that they electronically generate lists of patients who are due or overdue for tests or preventive care; still, only 29 percent of non-CHC providers reported that they can do this in their practice. The use of electronic systems to track patients and send reminders is also relatively low among CHCs. Slightly more than one-third (36%) of

centers can electronically track laboratory tests until results reach clinicians (36%). A similar number (34%) use electronic systems to send patients reminders that preventive or follow-up care is needed.

Exhibit 9. Health Information Systems: Functional Capacity

	CHC Total	PCP Total
Unweighted N=	795	1,349
Overall Information Technology Capacity	%	%
Low (0–3 functions)	39	52
Medium (4–8 functions)	31	24
High (9–13 functions)	30	24
Computerized Systems to Order Medications, Tests, and Other Functions		
1) Has electronic medical records (EMRs) throughout health center	40	46
<i>Routinely use the following technologies:</i>		
2) Electronic access to patients' laboratory tests results	57	59
3) Electronic ordering of laboratory tests	45	38
4) Electronic entry of clinical notes, including medical history and follow-up notes	38	42
5) Electronic alerts or prompts about a potential problem with drug dose or drug interaction	38	37
6) Electronic list of all medications taken by a patient (including those prescribed by other doctors)	38	31
7) Electronic prescribing of medication	35	40
Electronic Systems for Patient Registries		
<i>Use computerized process to generate the following information:</i>		
8) List of patients by diagnosis	80	42
9) List of patients by lab result	59	29
10) List of patients who are due or overdue for tests or preventive care	46	29
Electronic Systems to Track Patients, Tests, and Send Reminders for Preventive Care		
<i>Use computerized process for the following tasks:</i>		
11) Laboratory tests ordered are tracked until results reach clinicians	36	28
12) Patients receive reminder notices when regular preventive or follow-up care is due	34	18
13) Provider receives an alert or prompt to provide patients with test results	28	23

Note: CHC is community health center; PCP is primary care physician.
Sources: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009); The Commonwealth Fund International Health Policy Survey of Primary Care Physicians (2009).

The Use of Advanced HIT Facilitates Management of Patient Information, Tracking, and Care Coordination Among Providers

Centers that have substantial health information technology capacity can more easily generate information about their patients and notify their providers to provide patients with tests results or appropriate services at point of care. For example, more than twice as many health centers with high HIT capacity indicated their providers receive alerts to provide patients with test results than do providers at centers with the lowest HIT capacity (51% vs. 25%) (Exhibit 10). Furthermore, nearly half of clinics with high HIT capacity are able to easily generate a list of patients that are due or overdue for tests or preventive care (47%) or by health risk (48%). These figures compare with just 9 percent and 12 percent, respectively, for clinics with the lowest HIT functionality (Exhibit 11).

Centers that have the capacity to use more advanced HIT are also better able to manage coordination between multiple providers by tracking referrals and ensuring timely receipt of reports from specialists (Exhibit 12). More than half of centers with advanced HIT usually track referrals until the consultation report returns to the referring provider, whereas only 42 percent of centers with low HIT capacity do. In addition, centers with advanced HIT capacity are more likely to get timely receipt of specialist reports: 44 percent of centers with advanced HIT receive reports from specialists/subspecialists within 30 days, compared with just 32 percent of centers with low HIT capacity. Clearly, enhancing a center's HIT capacity can significantly improve patient care and coordination.

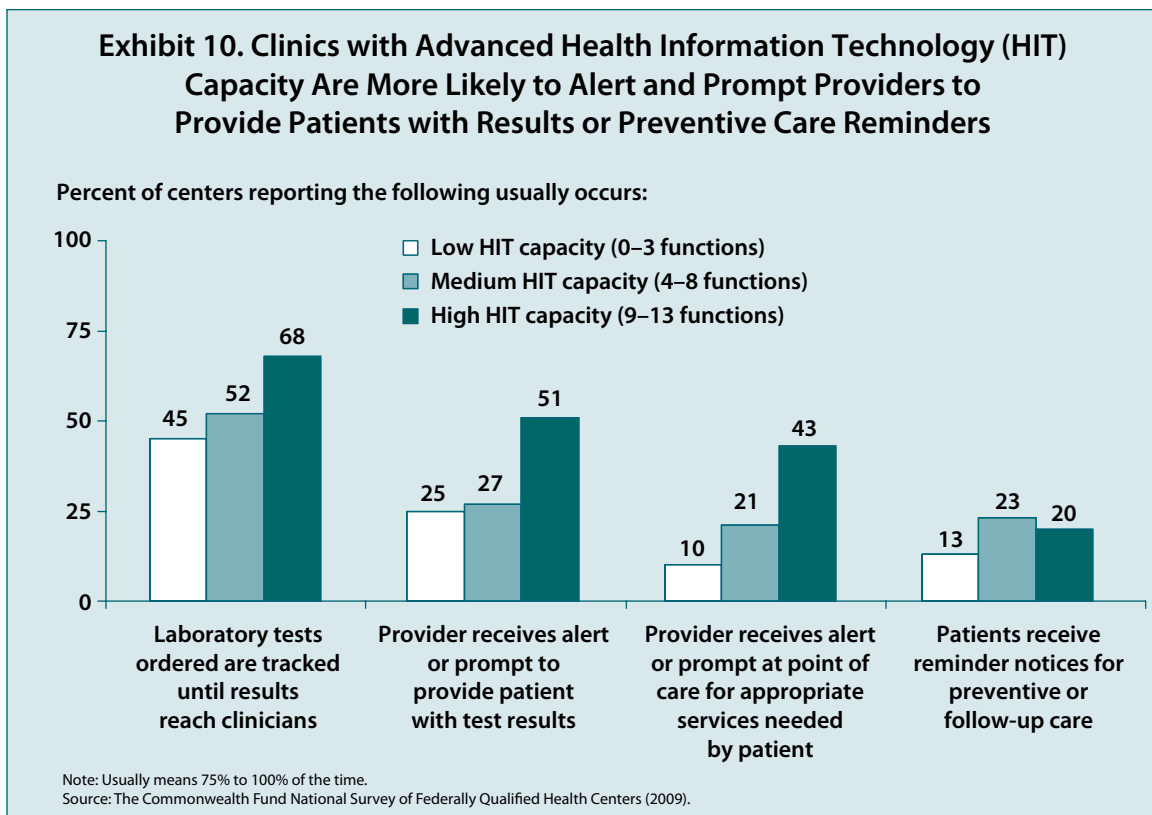
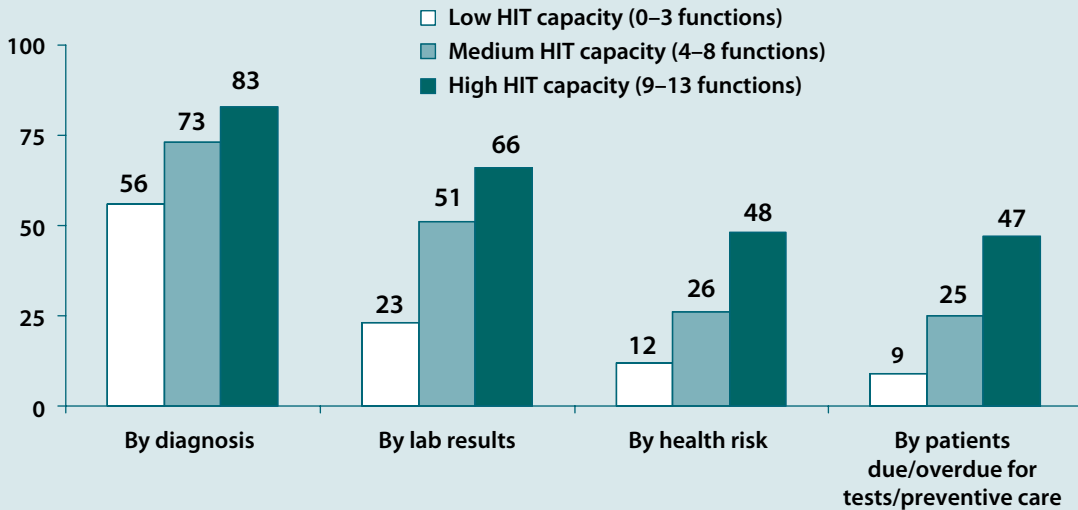


