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**Geiger Gibson /
RCHN Community Health Foundation Research Collaborative
Policy Research Brief No. 10**

National Health Reform: How Will Medically Underserved Communities Fare?

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July 9, 2009

About the Geiger Gibson / RCHN Community Health Foundation Research Collaborative

The Geiger Gibson Program in Community Health Policy, established in 2003 and named after health center and human rights pioneers Drs. H. Jack Geiger and Count Gibson, is part of the School of Public Health and Health Services at The George Washington University. It focuses on health centers, their history and contributions, and the major policy issues that affect health centers and the communities and patients they serve.

The RCHN Community Health Foundation, founded in October 2005, is a not-for-profit operating foundation whose purpose is to support community health centers through strategic investment, advocacy, education, and cutting-edge health policy research. The only foundation in the country dedicated to community health centers, the Foundation builds on a 40-year commitment to the provision of accessible, high quality, community-based healthcare services for underserved, medically vulnerable populations. The Foundation's gift to the Geiger Gibson program supports health center research and scholarship.

Executive Summary

In 2007, when nearly 45 million persons were uninsured, more than 96 million people resided in a Medically Underserved Area (MUA), and nearly 64.5 million resided in a Health Professional Shortage Area (HPSA). Within communities whose populations face a serious shortage of primary health care in relation to need, 72 percent of all residents have some form of health insurance and 28 percent are uninsured. National health reform is expected to significantly expand the proportion of medically underserved community residents who gain coverage through either Medicaid or health insurance reforms. However, previous experience in states such as Massachusetts underscores that health care access barriers may be somewhat mitigated but will not disappear when insurance coverage expands. Furthermore, because communities experiencing medical underservice and health care provider shortages are disproportionately likely to be home to individuals and families who will remain without affordable coverage, safety net health care providers that serve these communities will continue to treat a significant proportion of uninsured patients. Massachusetts' experience indicates that dependence on these providers by those who remain uninsured may grow further.

The potential for medically underserved communities to experience ongoing access barriers and significant numbers of uninsured patients necessitates four important and basic types of investments as part of national health reform. The first is reasonable coverage, not merely with respect to affordable premiums, but also sufficiently comprehensive coverage to avert the creation of large numbers of seriously under-insured persons without the financial means to necessary care. The second is inclusion of requirements for fair access and payment standards for plans sold in medically underserved communities in order to avert inadequate care and serious under-payment of safety net providers for covered services. The third is direct investment in health care capacity and workforce, which become crucial to the success of health reform. The fourth is public health investments aimed at the improvement of underlying population health.

Introduction

This Research Brief considers the challenges in health reform posed by the problem of medical underservice. The brief begins with an overview that examines the concept of medical underservice and how it can be distinguished from the overlapping but distinct problem of uninsurance. The brief then discusses the potential effects of health insurance reforms for medically underserved communities and identifies certain investments that may prove critical to translating insurance reforms into higher quality and more efficient health care in these communities.

An Overview of Medical Underservice

The critical link between health insurance coverage and health status is well documented,¹ and the high cost of health care means that insurance is essential for all but the wealthiest persons.² But the concept of medical underservice extends beyond the threshold issue of insurance coverage. Medical underservice considers the broader community health and health care environment, taking into account economic and social status, health status, and the presence of a minimally adequate supply of primary care health professionals.

Comparing the Size of the Uninsured and Medically Underserved Populations

The concept of “medical underservice” is used to describe individuals and groups who do not have adequate access to primary care.³ This figure is significantly higher than the number of persons who are uninsured. Thus, while nearly 45 million persons—more than 50 percent of whom had family incomes below twice the federal poverty level—were uninsured in 2007 (Figure 1), the number of residents of medically underserved communities was more than double this figure. In 2006, 96.2 million people (32 percent of the total U.S. population of 298 million) resided in a Medically Underserved Area (MUA), and nearly 64.5 million resided in a Health Professional Shortage Area (HPSA).⁴ It is not surprising that medical underservice measurement methods yield a higher number, since the designation process is designed to go beyond the question of physician

