

## **REPORT TO CONGRESS**

# **Efforts to Expand and Accelerate Health Center Program Quality Improvement**

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U.S. Department of Health and Human Services  
Health Resources and Services Administration  
Bureau of Primary Health Care



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## Acronyms

<b>AHRQ</b>	Agency for Healthcare Research and Quality
<b>ARRA</b>	American Recovery and Reinvestment Act
<b>BPHC</b>	HRSA’s Bureau of Primary Health Care
<b>CHIP</b>	Children’s Health Insurance Program ( <i>Formerly known as the State Children’s Health Insurance Program (SCHIP)</i> )
<b>CMS</b>	Centers for Medicare and Medicaid Services
<b>EHR</b>	Electronic Health Record
<b>FQHC</b>	Federally Qualified Health Center
<b>HCCN</b>	Health Center Controlled Network
<b>HDC</b>	HRSA’s Health Disparities Collaboratives or the “Collaboratives”
<b>HHS</b>	U.S. Department of Health and Human Services
<b>HIT</b>	Health Information Technology
<b>HRSA</b>	Health Resources and Services Administration
<b>NCQA</b>	National Committee for Quality Assurance
<b>NHSC</b>	National Health Service Corps
<b>OHITQ</b>	HRSA’s Office of Health Information Technology and Quality
<b>PCA</b>	HRSA supported Primary Care Association
<b>PCC</b>	Patient Centered Care
<b>UDS</b>	HRSA’s Uniform Data System ( <i>The UDS includes a variety of information, including patient demographics, services provided, staffing, clinical indicators, utilization rates, costs, and revenues. UDS data are collected by HRSA at the grantee, State, and national levels.</i> )

## **Executive Summary**

*The over eighty programs and 3,000 grantees of the Health Resources and Services Administration (HRSA) – an agency of the United States Department of Health and Human Services (HHS) – reach into every corner of America, providing an essential safety net of direct health care services used by tens of millions of Americans who are uninsured, isolated, or medically vulnerable. The agency also funds training for health professionals, advances the adoption of health information technology and improves systems of care in rural communities. Within HRSA, the Bureau of Primary Health Care (BPHC) administers the Health Center Program which provides grant funding and other support to community-responsive and patient-driven organizations that provide comprehensive, culturally competent, quality primary health care to a broadly diverse population—regardless of their ability to pay. The Program’s 1,100 health centers operate over 7,500 service delivery sites that provide care to more than 17 million people annually in every U.S. State, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the Pacific Basin.*

### **Congressional Report Mandate**

The Health Care Safety Net Act of 2008 (Public Law (P.L.) 110-355) reauthorized the Health Center Program for fiscal years (FYs) 2008 through 2012. Section 2 of the Act required the Secretary of Health and Human Services, acting through the Administrator of the Health Resources and Services Administration (HRSA), to submit a report to the Congress that describes efforts to expand and accelerate quality improvement activities in health centers. In response to this charge, the report documents effective health center quality improvement models, detailing HRSA efforts to ensure that all health centers, of varying size and capacity are able to adapt, implement and sustain quality improvement interventions.

### **Expanding and Accelerating Health Center Quality Improvement: HRSA Efforts and Results**

HRSA continues to support the advancement and acceleration of quality improvement efforts through a number of initiatives and activities—building on experience with, and an ongoing commitment to, quality improvement across the Health Center Program. Some quality improvement initiatives are well-established, and others continue to evolve, but all represent crucial steps towards sustaining even greater advances in quality of care, health outcomes, and disparity reductions across all of America’s health centers.

A key driver of success for the Health Center Program to date has been its ability to demonstrate the value and quality of health center care and services to funders, payers and patients. Recent research substantiates health centers' success in increasing access to care, improving quality and health outcomes for patients, reducing health disparities,

containing health care costs, and even serving as critical economic engines for their own communities.

**Access:** The first step to providing quality care is timely and appropriate access into the health care system. With support from HRSA and other sources, health centers have demonstrated impressive performance in increasing access both through expansions in the number of center locations and services, including oral health, mental health, substance abuse, pharmacy and enabling services, as well as through innovative and non-traditional means such as participation in telehealth programs.

**Quality:** In order to drive quality improvement, it is critical to ensure that the care delivered at health centers is evidence-based, appropriate, well coordinated, safe and patient-centered. Through various HRSA and other Federal, private sector, State and community efforts and partnerships, health centers have made major advances in adopting evidence-based practices, improving patient safety, meeting national accreditation standards, including the establishment of health centers as patient-centered medical homes, and increasing the coordination, integration and management of health center care.

In order to better monitor these advances, HRSA also established a core set of clinical performance measures that place a greater emphasis on health outcomes and demonstrate the value of health center care. These measures are aligned with those of national quality measurement organizations and many are also commonly used by Medicare, Medicaid and private insurers to assess quality. In 2008, health centers reported outcomes on childhood immunization, early entry into prenatal care, birthweight, cervical cancer screening, and control of hypertension and diabetes. In addition to tracking these core health indicators, health centers also report data by race/ethnicity on birthweight, diabetes, and hypertension in order to demonstrate progress towards eliminating disparities in health outcomes. Calendar Year 2008 Health Center Program data demonstrate that centers continue to provide high quality care and improve patient outcomes, while reducing disparities:

- In the past year, the percent of low birthweight babies born to health center patients decreased from 7.8 percent to 7.6 percent, which is lower than the most recent estimated national rate of 8.2 percent. In addition, the rate of entry into prenatal care in the first trimester increased from 64 percent to 65 percent among health center patients.
- 70 percent of health center children have received all recommended immunizations, and over 30 percent of health centers exceed the Healthy People 2010 immunization goal of 80 percent.
- 62 percent of hypertensive health center patients have their blood pressure under control (less than or equal to 140/90); more than 30 percent of health centers exceed the Healthy People 2010 goal of 68 percent.

- 73 percent of health center patients demonstrate control over their diabetes with a hemoglobin A1c (HbA1c) level less than or equal to 9.

To support ongoing quality improvement efforts across all health centers, national and State-level technical assistance and training programs have also been enhanced to promote health center data reporting, clinical quality improvement, and the identification and adoption of innovative quality activities and practices that improve patient outcomes and reduce disparities.

**Cost:** Providing high quality care while maximizing limited resources and reducing costs, has and will continue to be imperative in health centers. With HRSA support, health centers have demonstrated impressive performance in implementing health information technology (HIT), in particular electronic health records adoption, as well as other efforts that increase the efficiency of health center operations. With continuing support from HRSA and other State and private sector partners, health centers are well positioned to continue their role as leaders in HIT and move towards wide-scale adoption.

### **Sustaining and Advancing Quality Improvement**

With broad support over the past decade, both the level of Federal investments and the number of patients served by the Health Center Program have more than doubled. Building on this sustained period of health center expansion as well as previous quality improvement efforts, HRSA will carry on its focus of advancing health center quality and accountability in the next phase of the program's development. In accordance with these efforts, HRSA continues to support and promote key quality improvement activities at the agency, program and individual health center levels. Key activities include but are not limited to:

- Building on previous HRSA quality initiatives to establish an institutional, evidence-based, and comprehensive focus on quality improvement at every health center through training and technical assistance;
- Collecting and analyzing uniform clinical performance data from all health centers as well conducting additional evaluations to drive improvements in patient care and outcomes;
- Supporting the adoption of electronic health records and other health information technologies that advance and enable quality improvement; and
- Cultivating Federal and non-Federal partnerships that support quality improvement and assurance within and across the Health Center and other HRSA-funded programs.

## Introduction

### Report Mandate and Purpose

The Health Care Safety Net Act of 2008 (Public Law (P.L.) 110-355) reauthorized the Health Center Program for fiscal years (FYs) 2008 through 2012. Section 2 of the Act required the Secretary of Health and Human Services, acting through the Administrator of the Health Resources and Services Administration (HRSA), to submit a report to the Congress that describes efforts to expand and accelerate quality improvement activities in health centers.<sup>1</sup>

The Act directed HRSA's report to:

- Identify **effective health center quality improvement models** that—
  - Incorporate care coordination and integration, disease management, and other services demonstrated to improve care and address care for persons with multiple, co-occurring diseases and conditions;
  - Improve access to care through non-traditional means, including the use of remote monitoring and other innovative technologies;
  - Target various medically underserved populations, including the uninsured;
  - Increase access to specialty care, including referrals and diagnostic testing; and
  - Enhance the use of electronic health records to improve quality.
- Describe efforts to ensure that all health centers, of varying size and capacity are able to **adapt, implement, and sustain quality improvement interventions**, specifically detailing existing and proposed—
  - Technical assistance resources available to facilitate health center quality improvement;
  - Partnerships, with both Federal and non-Federal organizations, that assist and enhance health care quality improvement in health centers; and
  - Federal data collection, analysis, and reporting requirements used to evaluate health care quality in health centers, including the adoption of performance measures tailored to community-based safety net providers.

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<sup>1</sup> The term “health centers,” as used throughout this report, describes the various public and non-profit organizations that receive Federal funding under section 330 of the Public Health Service (PHS) Act (42 U.S.C. 254b), as amended. These HRSA-supported health centers are also designated by Medicaid and Medicare as Federally Qualified Health Centers (FQHCs).

## The State of Health Center Quality Improvement

A key driver of success for the Health Center Program to date has been its ability to demonstrate the value and quality of health center care and services to funders, payers, and patients. Recent research substantiates health centers' success in increasing access to care, improving quality and health outcomes for patients, reducing health disparities, containing health care costs, and even serving as critical economic engines for their own communities.

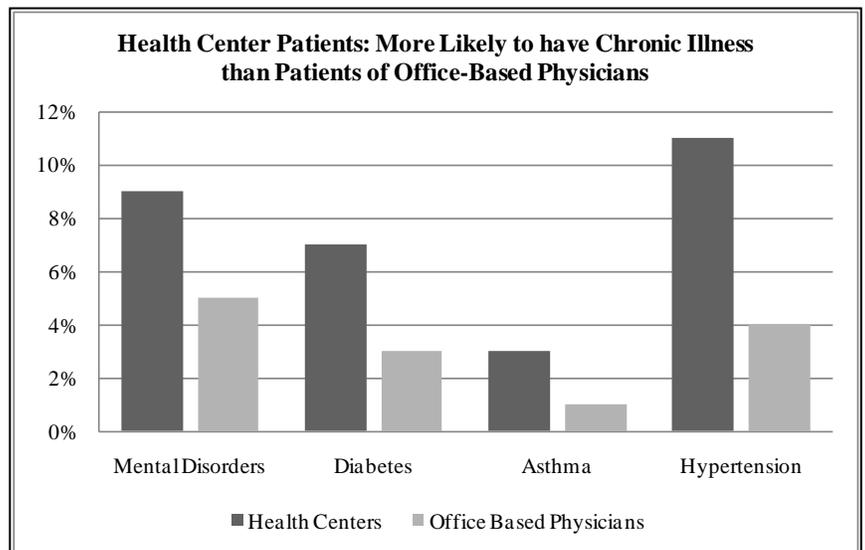
### *Increasing Access*

Health centers have and continue to increase access to primary care nationwide, addressing geographic, cultural, linguistic, financial, and other barriers to care. In many communities, the health center is the only healthcare provider available. Access to a usual source of care, such as provided by health centers, is essential, as it is estimated that if every American made appropriate use of primary care, the savings to the health care system as a whole could total \$67 billion annually.<sup>1</sup> The expansion of the health center model of care has thus been imperative in improving primary care access nationwide and across both insured and uninsured groups. For instance:

- Living in close proximity to a health center significantly reduces the probability that an uninsured person reports having had an unmet medical need or having postponed or delayed obtaining needed medical care and increases the probability of having had a general medical visit.<sup>2</sup>
- Health center uninsured patients are far more likely to have a usual source of care than the uninsured nationally (98 percent vs. 75 percent).<sup>3</sup>
- Medicaid patients of health centers are more likely to report having a regular source of care than Medicaid patients nationally (99.3 percent vs. 93.1 percent).<sup>4</sup>

### *Improving Quality*

Health center quality of care equals and often surpasses that provided by other primary care providers. A programmatic emphasis on quality as well as community-responsive and culturally appropriate care has also translated into impressive reductions in health disparities for health center patients. These achievements are even more notable given the health center patient population is often sicker and more at risk than seen nationally (see Figure 1).

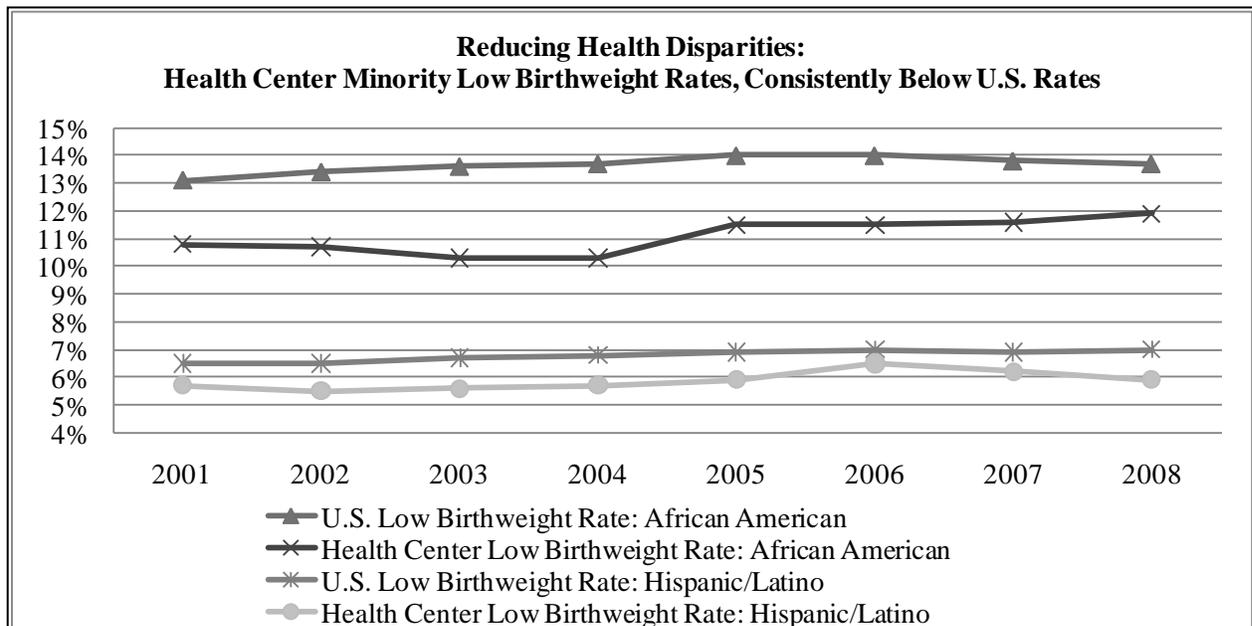


**Figure 1.** Chronic Disease Burden in Health Center versus Office Based Physician Patients

**Source:** Shin P. et al. May 27, 2009.

Examples of the high quality of care provided by health centers include:

- Health center patient rates of blood pressure control were better than rates in hospital affiliated clinics or in commercial managed care populations and racial and ethnic disparities in health center quality of care were actually eliminated after adjusting for insurance status.<sup>5</sup>
- Health center patients receive appropriate diabetes care.<sup>6</sup>
- High health center penetration has been significantly associated with:
  - A narrowing of the black/white health disparity in total death rates and prenatal care.
  - Hispanic/white health disparity reductions in tuberculosis case rates and prenatal care.<sup>7</sup>
- Greater levels of health center penetration into medically underserved communities are associated with significant and positive reductions in minority health disparities (see Figure 2).



**Figure 2.** Low Birthweight Outcomes (Babies Weighing < 2500 Grams at Birth), Health Center versus U.S. Rates for African American and Hispanic Women, 2001-2008.

