

# medicaid and the uninsured

## **RESEARCH BRIEF: INSURANCE COVERAGE AND ACCESS TO CARE IN PRIMARY CARE SHORTAGE AREAS**

*Prepared by*

Catherine Hoffman, Anthony Damico, and Rachel Garfield  
The Henry J. Kaiser Family Foundation

**February 2011**

# kaiser commission medicaid and the uninsured

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**RESEARCH BRIEF:  
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As both federal and state governments gear up to implement the Patient Protection and Affordable Care Act (ACA), concerns about the supply and distribution of physicians, particularly primary care physicians, are being raised. In many areas of the country, there is a shortage of primary care physicians, and some worry about whether the current workforce can meet the growing demand for services that will likely accompany coverage expansions. Those who are uninsured now use fewer health care services than the insured. In 2008, the average annual amount spent on health care by a nonelderly person who had no health insurance for the entire year was \$1,686 compared to \$4,463 incurred by those with coverage.<sup>1</sup> When affordable coverage is obtained, health care use among the formerly uninsured is likely to increase markedly, if they can find providers who are open to new patients.

Many of those who gain health insurance coverage will be catching up on long overdue health care and will receive preventive screening for the first time in years—some of which will lead to new diagnoses and a new need for treatment. This pent-up demand is likely to strain the country's health care workforce, particularly in communities where primary care providers are in very low supply already. Areas with documented shortage of providers are designated as Health Professional Shortage Areas (HPSAs).<sup>2</sup> HPSAs may be designated based on geography (e.g. a county or portion of a county), population group (a population within an area), or facility (e.g., a health center or clinic). As of February 2011, the Health Resources and Services Administration (HRSA) has designated 6,391 Geographic, Population, or Facility Primary Care HPSAs covering over 65 million Americans.<sup>3</sup> As the uninsured gradually gain coverage beginning in 2014, these communities' health care safety net will be further stretched, particularly where large shares of the population have been uninsured in the past.

To inform provider workforce issues related to health reform, this analysis examines insurance coverage and access to care among the population residing in Primary Care HPSAs. It focuses on the subset of the nonelderly living only in geographical HPSAs, the largest subset of the three types of designation.<sup>4</sup>

## Methods

The data presented in this paper are based on a pooled sample of the nonelderly population within the 2005, 2006, and 2007 Medical Expenditure Panel Survey – Household Component (MEPS-HC) that was merged with the HRSA Office of Shortage Designation's official Health Professional Shortage Area (HPSA) list of Primary Care Physician (PCP) shortage designations. HRSA defines geographic Primary Care HPSAs as "an area that has a population to full-time equivalent primary care physician ratio of at least 3,500:1 or the area's ratio is less than 3,500:1 but greater than 3,000:1 and has unusually high needs for primary care services or insufficient capacity of existing primary care providers."<sup>5</sup>

The publicly-available MEPS-HC dataset is a nationally-representative survey of healthcare access, utilization, and expenditure among the United States civilian, non-institutionalized population. For each of the three pooled sample years, every individual in the MEPS-HC sample was assigned as a 'HPSA resident' if their residence matched a geographic area designated to be a Primary Care Physician HPSA for the entirety of the sample year. The merged dataset yielded a total nonelderly sample size of 82,649.

Due to data confidentiality concerns, all analyses on the HPSA and non-HPSA resident populations were conducted at the Agency for Healthcare Research and Quality (AHRQ) Data Center so that restricted residence identifier data fields could be used. By using MEPS' residence information, it was possible to identify individuals who lived in HPSAs in almost all cases based on whether they lived in a county or census tract that HPSA had designated as such in that year. However in about 7% of the sample the only residence information available was at the Census Block level, and not all residents in a Census Block may be living in a designated HPSA. To include these cases, we categorized them as living in a HPSA only when at least 50% of the Census Block's population lived in a HPSA.

