



# Shortage Designation Management System (SDMS):

## Manual for Policies and Procedures

## Shortage Designation Management System (SDMS): MPPs Outline

*Shortage Designation Management System (SDMS): Manual for Policies and Procedures (MPPs)*

*The SDMS MPPs document includes information about the policies and procedures for creating and maintaining designations for shortage areas. The content provides a single document for use by internal and external stakeholders for Division of Policy and Shortage Designation (DPSD), with clear and concise definitions of terms used in the regulations and policies regarding shortage designations.*

*The policies and practical applications are identified for each shortage designation type. Procedures for carrying out the process of creating and managing shortage designations are set by the DPSD. The procedures for applying for a designation, updating data, and carrying out other functions overseen by the Shortage Designation Branch (SDB) of the DPSD are outlined in this document.*

*This document should be updated annually to reflect any new policy and procedure decisions.*

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## Section I: Overview of Designation Types

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### I. Introduction

The U.S. Department of Health and Human Services (HHS) established regulations to determine if certain geographic areas, population groups, or medical facilities are qualified as Health Professional Shortage Areas (HPSAs) or Medically Unserved Areas or Populations (MUAs/Ps). Federal shortage designations document need for additional health care professionals and resources in order to prioritize and focus limited federal resources on areas of highest need.

### II. HPSA: Health Professional Shortage Area

According to the Public Health Service Act (Authority: Sec. 215,58 Stat. 690 (42 U.S.C. 216); sec. 332, 90 Stat. 2270 - 2272 (42 U.S.C. 254ea) a HPSA is defined as any of the following which the Secretary determines has a shortage of health professionals: (1) an urban or rural area (which need not conform to the geographic boundaries of a public subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility.

HPSAs can be for Primary Care, Dental, and Mental Health provider shortages. There are three different types of HPSAs:

1. Geographic Area (an urban or rural area)
  - Demonstrates a shortage for the total resident civilian population of an area.
2. Population Groups
  - Demonstrates a shortage of providers for a specific population group(s) within a defined geographic area.
  - Population HPSAs include the following options but are not limited to:
    - Low Income Population HPSA
      - Defined as all resident civilians at or below 200% Federal Poverty Level.
    - Medicaid Eligible Population HPSA
      - Qualification is based on at least 30% of population at or below 200% Federal Poverty Level.
    - Migrant Farmworker Population HPSA
      - Defined as all migrant farmworker population.
    - Migrant Seasonal Worker Population HPSA
      - Defined as all migrant seasonal worker population.
    - Native American Population HPSA
      - Defined as all Native American population of the total resident civilian population.
    - Low Income Homeless Population HPSA
      - Defined as all resident civilians at or below 200% Federal Poverty Level plus the homeless population.
      - This will be provided by the user.

- Low Income Migrant Farmworker Population HPSA
    - Defined as all the resident civilians at or below 200% Federal Poverty Level plus Migrant Farmworker population.
    - This will be provided by the user.
  - Low Income Homeless Migrant Farmworker Population HPSA
    - Defined as all the resident civilians at or below 200% Federal Poverty Level plus Homeless Population plus Migrant Farmworker Population.
    - This will be provided by the user.
  - Low Income Migrant Seasonal Worker Population HPSA
    - Defined as all the resident civilians at or below 200% Federal Poverty Level plus Migrant Seasonal Worker population.
    - This will be provided by the user.
  - Low Income Migrant Seasonal Worker Homeless Population HPSA
    - Defined as all the resident civilians at or below 200% Federal Poverty Level plus Migrant Seasonal Worker population plus Homeless Population.
    - This will be provided by the user.
  - Migrant Farmworker Homeless
    - Defined as all Migrant Farmworker Population plus Homeless Population.
    - This will be provided by the user.
  - Migrant Seasonal Worker Homeless
    - Defined as all Migrant Seasonal Worker plus Homeless Population.
    - This will be provided by the user.
  - Population Other
    - Defined as any other indicated special population group.
3. Facilities (a public or nonprofit private medical facility)
- Other Facility (OFAC)
    - Public or non-profit private medical facilities serving a population or geographic area designated as a HPSA with a shortage of health providers.
  - Correctional Facilities
    - Medium to maximum security Federal and State correctional institutions and youth detention facilities with a shortage of health providers.
  - State Mental Hospitals
    - State or County hospital with a shortage of psychiatric professionals.
  - Auto-HPSA
    - By statute, Auto-HPSA facilities are automatically designated as having a shortage. The types of Auto-HPSAs include:
      - Indian Health Facilities.
      - Federally Qualified Health Centers (FQHC).
      - Section 330 Health Center Program grantees.

- FQHC Look-A-Likes (LALs).
- Certified Rural Health Clinics (RHCs) meeting NHSC Site Requirements.

### III. MUA: Medically Underserved Areas

MUAs are represented by a whole county, group of contiguous counties, a group of urban census tracts, or a group of county or civil divisions in which residents have a shortage of Primary Care professional health services. MUA designations use the Index of Medical Underservice (IMU) to obtain a score for the area being proposed for designation. Each proposed service area must have an IMU of 62.0 or less to qualify as an MUA designation. MUAs require the same method of establishing the Rational Service Area as used by HPSAs.

### IV. MUP: Medically Underserved Populations

MUPs may include groups of persons who face economic, cultural, or linguistic barriers to health care. It may be a population of an urban or rural area designated as an area with a shortage of professional health services or a population group designated as having a shortage of service.

MUPs only apply to the Primary Care discipline and include the following types:

- MUP Low Income
- MUP Medicaid
- MUP Medicaid Eligible
- MUP Migrant Farmworker
- MUP Migrant Seasonal Worker
- MUP Native American
- MUP Homeless
- MUP Low Income Homeless
- MUP Low Income Migrant Farmworker
- MUP Low Income Homeless Migrant Farmworker
- MUP Low Income Migrant Seasonal Worker
- MUP Low Income Migrant Seasonal Worker Homeless
- MUP Migrant Farmworker Homeless
- MUP Migrant Seasonal Worker Homeless
- MUP Other Population

MUA/Ps may also apply with a Governor's Exception, which supersedes the requirements of MUA/Ps in the case of high need situations.

## Section II: Descriptions of Data Sources Used

### I. Introduction

The Health (Infant Health Index Measures) and Demographic (Age, Sex, Race/Ethnicity, Poverty) data used for designations is derived from federal and state data sources as of September 2014. The federal sources include the American Community Survey (ACS) 2012 5-year estimate and the 2010 Census data. Infant Health index data is sourced from the Center for Disease Control (CDC) 5-year aggregate 2002-2006.

### II. Federally Provided Data Sets

The following table displays all data points that are sourced by the Census and ACS 2012 5-year estimate and their respecting source format. All data points displayed below can be sourced at the Census Tract (CT), Minor Civil Division (MCD), or County level.

Applicable Discipline	Data Point	Source	Primary Source		
			CT	MCD	County
ALL	Total Population	Census	X	X	X
ALL	Total Resident Civilian Population	ACS_12_5YR_S0101	X	X	X
ALL	African-American Population	ACS_12_5YR_DP05	X	X	X
ALL	Native American/ Alaska Native Population	ACS_12_5YR_DP05	X	X	X
ALL	Asian Population	ACS_12_5YR_DP05	X	X	X
ALL	Caucasian Population	ACS_12_5YR_DP05	X	X	X
ALL	Hispanic Population	ACS_12_5YR_DP05	X	X	X
ALL	Native Hawaiian/Pacific Islander Population	ACS_12_5YR_DP05	X	X	X
ALL	Population at 100% of Federal Poverty Level	ACS_12_5YR_C17002	X	X	X
ALL	Population at 200% of Federal Poverty Level	ACS_12_5YR_C17002	X	X	X
ALL	Population that is Low Income	ACS_12_5YR_C17002	X	X	X
ALL	Population that is Medicaid Eligible	ACS_12_5YR_C17002	X	X	X
MH	Age 18 and Under Population	ACS_12_5YR_DP05	X	X	X
MH	Population Age18-64	ACS_12_5YR_DP05	X	X	X
MH	Number of Youth (Population under 18)	ACS_12_5YR_S0101	X	X	X

Applicable Discipline	Data Point	Source	Primary Source		
			CT	MCD	County
MH	Number of Elderly (Population 65 and Over)	ACS_12_5YR_S0101	X	X	X
MH/PC	Age 65 and Over Population	ACS_12_5YR_DP05	X	X	X
PC	Female 15 to 44 Years	ACS_12_5YR_B01001	X	X	X
PC	Number of Infant Deaths	CDC	N/A	N/A	X
PC	Number of Infant Births	CDC	N/A	N/A	X
PC	Number of Low Birth Weights	CDC	N/A	N/A	X

### III. State Provided Data Sets

The table below lists all data points sourced from the state. These points are not federally sourced but are supported in SDMS. State provided data points should be provided with the application at the RSA level.

Applicable Discipline	Data Point	Source	Primary Source			
			CT	MCD	County	RSA
ALL	Homeless Population	State	N/A	N/A	N/A	X
ALL	Migrant Farmworker Population	State	N/A	N/A	N/A	X
ALL	Migrant Seasonal Worker Population	State	N/A	N/A	N/A	X
PC	Tourist Population	State	N/A	N/A	N/A	X
PC, DH	Migrant Worker Population	State	N/A	N/A	N/A	X
PC, DH	Seasonal Resident Population	State	N/A	N/A	N/A	X
PC	Age-Sex Adjusted Population	State	N/A	N/A	N/A	X
DT	Number of Population without Fluoridated Water	State	N/A	N/A	N/A	X
MH	Substance Abuse Prevalence	State	N/A	N/A	N/A	X
MH	Alcohol Abuse Prevalence	State	N/A	N/A	N/A	X

#### Primary Care Adjusted Populations

Users may enter an Adjusted Population for a Primary Care Geographic or Geographic High Needs HPSA. This Adjusted Population can include the Resident Civilian Population with the Age-Sex Adjustment, and any combination of the following population types added to the Resident Civilian or Age-Sex Adjusted population: Tourist, Migrant Worker, and Seasonal Resident.

### Dental Health Adjusted Populations

Users may enter an Adjusted Population for a Dental Geographic or Geographic High Needs HPSA. This Adjusted Population can include the Resident Civilian Population and any combination of the following population types added to the Resident Civilian Population: Migrant Worker and Seasonal Resident.

## IV. System Calculated Data Points

The following table displays all data points that are derived through a system calculation. These data points cannot be edited by the user, as they are calculated to provide a consistent set of demographic data for all states and regions to be used during the application process.

All demographic population percentages use Resident Civilian Population to determine the percentage.