**Source (Health Centers):** U.S. Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2001-2008.

**Source: (National):** Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2008. National vital statistics reports web release; vol 58 no 16. Hyattsville, Maryland: National Center for Health Statistics. Released April, 2010.

In addition, Calendar Year 2008 Health Center Program data demonstrate that centers continue to provide high quality care and improve patient outcomes, while reducing disparities:<sup>8</sup>

- Between 2007 and 2008, the percentage of low birthweight babies decreased from 7.8 percent to 7.6 percent, which is lower than the most recent estimated national rate of 8.2 percent.<sup>9</sup> In addition, the rate of entry into prenatal care in the first trimester increased from 64 percent to 65 percent.
- 70 percent of health center children have received all recommended immunizations, and over 30 percent of health centers exceed the Healthy People 2010 immunization goal of 80 percent.
- 62 percent of hypertensive health center patients have their blood pressure under control (less than or equal to 140/90); more than 30 percent of health centers exceed the Healthy People 2010 goal of 68 percent.
- 73 percent of health center patients demonstrate control over their diabetes with a hemoglobin A1c (HbA1c) level less than or equal to 9.

### ***Controlling Cost***

Health centers reduce costs to health systems and contribute to economic growth in their communities. The health center model of care has also been shown to reduce the use of costlier providers of care, such as emergency departments (EDs) and hospitals. Moreover, health centers serve as a critical source of economic development and growth. For example:

- Patients who receive a majority of their medical care at a community health center have significantly lower medical expenses than do people who receive the majority of their care elsewhere. Medical expenses for health center patients are 41 percent lower (\$1,810 per person annually) compared to patients seen elsewhere.<sup>10</sup>
- Medicaid beneficiaries receiving care from a health center were less likely to be hospitalized than Medicaid beneficiaries receiving care elsewhere.<sup>11</sup>
- Health center Medicaid patients were 11 percent less likely to be inappropriately hospitalized and 19 percent less likely to visit the emergency room inappropriately than Medicaid beneficiaries who had another provider as their usual source of care.<sup>12</sup>
- Rural counties with a community health center site had 33 percent fewer uninsured ED visits per 10,000 uninsured population than those without a health center.<sup>13</sup>

- In 2008, health centers injected over \$10 billion of operating expenditures directly into their local economies, generating over 113,000 full-time jobs.<sup>14</sup>

### ***Sustaining and Advancing Health Center Quality***

With broad support over the past decade, both the level of Federal investments and the number of patients served by the Health Center Program have more than doubled. Building on this sustained period of health center expansion as well as previous quality improvement efforts, HRSA will carry on its focus of advancing health center quality and accountability in the next phase of the program's development. In accordance with these efforts, HRSA continues to support and promote key quality improvement activities at the agency, program and individual health center levels.

Key activities include, but are not limited to, building on previous HRSA quality initiatives to establish an institutional, evidence-based, and comprehensive focus on quality improvement at every health center through training and technical assistance; collecting and analyzing uniform clinical performance data from all health centers as well as conducting additional evaluations to drive improvements in patient care and outcomes; supporting the adoption of electronic health records (EHRs) and other health information technologies (HIT) that advance and enable quality improvement; and cultivating Federal and non-Federal partnerships that support quality improvement and assurance within and across the Health Center and other HRSA-funded programs.

## The Health Center Model of Quality Care<sup>2</sup>

### *Health Center Program Fundamentals*

Located in or serve a high-need community designated as a medically underserved area or population.

Governed by a community board composed of a majority (51 percent or more) of health center patients who represent the population served.

Provide comprehensive primary health care services as well as supportive services (education, translation, and transportation, *etc.*) that promote access to health care.

Provide services to all with fees adjusted based on ability to pay.

Meet other performance and accountability requirements regarding administrative, clinical, and financial operations.

For more than 40 years, health centers have delivered comprehensive, high-quality primary health care to patients regardless of their ability to pay. During that time, health centers have become the essential primary care provider for America's most vulnerable populations: the poor, uninsured, and homeless; inner city and rural communities; minorities; migrant and seasonal farmworkers; public housing residents; and people with limited English proficiency.<sup>15</sup>

Rooted in a commitment to community-based, patient-centered care, health centers continue to focus on comprehensive services that meet the varying needs of their patient population including: outreach, disease management and prevention and patient education activities. Early on, many centers also promoted local economic development, job training, nutritional counseling, sanitation, and social services - areas which have carried over to many of today's health centers. Most importantly, they established one of the enduring principles of the program: respect and empowerment for patients and communities, and their involvement in the operation and direction of health centers.<sup>16</sup>

Today, more than 1,100 health centers operate over 7,500 service delivery sites that provide community-responsive and patient-driven care to more than 17 million people annually in every U.S. State, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the Pacific Basin. Approximately half of all health center grantees serve rural America; the remainder are found in urban areas.

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<sup>2</sup> Unless otherwise noted, all aggregate data throughout this chapter are from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. Uniform Data System. Rockville, Maryland: U.S. Department of Health and Human Services, 2001-2008.

### *How do Health Centers Serve their Patients?*

Health centers provide comprehensive care that must address the major health care needs of the target population and ensure the availability and accessibility of essential primary and preventive health services, including, as appropriate, oral health, mental health, and substance abuse services. They are also key providers and partners in extending the reach, quality, and impact of other HRSA grant programs. For example, many health centers receive funding through HRSA's Ryan White HIV/AIDS Program to provide HIV-related primary care services for people living with, or at risk for infection with, HIV in underserved or rural communities. Many health centers also receive funding through HRSA's Healthy Start Program to provide services tailored to the needs of high-risk pregnant women, infants, and mothers in communities with high rates of infant mortality.

Recognizing that barriers to care take various forms, health centers also include a variety of supportive and enabling services that promote access and quality of care such as translation/interpretation, case management, community outreach, nutrition, and transportation. In addition, health centers often provide care in non-traditional sites and settings to maximize access and meet community needs; these include schools, homeless shelters, migrant camps, as well as delivering services through mobile vans.

Increasing access and reducing disparities in health care requires quality providers who can deliver culturally-competent, accessible, and integrated care. Health centers recognize this need and support a multi-disciplinary workforce designed to treat the whole patient. As a key source of local employment and growth in many underserved and low-income communities, health centers have seen their staff grow to over 113,000 full time equivalents, leveraging over \$10 billion in needed health services. In 2008, health centers employed:

- 8,441 physicians—a 47 percent increase from 2002.
- Over 5,100 nurse practitioners, physician assistants, and certified nurse midwives—a 62 percent increase from 2002.
- Over 9,800 nurses; 2,300 dentists; over 2,250 licensed mental health providers; 770 substance abuse services staff; 2,300 pharmacy personnel; and nearly 11,000 case management, education, outreach, transportation, and other enabling services support staff.

#### ***Typical Health Center***

Health centers are diverse in terms of location, patient load, and staffing size. In 2008, the average health center had the following characteristics:

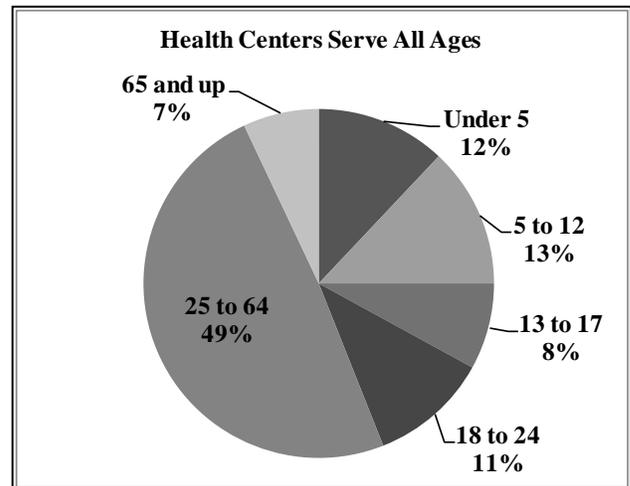
- **Sites:** operated 7 sites.
- **Patients:** served nearly 16,000 total patients.
- **Visits:** provided 62,000 total visits.
- **Staff:** had 12 front line primary care clinicians (physicians, nurse practitioners, physician's assistants, and certified nurse midwives).

- Over half of the National Health Service Corps providers—a HRSA administered workforce program which provides scholarships and loan repayment to place medical, dental and behavioral health providers in areas across the country that have shortages of health professionals.<sup>17</sup>

### Whom do Health Centers Serve?

As a whole, HRSA-funded health centers now constitute one of the largest primary care networks in the country.<sup>18</sup> The Health Center Program has a truly national impact serving: 1 in 18 people in the United States;

- 1 in 6 people below 200 percent of poverty;
- 1 in 3 of those below 100 percent of poverty; and
- 1 in 7 uninsured.<sup>19,20</sup>



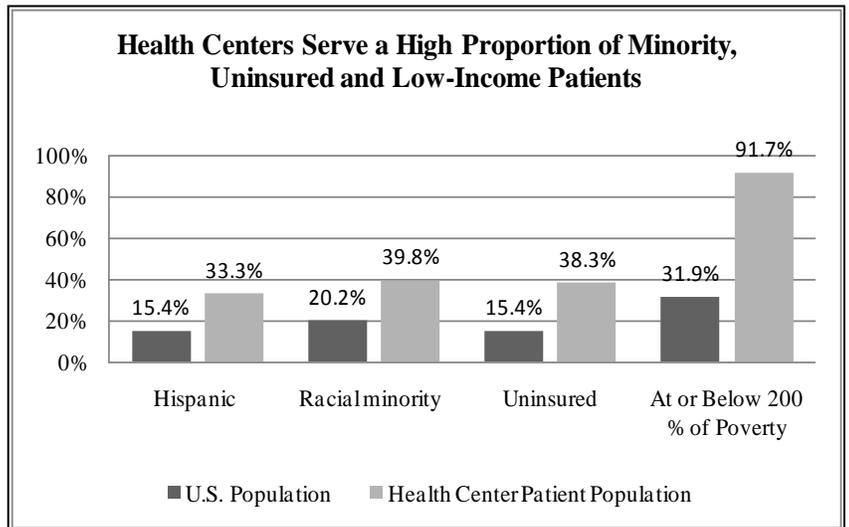
**Figure 3.** Health Center Patients by Age Group, 2008.  
**Source:** U.S. Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2008.

Health centers serve an increasingly diverse population with a wide range of health needs.

**People of all ages:** 33 percent of patients in 2008 were children (age 17 and younger); 7 percent were 65 or older (see Figure 3).

**People without health insurance:** Nearly 4 in 10 patients were without health insurance in 2008. Since 2001, the proportion of uninsured patients of all ages has held steady at around 40 percent and the number of uninsured patients increased by over 64 percent, from 4 million to over 6.5 million in 2008.

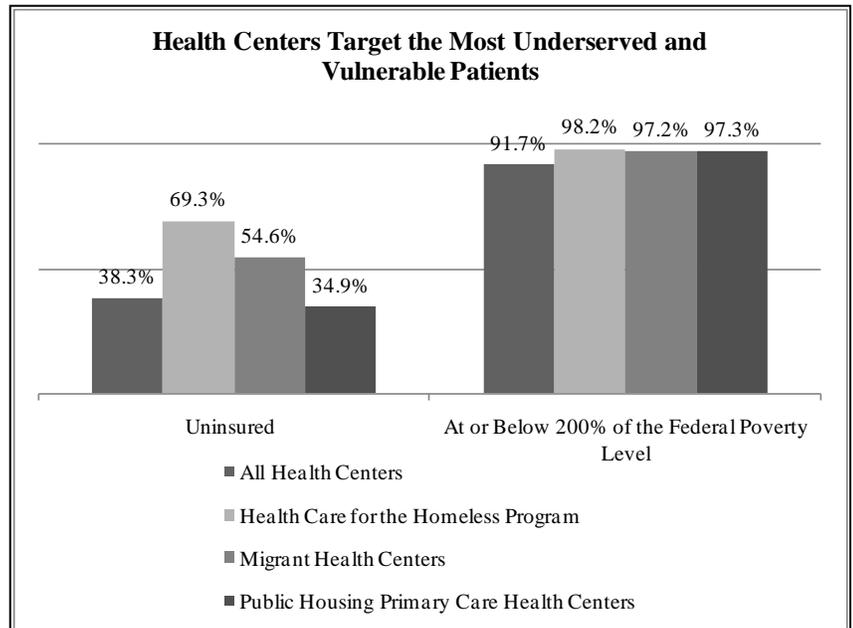
**People of all races and ethnicities:** In 2008, nearly 40 percent of health center patients were racial minorities and over 33 percent were Hispanic/Latino — almost twice the proportion of racial minorities and more than twice the proportion of Hispanics/Latinos in the overall U.S. population (see Figure 4).



**Figure 4.** Key Patient Characteristics: U.S. versus Health Center, 2008.  
**Source:** *Health Center Data:* U.S. Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2008. *Note:* Income as percent of poverty level is reported only for health center patients whose income information was collected within the last year ("% of Known"). *Race/Ethnicity (U.S.):* Population Division, U.S. Census Bureau, Table 3: Annual Estimates of the Population by Sex, Race, and Hispanic Origin for the United States: April 1, 2000 to July 1, 2008 (NC-EST2008-03). *Uninsured (U.S.):* U.S. Census Bureau, Current Population Reports. Income, Poverty, and Health Insurance Coverage in the United States: 2008. September 2009. *Poverty (U.S.):* U.S. Census Bureau, Current Population Survey (CPS) Annual Social and Economic (ASEC) Supplement, Table POV01: Age and Sex of All People, Family Members and Unrelated Individuals Iterated by Income-to-Poverty Ratio and Race: 2008

**Special Populations:** Some health centers also receive specific funding to focus on certain special populations including migrant and seasonal farmworkers, individuals and families experiencing homelessness, and people living in public housing (see Figure 5).

**Migrant Health Centers:** In 2008, HRSA-funded health centers served 834,000 migrant or seasonal farmworkers (individuals whose principal employment is in agriculture) and their families. It is estimated that HRSA-funded health center programs serve more than one quarter of all migrant and seasonal farmworkers in the United States. The Migrant Health Center program provides support to health centers to deliver comprehensive, high quality, culturally-competent preventive and primary health services with a particular focus on the occupational health and safety needs of this population.



**Figure 5.** Percent of Patients Uninsured and Below 200% of the Poverty Level by Health Center Funding Type, 2008.

**Source:** U.S. Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2008.

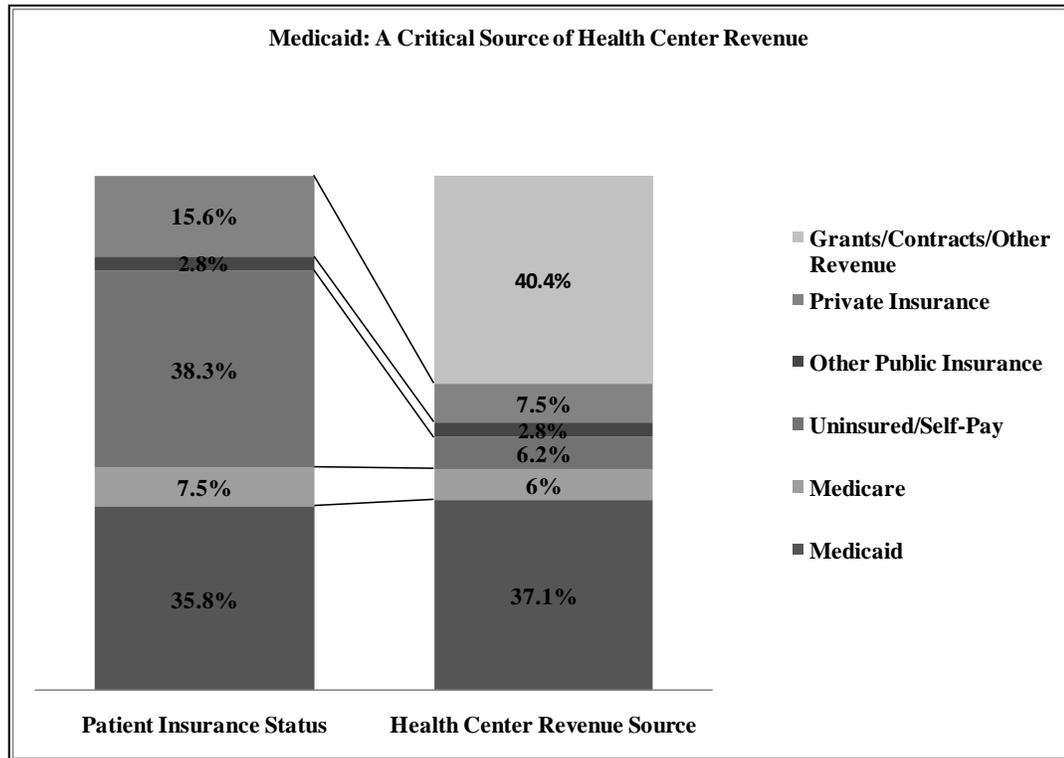
**Health Care for the Homeless Program:** The Health Care for the Homeless Program is the primary source of care for homeless persons in the United States, serving patients that live on the street, in shelters, or in transitional housing. In 2008, HRSA-funded health centers served nearly 934,000 persons experiencing homelessness. Health Care for the Homeless grantees focus on the complex needs of homeless persons and strive to provide a coordinated, comprehensive approach to health care including required substance abuse and mental health services.