Exhibit 11. Clinics with Advanced Health Information Technology (HIT) Capacity Can Easily Generate Information About Their Patients

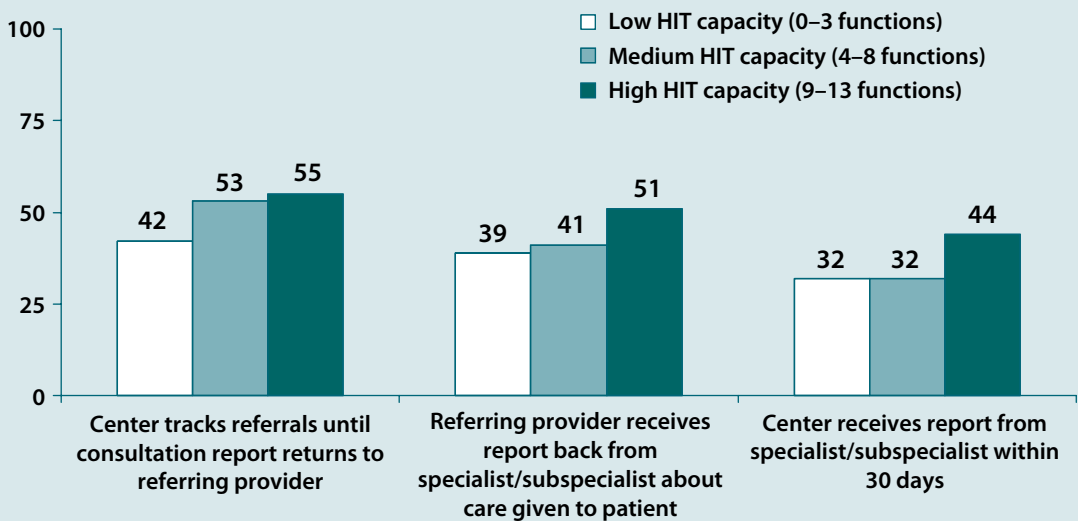
Percent of centers reporting it is easy to generate clinical information about the majority of their patients



Note: Easy means they can generate information about the majority of patients in less than 24 hours.
Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Exhibit 12. Clinics with Advanced Health Information Technology (HIT) Capacity Can More Easily Manage Care Between Multiple Providers

Percent of centers reporting the following usually occurs:



Note: Usually means 75% to 100% of the time.
Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Exhibit 13. Performance Reporting and Quality Improvement Activities

	CHC Total
Unweighted N=	758
Performance Reporting: Performance data are collected on clinical outcomes or patient satisfaction surveys and reported at the provider or practice level	99%
Quality improvement activities include:	
1) Setting goals based on measurement results	97%
2) Taking action to improve performance of individual physicians	87%
3) Taking action to improve performance of the specialty practices	99%
4) Taking action to improve performance of the center as a whole	99%
All four quality improvement activities	85%

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Nearly All Centers Report Performance Data and Pursue Quality Improvement

Health centers have been very successful at adopting performance reporting. In fact, nearly all (99%) health centers indicate that they collect and report performance data at the provider and/or practice level in order to analyze clinical outcomes (Exhibit 13). Health centers also use these data to gauge patient satisfaction. Widespread success in this area is the result of federal policy: as recipients of Section 330 funding, health centers must have ongoing quality improvement/assurance programs.

Performance reporting efforts also have been buttressed by a U.S. Health Services and Resources Administration (HRSA) program that, between 1998 and 2007, led and supported a series of Health Disparities Collaboratives. These collaboratives provided hands-on technical assistance to improve the quality of care in health centers and to reduce racial and ethnic disparities through implementation of the Wagner chronic care model, the application of improvement science, and the development of enhanced or new strategic partnerships at the local and national levels.^{22,23} Eighty-five percent of the centers responding to the Commonwealth Fund Survey of Federally Qualified Health Centers participated in these collaboratives.

In a high-performing health care delivery system, providers and health system leaders continuously learn and apply their knowledge to improve the quality, value, and patients' health care experiences.²⁴ Nearly all FQHCs participate in quality improvement activities, in particular in activities that improve the performance of the center (99%), that enhance specialty practices (99%), and help set goals based on measurement results (97%) (Exhibit 13). Centers that have specific resources for quality improvement (QI), such as a dedicated staff, information systems, financial support, staff training or staff recognition, are more likely to participate in QI activities (data not shown).

Many Health Centers Possess Some Medical Home Attributes, but Few Possess All

The patient-centered medical home is an approach to providing individualized care in primary care settings. It has been identified as a model for delivering high-quality care, reducing racial and ethnic disparities, and reducing costs.^{25,26} This model organizes care around the relationship between the patient and the personal clinician. Although multiple accreditation programs exist, the measures developed by the National Committee for Quality Assurance (NCQA) are the most widely used set of standards for evaluating an organization's development and implementation of the systems necessary to function as a patient-centered medical home.²⁷ The NCQA metrics (PCC-PCMH) assess how effectively physician practices use health information technology, establish processes to coordinate care, and redesign office practices in order provide patient-centered care.²⁸ A physician practice must score above a certain threshold score and also show proficiency in at least five of 10 specific priority areas ("must pass" elements) to meet the entry-level criteria as a medical home.^{29,30}

Loosely modeled on the NCQA PCC-PCMH framework, we created a medical-home scale that prioritized office systems and processes in five domains. Centers were scored on their ability to: 1) "usually" provide patients with same-/next-day appointments, or "usually" provide patients with telephone advice on clinical issues during office hours or on weekends or after-hours; 2) easily generate a list of patients by diagnosis using the center's medical records system; 3) "usually" or "often" track referrals until the consultation report returns to the referring provider; 4) "usually" track laboratory tests until the results reach clinicians or "usually" alert or prompt clinicians to provide patients with test results; and 5) collect and report data on clinical outcomes or patient satisfaction surveys. These data were reported either at the provider or practice level. Centers were grouped by whether they had capacity in all five domains, three to four domains, or two or fewer domains.³¹

The health center model of comprehensive primary care encompasses the NCQA definition of medical home. However, survey findings indicate that more work and support is needed to ensure that all centers demonstrate the capacity to address all five domains of the patient-centered medical home.³² Most surveyed health centers possess some attributes of a PCMH model. But less than one of three (29%) health centers has the system capacity in all five domains. More than half have capacity in three to four areas (Exhibit 14).