Applicable Discipline	Data Point	Source	Primary Source		
			CT	MCD	County
ALL	% African-American Population	System Calculation	X	X	X
ALL	% Native American/ Alaska Native Population	System Calculation	X	X	X
ALL	% Asian Population	System Calculation	X	X	X
ALL	% Caucasian Population	System Calculation	X	X	X
ALL	% Hispanic Population	System Calculation	X	X	X
ALL	% Native Hawaiian/ Pacific Islander Population	System Calculation	X	X	X
ALL	% Population at 100% Federal Poverty Level	System Calculation	X	X	X
ALL	% Poverty at 200% Federal Poverty Level	System Calculation	X	X	X
ALL	% Population that is Low Income	System Calculation	X	X	X
ALL	% Population that is Medicaid Eligible	System Calculation	X	X	X
MH	Youth Ratio	System Calculation	X	X	X
MH	Elderly Ratio	System Calculation	X	X	X
MH	Elderly Population	System Calculation	X	X	X
MH	Fertility Rate	System Calculation	N/A	N/A	X
PC	Infant Mortality Rate	System Calculation	N/A	N/A	X
PC	Low Birth Weight Rate	System Calculation	N/A	N/A	X



## V. User Provided Health and Demographic Data

SDMS will import updated data as the latest federally provided data sets are published and publically available for use within the SDMS application map. Notably, the following data points are not being sourced and will only be captured within the map application cycles by the PCOs:

- Percentage of Population without access to Fluoridated Water
- Substance Abuse Prevalence
- Alcohol Abuse Prevalence
- Migrant Farmworker Population
- Migrant Seasonal Worker Population
- Seasonal Resident Population
- Tourist Population
- Migrant Worker Population
- Homeless Population
- Age Sex Adjusted Population

The user enters the Fluoridation Rate and Substance and /or Alcohol Abuse prevalence in the RSA creation step of the application.

The populations listed above are entered during the creation of the RSA. The user will be required to enter a source and methodology used for determining the population for these groups on the Supplemental Information Form.

The following tables should be used by the user to calculate the Age-Sex Adjusted, Tourist, Seasonal Resident, and Migrant Worker Populations for the RSA. These adjustments may be entered for Geographic HPSAs in the Adjusted Population box for the RSA. Please note that the Adjusted Population for Primary Care may include Age-Sex Adjusted Population, Tourists, Seasonal Residents, and Migrant Workers added to the Resident Civilian Population. Dental Health Geographic HPSAs may only add Seasonal Residents and Migrant Workers to the Resident Civilian Population. Mental Health does not allow an Adjusted Population for Geographic HPSAs; it uses only the Total Resident Civilian Population.

The Age-Sex Adjusted Population replaces the original Resident Civilian Population for the RSA.

After calculating the effective population for Seasonal Residents, Tourists, and Migrant Workers, these populations may be added to the Resident Civilian Population total, depending on the HPSA discipline being applied for.

### Age-Sex Adjustments

Multiply the population within each Age-Sex group against the weight provided in the table below. Add all of the groups with the appropriate weight together and divide by 5.1 to obtain the Age-Sex Adjusted Population.

Sex	Age groups					
	Under 5	5-15	15-24	25-44	45-64	65 and over
Male	7.3	3.6	3.3	3.6	4.7	6.4
Female	6.4	3.2	5.5	6.4	6.5	6.8

### Seasonal Residents

Seasonal Residents are defined as those who maintain a residence in the area but inhabit it for only 2 to 8 months per year. These residents may be added to the Resident Civilian Population but must be weighted in proportion to the fraction of the year that they are present in the area.

### Tourists

Tourists that are not residents of the area may be included in the population, but the Tourist Population must have the following weighted calculation first applied:

$$\text{Effective tourist contribution to population} = 0.25 * (\text{fraction of year tourists are present in area}) \\ * (\text{average daily number of tourists during portion of year that tourists are present})$$

### Migrant Workers

Migrant Workers and their families may be included in the area's population using the following formula:

$$\text{Effective migrant contribution to population} = (\text{fraction of year migrants are present in area}) \\ * (\text{average daily number of migrants during portion of year that migrants are present})$$

## Section III: Statistical Methodology for Health and Demographic Data

### I. Background

The health and demographic data used for designations is derived from federal and state data sources. The federal sources include:

- Demographic (Age, Sex, Race/Ethnicity, Poverty Data): American Community Survey (ACS) 2012 5-year estimate.
- Health (Infant Health Index Measures): Census and Center for Disease Control and Prevention (CDC). The data sourced through the CDC adheres to the CDC methodology for reporting health statistics. For Infant Health Index data the 5-year aggregate data set is used to adhere to statistical significance standards.

The following table displays all of the federally sourced data points in SDMS and the population surveyed for the data point.

Applicable Discipline	Data Point	Population Surveyed
ALL	Total Resident Civilian Population	Total Resident Civilian
MH/PC	Age 65 and Over Population	Total Resident Civilian
MH	Population Under Age 18	Total Resident Civilian
PC	Females 15 to 44 Years	Total Resident Civilian
MH	Population Age 18-64	Total Resident Civilian
ALL	African-American Population	Total Resident Civilian
ALL	Native America / Native Alaskan Population	Total Resident Civilian
ALL	Asian Population	Total Resident Civilian
ALL	Caucasian Population	Total Resident Civilian
ALL	Hispanic Population	Total Resident Civilian
ALL	Pacific Islanders Population	Total Resident Civilian
ALL	Population at 100% of Federal Poverty Level	Total Resident Civilian
ALL	Population at 200% of Federal Poverty Level	Total Resident Civilian
ALL	Population that is Low Income	Total Resident Civilian
ALL	Population that is Medicaid Eligible	Total Resident Civilian

### II. Converting County Level Statistic to the Census Tract Level

Certain health and demographic statistics are reported through the primary source only at the county level. A formula is used to determine the hard numbers weighted by population for each census tract and MCD. Standardization in how the data for a RSA is reported is enabled by having all the data tied to a census tract.

The following formula displays the process by which the county level statistics are distributed by population weight to the census tracts/MCDs that are entirely contained within the county.

$$\frac{\text{County Level Statistics}}{\text{County Population Surveyed}} \times \text{C.T. Population Surveyed} = \text{C.T. Statistic}$$

The following table represents all data points that are reported through the primary source at the county level. The county population surveyed denominator that is used to distribute the county statistic among the census tracts/MCDs is included on the right side.

Applicable Discipline	Data Point	County Population Surveyed Denominator
PC	Number of Infant Deaths	Females 15-44
PC	Number of Infant Births	Females 15-44

### III. Converting Census Tract data to the RSA Level

Data points are summed up to the RSA level from the CT level for scoring purposes. The formula below is used to calculate RSA level health and demographic statistics:

$$\sum \text{Census Tract Statistic for all CTs in RSA} = \text{Total RSA Statistic}$$

If the statistic is a percentage then the data point and denominator will be summed in the method above. The two totals will then be divided to obtain the percentage for the RSA. The following table shows all data points that will be calculated by the system. For purposes of determining HPSAs and MUA/Ps these data points are calculated at the RSA level.

Applicable Discipline	Data Point	Calculation Denominator
ALL	% African-American Population	Total Resident Civilian
ALL	% Native American / Native Alaskan Population	Total Resident Civilian
ALL	% Asian Population	Total Resident Civilian
ALL	% Caucasian Population	Total Resident Civilian
ALL	% Hispanic Population	Total Resident Civilian
ALL	% Pacific Islander Population	Total Resident Civilian
ALL	% Population at 100% Federal Poverty Level	Total Resident Civilian
ALL	% Poverty at 200% Federal Poverty Level	Total Resident Civilian
ALL	% Population that is Low Income	Total Resident Civilian
ALL	% Population that is Medicaid Eligible	Total Resident Civilian
MH	% Elderly	Total Resident Civilian
MH	Elderly Ratio	Population 18-64
MH	Youth Ratio	Population 18-64

#### IV. Infant Health Index Statistical Approach

Number of infant births, number of infant deaths, and number of low birth weight instances are sourced from the CDC. Infant birth statistics are aggregated over a 5-year period. The population from which the CDC obtains these figures is the female age 15-44 population, currently accepted as women of child bearing-age.

The following formulas are used to calculate the Infant Health Index for scoring via two measures, Infant Mortality Rate and Low Birth Weight. The definitions for the sourced data points at the county level used in the scoring formula are as follows:

- # of Infant Births = Number of infants born to population of females 15-44
- # of Infant Deaths = Number of infant deaths to population of females 15-44
- # LBW Instances = Number of instances of LBW born to population of females 15-44

$$IMR = \frac{\text{Number of infant deaths}}{\text{Number of live births}} \times 1000 \text{ live births}$$

$$LBW = \frac{\# \text{ LBW Instances}}{\# \text{ Infant Births}} \times 100 \text{ births}$$

#### V. Populations Used for Population-to-Provider Ratios

##### Calculating Population-to-Provider Ratios

The Population-to-Provider Ratio is a measure of the number of providers that serve either a total population in a specific geographic area (Geographic HPSA) or a specific population within a specific geographic area (Population HPSA).

The Population-to-Provider ratio is determined by the system as:

*(Total Population of Area or Total Specific Population): Total FTE of Providers Serving Area or Specific Population)*

Geographic HPSAs and Population HPSAs require different Population-to-Provider ratio information. The table below provides an overview of the providers associated with each HPSA type. If populations are combined for a population designation, for example “Low-Income Homeless Population,” the FTE includes providers that serve the Low-Income Population, the Homeless Population, or both. These guidelines apply to all HPSA discipline Population-to-Provider ratio calculations.

<b>Type of HPSA</b>	<b>Population counted in Population-to-Provider ratio:</b>
<b>Primary Care Geographic</b>	The Resident Civilian Population of the Rational Service Area or the Resident Civilian Population of the Rational Service Area with Age-Sex Adjustment + Migrant Worker Population + Tourist Population + Seasonal Resident Population*
<b>Dental Geographic</b>	The Resident Civilian Population of the Rational Service Area or the Resident Civilian Population + Seasonal Residents + Migrant Workers of the Rational Service Area
<b>Mental Health Geographic</b>	the resident civilian population of the rational service area
<b>Low Income Population</b>	The population in the Rational Service Area that have incomes at or below 200% of the Federal Poverty Level
<b>Medicaid-Eligible Population</b>	Residents in the Rational Service Area who are eligible for Medicaid
<b>Homeless Population*</b>	The Homeless Population within the Rational Service Area
<b>Migrant Farmworker Population*</b>	The Migrant Farmworker Population within the Rational Service Area
<b>Native American/ Native Alaskan Population</b>	The Native American/Native Alaskan Population within the Rational Service Area
<b>Migrant Seasonal Workers Population*</b>	The Migrant Seasonal Worker Population with the Rational Service Area

*\*These populations must be provided by the user via the data exception process. Prior to entry into the system, the user is required to perform a calculation (provided by the regulations) to determine the weight of these populations on the total resident civilian population based on the amount of time the population is in the area. Migrant Farmworker and Migrant Seasonal Worker Populations are applicable to all disciplines. The Resident Civilian plus Other populations for Geographic HPSAs is restricted only to Primary Care and Dental Health HPSAs. The system will calculate the compound Geographic population type with the available, optional populations such as the Age-Sex Adjustment, Tourist, Migrant Worker, and Seasonal Resident Population. The user is not required to provide all of these types to receive the Adjusted Population count.*

More details on the individual scoring threshold requirements for Population-to-Provider ratios per discipline and HPSA type follow in the respective sections.