**Public Housing Primary Care Health Centers:** The Public Housing Primary Care Program provides residents of public housing with increased access to comprehensive primary health care services by delivering services on the premises of public housing developments or at other locations immediately accessible to residents. In 2008, HRSA-funded health centers served nearly 157,000 residents of public housing.

### *How are Health Centers Supported?*

Financing and revenue sources play a key role in the ability of health centers to address their goals of increasing access, improving quality, and reducing health disparities. Health centers rely on a number of revenue sources. The major source for all health centers is Medicaid, with over one-third of health center revenue generated from this source (see Figure 6).

- On average, less than one-fifth (about 18 percent) of health center revenue comes from the Federal HRSA health center grant.
- Remaining funding comes from State, local, and philanthropic organizations, other third party sources, sliding fee payments, Medicare, and other Federal programs or payers.



**Figure 6.** Health Center Patient Insurance and Revenue Sources, 2008

**Source:** U.S. Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2008.

## **HRSA Efforts to Expand and Accelerate Health Center Quality Improvement**

As documented throughout this Report, HRSA continues to support the advancement and acceleration of quality improvement efforts through a number of initiatives and activities—building on experience with, and an ongoing commitment to, quality improvement across the Health Center Program. Some quality improvement initiatives are well-established, and others continue to evolve, but all represent crucial steps towards sustaining even greater advances in quality of care, health outcomes, and disparity reductions across all of America’s health centers.

### **I. Federal Quality Data Collection, Analysis, and Reporting Requirements**

#### *Congressional Report Focus Area*

*(i) Federal efforts, as of the date of enactment of this Act [the Health Care Safety Net Act of 2008], regarding health care quality in community health centers, including quality data collection, analysis, and reporting requirements;*

#### **Tracking and Analyzing Quality Improvement: HRSA’s Uniform Health Center Performance Measures**

Data collection, analysis, and reporting are central elements of the Health Center Program’s requirements for all grantees. Since 1996, HRSA’s Uniform Data System (UDS) has been used to annually collect and track data on patient demographics, services provided, staffing, clinical indicators, utilization rates, costs, and revenues from all of HRSA’s health center grantees.

HRSA also utilizes these data to assist individual health centers and the Program as a whole to drive performance and quality improvement:

- HRSA provides an annual individualized feedback report to each grantee that includes the center’s 3-year trend data detailing changes in performance over time and comparing the center’s performance to various peer groups nationally (e.g., health centers of similar size, location-rural/urban, etc.).
- Data are analyzed at a national level to set goals for HRSA, and health centers use these data to establish individual program goals.
- HRSA provides annual trainings for centers on how to utilize the UDS measures and data for quality improvement.

### *Tailoring Performance Measures for the Health Care Safety Net*

In 2008, HRSA adopted a set of core clinical performance measures, specifically relevant to the wide variety of health care safety net providers supported through the Agency. The measures were aligned with nationally recognized and standardized quality metrics from such organizations as the National Committee for Quality Assurance (NCQA) and their Healthcare Effectiveness Data and Information Set (HEDIS)—a tool used by more than 90 percent of America's health plans to measure important dimensions of care and service, the National Quality Forum and the AQA Alliance (formerly the Ambulatory Care Quality Alliance). In addition, many of the measures are commonly used by Medicare, Medicaid, and private insurers to assess quality performance, so many health centers already report these measures to other payers and programs.

A subset of these new HRSA clinical measures that place a greater emphasis on health outcomes and demonstrate the value of care delivered by health centers (appropriate childhood immunizations, cervical cancer screening, blood pressure control, and diabetes control) was selected to be added to the 2008 UDS. These selected measures also provide a balanced and comprehensive representation of health center services, clinically prevalent conditions among underserved communities, and the various life cycles served by health centers.

Health outcomes for the overall health center patient population as well as outcomes for racial/ethnic sub-groups were specifically tracked on birthweight, blood pressure, and diabetes control. Through the implementation of all these new measures, HRSA now has the capacity to publicly report on key successes of the Health Center Program in providing quality care and reducing disparities for underserved patients and communities. In addition, individual health centers have crucial data to support continued performance and quality improvement.

Prior to implementation, the measures were reviewed and pilot tested for feasibility and to assess the reporting burden on grantees of varying size and capacity. The pilot study confirmed that the health centers were readily able to collect the data and report on them based either on chart reviews of a sample of patients or through an electronic health record. In addition, building on the quality improvement advances gained through HRSA's Health Disparities Collaboratives, the majority of health center grantees already had extensive experience working to track and improve care and outcomes in diabetes, hypertension, cancer prevention and childhood immunization.

#### *Measuring Health Center Quality*

In 2008, HRSA required health centers to begin program-wide collection of core quality of care and health outcome data in the following areas:

- Early entry into prenatal care
- Childhood immunizations
- Cervical cancer screening
- Diabetes control
- Blood pressure control
- Reductions in low birthweight

## **Monitoring Health Center Quality Performance and Minimizing Reporting Burden: Aligning HRSA Grant and Data Reporting Requirements**

To support the provision of high quality patient care, each HRSA-funded health center is expected to have an ongoing quality improvement/assurance program and plan that includes clinical services and quality management. In order to both reduce reporting burden and improve the quality improvement requirements for all health centers, in 2009 HRSA created a standardized Health Care Plan and Business Plan. Populated with results from the new uniform clinical and financial performance measures reported through the UDS for the 2008 calendar year, these plans provide grantees with the opportunity to establish quality and performance goals for their organization and patient populations. These plans also allow grantees and HRSA staff to assess progress towards these goals in subsequent annual grant applications. This alignment furthers HRSA's objective to collect data in a way that minimizes grantee reporting burden and helps document the value and quality improvement efforts of the Health Center Program.

For grantees funded for the first time as a HRSA-supported health center ("New Starts"), HRSA conducts a New Start Site Visit to assist the organization in developing and maintaining the appropriate capacity to report on clinical quality performance measures. These New Start Site Visits also review the organization's clinical quality systems and identify any technical assistance needs associated with program data reporting, quality assurance and/or quality improvement requirements.

## II. Identification of Effective Quality Improvement Models

### *Congressional Report Focus Area*

*(ii) identification of effective models for quality improvement in community health centers, which may include models that--*

*(I) incorporate care coordination, disease management, and other services demonstrated to improve care;*

*(II) are designed to address multiple, co-occurring diseases and conditions;*

*(III) improve access to providers through non-traditional means, such as the use of remote monitoring equipment;*

*(IV) target various medically underserved populations, including uninsured patient populations;*

*(V) increase access to specialty care, including referrals and diagnostic testing; and*

*(VI) enhance the use of electronic health records to improve quality;*

### **Identifying Health Center Best Practices<sup>21</sup>**

Identifying the drivers and attributes of high performing health centers presents a key learning opportunity for sustaining successful long-term quality improvement interventions across the Health Center Program. Building off their shared goals of improving health care access, quality and outcomes, as well as eliminating health disparities, HRSA and the National Institutes of Health (NIH) National Center on Minority Health and Health Disparities (NCMHD) recently partnered to analyze and summarize lessons learned from the 10-year experience of the HRSA-sponsored Health Disparities Collaboratives.

The project specifically identified and examined health centers that demonstrated significant levels of high performance sustained over time, resulting in documented improved health outcomes and reductions in disparities among the population served. This analysis of high performing centers is the first step in identifying the key elements of quality improvement interventions that might be spread across the Health Center Program as a whole. In order to capture the most critical, concrete lessons possible, a number of high performing health centers were invited to a two-day summit by HRSA and NIH to present results and insights about the drivers contributing to their achievements. The meeting also promoted partnership building among participants that would support the ongoing acceleration and achievement of successful quality improvement interventions.

Results from the meeting indicated that the selected health centers share a number of common factors, in particular well-documented innovations in structure, process, and leadership that have allowed them to sustain their improvements and which may serve as models for driving improvement in other health centers. Key quality strategies identified included:

- Utilization of expanded care teams (interdisciplinary and optimized) accountable for providing appropriate and timely care to health center patients.
- Availability of patient self-management support.
- Integration of behavioral health, oral health, and clinical pharmacy services within the primary care setting and community partnerships that facilitate coordination of care across all services.
- Enhancement of patient access by defining patient panels and implementing open access scheduling.
- Expanding the use of technology in the form of registries and electronic health records for managing data at the patient and population level.
- Using performance data in a transparent way to monitor and drive improvements in organizational and individual outcomes of care, patient experience, staff vitality, and fiscal impact.
- Supporting a culture of quality where health center leadership is committed to the creation of quality improvement capacity across the organization.

### ***Addressing Care Coordination, Disease Management, and Multiple, Co-Occurring Conditions***

Research demonstrates that, in many cases, health center quality of care equals and often surpasses that provided by other primary care providers.<sup>22</sup> However, in order to continue to advance and accelerate health center quality improvement, it is essential to examine and support the various factors driving these results; specifically by focusing on efforts to ensure that the care delivered at health centers is the right care, well coordinated, and patient-centered. Activities supporting these core aspects of quality include care coordination and disease management as well as providing continuous and culturally appropriate care capable of addressing the complex needs, such as multiple co-occurring diseases and conditions often confronting the health center patient population.

#### ***Providing the Right Care***

A critical measure of health care quality is ensuring that patients receive the “right care”—specifically, care that according to evidence-based guidelines is effective and

appropriate for a given condition.<sup>23</sup> As discussed throughout this Report, health centers have vastly increased their capacity to deliver more services, including preventive, behavioral and oral health care, to greater numbers of patients through new and expanded service delivery sites. Studies also demonstrate that health centers are delivering the “right care” across an array of services, including preventive care and chronic disease management. For example, health center patients are more likely than patients nationally to report having essential preventive health screening and counseling services. A greater proportion of health center patients than a national sample report receiving:

- Evidence-based cancer screening such as Papanicolaou (“Pap”) tests, breast examinations, mammograms, and colonoscopies; and
  - Counseling at the last checkup on key behavioral determinants of health; smoking, alcohol, exercise, nutrition, drug use, and preventing sexually transmitted diseases.<sup>24</sup>
- Data suggest that health centers provide as good or more appropriate and timely care than other health care providers as measured by:
    - Reduced hospitalizations and Emergency Department visits;<sup>25</sup>
    - Higher rates of vaccination among children;<sup>26</sup> and
    - Higher rates of cancer screening among the poor and elderly.<sup>27</sup>
  - For the majority of diabetes, hypertension, and asthma indicators, the quality of care delivered in health centers is comparable to that delivered in other settings that provide care for underserved populations and to some national benchmark data. Health centers with computerized decision support (computerized systems that remind providers of appropriate care processes) performed particularly well in this area.<sup>28</sup>
  - Both Medicaid and uninsured health center patients are more likely to report having visited a generalist physician, obstetrician/gynecologist (among women), nurse practitioner, and vision care and mental healthcare professional.<sup>29</sup>

### ***Delivering Coordinated Care***

The coordination of patient care across various providers helps to ensure appropriate follow-up treatment, minimize the risk of error, and prevent complications. In addition, care coordination can reduce patient stress and confusion surrounding their treatment and assist in navigating an often complex and fragmented health care system.<sup>30</sup> Not only do health centers provide primary care services that address the major health care needs of their target population, they are also required to coordinate and collaborate appropriately with other health care and social service providers in their area to ensure the most effective use of limited health resources.

Health centers must also have ongoing referral arrangements with one or more hospitals where health center providers have admitting privileges so patients can be followed by their own physicians. When this is not possible, the health center must have firmly

established arrangements for hospitalization, discharge planning and patient tracking. The end goal is, to the greatest extent possible, to manage the care of health center patients throughout the system. Research has highlighted the results of the Health Center Program's focus on coordinated care:

- Maintaining coordinated and continuous care is difficult if a patient does not have a regular source of primary care. Thus, it is important to note that uninsured health center patients are significantly more likely to have a usual source of care and to have more frequent contacts with physicians or other health professionals compared to uninsured persons overall.<sup>31</sup>
- Health centers outperform health maintenance organizations (HMOs) on primary care characteristics overall and specifically on:<sup>32</sup>
  - Provision of ongoing care;
  - Coordination of care;
  - Comprehensiveness of services received by patients; and
  - Community orientation.
- Health center patients are also more likely than HMO patients to rate their primary care as good and perform comparably in terms of first contact care and comprehensiveness of available services.<sup>33</sup>

### ***Providing Patient-Centered Care***

Patient-centered care (PCC) is defined by the Institute of Medicine as care that is "respectful of, and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions."<sup>34</sup> There is growing evidence that a strong personal relationship between patient and clinician that incorporates an individual's needs, perspectives, and preferences in his or her care can result in better health outcomes and satisfaction. Given these findings, there is increasing recognition of the benefits of moving away from an approach that has too often been organized around the needs of the health care system and clinicians and, instead, moving towards the needs of the "patient." However, certain populations such as low-income individuals, uninsured persons, immigrants, racial and ethnic minorities, and the elderly—those typically underserved by the health system—still face many and even greater barriers to receiving PCC.<sup>35</sup> Care that is respectful and based on a strong and ongoing relationship between clinician and patient is thus central to the provision of PCC, and is of particular importance for these most vulnerable populations often served by health centers.

Another key element of PCC is clear and understandable communication between provider and patient, which helps to improve adherence to treatment plans, engagement in care decisions, and improves overall quality of care.<sup>36</sup> This is important given that 14 percent of U.S. adults have "Below Basic" health literacy—the capacity to obtain, process, and understand basic health information and services needed to make

appropriate health decisions. This means that clinicians need to take the time to ensure patient understanding, avoid medical jargon, use visual tools to convey information, and advocate for the needs of the patient within health care systems that are often poorly responsive to patient needs. In addition, individuals with “Low” health literacy are more likely to report their health as poor (42 percent) and more likely to lack health insurance (28 percent) than adults with “Proficient” health literacy.<sup>37</sup> Thus, patients with the greatest health care needs often face the greatest barriers to effective communication.

Given the unique needs of health center patients in terms of cultural and linguistic diversity as well as literacy and education levels, PCC promotes patient self efficacy, an essential element in achieving improved health outcomes. Recognizing this core aspect of quality, many health centers have developed and implemented activities and services to address the needs of underserved, culturally diverse communities, including interpreter services, cultural competence training for staff, targeted outreach programs using culturally competent persons from the relevant community, and other culturally and linguistically appropriate interventions.<sup>38</sup> As noted in one study, almost every health center provider surveyed reported using at least one special method or technique to assist patients with limited health literacy. The most common techniques being:<sup>39</sup>

- Describing medical conditions, treatments, and instructions in layman’s terms;
- Reviewing instructions carefully with the patient;
- Providing patients with health education materials;
- Encouraging patients to bring a friend or family member to their appointment; and
- Having patients repeat instructions to check their understanding.