Seven of 10 (71%) FQHCs can "usually" provide patients with same-/next-day appointments, or can "usually" provide patients with telephone advice on clinical issues during office hours or on weekends or after-hours. The majority of FQHCs also reported that they have office systems which allow them to easily generate lists of patients by diagnosis (69%) or easily track referrals until the consultation report returns to the referring provider (70%). However, health centers need better systems to track lab results—only six of 10 centers reported that their lab tests are usually tracked until the results reach the physician or that providers usually receive alerts to provide patients with test results.

Exhibit 14. Indicators of a Medical Home

Indicators of Medical Home	Total
Medical Home Capacity—Total Number of NCQA Domains	
Capacity in All 5 Domains	29%
Capacity in 3 to 4 Domains	55%
Capacity in 0 to 2 Domains	16%
1) NCQA Domain—Patient Tracking and Registry Functions: Can easily generate a list of patients by diagnosis with the current patient medical records system	69%
2) NCQA Domain—Test Tracking: Provider usually receives an alert or prompt to provide patients with test results; or laboratory test ordered are usually tracked until results reach clinicians	60%
3) NCQA Domain—Referral Tracking: When clinic patients are referred to specialists or subspecialists outside largest site, center usually or often tracks referrals until the consultation report returns to the referring provider	70%
4) NCQA Domain—Enhanced Access and Communication: Patients usually are able to receive same- or next-day appointments, can get telephone advice on clinical issues during office hours or on weekends/after hours	71%
5) NCQA Domain—Performance Reporting and Improvement: Performance data are collected on clinical outcomes or patient satisfaction surveys and reported at the provider or practice level	99%

Notes: Easily means they can generate information about the majority of patients in less than 24 hours. Usually means 75% to 100% of the time and Often means 50% to 74% of the time. Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Centers with larger proportions of uninsured and minority populations are less likely to possess office systems in all five domains. Nearly four of 10 (38%) health centers with two or fewer medical home domains treat large proportions of uninsured patients. That figure compares with one of three (29%) centers that have capacity in all five domains ([Appendix Table 4](#)). Nearly six of 10 (58%) centers with few medical home domains serve a large proportion of minority patients, compared with 46 percent of medical homes with all five domains.

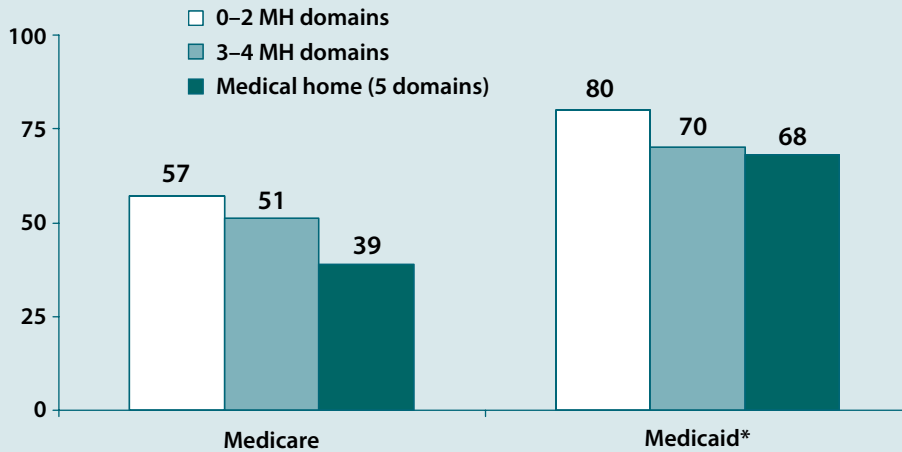
More Medical Home Attributes Linked to Better Care Coordination, Fewer Physician and Nurse Shortages

Overall, health centers with a greater number of medical home features are able to provide better coordination of care for their patients. This is true, in part, because these centers are more likely to have affiliations with hospitals for referrals and admitting privileges. Nearly six of 10 (57%) centers with the fewest number of medical home domains have difficulty obtaining specialty care for their Medicare patients, while only four of 10 (39%) centers with capacity in all five medical home domains have this difficulty ([Exhibit 15](#)). The pattern is similar for access to specialty care for Medicaid patients.

In addition, centers with greater medical home capacity are significantly more likely to be notified about the care that their patients receive in ER departments or when admitted to local

Exhibit 15. Health Centers with Greater Medical Home Capacity Report Fewer Difficulties Obtaining Specialty Care for Their Patients

Percent of centers reporting difficulty obtaining procedures with specialists/subspecialists



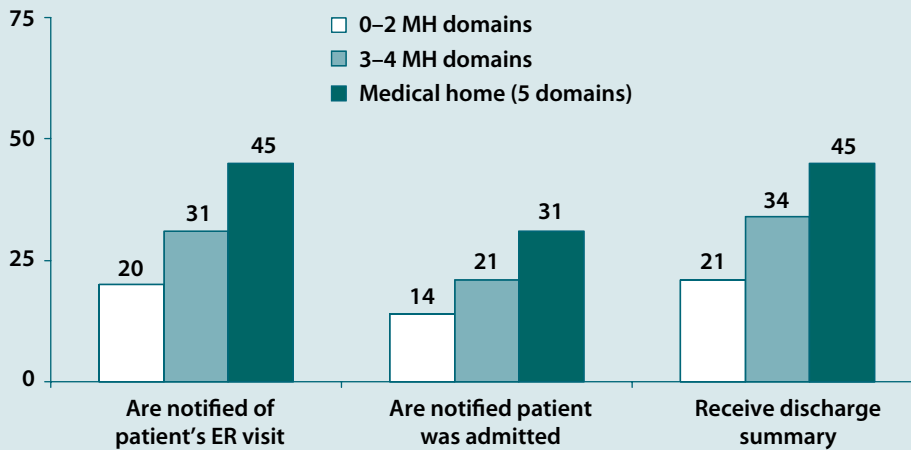
Notes: Difficulty includes "somewhat or very difficult." Medical home (MH) includes measures of access, patient tracking, and registry functions; test tracking, referral tracking, and performance reporting and improvement.

* Medicaid-fee-for-service.