## Section IV: Provider Management and Provider Data

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### I. Introduction

Provider Data used for designations is maintained and updated through the Provider Management functionality in SDMS. The full description of the business rules and how to use this functionality is available through the Provider Management User Guide. This section provides a high level overview of how the data is used for designations.

#### National Provider Identifier

The provider data set used in SDMS originates from the National Provider Identifier (NPI) file maintained by the Center for Medicaid and Medicare Services (CMS). This data set provides a comprehensive file with all providers covered by HIPAA actively billing insurance in the United States.

The NPI file will import the provider address, among other location attributes.

#### Provider Records

All providers will receive a default FTE for Geographic and Geographic High Needs use. This default is 1 FTE, and can be updated by surveying the provider and changing the hours from 40 to the number of hours worked at that location by the provider indicated in the survey response.

The provider can have a different FTE for each HPSA and MUA/P type based on which populations the provider serves and how much time the provider spends serving that population. This information is gathered through the provider's profile, and is then used in the mapping application to calculate FTEs for the RSA and the Contiguous Areas (CAs), and determining if the NND serves the population of the RSA.

#### Provider FTE Overview

All providers are represented by a Full Time Equivalent (FTE) number for each of the population types that the providers serve, including the general population. Each provider has a set of hours that they spend devoted to patient care, which is gathered through surveys administered by the State PCOs; unless set as a default for use for Geographic HPSAs.

Obtaining the number of patient hours that a provider dedicates to serving at a location is paramount to the calculation of obtaining the FTE measure. This measure crosses the provider's patient care hours with the standard U.S. 40 hour work week to determine the proportion of the standard work week that the provider is available to serve patients.

The standard FTE calculation is then weighted by any special populations served by the provider, as indicated on the survey. The percentage of time that the provider dedicates to serving special populations is applied as the weight. As a result, a single provider in SDMS will always have a general population FTE for each address at which they serve, plus additional special population FTEs as

appropriate. Calculating the FTE for each provider is a key initial step for the system to be able to determine the Population-to-Provider ratio, used for qualification and scoring purposes.

Additional characteristics about the employment status of the provider are crucial in determining the FTE and can affect the final number. The FTE should be multiplied by the weight for all disciplines for the following characteristics:

- Primary Care and Mental Health: Federal Provider, Foreign Medical School Graduates who are not U.S. citizens or lawful permanent residents (including J1 Visa Waiver Holders) FTE = 0
- Primary Care and Mental Health: Foreign Medical School Graduates who are U.S. citizens or lawful permanent residences but do not have an unrestricted license to practice medicine FTE = 0.5
- Primary Care Resident/Intern FTE = 0.1
- Mental Health Resident/Intern FTE = 0.5

### **Calculating Primary Care FTEs When Only Office Hours Are Known**

SDMS does not calculate primary care FTEs when only office hours are known. It is the responsibility of the user to enter the correct tour hours (adjusted or otherwise) into SDMS.

To determine primary medical care FTEs in cases where only a physician's office hours are known, and information is not available on a physician's hours spent in other patient care activities, an upward adjustment must normally be made from the number of office hours per week to obtain the total estimated number of hours spent in direct patient care per week. The adjustment factors provided in the table below are designed to take into consideration the hours of direct patient care provided in both office and inpatient settings.

To obtain a full-time-equivalency for a given physician, his/her total office hours per week should be multiplied by the appropriate factor for his/her specialty. In the event that the primary care specialty is unspecified, the factor shown for "all primary care" should be used. If this calculation yields a number greater than 40, the physician should be considered as 1.0 FTE; otherwise, this number of hours should be divided by 40 to obtain the physician's FTE.

The adjustment factors provided in the table below are designed to take into consideration the hours of direct patient care provided in both office and inpatient settings:

<b><u>Primary Care Specialty</u></b>	<b><u>FTE Adjustment</u></b>
<u>FP: Family Practice</u>	<u>Direct Tour Hours * 1.4</u>
<u>IM: Internal Medicine</u>	<u>Direct Tour Hours * 1.8</u>
<u>OBG: Obstetrics and Gynecology</u>	<u>Direct Tour Hours * 1.9</u>
<u>PD: Pediatrics</u>	<u>Direct Tour Hours * 1.4</u>
<u>All Primary Care</u>	<u>Direct Tour Hours* 1.6</u>

### **Provider Completeness for RSA and CA**



Any given RSA or CA must have at least 2/3 of the providers in the area in a usable state. This is defined by DPSD as completing the required fields in Provider Management to indicate if the provider serves the specific population mapping to the designation being created. It is possible that providers do not serve the population, in which case this should be indicated so that the provider is counted in the 2/3 examination of having providers completed. Providers are by default in a usable state for Geographic HPSAs.

If at least 2/3 of the providers do not have the required data fields completed in SDMS the user will not be able to continue with the RSA or CA until this requirement is met.

## II. FTE Calculations

The table below outlines all the types of FTE and their calculations for each discipline and Designation Type. When a user is looking to designate an area the Designation type and option selected affects which FTE calculation is used for a provider. Certain special population types, indicated below in the table, use additional data to calculate the FTE, such as Medicaid claims, and therefore have more than one possible approach for calculating the FTE. In the table below, 'percent' refers to the percent of time spent by the provider serving the specific population.

<b>Primary Care Provider FTE Calculations</b>		
	<b>Calculation #1</b>	<b>Calculation #2</b>
<b>Geographic Area Provider FTE</b>	FTE = (# Tour Hours/40)	N/A
<b>Geographic Area High Needs Provider FTE</b>	FTE = (# Tour Hours/40)	N/A
<b>Low Income Population Provider FTE</b>	Medicaid Claims Available FTE=(# Medicaid Claims/5000) + [# Tour Hours/40)*(Sliding Fee Scale Percent)]	Medicaid Claims Unavailable FTE=(# Tour Hours/40)*(Sliding Fee Scale Percent + Medicaid Percent)
<b>Medicaid Population Provider FTE</b>	Medicaid Claims Available FTE=(# Medicaid Claims/5000)	FTE= (# Tour Hours/40)*(Medicaid Percent)
<b>Migrant Farmworker Population Provider FTE</b>	FTE =(# Tour Hours/40)*(Migrant Farmworker Percent)	N/A
<b>Native American/Native Alaskan Population Provider FTE</b>	FTE =(# Tour Hours/40)*Native American/Native Alaskan Percent	N/A
<b>Migrant Farmworker and Homeless Population Provider FTE</b>	FTE =[(# Tour Hours/40)*Migrant Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]	N/A

<b>Migrant Seasonal Worker and Homeless Population Provider FTE</b>	$FTE = [(\# \text{ Tour Hours}/40) * \text{Migrant Seasonal Farmworker Percent}] + [(\# \text{ Tour Hours}/40) * \text{Homeless Percent}]$	N/A
<b>Low Income Homeless Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims}/5000) + [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Homeless Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours}/40) * \text{Medicaid Percent}]$
<b>Low Income Migrant Farmworker Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims}/5000) + [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Migrant Farmworker Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Medicaid Percent}] + [(\# \text{ Tour Hours}/40) * \text{Migrant Farmworker Percent}]$
<b>Primary Care Provider FTE Calculations</b>		
	<b>Calculation #1</b>	<b>Calculation #2</b>
<b>Low Income Homeless Migrant Farmworker Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims}/5000) + [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours}/40) * \text{Migrant Farmworker Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Medicaid Percent}] + [(\# \text{ Tour Hours}/40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours}/40) * \text{Migrant Farmworker Percent}]$
<b>Low Income Migrant Seasonal Worker Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims}/5000) + [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Migrant Seasonal Farmworker Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours}/40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours}/40) * \text{Medicaid Percent}] + [(\# \text{ Tour Hours}/40) * \text{Migrant Seasonal Farmworker Percent}]$

<p><b>Low Income Homeless Migrant Seasonal Worker Population Provider FTE</b></p>	<p>Medicaid Claims Available FTE = (# Medicaid Claims/5000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]</p>	<p>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] +[(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]</p>
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Additional data is required to calculate the FTE for a dentist beyond the number of hours dedicated to patient care. Both the number of dental auxiliaries employed at a dentist’s work location, and the dentist’s age are required; the dentist’s age is calculated using the dentist’s birthdate. An auxiliary is defined as any non-dentist staff employed by the dentist to assist in the operation of the practice (42 CRF Part 5, Appendix B, 3(b)). The dentist’s age and the number of auxiliaries are used to determine what is known as the Equivalency Weight, represented in the following table.

Dentist Age					
Aux #	Unknown	< 55	55 to 59	60 to 64	<65
Unknown	1.2	1.2	0.9	0.8	0.6
0	0.8	0.8	0.7	0.6	0.5
1	1	1	0.9	0.8	0.7
2	1.2	1.2	1	1	0.8
3	1.4	1.4	1.2	1	1
≥4	1.5	1.5	1.5	1.3	1.2

\*42 CFR Part 5, Appendix B, Part I, 3(b)

- If an auxiliary is less than full time, the user should divide the hours worked by 40 and round the result to the nearest whole number.
- If more than one auxiliary works less than full time, the user should add their total hours, divide by 40 and round to the nearest whole number.