National surveys and studies also document health center performance as patient-centered providers across a number of domains ranging from respect for individual choices and preferences to strong patient-provider communication, resulting in an overall higher quality patient experience.<sup>40</sup> For instance:

- 84 percent of health center patients report being able to identify a particular health center physician as their own compared to 38 percent of adults and 36 percent of children nationally.<sup>41</sup>
- 99 percent of health center patients are satisfied or very satisfied with the quality of care they receive at health centers, compared to satisfaction rates of 67 percent to 87 percent reported in other national surveys of physician visits.<sup>42</sup>
- A 2002 HRSA survey of the health center patient experience found that:<sup>43</sup>
  - 90 percent reported satisfaction with waiting time to get an appointment;
  - 84 percent reported satisfaction with their waiting time to see a doctor;
  - 94 percent were satisfied with the way their questions were answered and with the overall care they received;
  - 92 percent were satisfied with their ability to get care; and
  - No notable differences in satisfaction were found across age, gender, race, urban and rural residence, poverty level, or health insurance groups.

## ***Improving Access and Targeting the Underserved***

Access to care is a fundamental element of health system performance and the cornerstone of any quality improvement effort. Good access to health care involves the ability of patients to obtain affordable care in a timely manner.<sup>44</sup> Access to a usual source of timely and affordable care, such as provided by health centers, is particularly critical for underserved and uninsured patients. In fact, it is estimated that if every American made appropriate use of primary care, the savings to the health care system as a whole could total \$67 billion annually.<sup>45</sup>

Health centers effectively increase access to care for those most in need. Research indicates that the presence of health centers is associated with improved access for various medically underserved populations, including the uninsured:

- Medicaid patients of health centers are more likely to report having a regular source of care than Medicaid patients nationally (99.3 percent vs. 93.1 percent).<sup>46</sup>
- Low-income residents, regardless of insurance status, are more likely to have visited a physician if they live in an area with a greater number of health centers per low-income resident (1.3 and 1.2 times higher odds for uninsured and insured respectively).<sup>47</sup>
- Compared with uninsured persons nationally, uninsured persons living in close proximity of a health center have a significantly:
  - Lower probability of reporting an unmet medical need;
  - Lower probability of reporting a delay or postponement of needed medical care;
  - Higher probability of reporting having had a general medical visit; and
  - Lower probability of having had an emergency room visit or hospitalization as compared to other uninsured people.<sup>48</sup>

### ***“Virtual” Health Center Expansion***

HRSA has increased access through non-traditional means, in particular by supporting telehealth and remote monitoring technologies that bring timely and affordable primary care services to patients, often in some of the Nation’s most rural and remote regions. Since 1989, HRSA has provided telehealth grants to 47 States and the District of Columbia. Grantees funded by HRSA's Office for the Advancement of Telehealth have provided telehealth services in 690 rural provider clinics, health centers, hospitals, and other settings across the United States.<sup>49</sup> Over 85 health centers participated in the various HRSA-supported telehealth grant projects that provided clinical telemedicine services from October 1, 2006 through September 30, 2008.<sup>50</sup>

Telehealth utilizes telecommunications technologies to overcome the physical barriers of distance. These technologies have shown great promise for improving primary care access, thereby enhancing quality of care; reducing travel burdens on patients; expanding preventive and chronic disease management services; and enhancing the efficiency of practitioners.<sup>51</sup> Specific funding and technical assistance efforts include:<sup>52</sup>

- Support for State professional licensing boards to develop and implement policies that reduce statutory and regulatory barriers for physicians to practice outside of their licensed area using telehealth;
- Grants for telehealth networks that improve healthcare services for medically underserved populations in urban, rural, and frontier communities with an emphasis on evaluating the value added using telehealth;
- Support for the establishment of telehealth resource centers that assist health care providers with the implementation of cost-effective telehealth programs to serve rural and medically underserved areas and populations; and
- Funds for networks to demonstrate advances through clinical care and remote monitoring of patients in their homes using telehealth technologies, including evaluation of the cost-effectiveness of these technologies.

### *Improving Access to Specialty Services*

The Health Center Program's focus is on primary and preventive care. However, HRSA also expects all centers to go beyond this basic care requirement by assessing the full health care needs of their target population and coordinating care across the continuum of primary, ancillary, and specialty services. This entails incorporating appropriate health and social services and managing the care of patients throughout the system, including, when appropriate, providing referrals and access to specialty services. An estimated 32 percent of health centers provide some sort of specialty care on site and 83 percent report that they have formal referral arrangements for some specialty care.<sup>53</sup>

In addition, since the Health Center Program began over 40 years ago, the complexity and volume of services offered in health centers and other primary care settings have greatly expanded. Many technological advances now allow providers to safely perform complicated procedures on an outpatient basis, rather than in a hospital. These and other circumstances have contributed to an increasing number of requests from health centers that wish to provide specialty services directly. In order to support this need, HRSA has recently provided policy guidance to health centers seeking to add specialty services. This guidance ensures that specialty services provided by health centers will function as a logical extension of and a complement to the required primary care services already provided by the center.<sup>54</sup> Examples of services that HRSA recognizes as potential logical and complementary extensions of primary health care include:

- Pulmonary consultations, and/or examinations, where the health center serves a substantial number of patients with asthma, COPD, Black Lung, or tuberculosis;
- Cardiology screenings and diagnoses, where the health center serves a substantial number of patients at risk for heart disease or high blood pressure;
- Minor podiatry outpatient procedures or examinations, where the health center serves a population with a high prevalence of diabetes;
- Psychiatric consultations, examinations and differential diagnoses, where the health center serves a substantial number of patients with mental health and/or substance abuse diagnoses;

- Periodontic services, where the health center serves a significant population of children with poor oral health; and
- Appropriate oncological care of health center patients with cancer.

Although health centers have and continue to make major progress in increasing access to comprehensive primary care services for low-income and uninsured individuals, challenges remain for parallel increases in access to specialty services. Key findings have indicated that:

- Uninsured patients have greater difficulty obtaining access to off-site specialty services, including referrals and diagnostic testing, than patients with Medicaid, Medicare, or private insurance.<sup>55</sup>
- Major barriers to accessing specialty care include: non-health center specialty providers that are unwilling to take patients of certain insurance types; patient ability to meet up-front payment requirements and a lack of full coverage by the insurance plan or health center for needed specialty services.<sup>56</sup>
- Access to specialty care is also strained across the health care safety net. Waiting times for non-urgent appointments were reported to be much longer than for primary care, often extending into months.<sup>57</sup>

Per the Health Center Program's statutorily mandated focus on primary and preventive health care, HRSA does not directly fund specialty care expansions. However private sector organization that partner with health centers have developed innovative methods and models to improve access and quality of care in this area. One such example is the Physicians' Innovation Network (PIN), a national, non-profit organization that assists communities nationwide with establishing and sustaining coordinated systems of charity specialty care.<sup>58</sup>

### ***Enhancing the Use of Electronic Health Records to Improve Quality***

Health Information Technology (HIT) is increasingly viewed as one of the most promising tools for improving the overall quality, safety, and efficiency of the health care delivery system. HIT utilization, in particular the adoption of electronic health records (EHRs), has been shown to help improve health care quality, prevent medical errors, reduce health care costs, increase administrative efficiencies, and expand access to care.<sup>59</sup> It should be noted that EHRs are one component within the larger context of HIT, an umbrella term for technology that enables patients and providers to support better health and health care by providing targeted information meant to inform, educate or generally allow for improved clinical decision making.<sup>60</sup>

Building on the Administration's national goal of an EHR for all Americans in 5 years, the passage and signing of the American Recovery and Reinvestment Act (ARRA) of 2009 included almost \$20 billion in funds directed towards supporting HIT adoption through financial incentives and technical assistance, furthering this activity as a major national priority. In addition, the ARRA specifically provided \$1.5 billion in grants to address significant and pressing capital improvement needs in health centers, including

the acquisition of HIT systems for health centers and health center controlled networks (HCCNs).<sup>61</sup>

### *HRSA Leadership in HIT Adoption and Implementation*

Many HRSA grantees and programs, most prominently health centers and HCCNs, have been at the forefront of leveraging HIT to manage care for vulnerable patient populations. HRSA has long supported the use of HIT as a means of providing quality health services ranging from demonstrating the efficacy and viability of telehealth systems to promoting practice management systems, EHRs and chronic disease registries like those used in the Health Disparities Collaboratives.

Recent research on EHR implementation across health centers demonstrates that these providers are leaders in HIT adoption with an estimated 40 percent reporting current utilization<sup>3</sup> of electronic patient medical records. In addition, among those health centers that do not currently have EHRs, 81 percent report plans to implement one in the next 2 years.<sup>62</sup>

Due to the complexity and expense of HIT implementation, HRSA's Office of Health Information Technology and Quality (OHITQ) has built on the success of the HCCN model as an effective and efficient means of spreading wide-scale EHR adoption to a growing number of health centers. As noted in a 2008 study, HRSA-funded health center networks have demonstrated that collaboration and pooling of resources and expertise can lead to broader scale adoption of EHRs among safety net providers and, with it, the potential to improve the quality of care delivered to the underserved.<sup>63</sup>

To date, HRSA has funded networks of health centers and rural health clinics, as well as individual health centers to implement EHRs in approximately 20 percent of all health centers.<sup>64</sup> In addition, building on the experience of the HRSA-supported Health Disparities Collaboratives, an even larger proportion of health centers continue to use patient registries to support quality improvement programs that are proven to improve processes and outcomes of care for patients with chronic illnesses such as diabetes.<sup>65</sup>

#### *What are Health Center Controlled Networks?*

HRSA's Health Center Controlled Networks (HCCNs) are controlled by and act on behalf of health centers and must consist of at least three collaborating organizations.

These HRSA network grants ensure access to health care for the medically underserved populations by bringing individual health centers together to **collaborate, share, and/or integrate** certain key administrative, clinical or financial operations, including health information technology.

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<sup>3</sup> Self-reported response to the question "Do you currently use electronic patient medical records throughout your health center?"

To support these significant investments in health center infrastructure and ongoing HIT efforts across HRSA grantees, the Agency is working to:<sup>66</sup>

- Develop supportive strategies and policies that leverage the power of HIT and telehealth to meet the needs of people who are uninsured, underserved and/or have special needs.
- Identify, disseminate and provide technical assistance to health centers and other HRSA grantees in adopting model practices and technologies.
- Disseminate appropriate information technology advances, such as electronic medical records systems or provider networks.
- Work collaboratively with foundations, national organizations, the private sector, and other Federal agencies to help HRSA grantees adopt HIT.
- Ensure that HRSA HIT policy and programs are coordinated with those of other U.S. Department of Health and Human Services components.

Moving forward, HRSA will continue to provide the Federal leadership and support needed to accelerate the adoption and effective use of HIT and EHRs across the Health Center Program and the safety net community as a whole. It will do so with a specific focus on ensuring networks and individual health centers not only adopt EHRs and other HIT, but that they continue and expand their existing capabilities as “meaningful users” of EHRs—as specified in the Recovery Act—where data shared and analyzed through these systems ultimately support and attain key long term goals such as improvements in patient safety and health outcomes, as well as reductions in health disparities.

***HRSA and AHRQ: Partnering  
to Support Effective  
HIT Adoption***

Developed through a partnership between AHRQ and HRSA, the Health IT Adoption Toolbox website is a compilation of planning, implementation and evaluation resources to help health centers and other safety net providers implement health information technology applications in their facilities.

Staff from health centers and a variety of stakeholders in the health IT arena have reviewed and contributed to the toolbox to ensure the resources are accurate, relevant, and effective in supporting HIT in health centers of varying size and capacity, including both rural and urban settings.

### **III. Adopting and Adapting Effective Quality Improvement Models**

#### ***Congressional Report Focus Area***

*(iii) efforts to determine how effective quality improvement models may be adapted for implementation by community health centers that vary by size, budget, staffing, services offered, populations served, and other characteristics determined appropriate by the Secretary;*

HRSA has worked to advance and adapt effective quality improvement models by supporting a number of crosscutting quality efforts at the Program, State and individual health center levels. HRSA-supported quality activities have focused on promoting evidence-based practices, HIT and other activities that improve the coordination, integration, safety and management of health center care while decreasing disparities and controlling costs.

#### **The HRSA Health Disparities Collaboratives**

In 1998, BPHC launched a national quality improvement effort: a Learning Collaborative to assist health centers with improving primary health care provided to patients with diabetes and to eliminate health disparities. The idea stemmed from the Chronic Care Breakthrough Series Collaboratives developed by the Institute for Healthcare Improvement (IHI). After piloting the diabetes collaborative, these Health Disparities Collaboratives (HDCs) expanded to address multiple chronic diseases, including cardiovascular disease, depression, asthma, as well as chronic disease prevention, cancer screening, and finance/redesign.<sup>67, 68</sup>

The goals of the HDC are to decrease or delay complications of disease, decrease the economic burden for patients and communities and to improve access to quality of chronic disease care for underserved populations. Since the first collaborative was launched, over 80 percent of HRSA-funded health centers have participated in at least one of the Collaboratives.<sup>69</sup> More than 900 health centers were involved in the HDCs in 2007.<sup>70</sup> Few, if any, other quality improvement initiatives in the U.S. have reached so many primary care practices or touched as many primary care patients.

The “Chronic Care Model,” “Model for Improvement” and “Learning Model” have been the primary frameworks used by the HRSA Collaboratives to implement disease management initiatives. The Care Model is an evidence-based framework that identifies key factors that must be addressed in order to enable system change and to make subsequent improvements in health care outcomes (see Figure 7).

The model describes key elements of a health care delivery system organized to provide high quality care

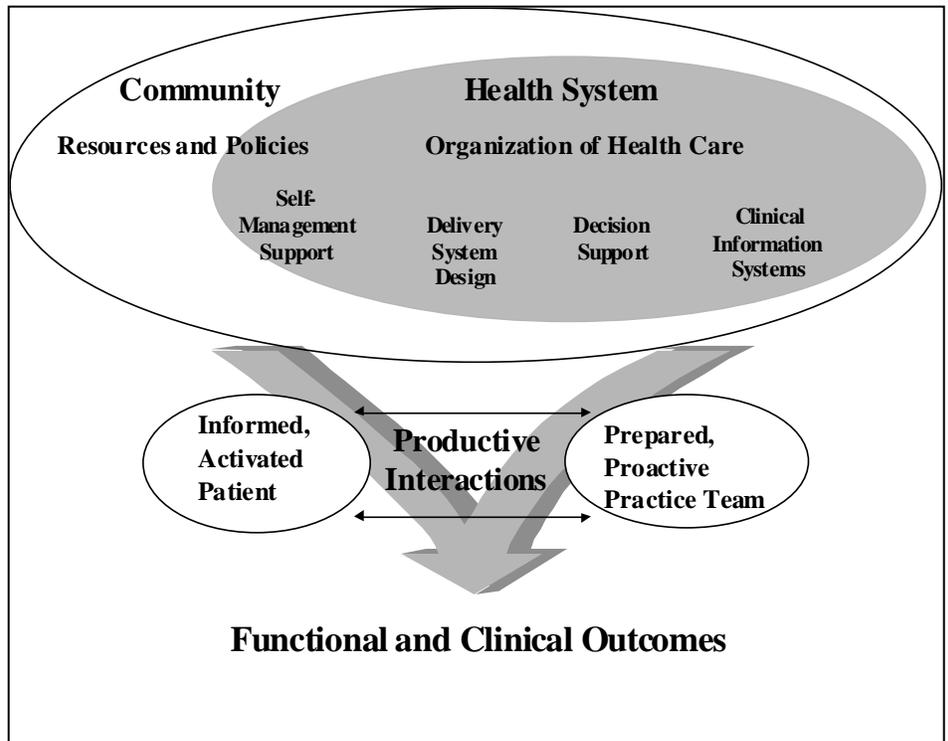


Figure 7: The Care Model

that leads to improved clinical outcomes with a focus on how alignment of community resources and policies can contribute to health system performance.