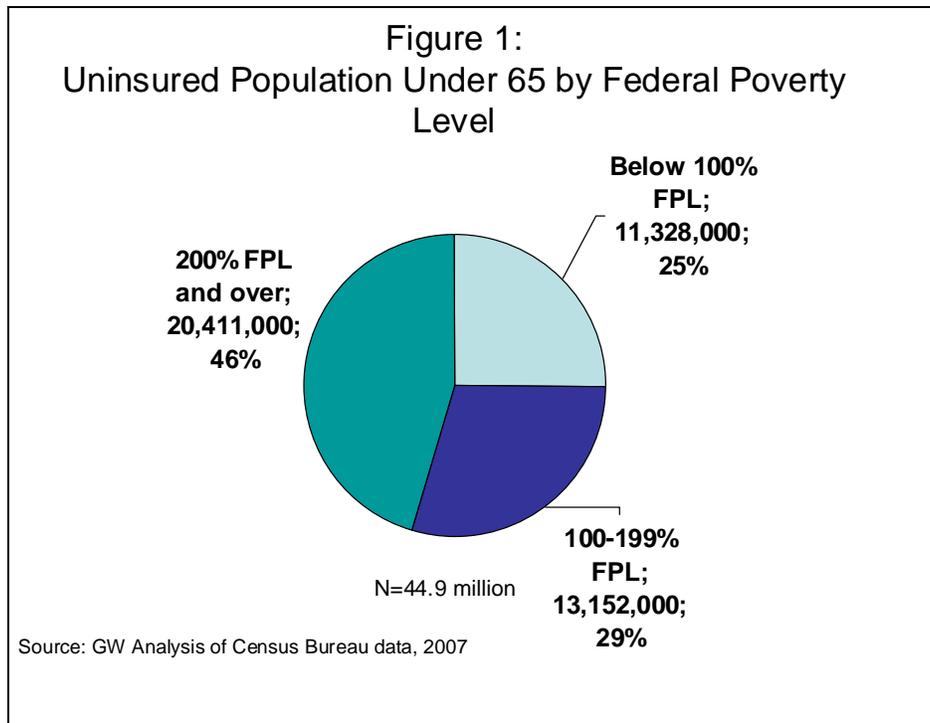
¹ Zuvekas, S.H. and R.M. Weinick. 1999. “Changes in Access to Care, 1977-1996: The Role of Health Insurance.” *Health Services Research* 34(1 pt 2): 271-279; Federico, S., Steiner, J.F., Beaty, B., Crane, L. and A. Kempe. 2007. “Disruptions in Insurance Coverage: Patterns and Relationships to Health Care Access, Unmet Need, and Utilization Before Enrollment in the State Children’s Health Insurance Program.” *Pediatrics* 120(4): e1009-e1016; Thornton, J. and J. Rice. 2008. “Does Extending Health Insurance Coverage to the Uninsured Improve Population Health Outcomes?” *Applied Health Economics & Health Policy* 6(4): 217-230.

² Manning, W.G., Newhouse J.P., Duan, N., Keeler E.B. and A. Leibowitz. 1987. “Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment.” *American Economic Review* 77(3): 251-257.

³ Hawkins, D. and S. Rosenbaum. 1993. “Lives in the Balance: The Health Status of America’s Medically Underserved Populations.” Washington, DC: National Association of Community Health Centers, Inc.

⁴ Designated Health Professional Areas Statistics, June 27, 2009. Available at http://ers.hrsa.gov/ReportServer/?HGDW_Reports/BCD_HPSA/BCD_HPSA_SCR50_Smry&rs:Format=HTML3.2. No source data provided. The designations overlap in many areas.

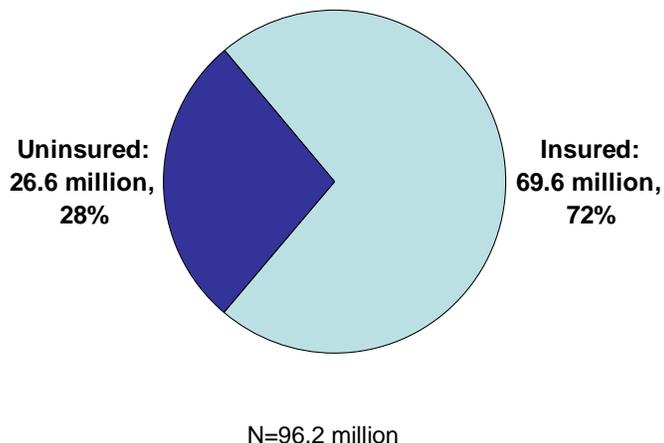
supply and consider actual indicia of population need, which can exist even in affluent communities.



Health Insurance Status Among Residents of Medically Underserved Communities and Health Professional Shortage Areas

What may be more surprising is the prevalence of health insurance among MUA residents. As Figure 2 shows, 72 percent of all MUA residents in 2006 (70 million persons) were estimated to have some form of health insurance, a fact that underscores that many who are insured may still face provider supply shortages and access barriers even after any efforts to boost insurance levels. Since three in four residents of medically underserved communities already have health insurance, a critical factor in health reform becomes the extent to which coverage expansion is combined with other policy interventions to assure the accessibility of care.

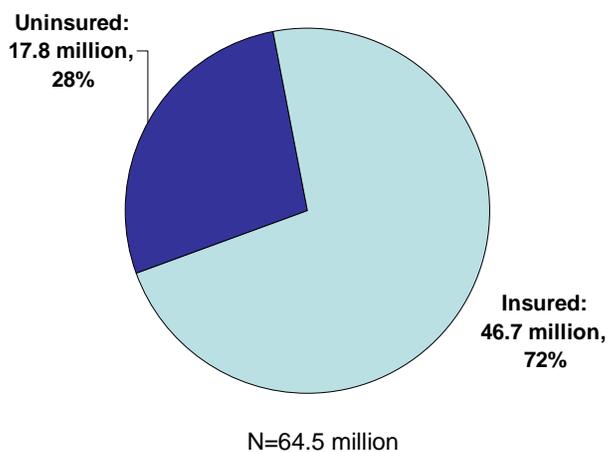
Figure 2: Population Living in Medically Underserved Areas, by Insurance Status



Source: Number of people living in Medically Underserved Areas based on 2006 Census data made available in HRSA's Geospatial Data Warehouse and analyzed by GW. Uninsured percentages based on population under 200 percent of federal poverty level from GW analyses of the Census Bureau's March 2007 and 2008 Current Population Survey (CPS: Annual Social and Economic Supplements).

