Key Principles of Shortage Designation

Melissa Ryan, MPH
May 25, 2017
4:00pm-5:00pm
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Shortage Designation Key Concepts
May 25, 2017

Melissa Ryan
Operations Director
Division of Policy and Shortage Designation
Bureau of Health Workforce (BHW)
Health Resources and Services Administration (HRSA)
Today’s Discussion Topics

Key Concepts for Shortage Designation

1. Programs that Use Shortage Designations
2. Types of Health Professional Shortage Area (HPSA) Designations
3. HPSA Designation Criteria
4. HPSA Scoring Criteria and Calculations
5. Shortage Designation Modernization
# Shortage Designations Help Target Resources*

<table>
<thead>
<tr>
<th>Shortage Designation Option</th>
<th>National Health Service Corps (NHSC)</th>
<th>NURSE Corps</th>
<th>Health Center Program</th>
<th>CMS Medicare Incentive Payment</th>
<th>CMS Rural Health Clinic Program</th>
<th>J-1 Visa Waiver</th>
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</thead>
<tbody>
<tr>
<td>Primary Care</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Geographic HPSA</td>
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<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Population HPSA</td>
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<td>X</td>
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<tr>
<td>Facility HPSA</td>
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<tr>
<td>Dental Care</td>
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<tr>
<td>Geographic HPSA</td>
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<tr>
<td>Population HPSA</td>
<td>X</td>
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<tr>
<td>Facility HPSA</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Geographic HPSA</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Population HPSA</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility HPSA</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Exceptional MUP</td>
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<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Medically Underserved Area</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Medically Underserved Population</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>State Governor's Certified Shortage Area</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*List of programs is not exhaustive.
Types of HPSAs

A shortage of:

Primary Care
Mental Health
Dental Health

providers in a:

Geographic Area
Population Group
Facility
While the general components of designation analysis are similar across designation types, the specific eligibility criteria vary depending on designation type...
In order to achieve a designation, the area under consideration must:

1. Be a **rational area** for the delivery of services;

2. Have a **certain ratio of population to providers** serving the area that has been determined to qualify as a shortage; and

3. Demonstrate that health professionals in contiguous areas are **excessively distant, over-utilized, or inaccessible** to the population under consideration.
Rational Service Area (RSA)

A state-identified geographic area within which most area residents could or do seek and obtain most of their health care services.

RSAs can be:
1) A whole county
2) Multiple counties
3) Sub-counties
4) Catchment areas (for mental health only)

Rules of RSA Determination:
1) RSAs cannot overlap existing designations
2) RSAs cannot be smaller than a census tract
3) Exceed travel time between population centers
4) RSAs cannot carve out interior portions
## Ratio of Population to Providers

### Which Providers Count?

<table>
<thead>
<tr>
<th>Primary Care</th>
<th>Mental Health</th>
<th>Dental Health</th>
</tr>
</thead>
</table>
| Includes Doctors of Medicine (MD) and Doctors of Osteopathy (DO) who provide services in the following specialties: | Includes:  
- Psychiatrists, and may include other Core Mental Health (CMH) providers, such as:  
  - Clinical Psychologists  
  - Clinical Social Workers  
  - Psychiatric Nurse Specialists  
  - Marriage & Family Therapists | Includes:  
- Dentists  
- Dental Auxiliaries |
|  - Family Practice  
  - Internal Medicine  
  - Obstetrics and Gynecology  
  - Pediatrics |  |

**Note:** Providers solely engaged in administration, research or training are excluded.

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Dental auxiliaries are defined as any non-dentist staff employed by the dentist to assist in the operation of the practice.
Ratio of Population to Providers
What are the ratios?

Each HPSA category has a unique ratio of population to providers, which has been identified as the point at which it can be designated as having a shortage of health professionals.