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Exhibit 16. Health Centers with Greater Medical Home Capacity Report Better Notification About Care Their Patients Receive in the ER and Hospital

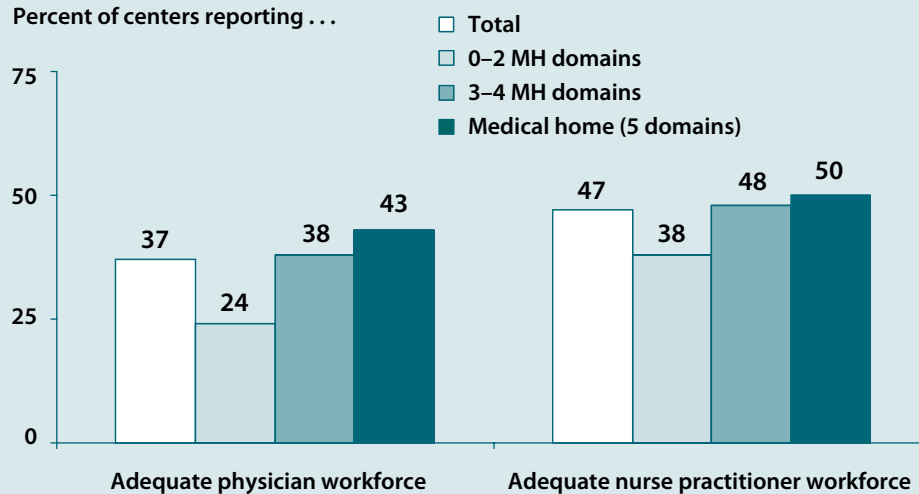
Percent of centers reporting they usually ...



Notes: Usually means 75% to 100% of the time. Medical home (MH) includes measures of access, patient tracking, and registry functions; test tracking, referral tracking, and performance reporting and improvement.

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Exhibit 17. Health Centers with Greater Medical Home Capacity Are More Likely to Report They Have an Adequate Workforce and Do Not Face Physician or Nurse Practitioner Shortages



Note: Medical home (MH) includes measures of access, patient tracking and registry functions; test tracking, referral tracking, and performance reporting and improvement.
 Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

hospitals (Exhibit 16). More than twice as many centers with developed capacity in all five medical home domains are notified when their patients go to the ER than are those with the fewest domains (45% vs. 20%). That pattern continues when patients are admitted to the hospital (31% vs. 14%). Furthermore, far more centers that have capacity in all five medical home domains receive a discharge summary (45%) than centers that have just three to four domains or zero to two domains (34% and 21%, respectively). These findings point to the fact that the ability to improve coordination of care beyond the walls of the center can depend on strong relationships within the local health system as well as the infrastructure and systems that are the hallmarks of medical homes.

The survey also found that health centers with greater medical home capacity were more likely to report they have an adequate workforce and do not face shortages of physicians or nurse practitioners (Exhibit 17). A recent evaluation of a medical home program (with commercial payers) found that clinicians and staff report greater job satisfaction than their colleagues working in non-medical home environments.³³ Increased staff job satisfaction improves a center’s ability to retain staff. Thus, increasing medical home capacity can help address centers’ chronic struggles with maintaining steady workforces.

CONCLUSIONS AND POLICY IMPLICATIONS

To deliver primary care effectively in community health centers and achieve high performance, health centers need to provide patients with easy access to care and well-coordinated services. Findings from The Commonwealth Fund's National Survey of Federally Qualified Health Centers confirm other study findings. Most FQHCs are able to provide enhanced access to care within their own clinics. But access to off-site specialty care remains an ongoing barrier, especially for uninsured patients. Health centers that are affiliated with local hospitals for referrals have an easier time accessing specialty care for their patients than do centers without these affiliations. Furthermore, having hospital affiliations and the infrastructure and systems that are needed to be recognized as patient-centered medical homes improve coordination and communication about patient care among health centers and local hospitals.

The survey also found that despite increased electronic medical record penetration, the capacity for electronically ordering prescriptions and tests, for creating and maintaining patient registries, for tracking patients and tests, and for providing alerts or prompts remains highly variable among centers. Having advanced health information technology functionality greatly enhances a center's ability to generate information about its patients and to notify center clinicians to provide patients with test results or appropriate services at point of care. HIT functionality allows centers to notify patients about needed preventive care. Yet, only about 30 percent of centers reported that they have this type of information technology capacity. Federal initiatives to enhance health centers' IT capacity, and that also support training and the use of HIT systems, such as the one under way as part of the stimulus package, will go a long way toward improving patient care and coordination.

Results from the Commonwealth Fund National Survey of Federally Qualified Health Centers suggest a number of ways in which federal and state leaders can help ensure that existing and new centers continue to fulfill and strengthen their community-based mission and become high-quality, comprehensive, patient-centered sites of primary care for our nation's most vulnerable populations.

How Health Reform Can Help Health Centers Improve Quality and Efficiency

The \$11 billion increase in funding to federally qualified health centers will help meet the anticipated demand in health care services as millions of Americans gain health care coverage as a result of the Patient Protection and Affordable Care Act passed in March 2010. To ensure that FQHCs are appropriately reimbursed for providing their full range of services to high-need populations, Medicare will begin to pay health centers prospectively in October 2014 (a practice consistent with federal Medicaid policy). In January 2011, Medicare will also expand the list of preventive services it covers.

Funding for expansion of health center services can help address the increased demand FQHCs face. But improving resources and support for quality improvement activities is also critical

to health centers' ability to continue to deliver high-quality care. Several provisions in the health care reform legislation allow FQHCs to test new payment and delivery models, encourage better coordination of care, and expand and support their workforce, thereby providing a tremendous opportunity to improve access and quality of care.

For instance, a new state Medicaid plan option allows enrollees with chronic conditions to qualify for comprehensive care provided by a team of health professionals in partnership with a primary care provider. Depending on the state application, FQHCs in this program are eligible to provide services as the “team” or as the primary care provider. In addition, grants will be made available to providers who come together to develop networks (including community health centers, primary care, specialists, public health and hospitals) to deliver coordinated care to low-income populations.

Several components of the health reform bill are designed to strengthen health centers' workforces, a key component of health center stability. Previous studies indicate that despite having funds to help recruit and retain physicians at health centers, most centers remain understaffed.³⁴ The health care reform bill and the stimulus legislation include substantial incentives to improve recruitment and retention of clinicians in underserved areas.³⁵ In the health reform bill, \$1.5 billion is authorized to support scholarship and loan repayment assistance for clinicians who enroll in the National Health Service Corps and work in areas that are medically underserved or have shortages of clinicians. In addition, a “teaching health centers” program is established to enable community primary care providers—such as FQHCs—to receive direct and indirect payments for operating residency training programs.

In fact, there is ample opportunity to further improve the care that patients receive from FQHCs. Results from our survey prompted the following recommendations:

Develop policies to encourage health centers and local hospitals to formalize partnerships in order to assume shared accountability for low-income and uninsured patients. Other studies have shown, and this study confirms, that health centers struggle to find specialists or subspecialists who will accept their patients for follow-up diagnosis or treatment.^{36,37} The survey findings highlight that patients have more timely access to off-site specialty care when health centers have formal referral relationships with specialists who are willing to partner, or when health center physicians have admitting privileges to a local hospital. In these circumstances, clinicians are also better informed about the care their patients receive in the local emergency department and hospital. To improve coordination of care and management of illness for the poor and uninsured, incentives must be put in place to encourage FQHCs, specialists, and hospitals to officially partner with each other and share responsibility for patients across the entire continuum of care.