Figure 3 shows similar results when the HPSA designation is considered. Among residents of areas designated as HPSAs, one in four residents (28 percent) is estimated to be uninsured. Three in four residents already have insurance, underscoring the importance of the other access barriers that HPSA residents can face.

Figure 3: Population Living in Health Professional Shortage Areas, by Insurance Status



Source: Number of people living in Health Professional Shortage Areas from Designated Health Professional Areas Statistics, June 27, 2009 (http://ers.hrsa.gov/ReportServer/2/HGDW_Reports/BCD_HPSA/BCD_HPSA_SCR50_Simn&rsFormat=HTML3.2). Uninsured percentages based on population under 200 percent of federal poverty level from GW analyses of the Census Bureau's March 2007 and 2008 Current Population Survey (CPS: Annual Social and Economic Supplements).

The Distribution of Medically Underserved Populations Across the States

Medical underservice is an issue in all states and the District of Columbia. Table 1 shows state-by-state breakdowns of the population in Medically Underserved Areas, ranging from a high of 9.7 million people in Florida to a low of 94 thousand in Wyoming. With respect to the concentration of uninsured in MUAs in 2006, Texas had the highest rate of uninsurance—39 percent—while Massachusetts had the lowest rate, 13 percent.

Table 1: Population Residing in Medically Underserved Areas, by State, 2006

State	Total underserved	Percent of Underserved Population	
		Uninsured	Insured
Alabama	2,854,288	23%	77%
Alaska	394,079	31%	69%
Arizona	1,774,332	34%	66%
Arkansas	1,685,277	27%	73%
California	8,385,365	31%	69%
Colorado	1,474,812	36%	64%
Connecticut	694,682	18%	82%
Delaware	337,858	22%	78%
District of Columbia	201,051	15%	85%
Florida	9,712,990	35%	65%
Georgia	3,699,447	33%	67%
Hawaii	493,229	15%	85%
Idaho	430,843	24%	76%
Illinois	4,744,010	26%	74%
Indiana	1,607,549	22%	78%
Iowa	495,111	20%	80%
Kansas	790,485	23%	77%
Kentucky	1,679,382	25%	75%
Louisiana	2,633,541	31%	69%
Maine	366,753	15%	85%
Maryland	1,241,678	30%	70%
Massachusetts	1,280,310	13%	87%
Michigan	2,800,999	20%	80%
Minnesota	1,013,456	19%	81%
Mississippi	2,390,008	32%	68%
Missouri	1,456,221	24%	76%
Montana	522,661	30%	70%
Nebraska	545,267	26%	74%
Nevada	488,955	35%	65%
New Hampshire	376,734	25%	75%
New Jersey	1,472,977	32%	68%
New Mexico	1,254,296	36%	64%
New York	4,603,060	21%	79%

State	Total underserved	Percent of Underserved Population	
		Uninsured	Insured
North Carolina	4,167,774	28%	72%
North Dakota	215,503	23%	77%
Ohio	2,034,168	21%	79%
Oklahoma	1,019,592	29%	71%
Oregon	1,123,302	31%	69%
Pennsylvania	2,359,553	18%	82%
Rhode Island	357,637	17%	83%
South Carolina	1,879,017	26%	74%
South Dakota	260,874	21%	79%
Tennessee	2,795,646	22%	78%
Texas	8,927,406	39%	61%
Utah	675,073	27%	73%
Vermont	153,077	18%	82%
Virginia	2,254,655	27%	73%
Washington	1,967,891	22%	78%
West Virginia	1,053,318	21%	79%
Wisconsin	1,007,858	18%	82%
Wyoming	94,070	23%	77%

Source: Number of people living in Medically Underserved Areas based on 2006 Census data made available in HRSA's Geospatial Data Warehouse and analyzed by GW. Uninsured percentages based on population under 200 percent of federal poverty level based on GW analyses of the Census Bureau's March 2007 and 2008 Current Population Survey (CPS: Annual Social and Economic Supplements). See Appendix for more detail.