Income information is from MEPS and measured relative to family size using the federal poverty level data defined by the Census Bureau for each of the years studied. For example, the federal poverty level in 2006 for a family of four was \$20,614, so less than 200% of poverty (as low-income was defined here) amounted to \$41,228. Health insurance data, also from MEPS, was categorized as follows: individuals lacking health insurance for more than six months of the calendar year were categorized as uninsured, individuals with any public insurance were coded as either Medicaid or Medicare beneficiaries, and all other individuals were categorized as privately insured. All statistical comparisons were conducted with SAS version 9.2, with significant differences reported at the 95% confidence threshold.

## Results

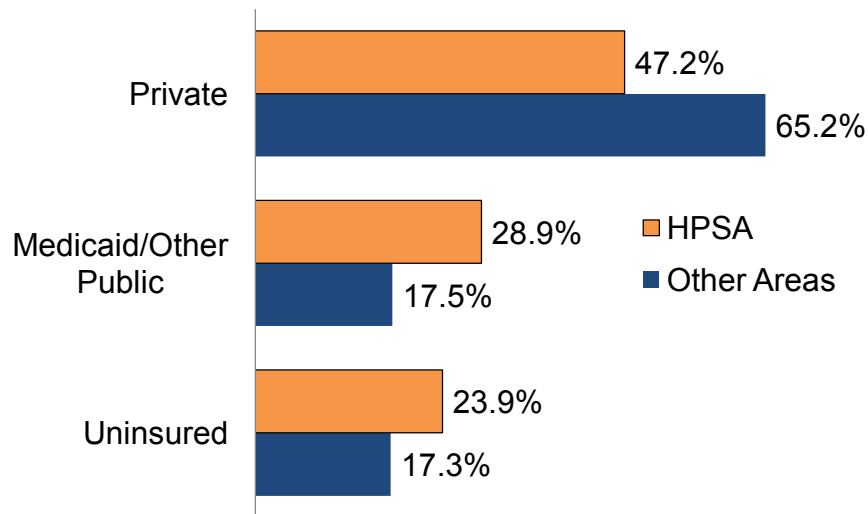
***Overall HPSA Population Compared to the Non-HPSA Population.*** Nearly thirteen percent of the nonelderly population—33.1 million people— in the U.S. lived in a geographically-designated Primary Care Health Professional Shortage Area in 2005-2007.

Individuals residing in HPSAs were more likely than those who live elsewhere to be uninsured. On average over the period studied (2005-2007), one in four (24%) of the nonelderly population living in a HPSA was uninsured; in contrast, 17% of the nonelderly not living in a HPSA were uninsured (Exhibit 1). Less than half (47%) of the nonelderly in HPSAs had private health insurance compared to 65% of those living elsewhere. Medicaid plays a large role in coverage for populations in HPSAs, but has not fully filled the gaps; 29% of the nonelderly population in HPSAs was covered by Medicaid or other public programs, compared to 17% of those not in HPSAs.

Exhibit 1

# Health Insurance Coverage Geographical HPSAs vs. Other Areas

**Percent of Nonelderly Population**



Notes: All HPSAs vs. other areas comparisons are statistically different,  $p < .05$ .  
 Source: KCMU analysis of 2005-2007 Medical Expenditure Panel Survey data merged with Health Resources and Services Administration (HRSA) Primary Care Geographic Area Health Professional Shortage Area (HPSA) designations.

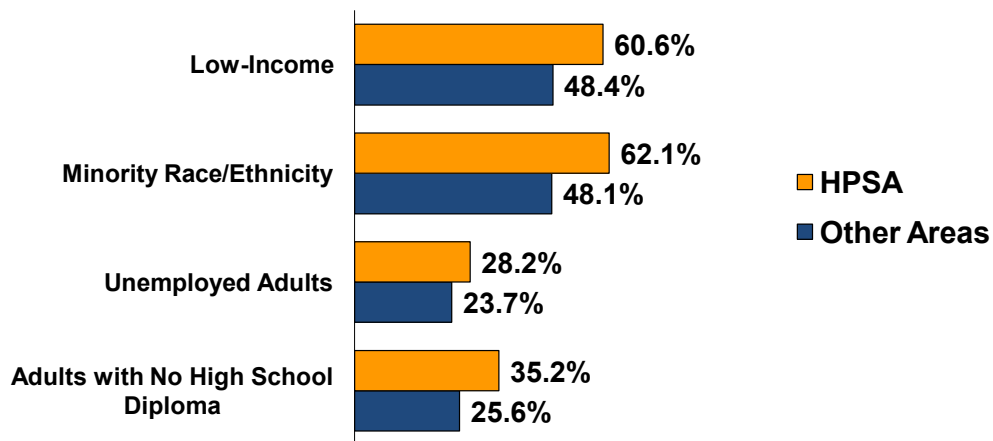
The health insurance disparity between HPSAs and other areas is driven by large socioeconomic differences. Nearly half of the nonelderly living in HPSAs were from low-income families (46% vs. 27% elsewhere). Compared to their peers who live elsewhere, nonelderly in HPSAs were more likely not to have a high school education (22% vs. 13%) and they were less likely to be in the workforce (26% are unemployed, retired, homemakers, or students vs. 19% elsewhere).