<table>
<thead>
<tr>
<th></th>
<th>Primary Care</th>
<th>Mental Health</th>
<th>Dental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic</td>
<td>3,500:1</td>
<td>6,000:1 &amp; 20,000:1 CMH and Psychiatrists OR</td>
<td>5,000:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9,000:1 CMH only</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30,000:1 Psy only</td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td>3,000:1</td>
<td>4,500:1 &amp; 15,000:1 CMH and Psychiatrists OR</td>
<td>4,000:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6,000:1 CMH only</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20,000:1 Psy only</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>1,000:1</td>
<td>2,000:1</td>
<td>1,500:1</td>
</tr>
</tbody>
</table>
Population of the area must meet at least one of several criteria demonstrating higher than normal need.

- At least 20% population at or below 100% FPL
- More than 100 births/year per 1,000 women ages 15-44
- More than 20 infant deaths per 1,000 live births
- Have insufficient capacity

- At least 20% of the population has income at or below 100% FPL
- More than 50% of the population has no fluoridated water
- Have insufficient capacity

- At least 20% of the population at or below 100% FPL
- The youth ratio exceeds 0.6
- The elderly ratio exceeds 0.25
- A high prevalence of alcoholism
- A high degree of substance abuse
When determining whether an area’s “neighbors” are accessible for health care services, HRSA asks:

- Are the providers excessively distant?
- Are the providers over-utilized?
- Are the CA providers inaccessible?
- Does the CA have economic barriers?
Facility HPSA Designations

Federal and State Correctional Institutions

- Be *medium* or *maximum* security
- Have at least **250** inmates
- Meet internees/year to provider ratio thresholds:

<table>
<thead>
<tr>
<th>Primary Care</th>
<th>Dental Health</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1,000:1</strong></td>
<td><strong>1,500:1</strong></td>
<td><strong>2,000:1</strong></td>
</tr>
</tbody>
</table>

State and County Mental Hospitals

- Have an average daily inpatient census of at least **100**
- The number of workload units per psychiatrist FTE exceeds **300**

Public or Non-Profit Medical Facilities

- Provide primary care, dental, or mental health services to a similarly designated geographic or population HPSA
- Have *insufficient capacity* to meet the needs of that area or population group
Automatically Designated HPSAs

Using the statute and regulations, HRSA has deemed the following facility types as eligible for automatic HPSAs:

- Health Centers (funded under Sec. 330)
- Health Center Look-Alikes
- Tribally-Run Clinics
- Urban Indian Organizations
- Dual-Funded Tribal Health Centers
- Federally-Run Indian Health Service Clinics
- Rural Health Clinics meeting NHSC site requirements
### Auto HPSAs compared to other HPSAs:
Similar but not the same

<table>
<thead>
<tr>
<th>Other HPSAs</th>
<th>Automatic Facility HPSAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Designation &amp; scoring done online</td>
<td>- Designation &amp; scoring currently done <strong>manually</strong></td>
</tr>
<tr>
<td>- Criteria used to first designate as HPSA</td>
<td>- <strong>No application</strong> process necessary</td>
</tr>
<tr>
<td>- Criteria used to determine HPSA score</td>
<td>- Same criteria used to determine HPSA score as other HPSAs</td>
</tr>
<tr>
<td>- Scores range from 0-25 (26 for dental)</td>
<td>- Same scoring range used</td>
</tr>
<tr>
<td>- Designations are required to be reviewed and updated as necessary annually</td>
<td>- HRSA has not historically required Auto HPSA scores to be reviewed regularly; updates are requested by facility</td>
</tr>
<tr>
<td>- Score of “0” is rare</td>
<td>- Score of “0” <strong>more frequent</strong> and means low shortage or no data was available for scoring</td>
</tr>
</tbody>
</table>
HPSA scores are based on a variety of factors and range from 0 to 25 in the case of Primary Care and Mental Health, and 0 to 26 in the case of Dental Health.