Estimating the Size and Scope of Medical Underservice

Federal medical underservice designations—the Health Professional Shortage Area (HPSA) and Medically Underserved Area/Population (MUA/P) classifications—are used to help prioritize the distribution of federal and state funds to areas with residents experiencing high health care needs. In 2005, almost \$3 billion in federal funding was dispensed through more than 34 state and federal programs that use these designations to allocate resources.⁵ Salient examples linked to these designations are funding for Federally Qualified Health Centers (FQHCs) (including both federally funded health centers and “look-alike health centers”), which are often funded with a combination of federal, state, and local funds, as well as rural health clinics (RHCs). Other programs and payment policies employing the designation criteria linked to the concept of medical underservice are the National Health Service Corps, the Medicare Incentive Payment Program for physicians practicing in certain shortage areas, waiver of the return-home requirement for J-1 visa holders, and numerous health professions education and training programs.⁶ The evidentiary basis for these resource investment policies rests not only on

⁵ Health Resources and Services Administration. “Shortage Designation.” www.bhpr.hrsa.gov/shortage/; accessed April 10, 2008; Government Accountability Office. October 2006. “Health Professional Shortage Areas: Problems Remain with Primary Care Shortage Area Designation System.” GAO-07-84.

⁶ Health Resources and Services Administration. “Guidelines for Medically Underserved Area and Population Designation.” <http://www.bhpr.hrsa.gov/shortage/muaguide.htm>; accessed April 10, 2008; Health Resources and Services Administration. February 29, 2008. “HRSA Proposes Rule to Revise,

need, but on the demonstrated quality and efficiency of certain types of programs and interventions in reaching hard-to-serve populations.⁷

Medical Underservice Measured by Primary Health Care Supply

Within the HPSA designation system are two types of designations: geographic Health Professional Shortage Areas, which are based on the population-to-primary care physician ratio; and population and facility HPSA designations that allow for the designation of facilities that serve medically underserved communities and populations that would not otherwise qualify for geographic designation. For example, on the whole, Washington D.C. has a significant supply of primary care health professionals, but the maldistribution of these professionals means that that large parts of the District lack reasonable access, even as their population health indicators underscore the need for comprehensive primary health care.

In the case of geographic HPSAs, areas that exceed a population-to-primary care physician ratio of 3,500:1 (or 3,000:1 under special circumstances) qualify for designation, as long as the area can be defined as a rational service area and adjacent areas lack sufficient providers. Certain categories of physicians, such as National Health Service Corps members and those serving under the “J-1” visa program, are excluded from the ratio calculations, as are many types of non-physician practitioners.

Medical Underservice Measured by Community Health Need

Medically Underserved Areas (MUAs) are designated using three factors in addition to the relatively simple measure of the supply of physicians related to the number of people in a service area. Under the MUA designation process, age, poverty, and health status are taken into account. Specifically, the MUA process considers: the community poverty rate, the proportion of community residents over age 65, and the community’s infant mortality rate.⁸ Thus, this richer medical underservice designation looks beyond sheer numbers to consider the public health dimensions of primary health care need.

In addition, high-need populations living in more affluent and healthy communities can be designated as a Medically Underserved Population (MUP) if they face significant economic, sociological, and/or cultural and linguistic barriers to primary care access.⁹ To designate an underserved population, the same factors are considered, but the designation is calculated only for the population in question (for instance, only low-income

Combine HPSAs, MUPs.” Press Release. <http://newsroom.hrsa.gov/releases/2008/hpsaproposedrule.htm>; GAO-07-84.

⁷ See, e.g., Dor A., Pylpychuck Y., Shin P., and Rosenbaum S. August 13, 2008. “Uninsured and Medicaid Patients’ Access to Preventive Care: Comparison of Health Centers and Other Primary Care Providers.” Geiger Gibson Program/RCHN Community Health Foundation Research Collaborative Research Brief #4.

⁸ Ricketts, T., Goldsmith, L., Holmes, G., Randolph, R., Lee, R., Taylor, D. and J. Osterman. 2007. “Designating Places and Populations as Medically Underserved: A Proposal for a New Approach.” *Journal of Health Care for the Poor and Underserved* 18: 567-589.

⁹ Health Resources and Services Administration. “Guidelines for Medically Underserved Area and Population Designation.” www.bhpr.hrsa.gov/shortage/muaguide.htm

individuals), and only the physicians that serve this population are factored into the index.¹⁰ Applicants seeking MUP designation must survey area physicians to determine the extent to which they serve patients from the affected population group; as a result, securing an MUP designation can be resource-intensive.¹¹ In addition, since 1986, state officials have been able to request a special MUP designation (usually referred to as an “exception MUP”) if they determine the presence of “unusual local conditions” that create barriers to individuals seeking health services.¹²

Underestimation of Provider Shortage and Medically Underserved Communities and Populations

It is likely that the HPSA and MUA/MUP measurement systems underestimate the problem of medical underservice, since both measures offer fairly straightforward analyses of how supply and demand for health services match in a geographic area or population, based predominantly on the provider-to-population ratio. While the poverty rate, the proportion of residents over age 65, and the infant mortality rate are factored into the Medically Underserved Areas designations, the measurement system does not consider how other important factors such as under-insurance in relation to income, the cost of care, cultural issues, special needs, and transportation realities can also lead to medical underservice. Populations such as migrant and seasonal farmworkers, persons who are homeless, residents of public housing, persons with HIV/AIDS, and persons with serious physical conditions or mental disorders may be at particular risk for not being properly accounted for, particularly if they reside in pockets of otherwise relatively affluent areas. In addition, certain states have been more aggressive in pursuing federal designations, leaving other states with designation deficits in relation to the underlying population need.¹³