Most importantly, the Collaboratives demonstrated documented results in quality improvement. Numerous peer-reviewed studies have shown that:

- Participating in a collaborative improved the processes of care related to prevention and screening and disease monitoring and treatment for diabetes and asthma.<sup>71</sup>
- Diabetes care and outcomes in health centers improved between 1998 and 2002, the first 4 years of the HDC. Significant improvements over time were found for 11 processes of diabetes care, and key outcomes such as hemoglobin A1c levels and low-density lipoprotein cholesterol were lowered as measured through chart review.<sup>72</sup>
- Approximately 95 percent of HDC respondents agreed or strongly agreed that the collaborative was worth the effort and was successful.<sup>73</sup>

### **Improving Patient Safety and Managing Multiple Conditions: The HRSA Patient Safety and Clinical Pharmacy Services Collaborative**

A lack of coordinated care across healthcare providers (*i.e.*, primary care physicians, specialists, pharmacies, and emergency departments) can seriously compromise the safety and quality of care for patients with multiple chronic disease conditions taking

various prescriptions. Coordination of prescription medications is a significant issue for a large number of health center patients, given that:

- 82 percent of the U.S. population reported using at least one prescription medication, over-the-counter medication, or dietary supplement in the previous week.
- 30 percent reported using five or more of these drugs in the previous week.
- In 2006, the U.S. pharmacy industry dispensed over 3.4 billion prescriptions.<sup>74</sup>

Adverse drug events continue to be a leading cause of death and injury in the U.S., even though there are well-documented methods to prevent them.<sup>75</sup> Given the important role of medication management for chronic and other conditions facing a large number of health center patients, this most recent HRSA-supported Patient Safety and Clinical Pharmacy Services (PSPC) Collaborative organizes teams of health care providers to test and spread evidence-based practices that significantly improve health outcomes and patient safety by integrating clinical pharmacy services. The Collaborative involves 68 teams of HRSA-funded providers and their community-based safety-net partners who serve large numbers of patients with multiple chronic conditions such as diabetes, obesity, and hypertension.<sup>76</sup>

Health centers have already shown that safe medication practices and aggressive medication system management can reduce safety shortfalls. Specifically, with these actions:<sup>77</sup>

- Medication error rates fall (*e.g.*, Level 1 errors which are the most serious, fall from 0.1 percent to 0.03 percent);
- Adverse drug reactions fall (*e.g.*, fewer emergency department visits due to adverse drug reactions); and
- Gaps in health literacy are filled and patient medication control is increased.

### **Providing Individualized Quality Improvement Support on the Ground: HRSA's Office of Regional Operations**

Beginning in 2004, HRSA's Office of Performance Review (OPR), now known as the Office of Regional Operations (ORO) implemented a new assessment process that reviews the clinical and financial performance of health centers, providing technical assistance and support for quality improvement efforts. ORO staff work with each center to select three to five measures that reflect the specific needs of the center's community and patient population. These measures are then evaluated to determine the center's performance improvement plan and inform future quality improvement efforts, appropriate for the needs and resources of each health center.

## **Moving Quality Improvement Efforts Forward at the State Level: Primary Care Association Activities**

Primary Care Associations (PCAs) are private, nonprofit organizations whose members represent HRSA-supported health centers and other safety net providers. HRSA supports 52 State and regional PCAs across the country which continue to evolve and grow in their role as the central leads for health center quality improvement efforts at the State level. In addition to adapting, spreading and sustaining the work of the Health Disparities Collaboratives, PCAs engage in a number of crosscutting activities to accelerate and advance health center quality improvement.

Their training and technical assistance activities range from facilitating HIT adoption across and within individual centers to building partnership with national, State and local organizations to further access, quality and health disparities reduction efforts. Most recently, PCAs led the effort to assist health centers of varying size and capacity with the implementation of the new HRSA UDS clinical performance measures.

Almost all PCAs have one or more staff members dedicated to quality improvement and assurance. PCAs also continually evaluate and disseminate their quality efforts in a variety of ways, including:

- Requesting feedback from member health centers on quality-related training and technical assistance efforts;
- Ensuring health center quality improvements plans are responsive to identified community health needs and aligned with HRSA quality and data reporting requirements;
- Sharing best practices in data collection, analysis, HIT implementation, and quality improvement efforts throughout the region/State;
- Collecting, analyzing and benchmarking quality and cost data from health center members at the State level to drive and inform performance improvement;
- Enhancing data collection and analysis capacity at both the center and State levels by partnering with State agencies and academic institutions; and
- Promoting health center participation in national accreditation opportunities that document quality improvement activities and achievements.

### *The Power of State and Local Partnerships*

Primary Care Associations build a variety of crucial and innovative partnerships at the State and local level to support their member health centers in quality improvement. Examples include:

- Working with State Medicaid offices and other partners on State-level health care reform efforts to finance and support the patient centered medical home model.
- Partnering with the State Department of Mental Health, Coalition of Community Mental Health Centers, and health centers across the State to improve the integration of mental health and primary care services for safety net populations.
- Developing contracts between the State Department of Health and Senior Services and health centers to implement chronic disease care management.

## IV. Quality Improvement Technical Assistance and Resources

### *Congressional Report Focus Area*

*(iv) types of technical assistance and resources provided to community health centers that may facilitate the implementation of quality improvement interventions;*

#### **Technical Assistance for Quality Improvement: National and State-level Health Center Resources**

National and State-level partners play a key role in HRSA's continuing efforts to support health centers in increasing access to quality health care for those who need it most. HRSA also partners and coordinates at the Federal level with a number of agencies in its efforts to support the delivery of higher quality, more efficient and cost-effective care. Federal partners include but are not limited to the Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid Services (CMS), the National Institutes of Health (NIH), and the U.S. Department of Agriculture (USDA).

National and State partners, supported through HRSA-funded cooperative agreements, bring a great deal of experience and knowledge to the challenge of serving low-income and underserved people. These organizations provide a variety of training and technical assistance to health centers to enhance quality improvement. Areas of assistance range from primary care expansion efforts, community and workforce development planning, health information technology implementation, and quality improvement collaborative leadership. The technical assistance provided through these vital partners helps HRSA make the best use of its Federal investment throughout the

#### **Who are HRSA's National Cooperative Agreement Partners?**

##### *National Organizations*

Association of State and Territorial Health Officials  
Capital Link, Inc.  
Institute for Healthcare Improvement  
National Academy for State Health Policy  
National Association of Community Health Centers, Inc..  
National Conference of State Legislatures  
National Network for Oral Health Care Access

##### *Special Populations Focus*

Association of Asian Pacific Community Health Organizations  
Farmworker Health Services, Inc..  
Farmworker Justice Fund, Inc..  
Migrant Clinicians Network, Inc..  
Migrant Health Promotion  
National Assembly on School-Based Health Care  
National Center for Farmworker Health, Inc..  
National Center for Health Care for Public Housing Residents  
National Health Care for the Homeless Council  
National Nursing Centers Consortium

country, avoid duplication of effort, and better target resources to those most in need.

### **Ensuring Continuous and Coordinated Care for Migrant and Seasonal Farmworkers: The Migrant Clinicians Network - Migrant Health Network**

The Migrant Clinicians Network (MCN), a HRSA cooperative agreement partner, provides services to all HRSA-supported migrant health centers in the country. MCN's Migrant Health Network, which began in 1994, provides patient navigation and bridge case management for migrant and seasonal farmworker patients, a highly mobile population.

The Network, which is supported through funding from both HRSA and the CDC, began with a focus on managing care for mobile patients with tuberculosis (TB) through a program called TB Net and was then expanded to assure continuity of care for patients with diabetes and those requiring prenatal care and cancer screening. The Network has managed patients from over 80 countries and throughout the United States.<sup>78</sup> Since it started, the Network has resulted in successful continuity of care for nearly 5,000 mobile patients.<sup>79</sup>

The system works by identifying patients with TB at health centers and enrolling them in TB Net. Once a patient is enrolled, the program takes responsibility for ensuring that he or she completes up to 2 years of treatment for the disease, even while the patient is moving from location to location, including moving back to his or her country of origin. The program's completion rate for treatment protocol of active TB is 84.7 percent, exceeding the national average of 83 percent. The significance of this achievement cannot be understated considering a mobile population's challenges in completing treatment. Such success not only improves patient health but also protects public health by minimizing the development of multidrug resistant TB that results from inadequately treated cases. A pilot prenatal care patient navigation program has also been developed to help mobile pregnant patients receive quality prenatal care. In the prenatal model, health center staff work with patients to determine where they may be moving, identify the required care and where that care can be accessed, and how staff will transfer medical records.<sup>80</sup>

### **Ensuring High Quality Care for People Experiencing Homelessness: The Health Care for the Homeless Clinicians' Network**

The Health Care for the Homeless Clinicians' Network, supported through HRSA's national cooperative agreements, is a national association of clinicians dedicated to combating and preventing homelessness and to improving the health and quality of life of homeless people. Organized to provide peer support to clinicians from various disciplines, the Network actively:

- Shares information and experience to enhance clinical practice;
- Promotes clinical research;

- Educates clinicians, communities, homeless people, and policymakers on the interrelationship between homelessness, health and public policy issues; and
- Collaborates with other clinical networks, professional associations, and groups working with homeless people.

**Supporting Patient Safety and Clinical Risk Management:  
The Health Center Federal Tort Claims Act (FTCA) Medical Malpractice Program**

HRSA administers the Health Center Federal Tort Claims Act (FTCA) Medical Malpractice Program (Health Center FTCA Program), a significant resource for federally-funded health centers which provides the equivalent of malpractice insurance without the cost of premiums, freeing up funds for direct patient care and quality efforts. HRSA supports the implementation of the FTCA program by providing technical assistance, training and evaluation to health centers that qualify for FTCA benefits.

In order to participate in the Health Center FTCA Program, a center must complete a deeming process that demonstrates they have conducted complete and thorough credentialing of their licensed or certified providers and have appropriate clinical protocols, tracking systems, medical records review, and active quality assurance programs in place. Once deemed, continued monitoring is maintained through annual submission of an FTCA redeeming application to HRSA.

HRSA also focuses on reducing the risk of claims being filed, and of limiting, to the maximum extent possible, the Federal Government's liability for claims that have been filed. In order to support health centers in implementing appropriate clinical risk management practices, HRSA provides access to a clinical risk management website that is a repository for evidence based guidance articles, tools, webinars and continuing education resources as well as a link to one-on-one support for health centers on various areas of patient safety and risk management. Areas of technical assistance include:

- Patient safety and risk management;
- Integrating risk management, quality improvement and performance excellence; and
- Tracking and reporting near misses, sentinel events and other safety issues to reduce risk and improve quality of care.

**Closing the Gap on Patient-Provider Communication:  
HRSA's Unified Health Communication Web Based Training Program<sup>81</sup>**

The HRSA-sponsored Unified Health Communications training program is an interactive Web-based course (<http://www.hrsa.gov/healthliteracy/training.htm>) that addresses three crucial areas that can affect provider patient communication: health literacy, cultural competency and limited English proficiency. Each of these three components can influence various aspects of health communication and subsequently create disparities in

access, quality and health outcomes for various underserved populations. When addressed appropriately and in combination, they can have a significant impact on improving health care delivery and reducing health disparities as well as empowering patients to become more involved in their own health care. The online course is currently used across a variety of health care delivery venues and providers.

## V. Evaluating Quality Improvement Interventions

### *Congressional Report Focus Area*

*(v) proposed or adopted methodologies for community health center evaluations of quality improvement interventions, including any development of new measures that are tailored to safety-net, community-based providers;*

As a major provider of primary care services to the underserved and uninsured, appropriate evaluations that analyze the organizational capacity and quality of the Health Center Program are essential to informing and expanding current and future quality improvement efforts. In order to collect and evaluate quality data and assess the overall impact of the Health Center Program, HRSA utilizes a number of internal and external resources.

#### **Assessing the Health Center Patient Experience: The 2009 HRSA Patient Survey**

As community responsive and patient-driven organizations, assessing the health center patient experience is a key component of health center quality improvement and patient centered care. In 2009, HRSA conducted a national Patient Survey to collect in depth information about health center patients, their health status, the reasons they seek care at health centers, their diagnoses, the services they utilize at health centers and elsewhere, the quality of those services, and their experience with the care they receive. The survey will be conducted through personal interviews of a stratified random sample of health center patients.

The Patient Survey builds on previous periodic User/Visit Surveys which were conducted in 1995 and 2002. The original survey questions were derived from the National Health Interview Survey (NHIS) and the National Hospital Ambulatory Medical Care Survey (NHAMCS) conducted by the National Center for Health Statistics (NCHS). Conformance with the NHIS and NHAMCS allowed comparisons of health centers with these national surveys as well as between the previous User/Visit Surveys. The new Patient Survey will also allow some comparisons with the previous User/Visit survey data, including monitoring of process outcomes over time. In addition, the 2009 survey included interviews of patients drawn from migrant populations and from residents of public housing, populations which were not included in the previous surveys.

**Continuous Quality Improvement:  
Analyzing and Tracking Health Center Trends, Needs and Performance**

HRSA and health center grantees require appropriate data and the capacity to analyze data in order to respond to an often rapidly changing health care environment, shaped by factors such as shifts in health care financing and delivery, value based purchasing and an ever increasing focus on quality and performance improvement. Additionally, per its mission, HRSA relies on data to support the Agency's work in prevention, health disparities reductions and ensuring high quality care and improved health outcomes.

Through short and long term analyses and evaluative research projects, the Johns Hopkins University will provide HRSA with in-depth information on health center performance and effectiveness to enable informed policy and management decision making. Specific analysis and evaluation will focus on:

- Performance of HRSA-funded health centers in providing access to the neediest populations;
- Ability of health centers to provide appropriate primary and preventive care to vulnerable and underserved groups;
- Changes in the health care needs of the populations served, including analysis of the disease patterns and other characteristics of health center patients;
- Specialty service and referral based service needs;
- Overall impact health centers have in their communities; and
- Ongoing identification of the determinants of a "successful" health center, including documenting best practices.

**Recovery Act and Children's Health Insurance Program Investments:  
Evaluating Implementation and Impact on Health Center Quality Improvement**

The recent enactment of the Children's Health Insurance Program Reauthorization Act (CHIPRA) and the American Recovery and Reinvestment Act (ARRA) resulted in substantial new resources for health centers to expand access to and improve the quality of primary care. CHIPRA was expanded to provide health insurance to four million additional children and to implement innovative strategies aimed at enrolling and retaining eligible children in the Children's Health Insurance Program (CHIP) and Medicaid.

The ARRA provided \$2 billion in grants for health centers over a 2-year period to serve more patients, support new and retained jobs, meet the significant increase in demand for primary health care services among the Nation's uninsured and underserved populations,

and address construction, renovation, equipment and health information technology systems needs in health centers.

The Recovery Act funding is separated into two distinct categories:

1. \$500 million for Health Center services – new sites and service areas; increases in services at existing sites; and support for increases in serving uninsured populations.
2. \$1.5 billion for Health Center facilities – construction, repair and renovation of facilities; acquisition of equipment; and acquisition of health information technology (HIT) systems.

Through these investments, over the next 2 years health centers project to serve over 2.85 million additional patients, construct or renovate over 1,600 sites, purchase new or upgraded equipment at over 650 centers, and implement new or enhanced certified EHRs at over 380 health centers.

