

Designating Health Professional Shortage Areas and Medically Underserved Populations/ Medically Underserved Areas: A Primer on Basic Issues to Resolve

*Prepared by the
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Introduction

The purpose of this paper is to help interested parties consider issues related to the designation of Medically Underserved Areas (MUAs), Medically Underserved Populations (MUPs), and Health Professional Shortage Areas (HPSAs). The paper includes narrative describing key issues and a table summarizing how the designations establish eligibility for programs important to rural medical care delivery.

The Patient Protection and Affordable Care Act of 2010 (ACA) requires that the Health Resources and Services Administration (HRSA) establish a new designation methodology for MUPs and HPSAs through the negotiated rulemaking process. We are releasing this paper coterminous with the start of the Negotiated Rulemaking Committee reviewing the designation of MUPs and HPSAs. The Notice of the Intent to Form the Negotiated Rulemaking Committee clarified that the term “Medically Underserved Populations” or “MUPs” includes residents in both MUAs and MUPs. Therefore, henceforth this paper will use only the term MUP.

MUP criteria were originally issued in 1975 and include an index of medical underservice based on four variables: percentage of population with income below the federal poverty level, primary care physician-to-population ratio, infant mortality rate, and percentage of the population aged 65 and over. The MUP designation was originally created to determine eligibility for Section 330 grants, federal awards to fund the use of sliding fee schedules to Community Health Centers (CHCs). HPSA designations were created in 1978. This designation (which can be specific to an area, facility, or population group) is necessary for application for National Health Service Corps (NHSC) personnel.

A detailed description of these shortage area designations, their original purposes, and how their use has expanded over the years is in a table in the appendix, p 6.

There have been two previous attempts at rulemaking to update/modify how shortage areas are designated. Neither was successful, in part due to the political challenges inherent in changing a process that dictates the distribution of substantial federal resources. In any change, some places will be newly eligible for designation and others will lose eligibility.

Negotiated Rulemaking Committee (FR 75 no. 90 16167) members should consider the following issues during MUP/HPSA designation deliberations.

1. Sources of Data

Regardless of the data elements included in a new designation process formula, there will be advantages and disadvantages in both applicant-provided data (primary data) and secondary data. Secondary data are national in scope and can be standardized. On the other hand they are not consistently current. For a given geographic area, providers will be included who no longer practice there, and there will be providers who have moved into an area but are not yet captured in national data files. This will result in areas that receive shortage designation but should not, and areas that should receive the designation but do not. Applicant data may better reflect local conditions at the time the application is made. On the other hand, data supplied by applicants (directly to HRSA or through State Primary Care Offices) would need to be verified by federal agencies, a difficult and resource-intensive process. Applicants with resources can potentially interpret data to their advantage unless extremely rigorous guidelines are created. For example, if a provider worked a variable number of hours over the course of the year, an applicant may choose to submit data reflecting a time period when the provider worked less. Conversely, there will be places that deserve designation but do not have the resources to develop a good application.

There are several potential shortcomings of data. For one, numbers will differ across data sources. For example, population estimates in a defined area will differ between Census Bureau estimates and state or local level population projections. Further, counting practitioners is quite complex and includes issues such as which providers are considered “primary care,” how part-time practice is valued, whether providers deemed primary care spend their entire work days actually delivering primary care, and defining “full-time” practice.

Because of data shortcomings, absent a case-by-case adjudication process, errors will occur in the designation process. One issue the committee has to decide is which type of error is preferable: a methodology that is more rigid and thus less prone to include areas that should not be designated but will also leave out areas that should; or, a methodology that is more flexible and thus will more likely capture a higher percentage of areas that should receive designation but will also capture a higher percentage of those that should not.