A 1995 GAO report concluded that the HPSA methodology and the MUA/P designation system do not accurately identify areas of health care need or effectively help prioritize the need for assistance.¹⁴ The GAO also found that it may be difficult to successfully use one uniform designation system to determine eligibility for the diverse set of programs that target underserved populations. A subsequent GAO study in 2006 updated these earlier findings and also concluded that HRSA lacked readily available information to effectively identify the MUAs with the highest levels of need.¹⁵ In addition, designation

¹⁰ On average, the number of primary care FTEs is multiplied by 0.21 to yield the number that serve low-income populations. Ricketts et al. 2007.

¹¹ Government Accountability Office. September 1995. “Health Care Shortage Areas: Designations Not a Useful Tool for Directing Resources at the Underserved.” GAO/HEHS-95-200; Government

¹² Health Resources and Services Administration. “Guidelines for Medically Underserved Area and Population Designation.” www.bhpr.hrsa.gov/shortage/muaguide.htm

¹³ The National Association of Community Health Centers and the Robert Graham Center. 2007. “Access Denied: A Look at America’s Medically Disenfranchised.”

¹⁴ General Accounting Office. September 1995. “Health Care Shortage Areas: Designations Not a Useful Tool for Directing Resources at the Underserved.” GAO/HEHS-95-200.

¹⁵ Government Accountability Office. October 2006. “Health Professional Shortage Areas: Problems Remain with Primary Care Shortage Area Designation System.” GAO-07-84.

as a HPSA or MUA does not guarantee the flow of resources to mitigate underservice: 43 percent of MUAs do not contain a community health center, for example.¹⁶

There has been growing momentum to change the designation methodologies; in 1998, HRSA released proposed rules to change the designation process and received over 800 comments from the public, many of which expressed concern about the deleterious effects of the proposed rule.¹⁷ The proposed rule was ultimately withdrawn and more research was conducted to develop a new proposed methodology. More recently, in February of 2008, another proposed change in methodology was released,¹⁸ garnering over 700 comments regarding the potential implications of the rule for medically underserved communities, particularly communities in urban areas, where medical underservice can coexist with relative health care affluence. This proposal was similarly suspended.¹⁹

In sum, the best available estimates of medical underservice are those that are derived using currently used formulas. These formulas probably understate the problem, and they suggest that about one-third of the U.S. population lives in a community that can be considered medically underserved, and that about three-quarters of residents in these communities has some level of insurance coverage. For these communities, which frequently carry the highest burden of illness and disability, strategies in addition to the extension of health insurance coverage will be crucial to achieve the types of system reforms that can improve quality and efficiency, and ultimately alleviate disparities in access to health care and health.

Addressing the Problem of Medical Underservice

Medical underservice for primary health care has important implications for cost, quality, and efficiency in care, which are all major long-term aims of national health reform. Without a sufficient primary care system, it is exceedingly difficult to achieve the type of “system re-engineering” essential to improving the management of chronic disease, avoiding unnecessary and costly hospital admissions and readmissions, achieving high use of preventive health care, or improving patients’ ability to manage serious health conditions.

¹⁶ Bascetta, C. April 30, 2009. “Many Underserved Areas Lack a Health Center Site, and Data are Needed on Service Provision at Sites.” Testimony before the Senate Committee on Health, Education, Labor, and Pensions. GAO-09-677T.

¹⁷ 42 CFR Parts 5 and 51c. February 29, 2008. “Designation of Medically Underserved Populations and Health Professional Shortage Areas: Proposed Rule.”

¹⁸ Shin, P., Ku, L., Jones E., and Rosenbaum, S. May 1, 2008 (Rev.). “Analysis of the Proposed Rule on Designation of Medically Underserved Populations and Health Professional Shortage Areas.” Geiger Gibson/RCHN Community Health Foundation Research Collaborative Research Brief #2.

¹⁹ Jones, E., Ku, L., Lippi, J., Whittington, R. and Rosenbaum, S. September 3, 2008. “Designation of Medically Underserved and Health Professional Shortage Areas: Analysis of the Public Comments on the Withdrawn Proposed Regulation.” Geiger Gibson/RCHN Community Health Foundation Research Collaborative Issue Brief #5.

Several distinct strategies become important in assuring that as insurance coverage expands, the underlying system capacity in medically underserved communities is sufficient and configured to be conducive to providing efficient, high-quality care.

Sufficiently Reasonable Coverage to Make Care Affordable for Low Income Patients, and Preservation of Medicaid as Either a Primary or Supplemental Insurer

Because uninsured persons are disproportionately lower income, their disposable resources for health care are exceedingly modest. In the Massachusetts Commonwealth Care program, for example, families with incomes at or below 150 percent of the federal poverty level pay no premium.²⁰ Since families with incomes of 150 to 300 percent of the federal poverty level also have low thresholds of affordability for their health insurance premiums, Massachusetts charges sliding scale premiums for this income group.