To evaluate the impact of these activities, HRSA has contracted with George Washington University to provide analytical support, including policy, data and environmental analysis. The contract will provide key analysis and evaluation of:

- Effective health center strategies to identify, enroll, and retain coverage for children under Medicaid, CHIP, and other public health insurance programs. This will include an analysis of health centers of varying size and capacity, encompassing those with both large and small caseloads of children, urban and rural areas, and children facing a variety of barriers to access (e.g., homelessness, migrant status, racial/ ethnic disparity populations).
- The current status, needs and challenges regarding the implementation of ARRA related activities, including HIT adoption in health centers.
- A variety of other quality improvement interventions including comparative effectiveness data on the performance of health centers when compared to other types of ambulatory care providers nationally.
- If and how the current Health Center performance measures effectively describe program accomplishments and are appropriately tailored for community-based safety net providers.

### **Tailoring New Health Center Performance Measures Developing Additional Standard Clinical Metrics**

Building on the new uniform health center clinical performance measures, HRSA will continue to review and assess the need for establishing additional uniform health care quality or health outcome measures, in particular those related to children's health, oral

health and mental health. Health center grantees are currently required to include one oral health and one mental health clinical performance measure in the Health Care Plans submitted with their annual application for Federal funding, however, the specific measure is chosen by the center. By reviewing the measures selected by health centers for the past several years, HRSA will work towards developing a national oral health and a national mental health performance measure to be reported on uniformly by all grantees.

## VI. Sustaining Quality Improvement Interventions

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*(vi) successful strategies for sustaining quality improvement interventions in the long-term;*

HRSA continues to expand and accelerate quality improvement across the Health Center Program through a number of efforts. These efforts include both direct grant funding for new and expanded health centers, expanding mental health, substance abuse, pharmacy, oral health, and enabling services within health centers, as well as providing a variety of training and technical assistance resources designed to increase quality improvement capacity across the Program. In all cases, HRSA's support for increased access and quality improvement continues to target medically underserved populations.

#### **Expanding and Strengthening Access to Health Center Care**

With broad support, Federal investments in the Health Center Program have more than doubled, growing from a little more than \$1 billion in 2000 to over \$2 billion in 2008 and reaching over \$4 billion today with the inclusion of significant ARRA funds (see Table 1). In 2008 the number of patients served passed the 17 million mark for the first time, and between 2001 and 2008, the number of patients treated at health centers increased by nearly 6.8 million, representing a 66 percent increase in just 7 years. Looking back even further over 11 years (1997-2008), the number of patients served has more than doubled while the number of health center grantees grew by 62 percent over the same period.

<b>Growth in Federal Health Center Funding , Grantees and Patients Served 2002-2009</b>								
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009*</b>
Appropriations (in billions)	\$1.34	\$1.51	\$1.62	\$1.73	\$1.79	\$1.99	\$2.07	\$4.19
Number of Grantees	848	895	914	954	1,006	1,076	1,082	1,131
Patients (in millions)	11.3	12.4	13.1	14.1	15.0	16.1	17.1	DNA

**Table 1.** Health Center Program Annual Appropriation Amounts and Number of Grantees, Fiscal Years 2002-2009.

\* Includes both annual appropriation and FY 2009 Recovery Act funds.

## Targeting and Reaching the Underserved

Health centers are also serving an increasing number of medically underserved and uninsured populations, including people experiencing homelessness and migrant and seasonal farmworkers and their families (see Table 2). Between 2001 and 2008:

- The number of homeless patients served rose by nearly 361,000, a 63 percent increase.
- The number of migrant and seasonal farmworkers served increased by over 147,000, a 22 percent increase.
- While the proportion of uninsured patients has held steady at close to 40 percent, the number of uninsured individuals served by health centers has increased by 64 percent from 4 million in 2001 to over 6.5 million in 2008.

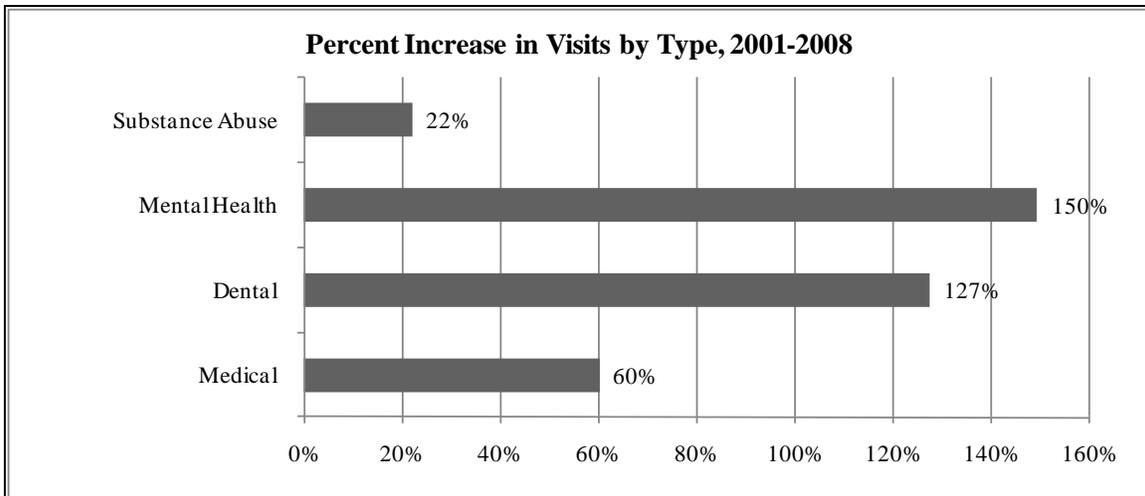
Number of Health Center Patients Served by Special Population Type and Year								
	2001	2002	2003	2004	2005	2006	2007	2008
Migrant	686,166	708,611	694,040	726,813	776,668	807,153	826,977	834,006
Homeless	572,608	621,485	678,075	703,023	795,482	828,570	930,589	933,929
Public Housing	70,026	93,642	110,266	106,322	122,113	129,280	133,518	157,000

**Table 2.** Growth in Special Populations Served by Health Centers 2001-2008

**Source:** Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2001-2008.

During this tremendous period of growth, HRSA's efforts have resulted in health centers providing a more comprehensive array of services than ever before including mental health and substance abuse treatment (see Figure 8).

- In 2008, more than 769,000 patients received mental health and/or substance abuse services at health centers; health centers also saw a 100 percent increase in mental health and/or substance abuse visits over 2001.
- For oral health, in 2008, over 3 million patients received 7.3 million dental visits at health centers; this more than doubled the number of dental patients and visits over 2001.



**Figure 8.** Health Center Patient Visits by Type of Service, Percent Change 2001 to 2008.

**Source:** Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2001-2008.

## Expanding and Sustaining Access to Affordable and Timely Primary Care

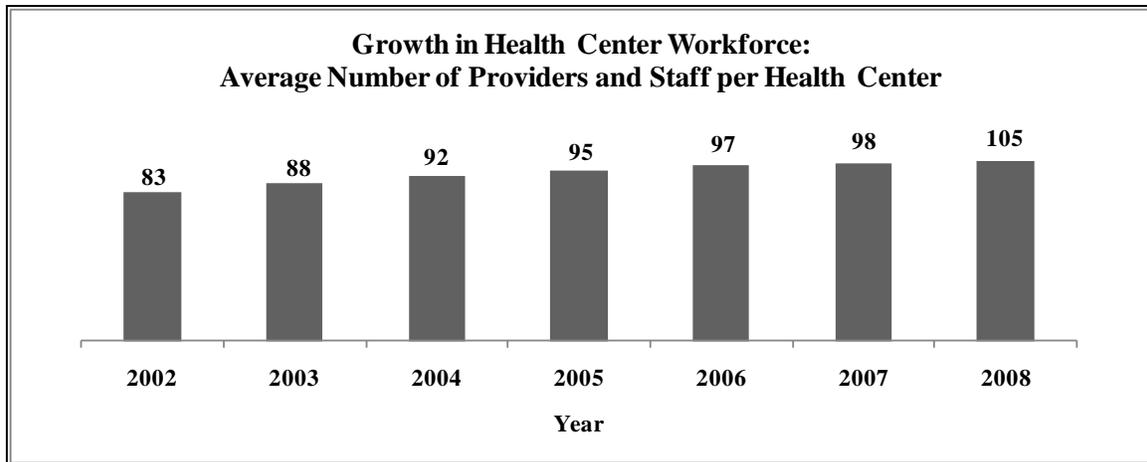
### *Opening Health Center Doors in More*

**Communities:** HRSA’s New Access Point grants support the establishment of new health center service delivery sites for medically underserved areas and populations. Through these grants, organizations offer access to comprehensive primary and preventive health care, including mental health, substance abuse and oral health care services, as well as social services to populations currently with limited or no access to such services. Applicants must identify a population in need of primary health care services and propose a specific plan to increase access to care and reduce disparities identified in the population or community to be served (see Table 3).

HRSA Grant Program	Number of Awards: 2002-2009
New Access Points	884
Expanded Medical Capacity	593
<b>Total New and Expanded Health Center Awards</b>	<b>1,477</b>

**Table 3.** New and Expanded HRSA Health Center Grant Awards, Fiscal Years 2002-2009

**Strengthening Health Center Capacity:** HRSA’s Expanded Medical Capacity grants support activities that include expanding existing primary care medical services, adding new medical providers, extending hours of operations, or providing additional medical services through contractual relationships (e.g., obstetric/gynecological services). Applicants must ensure that the funds will increase access to comprehensive primary and preventive health care and improve the health status of underserved and vulnerable populations (see Table 3). Supporting the expansion of medical capacity at existing health center sites has allowed grantees to significantly increase the number of people with access to comprehensive primary and preventive health care services (see Figure 9).



**Figure 9.** Average Number of Providers and Staff per Health Center, 2002-2008

**Source:** U.S. Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2002-2008.

***Expanding Health Center Services:*** Mental health, substance abuse, oral health and comprehensive pharmacy services are critical to improving the health status of communities and patients served by health centers and in eliminating disparities in access to health care. Inadequate access to pharmacy services often leads to problems with drug interactions, inappropriate doses and failure to adhere to prescribed therapy. Lack of access to oral health care services is the primary reason for the gaping disparities in oral health status among vulnerable populations. Mental health and substance abuse disorders, such as depression and abuse of alcohol, are prevalent among underserved populations, yet treatment is not accessible in many communities. In addition, mental health and substance abuse services are most accessible when they are integrated into primary care sites like health centers, enabling “one stop shopping.”

Recognizing the essential role of these services in quality care, HRSA continues to support targeted funding for health centers to expand access to these critical services and has awarded over 800 service expansions worth more than \$103 million in grant funds since 2002. In 2008:<sup>82</sup>

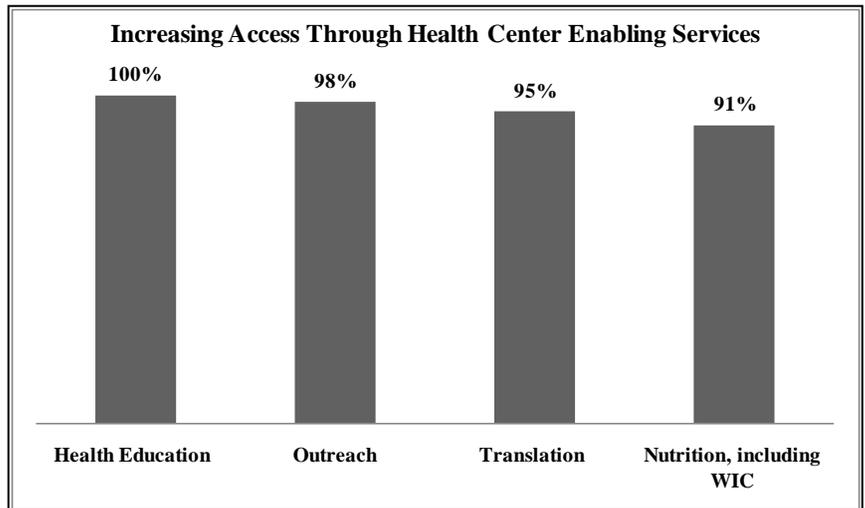
- 85 percent of health centers reported that they provided pharmacy services either on-site or by paid referral. Many also participate in the HRSA 340B Drug Pricing Program which enables health centers to offer significant discounts on pharmaceutical products to their patients.
- 88 percent and 68 percent of health centers reported providing oral health and mental health/substance abuse services respectively.

## Overcoming Barriers by Enabling Access to Care

Enabling services, a core component of the comprehensive model of primary care provided by health centers, are non-clinical services that aim to increase access and improve health care quality and outcomes. The provision of these enabling services is a distinguishing feature of health centers which recognize that barriers to care take various forms. Thus, health centers offer a variety of supportive and enabling services to their patients that promote access and quality such as:

- Case management for chronic conditions, including persons living with HIV;
- Nutrition services;
- Eligibility and enrollment for health and social services;
- Outreach and transportation;
- Translation and interpretation services for persons with limited English proficiency;
- Education of patients and the community regarding the availability and appropriate use of health services; and
- Referrals to other providers of medical and social services including housing, child care, employment, and food programs.

HRSA has also recognized the unique needs and common barriers confronting migrant and seasonal farmworkers, persons experiencing homelessness and residents of public housing when accessing primary health care services. In order to expand access to crucial enabling services, HRSA provided \$5.9 million through 79 supplemental grant awards in 2009 to health centers that are specifically funded to target these populations.<sup>83</sup>



**Figure 10.** Percent of Health Centers Providing Key Enabling Services Onsite or by Paid Referral, 2008

**Source:** HRSA Bureau of Primary Health Care MIS scope repository data as of December 31, 2008.

In addition, HRSA requires all health centers to report data annually on the utilization, staffing, and availability of these crucial enabling services (see Figure 10). Non-clinical enabling services such as language translation and case management are critical to access and quality of care for patients with limited English proficiency and those with complex needs. While there is growing evidence that these services improve health care quality and reduce avoidable hospitalizations, there is minimal research that has attempted to quantify the national impact and utilization of such services across the broader health care system.<sup>84,85,86</sup> Results from one study underscore the importance of these services in improving access to and the quality of culturally competent and patient-centered care for underserved and minority patients. Key findings indicated that:<sup>87</sup>

- There is high utilization of enabling services by health center patients, and the provision of enabling services is a major component of health center activities;
- Most patients at health centers utilize enabling services and often receive more than one type of service; and
- The most vulnerable patients, including individuals who are uninsured, have limited English proficiency and experience multiple barriers to care – rely on enabling services to access health services.

**Sustaining and Reinforcing the Health Center Model:  
HRSA’s Performance Analysis and Recommendations (PAR) Review Tool**

Building on previous HRSA program monitoring tools, the PAR is an integrated electronic review system developed in 2007 and used by HRSA’s Project Officers to continuously monitor program compliance and performance improvement for all health center grantees. The system tracks progress on both statutorily-mandated program requirements as well as areas of performance improvement, including HRSA’s required clinical measures and financial performance measures. The PAR also tracks various aspects of quality ranging from health center needs assessment, services, operations, financial stability, evaluation, and governance activities. Project Officers take a partnership approach in assisting health centers with their performance measures and facilitate quality improvement initiatives related to the measures and provide technical assistance as appropriate. The system will also be used to identify best practices that can be disseminated across the Health Center Program.

***Linguistic Diversity of Health  
Center Patients***

***Nearly 26 percent of all health  
center patients are best served  
in a language other than  
English.***

***77 percent of Migrant Health  
Center patients are best served  
in a language other than  
English.***

**Source:** Department of Health and Human Services, Health Resources and Services Administration, Uniform Data System, 2008.