One promising approach are accountable care organizations, or ACOs—organizations or networks of primary, specialty, and hospital providers that are willing to manage the full range of patient care. These organizations and networks are responsible for the overall costs and quality of

care for their defined population. ACOs provide an organizational structure that allows multiple providers to contract with payers in order to align financial incentives with the goal of improving clinical performance and to slow growth in spending. The Patient Protection and Affordable Care Act authorizes a new Center for Medicare and Medicaid Innovation, which is charged with testing the ACO model. FQHCs must be incorporated into ACO provider networks that include or target low-income, uninsured, and under-insured patients. This will ensure sufficient primary care capacity as well as inclusion of providers that have a historical commitment to serving vulnerable patient populations. If designed carefully, the integration of health centers into an ACO framework can, as our findings suggest, greatly improve poor and uninsured patients' access to specialty care services and can better coordinate between primary care and hospital providers.

Use financial incentives to encourage health centers to become recognized as patient-centered medical homes. Emerging research shows that patients with a medical home are more likely to receive preventive care and better management of chronic conditions as well as more efficient care.³⁸ We recommend that both public and private payers consider new payment mechanisms and financial incentives to promote patient-centered medical homes in FQHCs. Given the diversity in health centers' revenue streams, there are multiple options for structuring financial rewards that will encourage and support medical home transformation. First, FQHCs are authorized under Section 330 of the Public Health Service Act to receive grants from the HRSA Bureau of Primary Health Care. These grants provide core support to health centers and constitute approximately 18.5 percent of total FQHC revenues. Through this grant program, the Bureau of Primary Health Care should encourage grantees to apply for service expansions that can enable them to improve 24/7 access, enhance their HIT capacity or office systems, and use patient registries for outreach and patient education.

The largest source of FQHC revenue (35%) is Medicaid reimbursement, which pays health centers prospectively based on an average cost over the past three years. Restrictions in the prospective payment and cost-based formula prohibit most health centers from accepting or keeping enhanced payments for high-quality primary care. The Centers for Medicare and Medicaid Services (CMS) should set national policy to enable all state Medicaid programs to implement an enhanced payment or bonus to FQHCs to support participation in quality improvement initiatives and/or build ongoing practice infrastructure. CMS can link enhanced PCMH payments to clinics that meet recognized standards for medical homes. This practice is now under way in New Orleans as part of large federal grant to restore and expand access to primary care, regardless of patients' ability to pay.³⁹ Enhanced PCMH payments will be tested in an upcoming federal demonstration: health centers that qualify as medical homes will receive an additional, monthly care management fee for each Medicare beneficiary.⁴⁰

Reinstate grant support and technical assistance to help health centers participate in quality improvement initiatives. Beginning in 1998, in an effort to reduce racial and ethnic disparities and improve quality of care for patients with chronic diseases, the Bureau of Primary Health Care led and supported learning collaboratives. These collaboratives were designed to build national and local infrastructure to provide FQHCs expert advice, remote learning, and other technical assistance. Participating health centers engaged physicians and staff in efforts to learn and innovate, benchmark clinical performance, set targets for improvement, and implement disease registries to monitor patients' progress. More than 800 health centers participated in the bureau's initiatives. Evaluations have shown that health centers that have participated in these collaborations have improved the quality of care for patients with asthma and diabetes.

Participating FQHCs have managed to sustain improvements, with a majority (69%) of centers reporting capacity to generate lists of patients by diagnosis. Ninety-nine percent reported that performance data is collected and reported at the provider or clinic level. Although individual centers continue to participate in disparities reduction and quality improvement activities, the Bush administration ceased funding for the national quality improvement program. In order to help all health centers achieve their optimal potential as patient-centered medical homes, use information technology effectively, and partner successfully with other providers to create accountable care organizations, federal government leadership and support for ongoing technical assistance should be reinstated.

Promote adoption and use of health information technology. Our survey and others find that information systems enable providers to better manage and coordinate the care of their patients, something that can improve health care quality.⁴¹ Far-reaching, national efforts to implement information systems in primary care are needed to enable health centers to improve their performance. Previous studies have shown that health centers that serve larger numbers of uninsured individuals or patients with family incomes below the poverty level are less likely to have functional electronic health records; lack of capital is a barrier to adoption.⁴² The federal stimulus package provides \$1.5 billion in funding for 2009 and 2010 to improve FQHCs' infrastructure, including health information technology. Federal and state leadership will be needed to ensure health centers receive adequate training to use electronic tools effectively in managing the care of their patients.

NOTES

- ¹ P. Shin, L. Ku, E. Jones, B. Finnegan, S. Rosenbaum, *Financing Community Health Centers as Patient- and Community-Centered Medical Homes: A Primer* (New York: The Commonwealth Fund, May 2009); J. Taylor, *The Fundamentals of Community Health Centers: National Health Policy Forum Background Paper* (Washington, D.C.: George Washington University, Aug. 31, 2004); and U.S. Health Resources and Services Administration, *Health Centers: America's Primary Care Safety Net, Reflections on Success, 2002–2007* (Rockville, Md.: HRSA, 2008).
- ² HRSA, *Health Centers*, 2008.
- ³ L. Ku, E. Jones, B. Finnegan et al., *How Is the Primary Care Safety Net Faring in Massachusetts? Community Health Centers in the Midst of Health Reform* (Washington, D.C.: Henry J. Kaiser Family Foundation, March 2009).
- ⁴ A. C. Beal, M. M. Doty, S. E. Hernandez, K. K. Shea, and K. Davis, *Closing the Divide: How Medical Homes Promote Equity in Health Care* (New York: The Commonwealth Fund, June 2007).
- ⁵ M. Lodh, "ACCESS Cost Savings—State Fiscal Year 2004 Analysis," Mercer Governmental Human Services Consulting letter to Jeffrey Simms, State of North Carolina, Office of Managed Care (March 24, 2005), <http://www.communitycarenc.com/PDFDocs/Mercer%20SFY04.pdf> (accessed Dec. 12, 2009); and E. T. Momany, S. D. Flach, F. D. Nelson et al., "A Cost Analysis of the Iowa Medicaid Primary Care Case Management Program," *Health Services Research*, Aug. 2006 41(4 Pt. 1):1357–71.
- ⁶ Shin, Ku, Jones et al., *Financing Community Health Centers*, 2009; Taylor, *Fundamentals of Community Health Centers*, 2004; and HRSA, *Health Centers*, 2008.
- ⁷ A. T. Lo Sasso and G. R. Byck, "Funding Growth Drives Community Health Center Services," *Health Affairs*, Feb. 2010 29(2):289–96; and Analysis of the Health Resources and Services Administration's Uniform Data Set (UDS), 2007, by P. Shin, George Washington University Department of Health Policy.
- ⁸ Lo Sasso and Byck, "Funding Growth," 2010.
- ⁹ J. K. Iglehart, "Health Centers Fill Critical Gap, Enjoy Support," *Health Affairs*, March/April 2010 29(3):343–45.
- ¹⁰ Ku, Jones, Finnegan et al., *How Is the Primary Care Safety Net*, 2009.
- ¹¹ K. Davis, S. C. Schoenbaum, and A.-M. J. Audet, "A 2020 Vision of Patient-Centered Primary Care," *Journal of General Internal Medicine*, Oct. 2005 20(10):953–57.
- ¹² N. L. Cook, L. S. Hicks, A. J. O'Malley et al., "Access to Specialty Care and Medical Services in Community Health Centers," *Health Affairs*, Sept./Oct. 2007 26(5):1459–68; and S. Hicks, A. J. O'Malley, T. A. Lieu et al., "Quality of Chronic Disease Care in U.S. Community Health Centers," *Health Affairs*, Nov./Dec. 2006 25(6):1712–23.
- ¹³ D. G. Safran, "Defining the Future of Primary Care: What Can We Learn from Patients?" *Annals of Internal Medicine*, Feb. 4, 2003 138(3):248–55.
- ¹⁴ Beal, Doty, Hernandez et al., *Closing the Divide*, 2007.
- ¹⁵ T. Bodenheimer, "Coordinating Care—A Perilous Journey through the Health Care System," *New England Journal of Medicine*, March 6, 2008 358(10):1064–70.
- ¹⁶ Hicks, O'Malley, Lieu et al., "Quality of Chronic Disease Care," 2006.
- ¹⁷ Medicare Payment Advisory Commission, *Report to the Congress: Improving Incentives in the Medicare Program: Chapter 2* (Washington, D.C.: Medicare Payment Advisory Commission, June 2009), http://www.medpac.gov/documents/Jun09_EntireReport.pdf (accessed Jan. 10, 2010).