Beyond the basic issue of expanding insurance coverage, the affordability and quality of the available coverage is very important. In this regard, the elimination of cost-sharing (deductibles, copayments and coinsurance) for preventive health care is key, as is the existence of annual limits on out-of-pocket costs for covered benefits. But residents of medically underserved communities are often sufficiently low-income that out-of-pocket limits are likely to be too high to be effective, because many families simply do not have excess disposable income. The central challenge thus becomes maintaining comprehensive coverage and nominal cost-sharing for all health care at the point of service, not just in relation to aggregate annual limits.

For low income populations, Medicaid offers the most important strategy for assuring adequate coverage in terms of the range of benefits and treatments covered and the affordability of care itself at the point of care. Whether Medicaid serves as a primary form of coverage for the poorest patients or as supplemental coverage for low income persons who derive their primary insurance through a health insurance exchange, it is critical to maintain access to Medicaid benefits for persons with low family incomes.

Direct Assistance to Providers Working in Medically Underserved Communities

Providers working in medically underserved communities will face several distinct challenges: absorbing a heightened level of uncovered costs associated with private health insurance for their low income patients (such as deductibles, copayments, benefit and service exclusions, and other limitations on coverage); funding to invest in new service capacity, site expansion, and workforce expansion; funding to provide services and supports not associated with private health insurance, particularly translation, transportation assistance, and case management; and funds to absorb the costs of treating patients who remain uninsured and without affordable coverage.

²⁰ Ku, L. Jones, E. Finnegan, B. Shin, P. Rosenbaum, S. Mar 2009. "How is the Primary Care Safety Net Faring in Massachusetts? Community Health Centers in the Midst of Health Reform." Kaiser Family Foundation and Geiger Gibson/RCHN Community Health Foundation Research Collaborative.

All of these costs are present in the entire health care system but are particularly serious in medically underserved communities, simply because of the high concentration of low income persons at elevated risk for under-insurance in relation to health care need. All of these costs were evident following health reform in Massachusetts, and they remain a presence in other states that have broadened health insurance coverage for low income persons.

The uninsured can be expected to remain a significant presence in medically underserved communities, particularly if the cost of health reform leads to limits on the level of income at which subsidies can be given, as well as the level of subsidies awarded. For example, in Massachusetts, where comprehensive reform significantly reduced the overall number of uninsured persons to an estimated 2.6 percent of the population,²¹ the proportion of uninsured patients served by the state's community health centers nonetheless remains high, standing at 30 percent of all patients in 2007.²²

Capacity expansion also will be critical. Previous studies of health insurance reforms in Massachusetts have found that health insurance reforms revealed major capacity shortages—among both the general population and within medically underserved communities.²³ Health centers have received a good deal of attention under the American Reinvestment and Recovery Act (ARRA),²⁴ which appropriated more than \$2.5 billion for the establishment or expansion of health centers and the National Health Service Corps through investments in infrastructure and capital needs, capacity expansion, and workforce. When this short-term investment ends, ongoing investments will be needed; as of 2008, health centers served 18 million patients, but many more are in need of services.²⁵

At the same time, broader investments are also needed in order to achieve clinical integration among providers serving these communities, including public hospitals, children's hospitals, health centers and other sources of primary health care, and specialty care providers. This type of system-level investment can help spur advances in the type of clinical integration and performance accountability that are considered essential to changing health outcomes and increasing efficiencies as a result of changes in the basic nature of health care practice.²⁶ These changes include cross system management

²¹ Long, S. and P. Masi. 2009. "Access and Affordability: An Update on Health Reform in Massachusetts, Fall 2008." *Health Affairs* web exclusive: W578-W587.

²² Ibid.

²³ Long and Masi 2009; Ku, L., Jones E., Finnegan, B., Shin, P. and Rosenbaum, S. March 2009. "How Is the Primary Care Safety Net Faring in Massachusetts? Community Health Centers in the Midst of Health Reform." Kaiser Family Foundation and the Geiger Gibson/RCHN Community Health Foundation Research Collaborative.

²⁴ American Recovery and Reinvestment Act of 2009, signed February 17, 2009. Available at: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1enr.pdf

²⁵ National Association of Community Health Centers. March 2009. "Primary Care Access: An Essential Building Block of Health Reform."

²⁶ See generally Institute of Medicine. 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington DC: National Academy Press. See also Casalino, L., Giles, R.R., Shortell S., Schmittiel A., Bodenheimer T., Robinson J.C., Rundall T., Oswald N., Schaffler H. and M.C. Wang. 2003. "External Incentives, Information Technology, and Organized Processes to Improve Health Care

capacity, the provision of services and supports that make care appropriate for patients, the ability to both measure and publicly report on the quality of care, and—especially in the case of health care systems serving communities at risk—the ability to integrate with public health improvement efforts. In addition, investments in health professions training programs become essential to supporting the long term growth of accountable and clinically integrated health care.