## **Assisting Health Center to Achieve National Quality Standards: The Health Center Program Accreditation Initiative**

HRSA encourages health centers to pursue accreditation from an independent body, including the Joint Commission and American Association for Ambulatory Care. The accreditation process seeks to assist organizations identify and correct problems and to improve the safety and quality of care and services provided. The process focuses on systems critical to the safety and the quality of care, treatment and services. By obtaining accreditation status, health centers demonstrate yet another benchmark of quality in their role in providing comprehensive, culturally competent primary health care to those most in need. HRSA has promoted the accreditation of health centers since 1996 in order to:

- Increase competitiveness in the marketplace;
- Provide a structure for the integration of ongoing quality improvement into daily health center operations; and
- Increase patient safety.

Through the Accreditation Initiative, HRSA pays ambulatory care-related on-site and annual accreditation fees for health centers seeking both initial and re-accreditation. In addition, HRSA also covers fees when a lab accreditation survey occurs in conjunction with the ambulatory care survey as well as fees for behavioral health accreditation.<sup>88</sup> HRSA currently is contracted with The Joint Commission and American Association for Ambulatory Care to provide accreditation services, and over a quarter of all health centers are accredited.

- 99 percent of health centers initiating the process have successfully achieved accreditation.
- Accredited health centers serve both rural and urban areas.
  - 54 percent urban.
  - 34 percent rural.
  - 12 percent urban/rural.<sup>89</sup>

## VII. Quality Improvement Partnerships

### *Congressional Report Focus Area*

*(vii) partnerships with other Federal agencies and private organizations or networks as appropriate, to enhance health care quality in community health centers.*

#### **Partnering to Promote Health Centers as Patient Centered Medical Homes: The Safety Net Medical Home Initiative<sup>90</sup>**

In May 2008, The Commonwealth Fund, Qualis Health and the MacColl Institute for Healthcare Innovation initiated a demonstration project to help safety net primary care clinics become high-performing patient-centered medical homes and achieve benchmark levels of quality, efficiency and patient experience. The goal of the Safety Net Medical Home Initiative is to develop and demonstrate a replicable and sustainable implementation model for medical home transformation.

Forty-two organizations from 31 States across the U.S. applied to become part of the Safety Net Medical Home Initiative. Five Regional Coordinating Centers, which include four HRSA-supported Primary Care Associations, were selected to participate in the demonstration project, and each partnered with 12-15 health centers in their State. These collaboratives will receive technical assistance on practice redesign topics such as enhanced access, care coordination and patient experience. They will also receive funding to support a Medical Home Facilitator, who will lead clinic-based quality improvement projects and other activities. The work of the Regional Coordinating Centers began in April 2009, and the Initiative will continue through April 2013.

#### **Collaborating to Reduce Disparities in Hispanic Elders' Health: Community Partnerships for Evidence Based Solutions<sup>91</sup>**

In 2007, the Administration on Aging (AoA), the Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid Services (CMS), and HRSA partnered on a pilot project which brings together teams of local leaders from communities with large numbers of Hispanic elders to develop local plans for addressing health disparities. Teams include representatives from the local area agency on aging, Hispanic community organizations, local public health agencies, aging services providers, health service research organizations, and the medical community, including health centers, hospitals and private practices.

Federal partners, including HRSA, are assisting teams to develop coordinated strategies for improving the health and well being of Hispanic elders. Eight communities with sizable disparities participate in this pilot project: Chicago, Illinois; Houston, Texas; Los Angeles, California; McAllen, Texas; Miami, Florida; New York, New York; San Antonio, Texas; and San Diego, California. Information from the National Health Disparities Report and customized data created by AHRQ for each community have helped target interventions to specific neighborhoods in greatest need of particular services. In addition, the HRSA Knowledge Gateway, developed through the HRSA Health Disparities Collaboratives has been used extensively by the entire Hispanic Elders national learning community, as well as by local partners to share information and evidence-based techniques. As part of this effort, health centers participating in the project have had the capacity to share insights, tools and lessons learned from the Health Disparities Collaboratives with their community partners.

### **Reaching Out to Reduce Childhood Obesity: The National We Can! Initiative<sup>92</sup>**

The national We Can!<sup>TM</sup> Initiative ("Ways to Enhance Children's Activity & Nutrition") is an evidence-based outreach program administered by the NIH and designed to assist families and communities in helping children ages 8-13 maintain a healthy weight. The program focuses on three important behaviors:

- Improved food choices;
- Increased physical activity; and
- Reduced screen time.

For over a year, HRSA has been collaborating with NIH through a formal Memorandum of Understanding to recruit and encourage health centers to participate. As of May 2009, 82 health centers grantees representing over 100 sites across 42 States are participating in the We Can! initiative. An evaluation of the 14 original We Can! sites identified significant positive outcomes across a variety of behavioral objectives, such as improvements in specific knowledge regarding nutrition and attitudes towards physical activity.

### **Improving HIV Prevention and Interventions in Primary Care: Developing Effective Health Center Models**

HRSA's Health Center Program is currently working with the Centers for Disease Control and Prevention (CDC) and the National Association of Community Health Centers (NACHC) as part of an Inter Agency Agreement (IAA) to ensure that individuals served by health centers have access to necessary HIV/AIDS testing, treatment and ongoing prevention services. Together, the CDC and HRSA are collaborating to develop, implement, and sustain a CDC strategy to improve HIV/AIDS prevention which will reduce barriers to early diagnosis of HIV infection and increase access to quality medical care, treatment and ongoing prevention services.

Through the agreement, NACHC will partner with HRSA and CDC in the development and dissemination of an operational guide on routine HIV screening for primary care settings, policy recommendations, training, and communications strategies. NACHC will also work with health centers to develop effective models aimed at increasing access to HIV screening services in primary care settings and link HIV-positive persons to appropriate HIV primary care.

## Conclusion

With broad support over the past decade, both the level of Federal investments and the number of patients served by the Health Center Program have more than doubled. Building on this sustained period of health center expansion as well as previous quality improvement efforts, HRSA will carry on its focus of advancing health center quality and accountability in the next phase of the Program's development:

- Building on the HRSA Health Disparities Collaborative quality initiative to establish an institutional, evidence-based and comprehensive focus on quality improvement at every health center through training and technical assistance;
- Promoting the establishment of health centers as patient-centered medical/health homes to improve access and quality, promote the appropriate use of services, and reduce overall health care costs;
- Creating capacity at the State level through the HRSA-supported PCAs to ensure evidence-based quality improvement practices and initiatives are adapted, spread and sustained across all health centers of varying size and resources;
- Collecting and evaluating uniform clinical performance measures, including disparities data, from all health centers to drive improvements in patient care and outcomes;
- Supporting the adoption of HIT, including the use of EHRs, telehealth and other technologies that advance and enable quality improvement;
- Assessing the quality and impact of health center services through various evaluations and research methods;
- Promoting a culture of patient safety to improve outcomes and mitigate adverse events, including a major HRSA-wide focus on patient safety and pharmaceutical use;
- Cultivating Federal and non-Federal partnerships that support quality improvement and assurance within and across the health center and other HRSA-funded programs; and
- Advancing and promoting the role of HRSA programs in translational and community-based research to ensure the benefits of cutting edge medicine and science reach and work for the vulnerable and diverse populations served by health centers.

**Appendix A: Health Care Safety Net Act of 2008**  
**Public Law 110-355**

*(3) HEALTH CARE QUALITY STUDY-*

*(A) IN GENERAL- Not later than 1 year after the date of enactment of this Act, the Secretary of Health and Human Services (referred to in this Act as the 'Secretary'), acting through the Administrator of the Health Resources and Services Administration, and in collaboration with the Agency for Healthcare Research and Quality, shall prepare and submit to the Committee on Health, Education, Labor, and Pensions of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that describes agency efforts to expand and accelerate quality improvement activities in community health centers.*

*(B) CONTENT- The report under subparagraph (A) shall focus on—*

*(i) Federal efforts, as of the date of enactment of this Act, regarding health care quality in community health centers, including quality data collection, analysis, and reporting requirements;*

*(ii) identification of effective models for quality improvement in community health centers, which may include models that--*

*(I) incorporate care coordination, disease management, and other services demonstrated to improve care;*

*(II) are designed to address multiple, co-occurring diseases and conditions;*

*(III) improve access to providers through non-traditional means, such as the use of remote monitoring equipment;*

*(IV) target various medically underserved populations, including uninsured patient populations;*

*(V) increase access to specialty care, including referrals and diagnostic testing; and*

*(VI) enhance the use of electronic health records to improve quality;*

*(iii) efforts to determine how effective quality improvement models may be adapted for implementation by community health centers that vary by size, budget, staffing, services offered, populations served, and other characteristics determined appropriate by the Secretary;*

*(iv) types of technical assistance and resources provided to community health centers that may facilitate the implementation of quality improvement interventions;*

*(v) proposed or adopted methodologies for community health center evaluations of quality improvement interventions, including any development of new measures that are tailored to safety-net, community-based providers;*

*(vi) successful strategies for sustaining quality improvement interventions in the long-term; and*

*(vii) partnerships with other Federal agencies and private organizations or networks as appropriate, to enhance health care quality in community health centers.*

*(C) DISSEMINATION- The Administrator of the Health Resources and Services Administration shall establish a formal mechanism or mechanisms for the ongoing dissemination of agency initiatives, best practices, and other information that may assist health care quality improvement efforts in community health centers.*

## References

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<sup>1</sup> Spann SJ, Task Force 6 and the Executive Editorial Team. Report on financing the new model of family medicine. *Ann Fam Med*. 2004;2(2 Suppl 3):S1-21.

<sup>2</sup> Hadley J, Cunningham P. Availability of safety net providers and access to care of uninsured persons. *Health Services Research*. 2004;9:1527-1546.

<sup>3</sup> Carlson BL, Eden J, O'Connor D, Regan J. Primary care of patients without health insurance by community health centers. *Journal of Ambulatory Care Management*. 2001;24(2):47-59.

<sup>4</sup> Shi L, Stevens GD, Politzer RM. Access to care for U.S. health center patients and patients nationally: how do the most vulnerable populations fare? *Medical Care*. 2007;45(3):206-13.

<sup>5</sup> Hicks LS, O'Malley AJ, Lieu TA, Keegan T, Cook NL, McNeil BJ, Landon BE, Guadagnoli E. The quality of chronic disease care in US community health centers. *Health Affairs*. 2006;25(6):1713-1723.

<sup>6</sup> Maizlish NA, Shaw B, Hendry K. Glycemic control in diabetic patients served by community health centers. *American Journal of Medical Quality*. 2004;19(4):172-179.

<sup>7</sup> Shin P, Jones K, Rosenbaum S. Reducing racial and ethnic health disparities: Estimating the impact of high health center penetration in low-income communities [internet]. Washington, DC: The George Washington University Medical Center, Center for Health Services Research and Policy; 2003 September [cited 2009 May]. Available from:  
[http://www.gwumc.edu/sphhs/departments/healthpolicy/chsrp/downloads/GWU\\_Disparities\\_Report.pdf](http://www.gwumc.edu/sphhs/departments/healthpolicy/chsrp/downloads/GWU_Disparities_Report.pdf)

<sup>8</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. (2008). *Uniform Data System*. Rockville, MD: U.S. Department of Health and Human Services.

<sup>9</sup> Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2008. *National vital statistics reports*, Web release; vol 58 no 16. Hyattsville, Maryland: National Center for Health Statistics. Released April, 2010.

<sup>10</sup> National Association of Community Health Centers, The Robert Graham Center, Capital Link. Access granted: the primary care payoff [internet]. Washington, DC: National Association of Community Health Centers, The Robert Graham Center, Capital Link; 2007 August [cited 2009 May]. Available from: <http://www.graham-center.org/online/etc/medialib/graham/documents/publications/mongraphs-books/2007/rgcmo-access-granted.Par.0001.File.tmp/rgcmo-access-granted.pdf>

---

<sup>11</sup> Falik M, Needleman J, Wells BL, Korb J. Ambulatory care sensitive hospitalizations and emergency visits: experiences of Medicaid patients using federally qualified health centers. *Medical Care*. 2001;39(6):551-561.

<sup>12</sup> Falik M, Needleman J, Herbert R, Wells B, Politzer R, Benedict MB. Comparative effectiveness of health centers as regular source of care. *Journal of Ambulatory Care Management*. 2006;29(1):24-35.

<sup>13</sup> Rust G, Baltrus P, Ye J, Daniels E, Quarshie A, Boumbulian P, Strothers H. Presence of a community health center and uninsured emergency department visit rates in rural counties. *Journal of Rural Health*, 2009;25(1):8-16.

<sup>14</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. (2008). *Uniform Data System*. Rockville, MD: U.S. Department of Health and Human Services.

<sup>15</sup> Lefkowitz B. The health center story: forty years of commitment. *J Ambulatory Care Manage*. 2005;28(4):295–303.

<sup>16</sup> Geiger HJ. The first community health centers: a model of enduring value. *J Ambulatory Care Manage*. 2005;28(4):313–320.

<sup>17</sup> Health Resources and Services Administration, National Health Service Corps. About the NHSC [internet]. Rockville, MD: Health Resources and Services Administration; [cited 2009 June 1]. Available from: <http://nhsc.hrsa.gov/about/>

<sup>18</sup> Clausen K. Kaiser Permanente receives top marks in 2009 JD Power and associates study [internet]. Los Angeles, CA: Kaiser Permanente; 2009 April 16. [cited 2009 April 20]. Available from: <http://www.kp.org/newscenter>

<sup>19</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. (2008). *Uniform Data System*. Rockville, MD: U.S. Department of Health and Human Services.

<sup>20</sup> DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith. Income, poverty, and health insurance coverage in the United States: 2008. Washington, DC: U.S. Census Bureau, Current Population Reports, P60-236; 2009 September.

<sup>21</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Center for Quality and National Institutes of Health, National Center on Minority Health and Health Disparities. *Harvesting Stories For Insight and Action Meeting Proceeding*; 2009 June 10-11; Bethesda, MD.

<sup>22</sup> Proser M. Deserving the spotlight: health centers provide high-quality and cost-effective care. *J Ambul Care Manage*. 2005;28(4):321-30.

- 
- <sup>23</sup> The Commonwealth Fund Commission on a High Performance Health System. Why not the best? results from the national scorecard on U.S. health system performance [internet]. New York, NY: The Commonwealth Fund; 2008 July [cited 2009 May]. Available from:  
[http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2008/Jul/Why%20Not%20the%20Best%20%20Results%20from%20the%20National%20Scorecard%20on%20U%20S%20%20Health%20System%20Performance%20%202008/Why\\_Not\\_the\\_Best\\_national\\_scorecard\\_2008%20pdf.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2008/Jul/Why%20Not%20the%20Best%20%20Results%20from%20the%20National%20Scorecard%20on%20U%20S%20%20Health%20System%20Performance%20%202008/Why_Not_the_Best_national_scorecard_2008%20pdf.pdf)
- <sup>24</sup> Shi L, Stevens GD. The role of community health centers in delivering primary care to the underserved: experiences of the uninsured and Medicaid insured. *J Ambul Care Manage.* 2007;30(2):159-70.
- <sup>25</sup> Falik M, Needleman J, Wells BL, Korb J. Ambulatory care sensitive hospitalizations and emergency visits: experiences of Medicaid patients using federally qualified health centers. *Medical Care.* 2001;39(6):551-561.
- <sup>26</sup> Schempf AH, Politzer RM, Wulu J. Immunization coverage of vulnerable children: a comparison of health center and national rates. *Med Care Res Rev.* 2003 Mar;60(1):85-100.
- <sup>27</sup> Hicks LS, O'Malley AJ, Lieu TA, Keegan T, Cook NL, McNeil BJ, Landon BE, Guadagnoli E. The quality of chronic disease care in US community health centers. *Health Aff.* 2006;25(6):1712-23.
- <sup>28</sup> Ibid.
- <sup>29</sup> Shi L, Stevens GD. The role of community health centers in delivering primary care to the underserved: experiences of the uninsured and Medicaid insured. *J Ambul Care Manage.* 2007;30(2):159-70.
- <sup>30</sup> The Commonwealth Fund Commission on a High Performance Health System. Why not the best? results from the national scorecard on U.S. health system performance [internet]. New York, NY: The Commonwealth Fund; 2008 July [cited 2009 May]. Available from:  
[http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2008/Jul/Why%20Not%20the%20Best%20%20Results%20from%20the%20National%20Scorecard%20on%20U%20S%20%20Health%20System%20Performance%20%202008/Why\\_Not\\_the\\_Best\\_national\\_scorecard\\_2008%20pdf.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2008/Jul/Why%20Not%20the%20Best%20%20Results%20from%20the%20National%20Scorecard%20on%20U%20S%20%20Health%20System%20Performance%20%202008/Why_Not_the_Best_national_scorecard_2008%20pdf.pdf)
- <sup>31</sup> Carlson BL, Eden J, O'Connor D, Regan J. Primary care of patients without insurance by community health centers. *J Ambul Care Manage.* 2001;24(2):47-59.
- <sup>32</sup> Shi L, Starfield B, Xu J, Politzer R, Regan J. Primary care quality: community health center and health maintenance organization. *South Med J.* 2003;96(8):787-95.