- ¹⁸ Beal, Doty, Hernandez et al., *Closing the Divide*, 2007.
- ¹⁹ A. E. Shields, P. Shin, M. G. Lue et al., "Adoption of Health Information Technology in Community Health Centers: Results of a National Survey," *Health Affairs*, Sept./Oct. 2007 26(5):1373–83.
- ²⁰ Authors' analysis of The Commonwealth Fund 2009 International Health Policy Survey of Primary Care Physicians.
- ²¹ R. Amarasingham, L. Plantinga, M. Diener-West et al., "Clinical Information Technologies and Inpatient Outcomes: A Multiple Hospital Study," *Archives of Internal Medicine*, Jan. 2009 169(2):108–14.
- ²² D. M. Stevens, "Changing Practice/Changing Lives," presentation at Health Disparities Collaborative, Orlando, Fla., July 11–13, 2002.
- ²³ To learn about the outcomes produced by the collaboratives, see: J. E. Graber, E. S. Huang, M. L. Drum et al., "Predicting Changes in Staff Morale and Burnout at Community Health Centers Participating in the Health Disparities Collaboratives," *Health Services Research*, Aug. 2008 43(4):1403–23; E. S. Huang, S. E. Brown, J. X. Zhang et al., "The Cost Consequences of Improving Diabetes Care: The Community Health Center Experience," *Joint Commission Journal on Quality and Patient Safety*, March 2008 34(3):138–46; E. S. Huang, Q. Zhang, S. E. Brown et al., "The Cost-Effectiveness of Improving Diabetes Care in U.S. Federally Qualified Community Health Centers," *Health Services Research*, Dec. 2007 42(6 Pt. 1):2174–93; M. H. Chin, M. L. Drum, M. Guillen et al., "Improving and Sustaining Diabetes Care in Community Health Centers with the Health Disparities Collaboratives," *Medical Care*, Dec. 2007 45(12):1135–43; L. Shi and P. B. Collins, "Public–Private Partnerships in Community Health Centers: Addressing the Needs of Underserved Populations," *Organ Ethic*, Spring–Summer 2007 4(1):35–42; and B. E. Landon, L. S. Hicks, A. J. O'Malley et al., "Improving the Management of Chronic Disease at Community Health Centers," *New England Journal of Medicine*, March 1, 2007 356(9):921–34.
- ²⁴ A. Shih, K. Davis, S. Schoenbaum, A. Gauthier, R. Nuzum, and D. McCarthy, *Organizing the U.S. Health Care Delivery System for High Performance* (New York: The Commonwealth Fund, Aug. 2008).
- ²⁵ Beal, Doty, Hernandez et al., *Closing the Divide*, 2007.
- ²⁶ Lodh et al., "ACCESS Cost Savings," 2005.
- ^{E.} Momany, Flach, Nelson et al., "Cost Analysis of the Iowa Medicaid," 2006.
- ²⁷ National Center for Medical Home Implementation, *Joint Principals of the Medical Home*, March 2007 (Elk Grove Village, Ill.: American Academy of Pediatrics, 2007), <http://www.medicalhomeinfo.org/downloads/pdfs/JointStatement.pdf> (accessed Jan. 10, 2010); and C. Reiner, R. Sacks, and R. Neal, *Obtaining Patient-Centered Medical Home Recognition: A How-To Manual* (New York: Primary Care Development Corporation, Nov. 2009).
- ²⁸ National Committee for Quality Assurance, *Physician Practice Connections—Patient-Centered Medical Home Standards and Guidelines* (Washington, D.C.: NCQA, Jan. 2008).
- ²⁹ The 10 priority areas include: 1) written standards for patient access and patient communication; 2) use of data to show standards for patient access and communication are met; 3) use of paper or electronic charting tools to organize clinical information; 4) use of data to identify important diagnoses and conditions in practice; 5) adoption and implementation of evidence-based guidelines for three chronic conditions; 6) active patient self-management support; 7) systematic tracking of test results and identification of abnormal results; 8) referral tracking, using a paper or electronic system; 9) clinical and/or service performance measurement, by physician or across the practice; and 10) performance reporting, by physician or across the practice.
- ³⁰ R. A. Berenson, T. Hammons, D. N. Gans et al., "A House Is Not a Home: Keeping Patient at the Center of Practice Redesign," *Health Affairs*, Sept./Oct. 2008 27(5):1219–30.

- ³¹ This scale is not meant to predict whether or not health centers responding to this survey meet the NCQA requirements for medical home recognition.
- ³² Shin, Ku, Jones et al., *Financing Community Health Centers*, 2009.
- ³³ R. J. Reid, P. A. Fishman, O. Yu et al., "Patient-Centered Medical Home Demonstration: A Prospective, Quasi-Experimental, Before and After Evaluation," *American Journal of Managed Care*, Sept. 1, 2009 15(9):e71–e87.
- ³⁴ R. A. Rosenblatt, C. H. Andrilla, T. Curtin et al., "Shortages of Medical Personnel at Community Health Centers: Implications for Expansion," *Journal of the American Medical Association*, March 1, 2006 295(9):1062–64.
- ³⁵ U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care, *Health Centers: America's Primary Care Safety Net, Reflections on Success, 2002–2007* (Rockville, Md.: HRSA, 2008).
- ³⁶ Cook, Hicks, O'Malley et al., "Access to Specialty Care," 2007.
- ³⁷ Rosenblatt, Andrilla, Curtin et al., "Shortages of Medical Personnel," 2006.
- ³⁸ Reid, Fishman, Yu et al., "Patient-Centered Medical Home Demonstration," 2009; R. A. Paulus, K. Davis, and G. D. Steele, "Continuous Innovation in Health Care: Implications of the Geisinger Experience," *Health Affairs*, Sept./Oct. 2008 27(5):1235–45; L. I. Solberg, S. E. Asche, L. G. Pawlson et al., "Practice Systems Are Associated with High-Quality Care for Diabetes," *American Journal of Managed Care*, Feb. 2008 14(2):85–92; and B. D. Steiner, A. C. Denham, E. Ashkin et al., "Community Care of North Carolina: Improving Care Through Community Health Networks," *Annals of Family Medicine*, July–August 2008 6(4):361–67.
- ³⁹ Centers for Medicare and Medicaid Services, *Notice of Single Source Grant Award to the State of Louisiana for the Grant Entitled "Deficit Reduction Act—Hurricane Katrina Healthcare Related Primary Care Access Stabilization Grant"* Federal Register: Sept. 6, 2007 72(172), <http://edocket.access.gpo.gov/2007/E7-17560.htm> (accessed Feb. 22, 2010).
- ⁴⁰ Office of the Press Secretary, *Presidential Memorandum—Community Health Centers* (Washington, D.C.: White House, Dec. 9, 2009).
- ⁴¹ K. Davis, M. M. Doty, K. Shea, and K. Stremikis, "Health Information Technology and Physician Perceptions of Quality of Care and Satisfaction," *Health Policy*, May 2009 90(2–3):239–46.
- ⁴² Shields, Shin, Leu et al., "Adoption of Health Information Technology," 2007.