Health Plan Performance and Payment Standards

How health plans operate in medically underserved communities will be crucial to the success of efforts to bring more and better health care to medically underserved populations. While much attention has been paid to ending discrimination at the point of enrollment, much less discussion has centered on safeguards designed to assure that health plans do not unreasonably profit from significant under-use of care in medically underserved areas. Nor has sufficient attention been paid to the potential impact of serious health plan underpayment for care in the case of health care providers that continue to experience a high volume of uninsured patients. A recent study of private health plan payments to health centers found that as a probable result of low payment levels, high cost sharing, and benefit exclusions, health centers experienced losses of \$5 billion from 1997 through 2007.²⁷

For these reasons, three types of consumer protections become critical in the case of plans marketed in communities designated as medically underserved. The first is strong and measurable primary and specialty care access standards that will incentivize plans to invest in capacity building. The second is a fair payment requirement that can avoid the results found in earlier research, in which providers furnishing care in underserved communities face significant cost shifting onto public grants meant for care of the uninsured. Third is strong performance reporting across the entire health care system that captures not only clinical performance but performance in relation to patient race, ethnicity, language, and residence in a medically underserved community.

Public Health Investments

While the spotlight is usually on the state of the health care system, a main goal of health reform is to improve the health of the population. Achieving a healthier population will require investments in community wellness and transformation programs that can reach medically underserved communities with proven interventions aimed at improving the

Quality for Patients with Chronic Diseases.” *Journal of the American Medical Association* 289: 434-441; Shortell S. and L. Casalino. 2008. “Health Care Reform Requires Accountable Care Systems.” *Journal of the American Medical Association* 300(1): 95-97; Fisher, E., Staiger D., Bynum J. and D. Gottlieb. 2007. “Creating Accountable Care Organizations: The Extended Hospital Medical Staff.” *Health Affairs* 26(1): w44-w57.

²⁷ Rosenbaum, S., Finnegan, B. and P. Shin. March 2009. “Community Health Centers in an Era of Health System Reform and Economic Downturn: Prospects and Challenges.” Kaiser Commission on Medicaid and the Uninsured.

health of children and adults.²⁸ Equally crucial will be investments in modernizing public health surveillance, with a particular emphasis on the measurement and reporting of community health, population health disparities, and progress in creating greater access among an underserved population to clinical preventive care.²⁹

Conclusion

This analysis highlights the fact that medical underservice—an issue that affects some 96 million residents of urban and rural communities designated as medically underserved—will continue to challenge the long term impact of national health reform. Medical underservice takes a human toll in terms of the burden of illness and disability. It also creates downstream costs that ultimately flow from the lack of access to comprehensive primary health care. In order for national health reform to achieve its long-term goals of quality and efficiency, a series of direct investment and standard-setting steps—beyond the threshold of health insurance coverage itself—are critical. The lessons drawn from previous reform efforts highlight the enormous importance of partnering coverage with capacity building, especially in the communities that experience the highest health risks and the most serious burden of illness.

²⁸ King, M. February 2007. “Community Health Interventions: Prevention’s Role in Reducing Racial and Ethnic Health Disparities.” Center for American Progress, Washington, DC.

²⁹ Stoto, M. 2008. “Public Health Surveillance In the Twenty-First Century: Achieving Population Health Goals While Protecting Individuals’ Privacy and Confidentiality.” *The Georgetown Law Journal* 96: 703-719.

Appendix: Estimating The Uninsured Population in Underserved Communities

This analysis relies on census data to estimate the number of residents living in medically underserved and health professional shortage areas. The number of residents living in medically underserved and health professional shortage areas are reported directly from datasets and reports available from the Health Resources and Services Administration (HRSA), the federal agency responsible for the administration of grants and programs for low-income communities and populations that lack access to adequate health care resources.³⁰

Although HRSA's Geospatial Data Warehouse dataset provides an estimate of the population residing in underserved communities, it does not directly reveal the number of MUA residents who are low-income or uninsured. Therefore, as noted in the figures and tables, we estimate the percentage of uninsured in the MUA and HPSA using 2007 and 2008 Census data. Because the MUA and HPSA designations are based heavily on the concentration of poverty, we apply the state-specific uninsured rates for those with incomes at or below 200 percent of the federal poverty level to estimate the percent of uninsured people living in MUAs in each state.³¹

Table 2 (below) compares these state estimates with alternative estimates available from other sources. The columns shown are:

- (A) The main estimates used in this report, based on Census data for the percent uninsured for those with incomes below 200 percent of the poverty line
- (B) An alternative estimate based on the percent uninsured living in Primary Care Service Areas (PCSAs), based on HRSA's Geospatial Data Warehouse
- (C) An adjusted estimate of the percent uninsured living in MUAs, based on HRSA's Geospatial Data Warehouse
- (D) The percent of FQHC patients who are uninsured, based on Uniform Data Systems reports.