### Primary Care
- **0-25**
  - Population-to-Provider Ratio Point Value
  - % of Population at 100% Federal Poverty Level Point Value *Double Weighted*
  - Infant Health Index Point Value (Based on IMR or LBW Rate)
  - Travel Time to Nearest Source of Care Point Value
  - HPSA Score (out of 25)

### Dental Health
- **0-26**
  - Population-to-Provider Ratio Point Value
  - % of Population at 100% Federal Poverty Level Point Value *Double Weighted*
  - Water Fluoridation Status Point Value
  - Travel Time to Nearest Source of Care Point Value
  - HPSA Score (out of 26)

### Mental Health
- **0-25**
  - Population-to-Provider Ratio Point Value
  - % of Population at 100% Federal Poverty Level Point Value
  - Alcohol Abuse Prevalence Point Value
  - Substance Abuse Prevalence Point Value
  - Elderly Ratio Point Value
  - Youth Ratio Point Value
  - Travel Time to Nearest Source of Care Point Value
  - HPSA Score (out of 25)
## HPSA Scoring Calculations

<table>
<thead>
<tr>
<th>Factor</th>
<th>Primary Care</th>
<th>Dental Health</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Pts Awarded</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Multiplier</td>
<td>x 2</td>
<td>x 2</td>
<td></td>
</tr>
<tr>
<td>Total Points Possible</td>
<td>= 10</td>
<td>= 10</td>
<td></td>
</tr>
<tr>
<td>Max Pts Awarded</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Multiplier</td>
<td>x 1</td>
<td>x 2</td>
<td></td>
</tr>
<tr>
<td>Total Points Possible</td>
<td>= 5</td>
<td>= 10</td>
<td></td>
</tr>
<tr>
<td>Population : Provider Ratio</td>
<td>5 x 2</td>
<td>5 x 2</td>
<td>5</td>
</tr>
<tr>
<td>% of Population below FPL</td>
<td>5 x 1</td>
<td>5 x 2</td>
<td></td>
</tr>
<tr>
<td>Travel distance/time to NSC</td>
<td>5 x 1</td>
<td>5 x 1</td>
<td></td>
</tr>
<tr>
<td>Infant Mortality Rate or Low Birth Weight</td>
<td>5 x 1</td>
<td>5 x 1</td>
<td>5</td>
</tr>
<tr>
<td>Water Fluoridation</td>
<td>1 x 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio of children under 18 to adults 18-64</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio of adults 65 and older to adults 18-64</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance prevalence</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol abuse prevalence</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Score:</td>
<td>= 25</td>
<td>= 26</td>
<td>= 25</td>
</tr>
</tbody>
</table>
How are HPSA Scores Used?

1. Priority in Awards
2. Award Levels
3. Scholar Placement

1. Funding Preference
2. Scholar Placement
Shortage Designation Modernization Project

- Shortage designation is authorized by Congress and is supported by HRSA and State Primary Care Offices (PCOs) through a shared responsibility to better serve unserved and rural areas in need of health care access.

- The Shortage Designation Project, initiated in 2013, is a transformation to make this federal mandate and shared goal more efficient, modern, and consistent for all states and territories.
Shortage Designation Management System (SDMS)

... is an online tool used by State PCOs and HRSA to manage designations

... uses standard data sets to calculate designations

... is based on regulations
**SDMS Data Sources**

- **Standardized data are sourced from:**
  - The Centers for Medicare and Medicaid Services (CMS) for provider data
  - The Centers for Disease Control and Prevention (CDC) for infant health data
  - The Census Bureau for population/demographic data
  - The Environment Systems Research Institute (ESRI) for travel and spatial mapping data

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**Federal Data**

- **Providers**
  - Providers Address from National Provider Identifier (NPI)
  - Center for Medicare & Medicaid (CMS)

- **Health Data**
  - Infant Mortality Rate (IMR)
  - Low Birth Weight (LBW)
  - Centers for Disease Control and Prevention (CDC)

- **Population Data**
  - Total Resident Civilian Population
  - Population at Federal Poverty Level
  - Ethnicity Populations: Hispanic, Caucasian, Asian, etc.
  - Youth & Elderly Population in Service Area
  - Census Bureau (Census and ACS)

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**Industry Data**

- **Travel Data**
  - Private Transportation Network
  - Environmental Systems Research Institute (ESRI)

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**State Data**

- **Data Points**
  - Provider Attributes for HPSA FTE Calculation
  - Other Populations (Medicaid, Homeless, Migrant Farmworker)
  - Fluoridation Rate
  - Alcohol & Substance Abuse Rate
  - State Primary Care Offices (PCOs)
## Shortage Designation Modernization Project Goals

### Before

**Unstandardized, varying** data sources. Required PCOs to collect and enter all data. PCOs frequently submitted different provider datasets for each designation application.