---

<sup>33</sup> Ibid.

<sup>34</sup> Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington (DC): National Academy Press; 2001.

<sup>35</sup> Silow-Carroll S, Alteras T, Stepnick L. Patient-centered care for underserved populations: definition and best practices [internet]. Washington, DC: Economic and Social Research Institute; 2006 January [cited 2009 May]. Available from: [http://www.esresearch.org/documents\\_06/Overview.pdf](http://www.esresearch.org/documents_06/Overview.pdf)

<sup>36</sup> The Commonwealth Fund Commission on a High Performance Health System. Why not the best? results from the national scorecard on U.S. health system performance [internet]. New York, NY: The Commonwealth Fund; 2008 July [cited 2009 May]. Available from: [http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2008/Jul/Why%20Not%20the%20Best%20%20Results%20from%20the%20National%20Scorecard%20on%20U%20S%20%20Health%20System%20Performance%20%202008/Why\\_Not\\_the\\_Best\\_national\\_scorecard\\_2008%20pdf.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2008/Jul/Why%20Not%20the%20Best%20%20Results%20from%20the%20National%20Scorecard%20on%20U%20S%20%20Health%20System%20Performance%20%202008/Why_Not_the_Best_national_scorecard_2008%20pdf.pdf)

<sup>37</sup> U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Quick guide to health literacy [internet]. Rockville, MD: Office of Disease Prevention and Health Promotion [cited 2009 May 20]. Available from: <http://www.health.gov/communication/literacy/quickguide/Quickguide.pdf>

<sup>38</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration. Cultural competence works: using cultural competence to improve the quality of health care for diverse populations and add value to managed care arrangements [internet]. Rockville, MD: Health Resources and Services Administration; 2001 [cited 2009 May]. Available from: <ftp://ftp.hrsa.gov/financeMC/cultural-competence.pdf>

<sup>39</sup> Schlichting JA, Quinn MT, Heuer LJ, Schaefer CT, Drum ML, Chin MH. Provider perceptions of limited health literacy in community health centers. Patient Educ Couns. 2007;69(1-3):114-20.

<sup>40</sup> Shi L, Starfield B, Xu J, Politzer R, Regan J. Primary care quality: community health center and health maintenance organization. South Med J. 2003;96(8):787-95.

<sup>41</sup> Hawkins DR, Proser MP, Schwartz R. Health reform and healthcare homes: the role of community health centers. Harvard Health Policy Review. 2007;8(2):53-65.

<sup>42</sup> Ibid.

<sup>43</sup> Research Triangle Institute. 2002 community health center/national health service corps site user/visit survey, final analysis report. Contract No.DHHS-282-98-0022. Research Triangle Park, N.C.: Research Triangle Institute; 2002 December 13.

- 
- <sup>44</sup> Davis K, Schoen C, Schoenbaum SC, Doty MM, Holmgren AL, Kriss JL, Shea KK. Mirror, mirror on the wall: an international update on the comparative performance of american health care [internet]. New York, NY: The Commonwealth Fund; 2007 May [cited 2009 May]. Available from: [http://www.commonwealthfund.org/usr\\_doc/1027\\_Davis\\_mirror\\_mirror\\_international\\_update\\_final.pdf](http://www.commonwealthfund.org/usr_doc/1027_Davis_mirror_mirror_international_update_final.pdf)
- <sup>45</sup> Spann SJ, Task Force 6 and the Executive Editorial Team. Report on financing the new model of family medicine. *Ann Fam Med*. 2004;2(2 Suppl 3):S1-21.
- <sup>46</sup> Shi L, Stevens GD, Politzer RM. Access to care for U.S. health center patients and patients nationally: how do the most vulnerable populations fare? *Medical Care*. 2007;45(3):206-13.
- <sup>47</sup> Brown ER, Davidson PL, Yu H, Wyn R, Andersen RM, Becerra L, Razack N. Effects of community factors on access to ambulatory care for lower-income adults in large urban communities. *Inquiry*. 2004;41(3):39-56.
- <sup>48</sup> Hadley J, Cunningham P. Availability of safety net providers and access to care of uninsured persons. *Health Services Research*. 2004;9:1527-1546.
- <sup>49</sup> Puskin D. Phone interview on telehealth in community health centers. 2009 April 6.
- <sup>50</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Office for the Advancement of Telehealth. Grantee profiles 2007-2008 [internet]. Rockville, MD: Health Resources and Services Administration [cited May 2010]. Available from: [http://www.hrsa.gov/telehealth/grantedirectory/grantee\\_profiles\\_0708.pdf](http://www.hrsa.gov/telehealth/grantedirectory/grantee_profiles_0708.pdf)
- <sup>51</sup> Puskin D. Phone interview on telehealth in community health centers. 2009 April 6.
- <sup>52</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Office for the Advancement of Telehealth. Grantee profiles 2006-2007 [internet]. Rockville, MD: Health Resources and Services Administration [cited May 2009]. Available from: <http://www.hrsa.gov/telehealth/grantedirectory/overview.htm>
- <sup>53</sup> Government Accountability Office. Health centers: competition for grants and efforts to measure performance have increased, Report No.: GAO-05-645 [internet]. Washington, DC: Government Accountability Office; 2005 July 13 [cited 2009 May]. Available from: <http://www.gao.gov/new.items/d05645.pdf>
- <sup>54</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. Program information notice 2009-02: specialty services and health centers' scope of project [internet]. Rockville, MD: Bureau

---

of Primary Health Care; 2008 December 18 [cited 2009 May]. Available from: <http://bphc.hrsa.gov/policy/pin0902/default.htm>

<sup>55</sup> Cook NL, Hicks LS, O'Malley AJ, Keegan T, Guadagnoli E, Landon BE. Access to specialty care and medical services in community health centers. *Health Aff.* 2007;26(5):1459-68.

<sup>56</sup> Gusmano MK, Fairbrother G, Park H. Exploring the limits of the safety net: community health centers and care for the uninsured. *Health Aff.* 2002;21(6):188-94.

<sup>57</sup> Felt-Lisk S, McHugh M, Howell E. Monitoring local safety-net providers: do they have adequate capacity? *Health Aff.* 2002;21(5):277-83.

<sup>58</sup> Physicians' Innovation Network. About PIN [internet]. Asheville, NC: Physicians' Innovation Network; [updated 2007 November 6; cited 2009 April]. Available from: <http://www.physiciansinnovation.org/about/about.php>

<sup>59</sup> Chaudhry B, Wang J, Wu S, Maglione M, Mojica W, Roth E, Morton SC, Shekelle PG. Systematic review: impact of health information technology on quality, efficiency, and costs of medical care. *Annals of Internal Medicine.* 2006;144(10),742-752.

<sup>60</sup> Moiduddin A, Moore J. The underserved and health information technology: Issues and Opportunities [internet]. Washington, DC: US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; 2008 Nov [cited 2009 May]. Available from: <http://aspe.hhs.gov/sp/reports/2009/underserved/report.pdf>

<sup>61</sup> U.S. Department of Health and Human Services, Health Services and Resources Administration, Bureau of Primary Health Care. American Recovery and Reinvestment Act of 2009 Funding Opportunity: Facility Investment Program (FIP) Guidance [internet]. Rockville, MD: Bureau of Primary Health Care [cited 2009 June 20]. Available from: <http://bphc.hrsa.gov/recovery/>

<sup>62</sup> The Commonwealth Fund. The Commonwealth Fund 2009 survey of federally qualified health centers-DRAFT. (2009) The Commonwealth Fund and Harris Interactive.

<sup>63</sup> Murchinson, J.V., Ray, J.D., & Sison, C.E. Creating EHR networks in the safety net. [internet]. Oakland, CA: California HealthCare Foundation. 2008 March. [cited 2009 July 8]. Available from: <http://www.chcf.org/topics/view.cfm?itemID=133595>

<sup>64</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Office of Health Information Technology, Division of HIT State and Community Assistance. Grantee progress report submission analysis. Rockville, MD: Office of Health Information Technology; 2009 July.

---

<sup>65</sup> Moiduddin A, Moore J. The underserved and health information technology: issues and opportunities [internet]. Washington, DC: US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; 2008 Nov [cited 2009 May]. Available from: <http://aspe.hhs.gov/sp/reports/2009/underserved/report.pdf>

<sup>66</sup> U.S. Department of Health and Human Services, Health Services and Resources Administration, Office of Health Information Technology. Health information technology [internet]. Rockville, MD: Office of Health Information Technology [cited 2009 May]. Available from: <http://www.hrsa.gov/healthit/>

<sup>67</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. Background [internet]. Rockville, MD: Bureau of Primary Health Care; 2008 [cited 2009 May]. Available from: <http://www.healthdisparities.net/hdc/html/about.background.aspx>

<sup>68</sup> Calvo, A. Phone interview on the Health Disparities Collaboratives. 2009 March 3.

<sup>69</sup> Ibid.

<sup>70</sup> Calvo A. [acalvo@hrsa.gov](mailto:acalvo@hrsa.gov). 2009 March 30. HDC 101: Strategy, 2007 August 17.

<sup>71</sup> Landon BE, Hicks LS, O'Malley AJ, Lieu TA, Keegan T, McNeil BJ, Guadagnoli E. Improving the management of chronic disease at community health centers. *N Engl J Med*. 2007;356(9):921-34.

<sup>72</sup> Chin MH, Drum ML, Guillen M, Rimington A, Levie JR, Kirchhoff AC, Quinn MT, Schaefer CT. Improving and sustaining diabetes care in community health centers with the health disparities collaboratives. *Med Care*. 2007;45(12):1135-43.

<sup>73</sup> Chin MH, Cook S, Drum ML, Jin L, Guillen M, Humikowski CA, Koppert J, Harrison JF, Lippold S, Schaefer CT; Midwest cluster health disparities collaborative. Improving diabetes care in midwest community health centers with the health disparities collaborative. *Diabetes Care*. 2004;27(1):2-8.

<sup>74</sup> Institute of Medicine. *To err Is human: building a safer health system*. Washington (DC): National Academy Press; 2000.

<sup>75</sup> Institute of Medicine. *To err Is human: building a safer health system*. Washington (DC): National Academy Press; 2000.

<sup>76</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. Patient Safety & Clinical Pharmacy Services Collaborative [internet]. Rockville, MD: Bureau of Primary Health Care; 2009 [cited 2009 June]. Available from: <http://www.hrsa.gov/patientsafety/>

- 
- <sup>77</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. Patient Safety and Clinical Pharmacy Services Collaborative [internet]. Rockville, MD: Bureau of Primary Health Care; 2009 [cited 2009 May]. Available from: <http://www.healthdisparities.net/hdc/html/collaboratives.topics.pspc.aspx>
- <sup>78</sup> Mountain K. Phone interview on The Migrant Clinicians Network. 2009 April 20.
- <sup>79</sup> Mountain K. [Kmountain@migrantclinician.org](mailto:Kmountain@migrantclinician.org). 2009 April 23. The Migrant Clinicians Network Health Network.
- <sup>80</sup> Mountain K. Phone interview on The Migrant Clinicians Network. 2009 April 20.
- <sup>81</sup> U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. National healthcare disparities report 2008, AHRQ Publication No. 09-0002 [internet]. Rockville, MD: Agency for Healthcare Research and Quality; 2009 March [cited 2009 May]. Available from: <http://www.ahrq.gov/QUAL/nhdr08/nhdr08.pdf>
- <sup>82</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care MIS. Electronic handbooks scope repository. Rockville, MD: Bureau of Primary Health Care; 2008 December 31.
- <sup>83</sup> U.S. Department of Health and Human Services. Health Resources and Services Administration. Service expansion for enabling services for special populations, program guidance announcement number: HRSA-09-190 [internet]. Rockville, MD: Health Resources and Services Administration [updated 2009 May 1; cited 2009 January]. Available from: <https://grants.hrsa.gov/webExternal/>
- <sup>84</sup> Fisher EB, Strunk RC, Highstein GR, Kelley-Sykes R, Tarr KL, Trinkaus K, Musick J. Randomized controlled evaluation of the effect of community health workers on hospitalization for asthma: the asthma coach. *Arch Pediatr Adolesc Med*. 2009;163(3):225-32.
- <sup>85</sup> Szilagyi PG, Schaffer S, Shone L, Barth R, Humiston SG, Sandler M et al. Reducing geographic, racial, and ethnic disparities in childhood immunization rates by using reminder/recall interventions in urban primary care practices. *Pediatrics*. 2002;110:e58
- <sup>86</sup> Jacobs EA, Lauderdale D.S., Meltzer D, Shorey JM, Levinson W, Thisted RA. Impact of interpreter services on delivery of health care to limited-English-proficient patients. *J Gen Intern Med*. 2001;16:468-474
- <sup>87</sup> Park HL. Enabling services at health centers: eliminating disparities and improving quality [internet]. New York, NY.: The New York Academy of Medicine; 2006 October [cited 2009 May]. Available from: [http://www.aapcho.org/altruesite/files/aapcho/Publications\\_FactSheets/ES%20Metlife%20Report.pdf](http://www.aapcho.org/altruesite/files/aapcho/Publications_FactSheets/ES%20Metlife%20Report.pdf)

---

<sup>88</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care. Program assistance letter 2009-01: New and expanded opportunities for services and training under the accreditation initiative [internet]. Rockville, MD: Bureau of Primary Health Care; 2008 December 17 [cited 2009 May]. Available from: <http://www.bphc.hrsa.gov/policy/pal0901.htm>

<sup>89</sup> The Joint Commission. Bureau of Primary Health Care (BPHC) [internet]. Oakbrook Terrace, IL: The Joint Commission; 2009 Oct 6 [cited 2009 Oct]. Available from: <http://www.jointcommission.org/AccreditationPrograms/AmbulatoryCare/BPHC/bphc.htm>

<sup>90</sup> Qualis Health. The safety net medical home initiative [internet]. Seattle, Washington: Qualis Health [cited 2009 May]. Available from: <http://www.qhmedicalhome.org/safety-net/about.cfm>

<sup>91</sup> U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. National healthcare disparities report 2008, AHRQ Publication No. 09-0002 [internet]. Rockville, MD: Agency for Healthcare Research and Quality; 2009 March [cited 2009 May]. Available from: <http://www.ahrq.gov/QUAL/nhdr08/nhdr08.pdf>

<sup>92</sup> National Heart, Lung, and Blood Institute, National Institutes of Health. We can! Progress report: curriculum implementation by the intensive sites [internet]. Bethesda, Maryland: National Heart, Lung and Blood Institute; 2007 January [cited 2009 August]. Available from: <http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/downloads/progsummary.pdf>