The HPSA population had a slightly larger share of children (32%) and a smaller share of adults aged 35-54 (31% vs. non-HPSAs (30% and 33%, respectively). Racial and ethnic minorities comprised 52% of HPSAs, but only a third (34%) of the nonelderly population outside of HPSAs.

**The Uninsured in HPSAs Compared to the Uninsured Outside HPSAs.** The uninsured who live in HPSAs were economically disadvantaged (Exhibit 2). Over sixty percent of the uninsured in HPSAs were from low-income families. Over a quarter (28%) of uninsured working-age adults living in HPSAs were not in the workforce; over a third (35%) had not graduated from high school.

**Exhibit 2**  
**Demographics of the Uninsured**  
**in Geographical HPSAs vs. Other Areas**

**Nonelderly Uninsured Population**



Notes: All HPSAs vs. other areas comparisons are statistically different,  $p < .05$ . Low-income defined as family income  $< 200\%$  federal poverty level. Adults are age 19-64.  
 Source: KCMU analysis of 2005-2007 Medical Expenditure Panel Survey data merged with Health Resources and Services Administration (HRSA) Primary Care Geographic Area Health Professional Shortage Area (HPSA) designations.

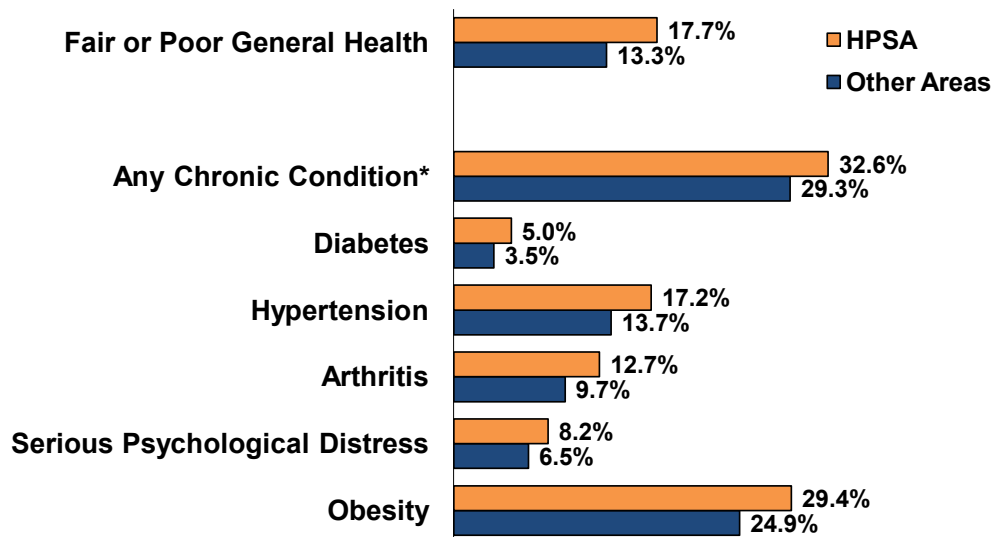


Those working-age adults who were uninsured and living in HPSAs were less healthy than the uninsured who were not in HPSAs. Specifically, they were more likely to report being in fair or poor health in general and to have been told they have a chronic condition (Exhibit 3). A third (33%) of nonelderly uninsured adults in HPSAs reported they had a chronic condition compared to 29% of uninsured adults elsewhere. The obesity rate — a major risk factor for other health problems — was higher among the uninsured living in HPSAs as well (29% vs. 25%).