METHODOLOGY

The 2009 Commonwealth Fund National Survey of Federally Qualified Health Centers was conducted by Harris Interactive, Inc., from March 2, 2009, through May 27, 2009, among 795 executive directors or clinical directors at federally qualified health centers (FQHCs). The survey consisted of an eight-page questionnaire that took approximately 20 to 25 minutes to complete; a \$100 incentive for the health center was included in the original mailing. The sample was drawn from a list provided by the Bureau of Primary Health Care (BPHC) of all FQHC grantees that have at least one site that is a community-based primary care clinic. A total of 1,007 FQHCs were sent the questionnaire and 795 responded, yielding a response rate of 79 percent. The data were weighted by the number of patients, number of sites, region, and urbanicity in order to more accurately reflect the universe of primary care community health centers.

APPENDIX TABLES

Appendix Table 1. Access to Care and Off-Site Specialty Services Among Federally Qualified Health Centers, 2009

	Total
Unweighted N=	795
Access to Care in Health Centers	Percent
Patients can get telephone advice on clinical issues during office hours	
Usually (75%–100% of the time)	41
Often (50%–74% of the time)	25
Sometimes (25%–49% of the time)	22
Rarely (1%–24% of the time)	9
Never	2
Patients can get telephone advice on clinical issues on weekends or after regular office hours	
Usually (75%–100% of the time)	47
Often (50%–74% of the time)	14
Sometimes (25%–49% of the time)	13
Rarely (1%–24% of the time)	14
Never	10
Patients' appointments are scheduled with their personal clinician versus another clinician	
Usually (75%–100% of the time)	65
Often (50%–74% of the time)	23
Sometimes (25%–49% of the time)	8
Rarely/Never (0–24% of the time)	2
Patients can e-mail providers about clinical issues	
Usually/Often (50%–100% of the time)	5
Sometimes (25%–49% of the time)	4
Rarely (1%–24% of the time)	19
Never	71
Availability of After-Hours Care	
Sick visits/urgent care	
Early morning hours (before 8:30 a.m.)	58
Evening hours (after 6 p.m.)	64
Weekend hours	44
<i>All of these hours</i>	22
<i>Some of these hours</i>	65

Regular or well visits	
Early morning hours (before 8:30 a.m.)	55
Evening hours (after 6 p.m.)	60
Weekend hours	37
<i>All of these hours</i>	18
<i>Some of these hours</i>	66
Access to Off-Site Specialty Care	
Difficulty providers have to do each of the following (% reporting somewhat or very difficult):	
Obtain timely appointments for office visits with specialists/subspecialists outside your center for following patients:	
Uninsured patients	88
Medicaid fee-for-service patients	68
Medicaid managed care patients	64
Medicare patients	45
Other privately insured patients	23
Obtain procedures with specialists/subspecialists outside your center for following patients:	
Uninsured patients	91
Medicaid fee-for-service patients	71
Medicaid managed care patients	67
Medicare patients	49
Other privately insured patients	25
Hospital Affiliation	
Does your center's largest site have any of the following types of relationships with your local hospital(s)? (% Yes)	
Hospital affiliation with referral of your patients for specialist or sub-specialist care	78
Hospital affiliation with your physicians having admitting privileges	71
Hospital referral to your center's largest site	72
All of the above affiliations	47
Yes, has some of the above affiliations	47
None	5

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

**Appendix Table 2. Access to Off-Site Specialty Care and Coordination of Care
Across Sites by IT Capacity and Medical Home Status**

	Information Technology Capacity			Medical Home Indicators			
	Total	Low (0-3) Functions	Medium (4-8) Functions	High (9-13) Functions	0-2 Domains	3-4 Domains	All 5 Domains
Unweighted N=	795	304	251	240	129	433	233
Access to Off-Site Specialty Care							
When patients are referred to specialists or subspecialists outside your largest site:							
The referring provider receives a report back from the specialists/subspecialist about care given to the patient							
Usually (75%–100% of the time)	43	39	41	51	20	41	60
Often (50%–74% of the time)	29	27	32	29	34	30	25
Sometimes (25%–49% of the time)	19	21	21	15	28	21	12
Rarely/Never (0–24% of the time)	6	10	4	4	14	6	3
The report from the specialist/subspecialist is received by the center within 30 days							
Usually (75%–100% of the time)	35	32	32	44	19	34	47
Often (50%–74% of the time)	29	29	32	25	22	31	29
Sometimes (25%–49% of the time)	23	24	25	20	38	22	17
Rarely/Never (0–24% of the time)	11	13	9	10	17	12	6
Center tracks specialist/subspecialist referrals until the consultation report returns to the referring provider							
Usually (75%–100% of the time)	50	42	53	55	--	--	--
Often (50%–74% of the time)	20	21	21	20	--	--	--
Sometimes (25%–49% of the time)	15	19	13	13	--	--	--
Rarely/Never (0–24% of the time)	13	15	12	12	--	--	--

Coordination Across Sites of Care

Hospital notified your center that a patient has been admitted

Usually (75%–100% of the time)	33	26	36	40	20	31	45
Often (50%–74% of the time)	14	13	12	16	13	14	14
Sometimes (25%–49% of the time)	18	19	19	16	20	20	14
Rarely (1%–24% of the time)	22	25	21	18	28	23	17
Never	12	14	11	9	15	11	10

Emergency department notifies your center that your patient has had an emergency room visit

Usually (75%–100% of the time)	23	16	25	29	14	21	31
Often (50%–74% of the time)	15	15	15	15	14	14	18
Sometimes (25%–49% of the time)	17	16	16	21	15	19	15
Rarely (1%–24% of the time)	26	30	26	23	31	27	23
Never	16	21	16	11	22	17	13

Your center receives a discharge summary or report from the hospital to which your patients are usually admitted

Usually (75%–100% of the time)	35	31	34	43	21	34	45
Often (50%–74% of the time)	20	17	21	24	18	20	22
Sometimes (25%–49% of the time)	20	20	22	17	24	21	16
Rarely (1%–24% of the time)	15	19	14	12	26	14	11
Never	7	10	7	4	6	9	5

How long does it usually take for a hospital discharge summary or report to arrive?