2. Using a Unified Definition, or Separate Designation Criteria

The objectives of the HPSA and MUP are different, so to create a new designation process that will support program goals may require two distinct methodologies. The committee should think carefully about whether a single shortage area definition will create program eligibility in undeserving places or miss deserving places. A good start would be to look at all programs that depend on shortage area designations to determine eligibility, the goals of these programs, and the types of areas that should be targeted. Then the committee could decide the extent to which there are places that should ideally be eligible for some programs but not others. If this happens frequently, a single shortage area designation could result in two types of error—missing places that should be designated, or creating eligibility for places not underserved in the context of a particular program. If infrequent, then a single designation process makes

sense as it is simpler to implement and maintain. Two uses of underserved criteria illustrate differences in program goals. To be eligible for participation in the NHSC, the determination is a ratio of physicians to population because the purpose is to achieve a minimum number of providers. To be a place eligible for placing a safety net clinic (such as a Federally Qualified Health Center), criteria related to population characteristics that render them underserved may be the appropriate determination, regardless of the number of physicians.

3. Data to Be Used

If the new methodology is formula based, both the specific data elements in the formula and the methodology should be designed so that the applicable programs address those shortages identified by shortage area designations. For example, since these programs focus on primary care shortages, all providers of primary care should be considered when determining eligibility for designation. This designation will be challenging because national data sets of non-physician primary care providers are inadequate. If non-physician providers are left out of the formula, areas that proportionally rely more on non-physician primary care providers will appear to be more underserved than they actually are.

4. The Methodology to Be Used

There are extremely sophisticated tools available (such as clustering, factor analytical, and geographical adjustment) to assess shortages, but any methodology can be manipulated to produce alternative outcomes using very logical and reasonable alternative assumptions. There will be individuals and groups who favor one particular method because it results in more of their constituency being identified as a shortage area. The committee should focus on achieving the optimal policy solution: clear goals for the intents and purposes of the programs—as they exist now and will exist in the future—should be identified, and then the methodology chosen that best identifies places consistent with program goals. The committee should be aware that analyses to assess “winners and losers” of any new methods compared to the status quo do not support program goals, but rather support the concerns of stakeholders not wanting to lose their current designations (regardless of whether that status is warranted). That said, the committee should consider the fact that no process that is totally dependent on a statistical analysis will include all worthy areas, and some form of appeals or exceptions process should be considered.

5. The Population-based Indicators to Be Used

The ACA includes direction that certain ratios, such as infant mortality, persons over 65, and overall mortality, must be used as part of the designation process. There are many other potential indicators of underservice. The committee should consider the extensive work that has already been conducted under contracts with HRSA that assessed data sources and their applicability for identifying shortage areas.

6. Definition of Primary Care

Primary care can be defined by practitioner type or by a set of services that various types of practitioners may provide. A formula using definition by practitioner type is far simpler to implement. However, definition by types of services provided is more accurate to the intent of shortage designations. The type of services provided can vary across shortage areas, given reasonable proximity of such services as general surgery and other procedures that primary care practitioners can perform.

7. Practitioners Placed by Federal Programs

The goal of any underserved area measurement is to identify people and places with ongoing or potential needs. In many communities, needs are currently being met by the practitioners and organizations who are there as a result of federal programs, such as loan repayment, which requires practice in a shortage area. Those placed practitioners are likely to leave at some time and not be replaced by market forces; thus those replacement needs should be considered in formula design. Past attempts at rulemaking have focused on exempting some federally placed practitioners, but not others, from provider ratios; for example, NHSC and CHC clinicians were not included in the provider counts, but physicians practicing under a J-1 visa waiver and Rural Health Clinic clinicians were.

8. Definition of Geographic Areas

Consideration should be given to how sub-county service areas are to be defined. The sophistication of current geographic information systems (GIS) facilitates construction of areas that fit the criteria for designation while perhaps ignoring adequate provider supply in the immediately proximal areas. Conversely, reliance on existing systems such as Primary Care Service Areas, which were constructed based on community patterns of care, accepts current patterns as adequate—which may not be the case. Existing systems for identifying services areas often describe *what is* not *what should be*. In fact, there are remote places where patterns of care include travel distances that may be considered unacceptable but are the only current alternatives. The point of sending resources to underserved areas is that current patterns of care are deemed unacceptable in some places. The capabilities of modern GIS to define sub-county areas can help target places in otherwise well-served counties that are primary care deserts, both rural areas in large metropolitan counties, and neighborhoods in urban cores. GIS could also be used to consider different levels of rurality based on distance from urban areas and population density (frontier). The need to do so is a function of confidence in the ability of measures already being used (population characteristics and provider ratios) to capture the same dimension (presumably isolation) of concern.