### Exhibit 3

## Health Status of the Uninsured in Geographical HPSAs vs. Other Areas

#### Nonelderly Uninsured Adults



Note: All HPSAs vs. other areas comparisons are statistically different ( $p < .05$ ).

\* Self-reported chronic conditions that were asked in the survey included: diabetes, hypertension, high cholesterol, arthritis, asthma, emphysema, coronary heart disease, stroke, angina, heart attack, and other heart disease, and serious psychological distress.

Source: KCMU analysis of 2005-2007 Medical Expenditure Panel Survey data merged with Health Resources and Services Administration (HRSA) Primary Care Geographic Area Health Professional Shortage Area (HPSA) designations.

**The Uninsured in HPSAs Compared to the Insured in HPSAs.** Differences in access to health services between the insured and uninsured are marked in Primary Care HPSAs. Half (51%) of the uninsured nonelderly population in these HPSAs reported that they did not have a usual source of care, compared to 17% of the privately insured and just 12% of those with Medicaid coverage (Table 1).

**Table 1. Problems with Access to Health Care Among the Nonelderly in Geographical HPSAs, by Insurance Status**

	Uninsured *	Medicaid/Public	Private
<b>No usual source of care</b>	50.7%	12.1%	16.6%
<b>Preventive Care Among Nonelderly Adults:</b>			
No routine check-up in past 2 years	48.5%	21.3%	24.3%
No cholesterol check in past 2 years	56.6%	33.0%	32.4%
No pap smear in past 2 years (women age 18+)	36.5%	21.6%	17.5%
No mammogram in past 2 years (women 40+)	51.0%	35.0%	22.7%
No PSA test in past 5 years (men age 40+)	74.6%	50.6%	47.7%
No colonoscopy in past 5 years (age 50+)	87.5%	68.8%	58.8%
No dental visit in past year	66.9%	35.7%	32.1%

\* All differences between the uninsured vs. private coverage and the uninsured vs. public coverage are statistically significant (p<.05)

Source: KCMU analysis of 2005-2007 Medical Expenditure Panel Survey data merged with Health Resources and Services Administration (HRSA) Primary Care Geographic Area Health Professional Shortage Area (HPSA) designations.

Without a regular provider or place to go for their health needs, most of the uninsured living in HPSAs had not received preventive services. About half of the uninsured (48%) said they had not had a routine check-up in the past two years. Uninsured women were twice as likely to say they had not had a recent pap smear or a mammogram compared to those with private coverage. Only a minority of the uninsured had their cholesterol checked in the past two years (43%) and yearly dental visits were uncommon among the uninsured (33%).

### Discussion

Thirty-three million nonelderly Americans lived in geographically-designated primary care physician shortage areas in the U.S. in 2005-2007. Roughly a quarter of them were uninsured. Another twenty nine percent were covered by public insurance, reflecting the fact that almost half of the nonelderly living in HPSAs are from low-income families.

The profile of the uninsured who live in HPSAs suggests a potentially large pent-up need for health care. Half of the uninsured living in a HPSA do not have a usual source of care and most have not had preventive health services in the recent past. The uninsured living in HPSAs are also more likely than others who are uninsured to have a chronic condition, such as diabetes

mellitus or hypertension, both of which commonly cause other serious chronic conditions when poorly managed.

States will need to make many changes in order to implement health care reform, including greatly expanding their Medicaid programs. The number of Medicaid beneficiaries will disproportionately increase more in HPSAs because the uninsured living in these areas are more likely to come from low-income families than those in other areas.

Addressing workforce challenges is essential to successful implementation of reform. It is possible that more insured patients seeking care in shortage areas may induce providers to relocate to underserved communities. However, it is likely that additional policy action will be required.