Dental Provider FTE Calculations		
	Calculation #1	Calculation #2
Geographic Area Provider FTE	FTE = (# Tour Hours/40)	N/A
Geographic Area High Needs Provider FTE	FTE = (# Tour Hours/40)	N/A

<b>Low Income Population Provider FTE</b>	<i>Medicaid Claims Available FTE=(# Medicaid Claims/4000) + [# Tour Hours/40]*Sliding Fee Scale Percent]</i>	<i>Medicaid Claims Unavailable FTE= (# Tour Hours/40)*(Sliding Fee Scale Percent + Medicaid Percent)</i>
<b>Medicaid Population Provider FTE</b>	<i>Medicaid Claims Available FTE=(# Medicaid Claims/4000)</i>	<i>Medicaid Claims Unavailable FTE= (# Tour Hours/40)*(Medicaid Percent)</i>
<b>Migrant Farmworker Population Provider FTE</b>	<i>FTE =(# Tour Hours/40)*Migrant Farmworker Percent</i>	N/A
<b>Native American/Native Alaskan Population Provider FTE</b>	<i>FTE =(# Tour Hours/40)*Native American/Native Alaskan Percent</i>	N/A
<b>Migrant Farmworker and Homeless Population Provider FTE</b>	<i>FTE =[(# Tour Hours/40)*(Migrant Farmworker Percent)] + [(# Tour Hours/40)*Homeless Percent]</i>	N/A
<b>Migrant Seasonal Worker and Homeless Population Provider FTE</b>	<i>FTE =[(# Tour Hours/40)*(Migrant Seasonal Farmworker Percent)] + [(# Tour Hours/40)*Homeless Percent]</i>	N/A
<b>Dental Provider FTE Calculations</b>		
	<b>Calculation #1</b>	<b>Calculation #2</b>
<b>Low Income Homeless Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]+ [(# Tour Hours/40)*Medicaid Percent]</i>
<b>Low Income Migrant Farmworker Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]</i>

<b>Low Income Homeless Migrant Farmworker Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]</i>
<b>Low Income Migrant Seasonal Worker Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]</i>
<b>Low Income Homeless Migrant Seasonal Worker Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] +[(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]</i>

For Mental Health designations the provider FTE is very similar to Primary Care and Dental Health. Mental health providers can be classified by type to determine if they fall into the Core Mental Health or Psychiatrist class. The Core Mental Health classification includes psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists. The psychiatrist classification only includes psychiatrists. The FTE calculations for each of these classes follow the same approach. When calculating the Population-to-Provider ratio for a given area having accurate data on the class of provider ensures that the correct provider group is being measured for qualification and scoring purposes. The FTE calculations in the table below are used for both Core Mental Health and Psychiatrists.

<b>Mental Provider FTE Calculations</b>		
	<b>Calculation #1</b>	<b>Calculation #2</b>
<b>Geographic Area Provider FTE</b>	FTE = (# Tour Hours/40)	N/A
<b>Geographic Area High Needs Provider FTE</b>	FTE = (# Tour Hours/40)	N/A

<b>Low Income Population Provider FTE</b>	<i>Medicaid Claims Available FTE=(# Medicaid Claims/4000) + [# Tour Hours/40]*Sliding Fee Scale Percent]</i>	<i>Medicaid Claims Unavailable FTE= (# Tour Hours/40)*(Sliding Fee Scale Percent + Medicaid Percent)</i>
<b>Medicaid Population Provider FTE</b>	<i>Medicaid Claims Available FTE=(# Medicaid Claims/4000)</i>	<i>Medicaid Claims Unavailable FTE= (# Tour Hours/40)*Medicaid Percent</i>
<b>Migrant Farmworker Population Provider FTE</b>	<i>FTE =(# Tour Hours/40)*Migrant Farmworker Percent</i>	N/A
<b>Native American/Native Alaskan Population Provider FTE</b>	<i>FTE =(# Tour Hours/40)*Native American/Native Alaskan Percent</i>	N/A
<b>Migrant Farmworker and Homeless Population Provider FTE</b>	<i>FTE =[(# Tour Hours/40)*Migrant Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]</i>	N/A
<b>Migrant Seasonal Worker and Homeless Population Provider FTE</b>	<i>FTE =[(# Tour Hours/40)*Migrant Seasonal Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]</i>	N/A
<b>Low Income Homeless Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]+ [(# Tour Hours/40)*Medicaid Percent]</i>
<b>Mental Provider FTE Calculations</b>		
	<b>Calculation #1</b>	<b>Calculation #2</b>
<b>Low Income Migrant Farmworker Population Provider FTE</b>	<i>Medicaid Claims Available FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]</i>	<i>Medicaid Claims Unavailable FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]</i>

<b>Low Income Homeless Migrant Farmworker Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims} / 4000) + [(\# \text{ Tour Hours} / 40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Migrant Farmworker Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours} / 40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Medicaid Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Migrant Farmworker Percent}]$
<b>Low Income Migrant Seasonal Worker Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims} / 4000) + [(\# \text{ Tour Hours} / 40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Migrant Seasonal Farmworker Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours} / 40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Medicaid Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Migrant Seasonal Farmworker Percent}]$
<b>Low Income Homeless Migrant Seasonal Worker Population Provider FTE</b>	$\text{Medicaid Claims Available FTE} = (\# \text{ Medicaid Claims} / 4000) + [(\# \text{ Tour Hours} / 40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Migrant Seasonal Farmworker Percent}]$	$\text{Medicaid Claims Unavailable FTE} = [(\# \text{ Tour Hours} / 40) * \text{Sliding Fee Scale Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Medicaid Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Homeless Percent}] + [(\# \text{ Tour Hours} / 40) * \text{Migrant Seasonal Farmworker Percent}]$

## Section V: HPSA and MUA/P Designation Components

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### I. Definition of Rational Service Area

Identifying a Rational Service Area is the first step in creating a designation. The area will become the designated area for the HPSA or MUA/P. In the case of geographic HPSAs or MUAs the entire population of the area is designated, for population HPSAs or MUPs the specific subset of the population of the area is designated.

#### Primary Care HPSA and MUA/P RSA Qualifications

- A group of Census Tracts, Minor Civil Divisions, Whole County, or Multiple Whole Counties can be selected to create a service area.
- A Whole County is considered rational for a RSA.
  - The Whole County Resident Civilian Population must not exceed 250,000.
- Multiple Whole Counties with centroids within 30 minutes of each other are considered rational for a RSA.
  - The centroid is the geographic center of the most populous CT or MCD within the RSA. If the RSA is a whole county, then the Geographic center of the county will be used.
- A Sub-County RSA, meaning a group of census tracts or MCDs, can be rational if the following is true:
  - RSA cannot be smaller than a single CT or MCD.
  - RSA components must be adjacent to each other.
  - RSA cannot include components that are already designated.
- User must also provide an explanation of why a Sub-County RSA is valid based on the following reasons:
  - Distinctive travel patterns.
  - Physical barriers.
  - Strong self-identity of a neighborhood that has a minimum population of 20,000.
  - Similar socio-economic characteristics.
- At least 2/3 of the providers in the RSA must be usable for the designation type.
  - Please refer to the Provider Management User Guide for more details on this functionality.
- The Population-to-Provider ratio minimums must be met.
  - Geographic: If there is an FTE greater than zero then the ratio of 3,500:1 must be met. If the FTE is zero then the population must be at least 500.
  - Geographic High Needs and Population: If there is an FTE greater than zero then the ratio of 3,000:1 must be met. If the FTE is zero then the population must be at least 500.



The system will analyze the population within the RSA depending on the HPSA or MUA/P type to determine if the qualifications for designation are met.

HPSA Type	Additional Population Qualifications
<b>Geographic</b>	All Resident Civilian Population + Tourist Population + Migrant Worker Population + Seasonal Resident Population
<b>Geographic High Needs</b>	Geographic Population must meet one of the following: <ul style="list-style-type: none"> <li>▪ At least 20% of the population has income at or below 100% FPL</li> <li>▪ More than 100 births per year per 1,000 women ages 15-44</li> <li>▪ More than 20 infant deaths per 1,000 live births</li> </ul>
<b>Population Low Income</b>	At least 30% of the population has income at or below 200% FPL
<b>Population Low Income plus Special Populations</b>	At least 30% of the population has income at or below 200% FPL plus Special Population is > 0
<b>Population Medicaid</b>	At least 30% of the population has income at or below 200% FPL and/or is eligible for Medicaid
<b>Migrant Farmworker Population</b>	User entered Migrant Farmworker Population, Population > 0
<b>Migrant Seasonal Worker Population</b>	User entered Migrant Seasonal Worker Population, Population > 0
<b>Homeless Population</b>	User entered Homeless population, Population > 0
<b>Native American Population</b>	All Native American population, Population > 0

### Dental Health HPSA RSA Qualifications

- A group of Census tracts, Minor Civil Divisions, Whole County, or Multiple Whole Counties can be selected to create a service area.
- A Whole County is considered rational for a RSA.
  - The Whole County resident civilian population must not exceed 250,000.
- Multiple Whole Counties with centroids within 30 minutes of each other are considered rational for a RSA.
  - The centroid is the geographic center of the most populous CT or MCD within the RSA. If the RSA is a whole county, then the Geographic center of the County will be used.
- A Sub-County RSA, meaning a group of census tracts or MCDs, can be rational if the following is true:
  - RSA cannot be smaller than a single CT or MCD.
  - RSA components must be adjacent to each other.
  - RSA cannot include components that are already designated.
- User must also provide an explanation of why a Sub-County RSA is valid based on the following reasons:
  - Distinctive travel patterns.
  - Physical barriers.
  - Strong Self-Identity of a neighborhood with a minimum population of 20,000.
  - Similar socio-economic characteristics.
- At least 2/3 of the providers in the RSA must be usable for the designation type.
  - Please refer to the Provider Management User Guide for more details on this functionality.
- The Population-to-Provider ratio minimums must be met.
  - Geographic: If there is an FTE greater than zero then the ratio of 5,000:1 must be met. If the FTE is zero then the population must be at least 1,000.
  - Geographic High Needs and Population: If there is an FTE greater than zero then the ratio of 4,000:1 must be met. If the FTE is zero then the population must be at least 1,000.

The system will analyze the population within the RSA depending on the HPSA type to determine if the qualifications for designation are met.

<b>HPSA Type</b>	<b>Additional Population Qualifications</b>
<b>Geographic</b>	All Resident Civilian Population + Tourist Population + Migrant Worker Population + Seasonal Resident Population
<b>Geographic High Needs</b>	Geographic Population must meet one of the following: <ul style="list-style-type: none"> <li>▪ At least 20% of the population has income at or below 100% FPL</li> <li>▪ More than 50% of the population has no access to fluoridated water</li> </ul>
<b>Population Low Income</b>	At least 30% of the population has income at or below 200% FPL
<b>Population Low Income plus Special Populations</b>	At least 30% of the population has income at or below 200% FPL plus Special Population is > 0
<b>Population Medicaid</b>	At least 30% of the population has income at or below 200% FPL and/or is eligible for Medicaid
<b>Migrant Farmworker Population</b>	User entered Migrant Farmworker Population, Population > 0
<b>Migrant Seasonal Worker Population</b>	User entered Migrant Seasonal Worker Population, Population > 0
<b>Homeless Population</b>	User entered Homeless Population, Population > 0

#### **Mental Health HPSA RSA Qualifications**

- A group of Census tracts, Minor Civil Divisions, Whole County, or Multiple Whole Counties can be selected to create a service area.
- A Whole County is considered rational for a RSA.
  - The Whole County must not exceed 999,999 for the resident civilian population.
- Multiple Whole Counties with centroids within 30 minutes of each other are considered rational for a RSA.
  - The centroid is the geographic center of the most populous CT or MCD within the RSA. If the RSA is a whole county then the Geographic center of the County will be used.