Less than 48 hours	13	8	16	17	12	13	15
2–4 days	23	20	23	27	12	22	30
5–14 days	31	36	27	30	33	33	27
More than 2 weeks	25	26	28	21	31	41	23

Note: Medical home (MH) includes measures of access, patient tracking and registry functions; test tracking, referral tracking, and performance reporting and improvement.

IT functionality includes 0–3 (low), 4–8 (medium), or 9–13 (high) of the following capacities: EMR throughout health center, electronic access to lab test results, electronic ordering of lab tests, electronic entry of clinical notes, electronic alerts or prompts about potential drug problems, electronic list of all medications taken by a patient, electronic prescribing of medication, list of patients by diagnosis, list of patients by lab result, list of patients due or overdue for tests or preventive care, lab tests are electronically tracked until results receive clinicians, patients are sent computerized reminder notices for preventive or follow-up care, and provider receives a computerized alert or prompt to provide test results.

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Appendix Table 3. Maintaining Patient Registries and Tracking Patient Clinical Information by IT Capacity, 2009

	Information Technology Capacity			
	Total	Low (0–3) Functions	Medium (4–8) Functions	High (9–13) Functions
Unweighted N=	795	304	251	240
Electronic Systems for Patient Registries				
How easy is to generate the following information about the majority of your patients?				
List of patients by diagnosis				
Easy (<24 hours)	69	56	73	83
Somewhat difficult (<1 week)	19	27	18	10
Difficult (≥1 week)	7	11	6	2
List of patients by health risk				
Easy (<24 hours)	27	12	26	48
Somewhat difficult (<1 week)	24	17	24	34
Difficult (≥1 week)	18	25	17	9
List of patients by lab results				
Easy (<24 hours)	45	23	51	66
Somewhat difficult (<1 week)	21	20	22	20
Difficult (≥1 week)	16	27	11	6
List of patients who are due or overdue for tests or preventive care				
Easy (<24 hours)	25	9	25	47
Somewhat difficult (<1 week)	26	16	33	32
Difficult (≥1 week)	24	34	22	16
List of patients taking a specific medication				
Easy (<24 hours)	26	10	22	53
Somewhat difficult (<1 week)	22	14	25	29
Difficult (≥1 week)	18	25	15	11
List of panel of patients by provider				
Easy (<24 hours)	59	48	62	69
Somewhat difficult (<1 week)	19	19	21	17
Difficult (≥1 week)	9	15	6	5

Systems of Alerts, Prompts, and Patient Reminders

Patients are sent reminder notices when it is time for regular preventive or follow-up care

Usually (75%–100% of the time)	18	13	23	20
Often (50%–74% of the time)	15	13	18	16
Sometimes (25%–49% of the time)	23	24	24	20
Rarely (1%–24% of the time)	24	25	21	28
Never	16	22	13	13

Provider receives an alert/prompt at point of care for appropriate care services needed by patient

Usually (75%–100% of the time)	23	10	21	43
Often (50%–74% of the time)	17	14	17	22
Sometimes (25%–49% of the time)	18	17	25	11
Rarely (1%–24% of the time)	15	17	16	11
Never	24	38	19	11

Provider receives an alert or prompt to provide patients with test results

Usually (75%–100% of the time)	33	25	27	51
Often (50%–74% of the time)	13	10	17	13
Sometimes (25%–49% of the time)	11	10	14	9
Rarely (1%–24% of the time)	9	11	9	7
Never	30	40	29	18

Laboratory tests ordered are tracked until results reach clinicians

Usually (75%–100% of the time)	54	45	52	68
Often (50%–74% of the time)	15	15	17	14
Sometimes (25%–49% of the time)	8	9	10	4
Rarely (1%–24% of the time)	8	11	7	6
Never	11	16	11	5

Notes: IT functionality includes 0–3 (low), 4–8 (medium), or 9–13 (high) of the following capacities: EMR throughout health center, electronic access to lab test results, electronic ordering of lab tests, electronic entry of clinical notes, electronic alerts or prompts about potential drug problems, electronic list of all medications taken by a patient, electronic prescribing of medication, list of patients by diagnosis, list of patients by lab result, list of patients due or overdue for tests or preventive care, lab tests are electronically tracked until results receive clinicians, patients are sent computerized reminder notices for preventive or follow-up care, and provider receives a computerized alert or prompt to provide test results.

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).

Appendix Table 4. Characteristics of Federally Qualified Health Centers, 2009

	Information Technology Capacity			Medical Home Indicators			
	Total	Low (0–3) Functions	Medium (4–8) Functions	High (9–13) Functions	0–2 Domains	3–4 Domains	All 5 Domains
Unweighted N=	795	304	251	240	129	433	233
Number of Sites							
1–2	34	35	30	36	33	35	32
3–9	49	49	53	46	50	48	51
10 or more	15	12	15	19	11	15	18
Urbanicity							
City	45	44	46	47	51	46	41
Suburban	4	2	5	6	2	4	6
Small Town	16	14	17	16	11	17	15
Rural/Frontier	31	36	28	27	32	30	33
Region							
Northeast	17	14	15	22	16	16	18
Midwest	19	23	19	15	21	21	16
South	35	32	34	41	30	32	45
West	25	24	29	22	27	28	19
Non-U.S.	4	7	3	0	7	4	2
Limited English Proficiency							
0–10%	42	43	40	41	38	42	44
11%–24%	15	10	17	19	14	15	14
25%–50%	22	21	23	23	24	21	23
Greater than 50%	19	23	18	16	22	20	18

Payer Mix:**Percent Uninsured**

Small (<25%)	24	24	25	22	21	24	25
Medium (25%–49%)	45	37	48	50	41	46	45
Large (50% or more)	31	38	27	26	38	29	29

Percent Medicaid

Small (<25%)	41	47	35	41	40	41	43
Medium (25%–49%)	44	39	50	45	45	45	41
Large (50% or more)	13	12	13	12	14	12	12

Percent Private

Small (<10%)	32	32	32	31	35	31	30
Medium (10%–19%)	28	26	29	28	31	28	24
Large (20% or more)	36	35	36	38	26	37	40

Percent Minority

Low (<5%)	15	17	15	13	11	13	21
Medium (5%–49%)	30	29	28	35	30	31	30
High (50% or more)	52	51	55	51	58	54	46

Physician Shortage

Yes	51	48	55	50	60	50	48
No	37	36	35	40	24	38	43
Don't know/refused	10	14	8	8	12	10	9

**Information Technology
Functionality**

Low (0–3) functions	39	—	—	—	59	43	31
Medium (4–8) functions	31	—	—	—	28	30	36
High (9–13) functions	30	—	—	—	13	27	43

Note: Medical home (MH) includes measures of access, patient tracking and registry functions; test tracking, referral tracking, and performance reporting and improvement.

Source: The Commonwealth Fund National Survey of Federally Qualified Health Centers (2009).