HRSA's Geospatial Data Warehouse contains estimates of the number of people living in Primary Care Service Areas (PCSAs) who are uninsured and who live in MUAs, but not the number of uninsured people in MUAs. PCSAs are geographic designations of markets for primary care services, which are generally larger than MUAs. Data in column B is based on the number of uninsured in each PCSA multiplied by the percent of PCSA residents who reside in MUAs. These estimates are too conservative, because they assume that the proportion of people who are uninsured is uniform across a PCSA, while MUAs are designated precisely because they are disadvantaged areas, and are thus likely to have higher rates of uninsurance. This method produces a national average of 16.0 percent uninsured.

To adjust this conservative estimate, data in column C assume that the proportion of people who are uninsured in MUAs is about 50 percent higher than for overall PCSA. This produces a national average of 24.0 percent uninsured.

³⁰ <http://datawarehouse.hrsa.gov/pcsa2006.aspx> (Accessed June 15, 2009)

³¹ Physician ratios, infant mortality rates, and the concentration of elderly are also factored in.

The data in column D are based on the proportion of FQHC patients who are uninsured, based on Uniform Data System reports. The national average is 39.3 percent. However, since low-income and uninsured patients flock to health centers because of their safety net status, the percent of patients who are uninsured is going to be higher than the rate of overall uninsurance in the MUA communities that they serve.

While no single method is ideal, this comparison indicates that the Census-based approach used in this report is in the middle compared to two alternative approaches (columns B and D) and relatively similar to those produced using a third method (column C). Thus, the method used in column A appears to provide reasonable estimates.

Table 2. Comparison of Estimates for Percent Uninsured in MUAs

	(A)	(B)	(C)	(D)
	Percent Uninsured Below 200% of Poverty (Census Data)	Percent Uninsured Based on PCSAs (Geospatial Data)	Adjusted Percent Uninsured for MUAs (Geospatial Data)	Percent of FQHC Patients Uninsured (UDS Data)
Alabama	23.4%	14.5%	21.7%	49.8%
Alaska	30.8%	17.2%	25.8%	36.6%
Arizona	33.6%	19.6%	29.5%	32.3%
Arkansas	26.7%	17.5%	26.3%	42.7%
California	30.8%	18.8%	28.2%	45.2%
Colorado	35.6%	16.6%	24.9%	46.0%
Connecticut	17.7%	10.9%	16.4%	26.1%
Delaware	21.9%	12.1%	18.1%	51.1%
Dist Columbia	15.2%	13.2%	19.8%	20.5%
Florida	35.2%	20.2%	30.2%	53.1%
Georgia	32.7%	18.2%	27.4%	46.0%
Hawaii	14.8%	8.6%	12.9%	29.5%
Idaho	24.3%	14.8%	22.2%	51.6%
Illinois	26.4%	13.7%	20.5%	29.8%
Indiana	21.9%	13.6%	20.4%	45.7%
Iowa	19.7%	8.2%	12.3%	41.1%
Kansas	23.2%	10.3%	15.5%	55.5%
Kentucky	24.9%	12.3%	18.4%	40.7%
Louisiana	30.9%	17.7%	26.6%	46.0%
Maine	14.6%	10.3%	15.5%	13.9%
Maryland	30.1%	13.3%	20.0%	26.7%
Massachusetts	12.7%	9.2%	13.8%	25.6%
Michigan	20.1%	10.4%	15.5%	34.5%
Minnesota	18.8%	8.0%	12.0%	39.2%
Mississippi	32.2%	16.7%	25.1%	43.9%
Missouri	24.3%	11.7%	17.6%	41.8%
Montana	29.7%	15.7%	23.5%	54.3%

Nebraska	26.1%	10.5%	15.7%	57.0%
Nevada	35.0%	17.1%	25.6%	54.7%
New Hampshire	24.6%	9.6%	14.3%	28.7%
New Jersey	32.1%	14.5%	21.7%	42.9%
New Mexico	35.6%	20.3%	30.4%	42.2%
New York	20.5%	13.0%	19.5%	28.3%
North Carolina	28.4%	15.3%	23.0%	51.2%
North Dakota	22.8%	11.0%	16.4%	23.2%
Ohio	20.6%	11.4%	17.1%	35.6%
Oklahoma	29.0%	17.9%	26.8%	49.8%
Oregon	30.7%	15.6%	23.4%	48.6%
Pennsylvania	18.3%	9.7%	14.6%	23.6%
Rhode Island	17.4%	11.6%	17.4%	27.4%
South Carolina	25.7%	17.3%	26.0%	39.0%
South Dakota	21.2%	11.5%	17.2%	39.1%
Tennessee	22.1%	13.6%	20.4%	39.6%
Texas	39.4%	23.6%	35.4%	56.6%
Utah	26.9%	16.4%	24.6%	60.7%
Vermont	17.6%	11.5%	17.2%	14.8%
Virginia	27.5%	12.8%	19.2%	33.0%
Washington	22.2%	13.2%	19.8%	33.2%
West Virginia	20.9%	16.9%	25.4%	29.5%
Wisconsin	17.8%	9.3%	14.0%	32.2%
Wyoming	23.4%	14.6%	21.9%	44.1%
U.S. Average	27.6%	16.0%	24.0%	39.3%