- A Sub-County RSA, meaning a group of census tracts or MCDs, can be rational if the following is true:
  - RSA cannot be smaller than a single CT or MCD.
  - RSA components must be adjacent to each other.
  - RSA cannot include components that are already designated.
- User must also provide an explanation of why a Sub-County RSA is valid based on the following reasons:
  - Distinctive travel patterns.
  - Physical barriers.
  - Strong self-identity of neighborhood with a minimum population of 20,000.
  - Similar socio-economic characteristics.
- At least 2/3 of the providers in the RSA must be usable for the designation type.
  - Please refer to the Provider Management User Guide for more details on this functionality.
- The Population-to-Provider ratio minimums must be met.
  - Geographic, Psychiatrists Only: If there is an FTE greater than zero then the ratio of 30,000:1 must be met.
  - Geographic, Core Mental Health Only: If there is an FTE greater than zero then the ratio of 9,000:1 must be met.
  - Geographic, Core Mental Health and Psychiatrists: If the FTE is greater than zero for both Core Mental Health providers and Psychiatrists then the Core Mental Health ratio must meet 6,000:1 and the Psychiatrist ratio must meet 20,000:1.
  - Geographic, No Providers: If the FTE is zero then the population must be at least 3,000.
  - Geographic High Needs and Population, Psychiatrists Only: If there is an FTE greater than zero then the ratio of 20,000:1 must be met.
  - Geographic High Needs and Population, Core Mental Health Only: If there is an FTE greater than zero then the ratio of 6,000:1 must be met.
  - Geographic High Needs and Population, Core Mental Health and Psychiatrists: If the FTE is greater than zero for both Core Mental Health providers and Psychiatrists, then the Core Mental Health ratio must meet 4,500:1 and the Psychiatrist ratio must meet 15,000:1.
  - Geographic High Needs and Population, No Providers: If the FTE is zero then the population must be at least 1,500.

The system will analyze the population within the RSA depending on the HPSA type to determine if the requirements for designation are met.

HPSA Type	Additional Population Qualifications
<b>Geographic</b>	All Resident Civilian Population
<b>Geographic High Needs</b>	Population must meet one of the following: <ul style="list-style-type: none"> <li>▪ At least 20% of the population has income at or below 100% FPL</li> <li>▪ Youth Ratio (age under 18/age 18-64) exceeds 0.6</li> <li>▪ Elderly Ratio (age 65 and over/ages 18-64) exceeds 0.25</li> <li>▪ Alcohol Abuse Prevalence is in the worst quartile of the nation, region or state</li> <li>▪ Substance Abuse Prevalence is the worst quartile of the nation, region or state</li> </ul>
<b>Population Low Income</b>	At least 30% of the population has income at or below 200% FPL
<b>Population Low Income plus Special Populations</b>	At least 30% of the population has income at or below 200% FPL plus Special Population is > 0
<b>Population Medicaid</b>	At least 30% of the population has income at or below 200% FPL and/or is eligible for Medicaid
<b>Migrant Farmworker Population</b>	User entered Migrant Farmworker Population, Population > 0
<b>Migrant Seasonal Worker Population</b>	User entered Migrant Seasonal Worker Population, Population > 0
<b>Homeless Population</b>	User entered Homeless Population, Population > 0

## II. Definition of Centroid and Population Center

### Centroid Definition

- The centroid is the geographic center of the most populous CT or MCD within the RSA. If the RSA is a whole county then the Geographic center of the county will be used.
- The travel time and travel polygon calculations will originate at the centroid.

### Population Center

- The centroid is automatically identified by the system as the population center. However, users may choose to move it to a new point within the boundaries of the RSA, with sufficient supporting evidence provided on the Supplemental Information Form.
- The travel time and travel polygon would now originate from the population center in SDMS.

### PCO Procedure for selecting Population Center in SDMS

- The centroid is created after the RSA identification is complete. The user has the ability to move the pin on the map to a new population center.
- If a user moves the pin to select a new population center SDMS will check to make sure the newly selected population center is valid by determining if it is within the boundary of the RSA.
- If the user chooses to select a new population center, and not use the system generated centroid in SDMS, the user must provide an explanation to justify the population center placement on the Supplemental Information Form.
- This is true for all types and disciplines. If the RSA is a Multiple Whole County then the user must provide explanation on the Supplemental Information Form to confirm that the centroids or population centers are within 30 minutes of each other.

## III. Travel Polygon Generation

### DPSD Travel Time Business Process

SDMS will be using ESRI transportation data. The road speed limits are provided in the road data set. The roads, and respective speed limits, data will be used in all distance and time calculations for private and public travel. Public transportation road networks are not available in SDMS, however.

### Private Transportation Travel Polygon

- If the user selects Private Transportation for the travel polygon step SDMS will complete the following steps:
  - The travel polygon will measure the distance from the centroid or population center, depending on the user's selection.
  - SDMS will use the shortest path analysis to determine the boundaries of the travel polygon in all directions.

- The travel polygon signifies the travel distance that can be covered in 30 minutes for Primary Care and 40 minutes for Dental and Mental Health originating at the Centroid/Population center and stemming out in all directions based on the roads that cover that area.

### **Public Transportation Travel Polygon**

- If the user selects Public Transportation one of the following must be demonstrated for the area:
  - At least 20% of the population has income below 100% of the Federal Poverty Level.  
OR
  - Dependency on public transportation in the area is greater than 30%. The user will provide this information on the Supplemental Information Form.
- If the user selects Public Transportation for the travel polygon step SDMS will complete the following steps:
  - The travel polygon will measure the distance from the centroid or population center, depending on the user's selection.
  - SDMS will use the shortest path analysis to determine the boundaries of the travel polygon.
  - The travel polygon signifies the boundaries that are 5 miles away for Primary Care and 7 miles away from Dental and Mental Health originating at the Centroid/Population center and stemming out in all directions.

## **IV. Definition of Contiguous Areas**

Contiguous Areas (CAs) are defined as those Whole Counties, Multiple Counties, or Sub-Counties (which are groups of rational Census Tracts and Minor Civil Divisions) that border the RSA for the proposed designation. The availability and accessibility of health providers in areas contiguous to an area being considered for a designation are also considered in determining whether an RSA can be designated. In SDMS the user will select all Contiguous Area groups while the system will perform various checks to make sure each Contiguous Area is valid and inaccessible to the population of the RSA proposed for designation. Contiguous Areas must completely cover the travel polygon and must all pass the analysis, either through system or user analysis, in order for the Contiguous Area section to be completed.

In the rare circumstance that the travel polygon is entirely contained within the RSA the user is not required to analyze surrounding areas.

### User Creation of Contiguous Areas

- Components used to create contiguous areas include:
  - MCDs
  - CTs
  - Counties
- Contiguous area groups cannot overlap with one another or be part of the RSA.
- A single contiguous area cannot be made of different component types.
- For Whole and Multiple counties the contiguous area population if the designation is Primary Care or Dental Health cannot exceed 250,000. The population cannot exceed 999,999 if the designation is Mental Health.

### Contiguous Area Analysis

The table below represents all the checks ran for the contiguous area analysis. SDMS will run a majority of the contiguous area analysis checks. If a CA does not pass a check the system will continue running the subsequent checks.

Contiguous Area System Checks	Passing Qualifications			System Check?
<b>Is it an Inaccessible HPSA?</b>	If a contiguous area is an inaccessible HPSA based on the type of designation proposed  Refer to Inaccessible HPSA table below			Yes
<b>Is it Over-utilized?</b>	Ratio of CA population type, using same population type as relevant for RSA to Usable Providers within CA boundary. These ratios must meet or exceed the following thresholds for the three disciplines:			Yes
	Primary Care	Dental	Mental	Yes
	2000:1	3000:1	≥ 10,000:1 for Psychiatrist ≥ 3,000:1 for Core Mental Health  If the Core FTE = 0 or null; ≥ 20,000:1 for psychiatrists <i>(See Appendix I for more)</i>	



			<i>information)</i>	
<b>Contiguous Area System Checks</b>	<b>Passing Qualifications</b>			<b>System Check?</b>
<b>Are the providers Excessively Distant?</b>	System searches travel time for all providers in the contiguous area. Contiguous area is considered excessively distant if providers are more than the following travel time for each discipline:			Yes
	<b>Primary Care</b>	<b>Dental</b>	<b>Mental</b>	
	30 minutes	40 minutes	40 minutes	
<b>Is there a Lack of Economic Access?</b> <i>Only calculated if RSA is a Low Income HPSA</i>	System calculates the percent of the total population in the RSA that is below 100% of the FPL. System checks the number of providers in the contiguous area that accepts Medicaid. Contiguous area is considered to have a lack of economic access if more than 20% of the RSA population is below 100% FPL and there are no providers in the contiguous area that accept Medicaid.			Yes
<b>Is there a Demographic Disparity?</b>	Please reference Demographic Disparity Calculation below.			Yes
<b>Are there Other Access Barriers that make it inaccessible?</b>	User must provide an explanation for any contiguous area that failed the system analysis based on physical barriers (mountains, lakes, rivers, airports, military bases), Linguistic barriers and Other Access Barriers			No

The following table reflects the type of proposed RSA and the corresponding Contiguous Area types that are inaccessible:

<b>Proposed Rational Service Area Is:</b>	<b>Inaccessible HPSA for Contiguous Area:</b>
<b>Geographic</b>	Geographic HPSA
<b>Geographic High Needs</b>	Geographic HPSA
<b>Population Low Income</b>	Geographic HPSA, Low Income Population HPSA, Medicaid Eligible Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA
<b>Population Medicaid Eligible</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA
<b>Population Migrant Farmworker</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA, Population Native American, Population Other
<b>Population Migrant Seasonal Worker</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA, Population Native American, Population Other

<b>Proposed Rational Service Area Is:</b>	<b>Inaccessible HPSA for Contiguous Area:</b>
<b>Population Native American</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA, Population Native American HPSA, Population Other HPSA
<b>Low Income Homeless</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA
<b>Low Income Migrant Farmworker</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA
<b>Low Income Homeless Migrant Farmworker</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA
<b>Low Income Migrant Seasonal Worker</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA

<b>Proposed Rational Service Area Is:</b>	<b>Inaccessible HPSA for Contiguous Area:</b>
<b>Low Income Homeless Migrant Seasonal Worker</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Population Native American HPSA, Population Other HPSA
<b>Migrant Seasonal Worker and Homeless</b>	Geographic HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker HPSA, Low Income Migrant Seasonal Worker HPSA, Low Income Migrant Seasonal Worker Homeless HPSA, Medicaid Eligible Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Population Native American HPSA, Population Other HPSA

### Demographic Disparity Calculation

SDMS will look for one point where there is a demographic disparity. The system will calculate demographic disparity in the following order:

- % of Population at 100% of the Federal Poverty Level
- % of Population at 200% of the Federal Poverty Level
- % of Population that is African American
- % of Population that is American Indian / Eskimo / Alaska Native
- % of Population that is Asian
- % of Population that is Caucasian
- % of Population that is Hispanic
- % of Population that is Pacific Islander
- % of Population that is Homeless
- % of Population that is Migrant Farmworker
- % of Population that is Migrant Seasonal Worker

If the first data comparison does not pass the demographic disparity calculation the system will go to the next data point. Once a disparity is uncovered, based on the calculation, the system does not continue with the remaining statistics.