9. Frequency of Designations

Data pertinent to underserved areas can change very quickly, both the number of providers and population characteristics (including number) in an area. The committee should consider the impact of frequent designations/re-designations, which would allow newly qualified areas to gain status more quickly, yet de-designate areas with temporary provider increases, creating a yo-yo effect where areas bounce into and out of designation. Any impact analysis, economic as well service availability, should consider the cost of re-designation versus the marginal cost of continuing a designation in some places that perhaps no longer warrant the designation.

10. The Impact of ACA Implementation

Although the committee is tasked with creating a new methodology in the near future, decisions should consider elements of the ACA that will change the landscape in the longer term. For example, uninsured rates might matter more now than they will in 2015, when expanded availability of affordable insurance might change the focus to the type of insurance coverage an individual has. Innovations supported by the ACA, such as patient-centered medical homes and accountable care organizations, may change requirements for primary care providers.

11. Identifying Population Groups

Identifiable groups of people who face discrimination or economic displacement that affects their access to health care will vary from place to place and time to time. To the extent that population groups are incorporated into a new methodology, consideration should be given to a dynamic process for group identification. Statistical and epidemiological surveillance that is sensitive to the emergence of inequalities in health care access for new population groups could be incorporated into the methodology. The advantage of including real-time information on population groups is that it will create a system that is proactive rather than reactive. The disadvantage is that it will require data systems and capabilities that may require additional resources to develop and maintain.

12. Use of Thresholds for Qualifying

The current methodology for MUP designation uses a single threshold value on an index of underservice to identify places that qualify and therefore associated programs. In reality, there is a continuous scale of unmet primary care needs rather than a single point at which places and populations transition from having unmet needs to having all needs met. Consideration should be given to methodology that allows for flexibility in designations, so that places with greater need receive greater resources, and those with lesser needs receive fewer resources.

Appendix

Shortage Designations: The Basics

	Health Professional Shortage Areas (HPSAs)	Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs)
Date Created	<p>Section 332 of the Public Health Service Act, 1978 (PHSA), provides that the regulatory responsibility for designation of HPSAs rests with the Health Resources and Services Administration's (HRSA's) Bureau of Primary Health Care, Division of Shortage Designation.</p> <p>The PHSA replaced the Critical Health Manpower Shortage Area Act (CHMSA), created in 1971, which also created the National Health Service Corps.</p>	<p>Both MUAs and MUPs are based on the Index of Medical Underservice (IMU), published in the <i>Federal Register</i> on October 15, 1976. Requests for exceptional MUP designations can be submitted based on the provisions of Public Law 99-280, enacted in 1986.</p>
Types/Categories	<ul style="list-style-type: none"> • Geographic Area – may be an entire county (usually rural) or part of a county (rural or urban) • Population Group – for example, migrant farm workers within a defined geographic area • Facilities – Federally Qualified Health Centers and look-alikes are automatically designated. Other examples include correctional facilities, Rural Health Clinics that serve all patients regardless of ability to pay, and state mental hospitals. • Primary Care • Dental • Mental Health 	<p>MUAs refer to areas, while MUPs technically refer to populations. However, in the context of the current discussions, MUP is a term used to cover all medically underserved, both place-based and population-based.</p> <p>Areas with concentrations of poor, minority, and/or linguistically isolated populations have achieved population group HPSA designations based on their limited access to physicians.</p>
Current Data and Methods	<p>See http://bhpr.hrsa.gov/shortage/hpsacrit.htm for designation criteria and links to specific information on determining different categories of HPSAs.</p> <p>HPSA designation is broadly based on at least a 3,500:1 population-to-full-time-equivalent primary care</p>	<p>The IMU is calculated based on:</p> <ul style="list-style-type: none"> • The percentage of the population below poverty; • The percentage of the population that is elderly; • The infant mortality rate; and