**Inefficient, manual** business processes. (76% of processing steps were outside of the system.)

**Sporadic, inconsistent** business rules and system allowed modifications.

### After

**Standardized, defensible** data sources. Data are prepopulated for PCOs. Single master provider dataset.

**Streamlined, automated** business processes. (100% automated)

**Ubiquitous, consistent** business rules and system verifications enforcing statutes and regulations and applied to every designation.

### Challenges

- Lack of transparency and consistency for HPSA designations and scores
- Lack of accountability/audit trail
- Lack of efficiency
- Data collection burden on PCOs

### Benefits

+ More transparent, and consistent HPSA designations and scores
+ Increased accountability / auditability
+ Improved efficiency
+ Decreased data collection burden on PCOs
Stakeholder Engagement*

- PCO/PCA/HRSA Steering Committee
- Policy Working Group
- Impact Analysis Working Group
- SDMS Change Control Board
- Technical Working Group
- Provider Management Working Group
- Auto-HPSA Working Group

*List of stakeholder engagement activities is not exhaustive.
Shortage Designation Project Timeline

2013
• Landscape Analysis
• Began gathering system requirements from stakeholders and staff

2014
• Launched SDMS
• PCOs began validating provider data
• Waived requirement to update HPSAs*

2015
• PCOs began to submit new and updated Geographic, Population, and Non-Auto-HPSA Facility designations in SDMS
• PCOs continued to validate provider data
• Extended the project timeline in response to stakeholder feedback

2016
• PCOs continued to submit designations in SDMS
• PCOs continued to validate provider data

2017
• Conduct impact analyses and provide results to PCOs
• PCOs continue to submit designations in SDMS and validate provider location data
• National Shortage Designation Update of Geographic, Population and Non-Auto-HPSA Facility designations in SDMS, tentatively planned for July

*HRSA has not withdrawn geographic, population, and those facility designations that require applications due to lack of updated PCO data since 2014. Waiving the requirement to update HPSAs was predicated on BHW’s plan to update all designations at a single point in time using national standardized data and PCO-validated provider data (the National Shortage Designation Update).
**Initial impact analysis of geographic, population, and non-Auto-HPSA** facility designations provided to stakeholders (Jan. 14)

**JANUARY**

**MARCH**  
SDMS release of additional functionality

**MAY**  
PCOs finish validating*** providers

**JUNE**  
- SDMS release (planned for June 3)  
- 4th impact analysis (planned for June 4)  
- PCO Reverse Site Visit in Rockville (June 6-8)

**FEBRUARY**  
2nd impact analysis provided to stakeholders (Feb. 15)

**April**  
3rd impact analysis provided to stakeholders (April 14)

**JULY 2017**  
- Final impact analysis (planned for July 14)  
National Shortage Designation Update of geographic, population, and non-Auto-HPSA facility designations (planned for July 22-29)

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*PCOs may continued to submit new and updated HPSA designations throughout this process; all June and July activities are tentative

**Auto-HPSAs are not included in the National Shortage Designation Update currently planned for July. The Auto-HPSA Working Group is currently working to identify update approaches for HRSA to consider. A timeline for updating Auto-HPSAs will be provided once the approach is determined.***

***Validate is defined as reviewing each eligible provider record to determine if the provider is providing service and, if not, omitting the provider; confirming that the NPPES/NPI address is correct and, if not, correcting the location.
Questions?
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          facebook.com/nationalhealthservicecorps
          facebook.com/HRSANURSECorps