The demographic disparity calculations steps are as follows:

Step	System Determination	Outcome
<b>Determining the Base</b>	System will identify which statistic is larger between the RSA and Contiguous Area	a. If the RSA statistic is greater than the Contiguous Area statistic, the Contiguous Area is used as the base
		b. If the RSA statistic is less than the Contiguous Area statistic, the RSA is used as the base
		c. If the RSA statistic equals the Contiguous Area statistic, there is no demographic disparity and the system moves onto the next statistic
<b>RSA as the base</b>	1. The system will identify the RSA statistic	a. If the RSA statistic is 15% or less, the system will add 15% to the RSA percentage to be compared to the Contiguous Area
	2. The system will identify the same statistic for the Contiguous Area	i. If the Contiguous Area has a statistics percentage greater than or equal to the RSA + 15%, the system will confirm the demographic disparity
	3. The system will compare the two statistics using the RSA figure as the starting point	ii. If the Contiguous Area has a statistics percentage less than the RSA + 15%, then there is no demographic disparity for this factor  b. If the RSA statistic is greater than or equal to 15%, the system will double the RSA % (2*RSA%) to be compared to the Contiguous Area  i. If the Contiguous Area has a statistic percentage greater than or equal to 2*RSA%, then the system will confirm the demographic disparity for this factor  ii. If the Contiguous Area has a statistic percentage less than 2*RSA%, then there is not a demographic disparity for this factor

Step	System Determination	Outcome
<b>Contiguous Area as the base</b>	1. The system will identify the Contiguous Area statistic	a. If the Contiguous Area figure is 15% or less, the system will add 15% to the Contiguous Area percentage to be compared to the RSA
<b>Contiguous Area as the base (continued)</b>	2. The system will identify the same statistic for the RSA	i. If the RSA has a statistics percentage greater than or equal to the Contiguous Area + 15% the system will confirm the demographic disparity for this factor
	3. The system will compare the two statistics using the Contiguous Area figure as the starting point	ii. If the RSA has a statistics percentage less than the Contiguous Area + 15% then there is no demographic disparity for this factor  b. If the Contiguous Area statistic is greater than or equal to 15% the system will double the Contiguous Area % ( $2*CA\%$ ) to be compared to the RSA  i. If the RSA has a statistic percentage greater than or equal to $2*CA\%$ then the system will confirm the demographic disparity for this factor  ii. If the RSA has a statistic percentage less than $2*CA\%$ then there is not a demographic disparity for this factor

## V. Nearest Non-Designated Provider (NND)

### Purpose of Identifying the NND

The main purpose of identifying the NND is to determine the time and distance that the population of the RSA must travel for care outside of the RSA. There are different rules for each discipline that determine how many points a designation receives based on the time and distance to travel to the NND.

The system will determine the NND provider by determining the qualifying NND with the shortest path originating from the Centroid/Population Center to the geographic coordinates of the provider. The NND must practice in the discipline of the designation, must not be tied to another designation determined as Inaccessible (see above) or an inaccessible contiguous area (please reference Contiguous Area Analysis section), and must serve the population of the designation.

The system will identify the NND in the following radius for each discipline:

- **Primary Care:** 50 miles or 60 minutes
- **Dental Health:** 60 miles or 90 minutes
- **Mental Health:** 60 minutes

If the system cannot locate a qualifying NND in the radiuses above the user will be prompted to identify the NND. The system will then calculate the travel time and distance for that provider using the ESRI road network.

The user may also select an alternate NND, manually enter miles and minutes for a provider or continue without and NND from the system identified provider. The user will be required to provide an explanation on the Supplemental Information Form if these 3 alternate options are taken.

The user also has the option to edit the system's suggestion of distance and time for the NND or select another NND other than the system generated one. If the user selects a different NND or changes the distance or time an explanation must be provided.

## Section VI: HPSA Scoring

Once all of the RSA components of a designation have been identified, the Contiguous Area analysis completed, the application deemed eligible for designation, and NND identified, the designation is able to be scored. For each HPSA the system calculates a score based on the following criteria and formulas, differentiated by discipline. This score is used to prioritize areas of greatest need.

### I. Primary Care HPSA Scoring

The Division of Policy and Shortage Designation calculates a score between 0-25 for Primary Care HPSAs.

#### Primary Care



- Population-to-Provider ratio\*
- Percent of individuals below 100% of the Federal Poverty Level
- Infant Health Index (Infant Mortality Rate or Low Birth Weight Rate)
- Travel time or distance to nearest source of non-designated accessible care

\*Double weighted scoring factor

#### Population-to- Provider Ratio for Primary Care

The Population-to-Provider ratio for Primary Care Geographic, Geographic High Needs/Insufficient Capacity, and Population HPSAs is scored according to the values in the table below.

Score for Pop: FTE Ratio	Points
Ratio > 10,000:1 or no PCP and a population over 2,500	5 points
10,000:1 > Ratio ≥ 5,000:1 or no PCP and a population ≥ 2,000 and < 2,500	4 points
5,000:1 > Ratio ≥ 4,000:1 or no PCP and a population ≥ 1,500 and < 2,000	3 points
4,000:1 > Ratio ≥ 3,500:1 or no PCP and a population ≥ 1,000 and < 1,500	2 points
3,500:1 > Ratio ≥ 3,000:1 or no PCP and a population ≥ 500 and < 1,000	1 points

Please note that Primary Care Geographic, Geographic High Needs/Insufficient Capacity, and Population HPSAs have different eligibility thresholds for being designated as a HPSA as described below.

**Primary Care Geographic:** Primary Care Geographic HPSAs must meet a minimum Population-to-Provider Ratio of 3,500:1.



**Primary Care Geographic High Needs/Insufficient Capacity:** Primary Care Geographic High Needs/Insufficient Capacity HPSAs must meet a minimum Population-to-Provider Ratio of 3,000:1. To qualify as a High Needs/Insufficient Capacity the RSA must meet at least one of the following four criteria:

1. More than 20% of the population has incomes at or below 100% FPL.
2. More than 100 births per year per 1,000 women ages 15-44.
3. More than 20 infant deaths per 1,000 live births.
4. Meets two criteria for insufficient capacity:
  - a. More than 8,000 office or outpatient visits per year per FTE primary care physician serving the area.
  - b. Unusually long waits for appointments for routine medical services (that is, more than 7 days for established patients and 14 days for new patients).
  - c. Excessive average waiting time at primary care providers (longer than one hour where patients have appointments or two hours where patients are treated on a first-come, first-served basis).
  - d. Evidence of excessive use of emergency room facilities for routine primary care.
  - e. A substantial proportion (two-thirds or more) of the area's physicians do not accept new patients.
  - f. Abnormally low utilization of health services, as indicated by an average of two or fewer office visits per year on the part of the area's population.

**Primary Care Population:** Primary Care Population HPSAs must meet a minimum Population-to-Provider Ratio of 3,000:1. The population used for the Primary Care Population HPSA population calculations is the population specified in the designation. The providers that serve these populations are the sole providers included in the FTE calculation for the Population-to-Provider ratio.

#### Percent of Population with Incomes At or Below Federal Poverty Level

The HPSA scoring thresholds are consistent across all disciplines for the percent of the population at or below Federal Poverty Level. The system will assign a point value according to the table below for this portion of the HPSA score calculation. This value is based on sourced data for the population at 100% Federal Poverty Level for each census tract within the designation.

Score for % Population with Income at or Below 100% FPL	Points
P ≥ 50%	5 points
50% > P ≥ 40%	4 points
40% > P ≥ 30%	3 points
30% > P ≥ 20%	2 points
20% > P ≥ 15%	1 points
P < 15%	0 points

## Infant Health Index

Across all Primary Care HPSA score calculations a measure of infant health is utilized, commonly referred to as the Infant Health Index. These measures include Infant Mortality Rate (IMR) and Low Birth Weight (LBW), as defined by the CDC. The system calculates both data points for the proposed designation area\* and uses the index measure which provides the higher point value according to the following thresholds:

Infant Health Index	Points
IMR ≥ 20 or LBW ≥ 13	5 points
20 > IMR ≥ 18 or 13 > LBW ≥ 11	4 points
18 > IMR ≥ 15 or 11 > LBW ≥ 10	3 points
15 > IMR ≥ 12 or 10 > LBW ≥ 9	2 points
12 > IMR ≥ 10 or 9 > LBW ≥ 7	1 points
IMR < 10 or LBW < 7	0 points

\*There is a special condition regarding which value for the IMR is used when the number of births in a Sub-County designation is less than 4,000. To ensure statistical significance in the sample size for this metric anything less than 4,000 is considered a sample size that is insufficient to make the assumptions. If the sub-county RSA's number of infant births is ≥ 4,000 then the IMR will be calculated in the following way:

$$\frac{\text{Number of infant deaths}}{\text{Number of live births}} \times 1000 \text{ live births}$$

- If the sub-county RSA's number of infant births is < 4,000 SDMS must identify the IMR for the county/counties which are covered by the sub-county.
  - SDMS will calculate a weighted average of the IMRs based on the proportion of the service area's population that resides in the county/counties to establish the sub-county RSA's IMR rate for scoring.
  - If the sub-county area covers parts of two different counties SDMS will sum the Resident Civilian Population for all RSA components falling in County A and the Resident Civilian Population for all RSA components falling into County B. The IMR for each county should be multiplied by the Resident Civilian Population for the components in the respective counties.
  - The results should be added together and then divided by the sum of the Resident Civilian Population residing in the components to be included in the RSA.
  - The result of this will be the IMR for the sub-county RSA with # infant births < 4000.

$$\frac{\sum \text{Res Civ for all RSA components in County A} * (\text{County A's IMR}) + \sum \text{Res Civ for all RSA components in County B} * (\text{County B's IMR})}{(\text{County A Res Civ RSA Component}) + (\text{County B Res Civ RSA Component})}$$

- If the sub-county RSA is entirely contained within a single county with infant births < 4,000, or if the RSA is a whole county with infant births < 4,000, the system will use the number reported by the CDC for the calculations without using a weighted average approach.