ACA took some steps in addressing workforce issues. First, the law addressed long-standing concerns about the HPSA designation, recognizing the importance of more precisely allotting resources to those areas with the greatest need for primary care providers, (Section 5602). Specifically, the law requires that HPSA criteria, as well as the Medically Underserved Population criteria, and their designation methodologies be re-examined by a committee that will then make rule-making recommendations to HRSA for their use going forward. Addressing HPSA designation criteria is important because such designation is required for an area to be eligible to receive providers serving in the National Health Service Corp. HPSA designation is also required for providers to receive bonus payments under Medicare.

ACA also expanded the tax exclusion for physicians and nurses working in underserved areas: amounts received from any state-run loan repayment and forgiveness program intended to increase the availability of health services in shortage areas now qualify for the tax exclusion.<sup>6</sup> ACA includes new provisions for expanded community health centers, including nurse-managed health centers, that may expand the availability of primary care providers in underserved areas.

Future policy options to shift the distribution of primary care providers include strategic National Service Corp placement; increased funding for the Corp; continued financial bonuses for all primary care physicians practicing in shortage areas; and increased payment levels to primary care physicians caring for Medicaid patients in the early years of health reform implementation.<sup>7</sup>

Other options include tapping into the current supply of physicians who have left primary care or chosen a specialty, either to recruit them to primary care or to encourage them to provide at least some primary care services. In addition to attracting more physicians, advanced practice nurses and physician assistants may be key to addressing workforce issues in shortage areas. Such providers already provide essential primary care services, and they could be called on to fill more of the primary care needs in shortage areas, especially in states where their practice acts allow them to work at the level they have been educated.<sup>8</sup>

## Endnotes

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<sup>1</sup> Hadley J, J Holahan, T Coughlin, and D Miller. Covering the uninsured in 2008: current costs, sources of payment, and incremental costs. *Health Affairs* 2008 27(5) w399-415 (published online 25 August 2008).

<sup>2</sup> Criteria for designating Medically Underserved Populations (MUPs) were also developed in 1975 to help target funding for Health Maintenance Organizations and Community Health Centers. Other federal programs use both these shortage designations, including Rural Health Clinic and Federally Qualified Health Center certification and the Medicare Incentive Program—which provides higher reimbursement for physician services provided in HPSAs. While HPSA criteria have changed over time, the MUP criteria have not and over the years the methods for applying the criteria have changed and the distinction between the two is less clear.

<sup>3</sup> Health Resources and Services Administration. Designated Health Professional Shortage Areas (HPSA) Statistics. [http://ersrs.hrsa.gov/ReportServer?/HGDW\\_Reports/BCD\\_HPSA/BCD\\_HPSA\\_SCR50\\_Smry&rs:Format=HTML3.2](http://ersrs.hrsa.gov/ReportServer?/HGDW_Reports/BCD_HPSA/BCD_HPSA_SCR50_Smry&rs:Format=HTML3.2). Accessed 02/22/11.

<sup>4</sup> Although the HRSA Office of Shortage Designation identifies many types of Primary Care HPSAs, such as population groups, hospitals, correctional institutions, and clinics, this analysis focused only on Geographic Service Area HPSAs in order to study the population living in shortage areas — particularly their health insurance coverage, health status, and access to basic health care.

<sup>5</sup> Health Resources and Services Administration. Shortage Designation: Health Professional Shortage Areas. <http://bhpr.hrsa.gov/shortage/hpsacritpcm.htm>. Accessed 02/22/11.

<sup>6</sup> Internal Revenue Service. Affordable Care Act Provides Expanded Tax Benefit to Health Professionals Working in Underserved Areas. <http://www.irs.gov/newsroom/article/0,,id=224387,00.html>. Accessed 02/22/11.

<sup>7</sup> Bodenheimer, T and HH Pham. Primary care: current problems and proposed solutions. *Health Affairs* 2010; 29(5):799805.

<sup>8</sup> Naylor, MD and ET Kurtzman. Role of nurse practitioners in reinventing primary care. *Health Affairs* 2010; 29:5:893-899.

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1330 G STREET NW, WASHINGTON, DC 20005  
PHONE: (202) 347-5270, FAX: (202) 347-5274  
WEBSITE: WWW.KFF.ORG/KCMU

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