	Health Professional Shortage Areas (HPSAs)	Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs)
	<p>physician ratio. Original CHMSA criteria required that a population-to-primary care physician ratio threshold be exceeded within a rational geographic service area to demonstrate shortage.</p> <p>HPSA criteria expanded CHMSA criteria to allow a lower threshold ratio for areas with unusually higher needs, as indicated by high poverty, infant mortality or fertility rates, overutilization, or excessive waiting times, and to consider population groups with access barriers within areas where the general population has sufficient resources.</p> <p>There has been a substantial change in the number of HPSA areas, populations, and facilities designated, with a steady upward trend in the total appearing since 1990. A significant number of designations have been continuous or “chronic.”</p>	<ul style="list-style-type: none"> • The availability of primary care physicians. <p>The IMU scale is from 0 to 100, with 0 representing completely underserved, and 100 representing most well served. An area with an IMU of 62 or less is designated as an MUA.</p>
Original Purpose	HPSAs were created for use with the National Health Service Corps. An area must have HPSA designation to be eligible to apply for placement of NHSC personnel.	Establish grants to support Community Health Centers (CHCs)
Current Use	<p>Major federal programs using HPSA designation include:</p> <ul style="list-style-type: none"> • National Health Service Corps placements to shortage areas (Section 333, PHSA), scholarship programs (Section 338A, PHSA), loan repayment programs (Section 338B, PHSA) • Medicare Incentive Payments for physician services furnished in HPSAs (Public Law 100-203, Section 4043, as amended) – The Centers for Medicare & Medicaid Services gives 10% bonus payment for Medicare-reimbursable physician services provided 	<p>Major federal programs using MUA/MUP designation include:</p> <ul style="list-style-type: none"> • 330 Grants to CHCs Grants for the planning, development, and operation of CHCs are reserved for areas with MUA/P designation. • Rural Health Clinics Act (Public Law 95-210) – provides Medicare and Medicaid reimbursement for services provided by physician assistants and nurse practitioners in clinics in rural shortage areas

	Health Professional Shortage Areas (HPSAs)	Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs)
	<p>within geographic (not population) HPSAs.</p> <ul style="list-style-type: none"> • Rural Health Clinics Act (Public Law 95-210) – provides Medicare and Medicaid reimbursement for services provided by physician assistants and nurse practitioners in clinics in rural shortage areas. • PHS Title VII and VIII Training Grant Programs administered by HRSA's Bureau of Health Professions • J1 Visa Waivers 	<ul style="list-style-type: none"> • PHS Title VII and VIII Training Grant Programs administered by HRSA's Bureau of Health Professions • J1 Visa Waivers
Frequency of Updating	<p>Review: Statute requires that HPSAs be reviewed annually. This requirement is implemented by requiring updates of HPSAs more than three years old. For example, those HPSAs designated or last updated in 2001 were scheduled for review in 2005. Update requests are sent to State Primary Care Offices (PCOs), Governors' Offices and other organizations in the State. PCOs have a few months to submit designation updates for their states. After review, the Secretary of Health and Human Services designates HPSAs and withdraws designations of areas that no longer meet criteria.</p> <p>Requests: Agencies and individuals can request consideration of HPSA designation at any time through their PCO.</p>	<p>No update requirement</p> <p>Many designations are significantly outdated, governed by indicators from the 1970s.</p>

Sources: <http://bhpr.hrsa.gov/shortage/index.htm>; Federal Register/ Vol. 75, No. 90/ Tuesday, May 11, 2010; "Examining alternative measures of medical underservice for rural areas." Donald H. Taylor Jr., PhD. <http://www.shepscenter.unc.edu/rural/pubs/report/WP39.pdf>

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