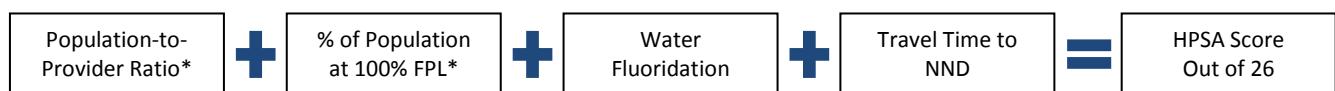
### Primary Care Nearest Non-Designated Provider (NND)

The system will calculate the time and distance to the nearest source of care by using the shortest path analysis discussed above in the travel time and NND section. Primary care NND travel time and distance is then generated. The following table displays the scoring thresholds for Primary Care NND Travel Time and Distance:

Score for Travel Time or Distance to NND	Points
Time ≥ 60 minutes or Distance ≥ 50 miles	5 points
60 min > Time ≥ 50 min or 50 mi > Distance ≥ 40 mi	4 points
50 min > Time ≥ 40 min or 40 mi > Distance ≥ 30 mi	3 points
40 min > Time ≥ 30 min or 30 mi > Distance ≥ 20 mi	2 points
30 min > Time ≥ 20 min or 20 mi > Distance ≥ 10 mi	1 points
Time < 20 min or Distance < 10 mi	0 points

## II. Dental Health HPSA Scoring

The Division of Policy and Shortage Designation calculates a score between 0-26 for Dental Health HPSAs.



- Population-to-Provider ratio\*
- Percent of individuals below 100% of the Federal Poverty Level\*
- Water fluoridation status
- Travel time or distance to nearest source of non-designated accessible care

*\*Double weighted scoring factor*

### Dental Health Population-to-Provider Ratio

The Population-to-Provider Ratio for Dental HPSAs is scored according to the values in the table below.

Score for Pop: FTE Ratio	Points
Ratio $\geq$ 10,000 : 1 or no dentists and population $\geq$ 3,000	5 points
Ratio < 10,000:1 but $\geq$ 8,000:1 or no dentists and population $\geq$ 2,500 and <3,000	4 points
Ratio < 8,000:1 but $\geq$ 6,000:1 or no dentists and population $\geq$ 2,000 and <2,500	3 points
Ratio < 6,000:1 but $\geq$ 5,000:1 or no dentists and population $\geq$ 1,500 and <2,000	2 points
Ratio < 5,000:1 but $\geq$ 4,000:1 or no dentists and population $\geq$ 1,000 and <1,500	1 points

Please note that Dental Geographic, Geographic High Needs/Insufficient Capacity, and Population HPSAs have different eligibility thresholds for being designated as a HPSA as described below.

**Dental Geographic:** Dental Geographic HPSAs must meet a minimum Population-to-Provider Ratio of 5,000:1.

**Dental Geographic High Needs/Insufficient Capacity:** Dental Geographic High Needs/Insufficient Capacity HPSAs must meet a minimum Population-to-Provider Ratio of 4,000:1. To qualify as a Dental Geographic High Needs/Insufficient Capacity HPSA a RSA must meet at least one of the following three criteria. *(See Appendix I for Future Updates pertaining to this section)*

1. More than 20% of the population has incomes at or below 100% FPL.
2. More than 50% of the population has no fluoridated water.
3. Meets one criteria for insufficient capacity:
  - a. More than 5,000 visits per year per FTE dentist serving the area.
  - b. Unusually long waits for appointments for routine dental services (that is, more than six weeks).
  - c. A substantial proportion (two-thirds or more) of the area's dentists do not accept new patients.

**Dental Population:** The population used for the Dental Population HPSA population calculations is the population specified in the designation. The providers that serve these populations are the sole providers included in the FTE calculation for the Population-to-Provider ratio. Dental Population HPSAs must meet a minimum Population-to-Provider Ratio of 4,000:1.

### Percent of Population with Incomes At or Below Federal Poverty Level

The HPSA scoring thresholds are consistent across all disciplines for the percent of the population at or below Federal Poverty Level. The system will assign a point value according to the table below for this portion of the HPSA score calculation. This value is based on sourced data for the population at 100% Federal Poverty Level for each census tract within the designation.

Score for % Population with Income at or Below 100% FPL	Points
P ≥ 50%	5 points
50% > P ≥ 40%	4 points
40% > P ≥ 30%	3 points
30% > P ≥ 20%	2 points
20% > P ≥ 15%	1 points
P < 15%	0 points

### Fluoridation Rate

Across all Dental HPSA score calculations a measure of fluoridation rate is factored into the HPSA score. This data is provided by the user on the Supplemental Information Form of the application by entering in the percent of the population without fluoridated water supply or indicating that the information is unknown. Points are assigned as follows:

Fluoridated Water Available	Points
Fluoridated Water Available for ≥ 50% of Population	1 point
Fluoridated Water Available for < 50% of Population	0 points

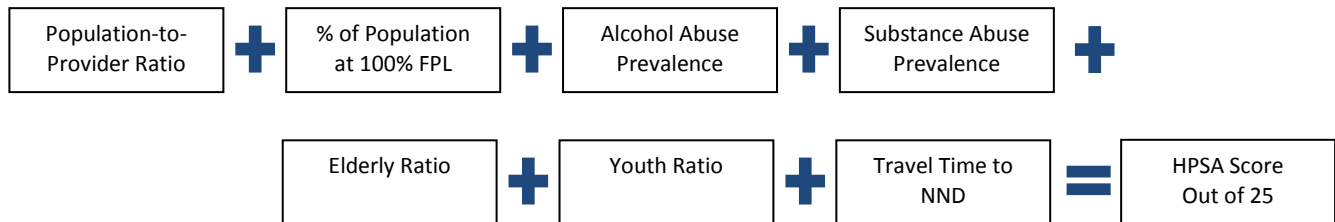
### Nearest Non-Designated Provider

The system will calculate the time and distance to the nearest source of care by using the shortest path analysis discussed above in the travel time and NND section. Dental NND travel time and distance is then generated. The following table displays the scoring thresholds based on Dental NND Travel Time and Distance:

Score for Travel Time or Distance to NND	Points
Time ≥ 90 min or Distance ≥ 60 mi	5 points
90 min > Time ≥ 75 min or 60 mi > Distance ≥ 50 mi	4 points
75 min > Time ≥ 60 min or 50 mi > Distance ≥ 40 mi	3 points
60 min > Time ≥ 45 min or 40 mi > Distance ≥ 30	2 points
45 min > Time ≥ 30 min or 30 mi > Distance ≥ 20 mi	1 points
Time < 30 min or Distance < 20 mi	0 points

### III. Mental Health Scoring

The Division of Policy and Shortage Designation calculates a score between 0-25 for Mental Health HPSAs.



- Population-to-Provider ratio
- Percent of individuals below 100% of the Federal Poverty Level
- Youth ratio (ratio of children under 18 to adults ages 18-64)
- Elderly ratio (ratio of adults age 65 and over to adults ages 18-64)
- Substance abuse prevalence
- Alcohol abuse prevalence
- Travel time or distance to nearest source of non-designated accessible care

#### Mental Health Population-to-Provider Ratio

For all Mental Health HPSAs, the providers counted in the Population-to-Provider ratio may consist of Psychiatrists only, Core Mental Health providers only, or both Psychiatrists and Core Mental Health providers. The Population-to-Provider Ratio scoring thresholds are represented in a matrix when both Core Mental Health and Psychiatrists are used. The system will make the determination of which scoring table to use based on the available data.

**Geographic:** The Population-to-Provider Ratio for a Geographic Mental Health HPSA is scored according to the values in the following tables, depending on which providers are included.

Core Mental Health and Psychiatrists

Geographic (Non-High Need)		Core Mental Health						
		≥6,000:1 and <7,500:1	≥7,500:1 and <9,000:1	≥9,000:1 and <12,000:1	≥12,000:1 and <15,000:1	≥15,000:1 and <18,000:1	≥18,000:1 and <24,000:1	≥24,000:1
Psychiatrists	≥20,000:1 and <25,000:1	1	2	3	4	5	6	7
	≥25,000:1 and <30,000:1	2	3	4	5	6	7	7
	≥30,000:1 and <35,000:1	3	4	5	6	7	7	7
	≥35,000:1 and <40,000:1	4	5	6	7	7	7	7
	≥40,000:1 and <45,000:1	5	6	7	7	7	7	7
	≥45,000:1 and <50,000:1	6	7	7	7	7	7	7
	≥50,000:1 or 0 psychiatrists as verified by HRSA	7	7	7	7	7	7	7

Psychiatrists Only and Core Mental Health Only

Psychiatrists Only Geographic (Non High Need)		Core Mental Health Geographic (Non High Need)	
Ratio	Score	Ratio	Score
≥30,000:1 and <35,000:1	1	≥9,000:1 and <12,000:1	1
≥35,000:1 and <40,000:1	2	≥12,000:1 and <15,000:1	2
≥40,000:1 and <45,000:1	3	≥15,000:1 and <18,000:1	3
≥45,000:1 and <50,000:1	4	≥18,000:1 and <24,000:1	4
≥50,000:1 and <55,000:1	5	≥24,000:1 and <30,000:1	5
≥55,000:1 and <60,000:1	6	≥30,000:1 and <36,000:1	6
≥60,000:1	7	≥36,000:1	7

*No Psychiatrists or Core Mental Health Providers Available in Service Area*

No Providers Geographic (Non High Need)	
Ratio	Score
≥3,000:0 and <4,500:0	1
≥4,500:0 and <6,000:0	2
≥6,000:0 and <7,500:0	3
≥7,500:0 and <9,000:0	4
≥9,000:0 and <12,000:0	5
≥12,000:0 and <15,000:0	6
≥15,000:0 and <18,000:0	7

**Geographic High Needs:** To qualify as a Mental Health Geographic High Need HPSA a RSA must meet at least one of following criteria.

1. More than 20% of the population has incomes at or below 100% FPL.
2. The Youth Ratio (# of persons under 18 divided by the number of adults 18-64) is greater than 0.6.
3. The Elderly Ratio (# of persons age 65 and older divided by the total # of adults 18-64) is greater than 0.25.
4. Alcohol or substance abuse prevalence data shows the area to be among the worst quartile in the nation, state, or region.

The Population-to-Provider Ratio for a Geographic Mental Health HPSAs is scored according to the values in the following tables, depending on which providers are included.



High Needs		Core Mental Health						
		≥4,500:1 and <6,000:1	≥6,000:1 and <7,500:1	≥7,500:1 and <9,000:1	≥9,000:1 and <12,000:1	≥12,000:1 and <15,000:1	≥15,000:1 and <18,000:1	≥18,000:1
Psychiatrists	≥15,000:1 and <20,000:1	1	2	3	4	5	6	7
	≥20,000:1 and <25,000:1	2	3	4	5	6	7	7
	≥25,000:1 and <30,000:1	3	4	5	6	7	7	7
	≥30,000:1 and <35,000:1	4	5	6	7	7	7	7
	≥35,000:1 and <40,000:1	5	6	7	7	7	7	7
	≥40,000:1 and <45,000:1	6	7	7	7	7	7	7
	≥45,000:1 or 0 psychiatrists as verified by HRSA	7	7	7	7	7	7	7

*Only and Core Mental Health Only*

Psychiatrists Only (High Need)		Core Mental Health (High Need)	
Ratio	Score	Ratio	Score
≥20,000:1 and <25,000:1	1	≥6,000:1 and <7,500:1	1
≥25,000:1 and <30,000:1	2	≥7,500:1 and <9,000:1	2
≥30,000:1 and <35,000:1	3	≥9,000:1 and <12,000:1	3
≥35,000:1 and <40,000:1	4	≥12,000:1 and <15,000:1	4
≥40,000:1 and <45,000:1	5	≥15,000:1 and <18,000:1	5
≥45,000:1 and <50,000:1	6	≥18,000:1 and <24,000:1	6
≥50,000:1	7	≥24,000:1	7

*No Psychiatrists or Core Mental Health Providers Available in Service Area*

No Psych or CMH Providers (High Need)	
Ratio	Score
≥1,500:0 and <3,000:0	1
≥3,000:0 and <4,500:0	2
≥4,500:0 and <6,000:0	3
≥6,000:0 and <7,500:0	4
≥7,500:0 and <9,000:0	5
≥9,000:0 and <12,000:0	6
≥12,000:0 and <15,000:0	7

**Population:** The population used for the Mental Health Population HPSA population calculations is the population specified in the designation. The providers that serve these populations are the sole providers included in the FTE calculation for the population to provider ratio. The Population-to-Provider Ratio for a Mental Health population HPSAs is scored according to the values in the tables below, depending on which providers are included.

Population		Core Mental Health						
		≥4,500:1 and <6,000:1	≥6,000:1 and <7,500:1	≥7,500:1 and <9,000:1	≥9,000:1 and <12,000:1	≥12,000:1 and <15,000:1	≥15,000:1 and <18,000:1	≥18,000:1
Psychiatrists	≥15,000:1 and <20,000:1	1	2	3	4	5	6	7
	≥20,000:1 and <25,000:1	2	3	4	5	6	7	7
	≥25,000:1 and <30,000:1	3	4	5	6	7	7	7
	≥30,000:1 and <35,000:1	4	5	6	7	7	7	7
	≥35,000:1 and <40,000:1	5	6	7	7	7	7	7
	≥40,000:1 and <45,000:1	6	7	7	7	7	7	7
	≥45,000:1 or 0 psychiatrists as verified by HRSA	7	7	7	7	7	7	7

*Psychiatrists Only and Core Mental Health Only*

Psychiatrists Only (Population)		Core Mental Health (Population)	
Ratio	Score	Ratio	Score
≥20,000:1 and <25,000:1	1	≥6,000:1 and <7,500:1	1
≥25,000:1 and <30,000:1	2	≥7,500:1 and <9,000:1	2
≥30,000:1 and <35,000:1	3	≥9,000:1 and <12,000:1	3
≥35,000:1 and <40,000:1	4	≥12,000:1 and <15,000:1	4
≥40,000:1 and <45,000:1	5	≥15,000:1 and <18,000:1	5
≥45,000:1 and <50,000:1	6	≥18,000:1 and <24,000:1	6
≥50,000:1	7	≥24,000:1	7

*No Psychiatrists or Core Mental Health Providers Available in Service Area that serve Population*

No Psych or CMH Providers (Population)	
Ratio	Score
≥1,500:0 and <3,000:0	1
≥3,000:0 and <4,500:0	2
≥4,500:0 and <6,000:0	3
≥6,000:0 and <7,500:0	4
≥7,500:0 and <9,000:0	5
≥9,000:0 and <12,000:0	6
≥12,000:0 and <15,000:0	7

**Percent of Population with Incomes At or Below Federal Poverty Level**

The HPSA scoring thresholds are consistent across all disciplines for the percent of the population at or below the Federal Poverty Level. The system will assign a point value according to the table below for this portion of the HPSA score calculation. This value is based on sourced data for the population at 100% Federal Poverty Level for each census tract within the designation.

<b>Score for % Population with Income at or Below 100% FPL</b>	<b>Points</b>
P ≥ 50%	5 points
50% > P ≥ 40%	4 points
40% > P ≥ 30%	3 points
30% > P ≥ 20%	2 points
20% > P ≥ 15%	1 points
P < 15%	0 points

### Youth and Elderly Ratios

Across all Mental Health HPSA score calculations a scoring factor for both the elderly and youth ratio in the designation area is used. The ratios are defined as follows:

$$\text{Elderly Ratio} = \frac{\# \text{ Population Age 65 and over}}{\text{Total Population Age 18 – 64}}$$

$$\text{Youth Ratio} = \frac{\# \text{ Population Age 18 and under}}{\text{Total Population Age 18 – 64}}$$

Points are assigned as follows:

<b>Elderly Ratio</b>	<b>Points</b>
R ≥ 0.25:1	3 points
0.25:1 > R ≥ 0.15:1	2 points
0.15:1 > R ≥ 0.10:1	1 points

<b>Youth Ratio</b>	<b>Points</b>
R ≥ 0.6:1	3 points
0.6:1 > R ≥ 0.4:1	2 points
0.4:1 > R ≥ 0.2:1	1 points

### Alcohol and Substance Abuse Prevalence

Across all Mental Health HPSA score calculations, a measure of substance and alcohol abuse is factored into the HPSA score. This optional data is provided by the user on the Supplemental Information Form of the application by indicating that the proposed designation's substance or alcohol abuse rate is in the worst quartile of the nation, state, or regional level. The proposed designation HPSA score is affected as follows:

<b>Alcohol Abuse Prevalence</b>	<b>Points</b>
Area's rate is in worst quartile for nation, region, or state	1 point

<b>Substance Abuse Prevalence</b>	<b>Points</b>
Area's rate is in worst quartile for nation, region, or state	1 point

### **Nearest Non Designated Provider**

The system will calculate the time and distance to the nearest source of care by using the shortest path analysis discussed above in the travel time and NND section. The system will look for the nearest provider regardless if the RSA's scoring is based on Core Mental Health or Psychiatrists. Mental Health NND travel time is then generated. The following table displays the scoring thresholds based on Mental Health NND Travel Time:

<b>Score for Travel Time or Distance to NND</b>	<b>Points</b>
≥ 60 minutes	5 points
< 60 minutes and ≥ 50 minutes	4 points
< 50 minutes and ≥ 40 minutes	3 points
< 40 minutes and ≥ 30 minutes	2 points
< 30 minutes and > 20 minutes	1 points

## Section VII: MUA/P Scoring

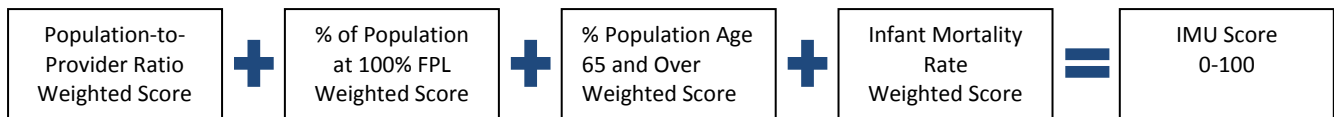
### I. MUA/P Common Requirements

#### Rational Service Area

- Defined in terms of:
  - Whole County.
  - Minor Civil Divisions (MCDs) with population centers within 30 minutes time of each other.
  - Census Tracts.
- RSA Population for a whole county cannot exceed 250,000.
- For RSAs the following must be true in order for the RSA boundaries to be valid:
  - RSA cannot be smaller than a single census tract or MCD.
  - RSA components must be adjacent to each other.
  - RSA cannot include components that are already designated for the same discipline.
- An explanation must be entered on the Supplemental Information Form in SDMS as to why the Sub-County RSA is considered Rational.

### II. MUA/P Scoring

MUA/P designations are scored by summing the values listed in the following illustration. The total IMU score must be 62.0 or less in order for the service area to qualify for a MUA/P designation.



- Population-to-Provider ratio
  - The ratio of the total Primary Care Provider FTE per 1,000 population for the service area using the Total Resident Civilian Population.
- % Population at 100% of the Federal Poverty Level
  - Total Resident Civilian Population is used as the denominator.
- % Population age 65 and over
  - Total Resident Civilian Population is used as the denominator.
- Infant Mortality Rate
  - Please refer to the Infant Health Index section under the HPSA Scoring section for the same Sub-County RSA methodology.

**Index of Medical Underservice (IMU)**

- IMU scale is between 0 and 100
  - 0 represents completely underserved.
  - 100 represents least underserved or best served.
  - To qualify as an MUA designation the service area must have an IMU of 62.0 or less.
- IMU involves four weighted variables
  - Ratio of primary medical care physicians per 1,000 population.
  - Infant Mortality Rate.
  - Percentage of the population with incomes at or below 100% Federal Poverty Level.
  - Percentage of population age 65 and over.

The IMU involves four variables which are converted to a weighted value, per the established criteria in the tables below.

**Population-to-Provider Weighted Values**

<b><u>Population-to-Provider Ratio</u></b>	<b><u>Weighted Value</u></b>
0 - .050	0
.051 - .100	0.5
.101 - .150	1.5
.151 - .200	2.8
.201 - .250	4.1
.251 - .300	5.7
.301 - .350	7.3
.351 - .400	9.0
.401 - .450	10.7
.451 - .500	12.6
.501 - .550	14.8
.551 - .600	16.9
.601 - .650	19.1
.651 - .700	20.7
.701 - .750	21.9
.751 - .800	23.1
.801 - .850	24.3
.851 - .900	25.3
.901 - .950	25.9
.951 - 1.000	26.6
1.001 - 1.050	27.2
1.051 - 1.100	27.7
1.101 - 1.150	28.0
1.151 - 1.200	28.3
1.201 - 1.250	28.6
over 1.250	28.7

**Infant Mortality Weighted Values**

<u>Infant Mortality Rate</u>	<u>Weighted Value</u>
0-8	26.0
8.1 - 9.0	25.6
9.1 - 10.0	24.8
10.1 - 11.0	24.0
11.1 - 12.0	23.2
12.1 - 13.0	22.4
13.1 - 14.0	21.5
14.1 - 15.0	20.5
15.1 - 16.0	19.5
16.1 - 17.0	18.5
17.1 - 18.0	17.5
18.1 - 19.0	16.4
19.1 - 20.0	15.3
20.1 - 21.0	14.2
21.1 - 22.0	13.1
22.1 - 23.0	11.9
23.1 - 24.0	10.8
24.1 - 25.0	9.6
25.1 - 26.0	8.5
26.1 - 27.0	7.3
27.1 - 28.0	6.1
28.1 - 29.0	5.4
29.1 - 30.0	5.0
30.1 - 31.0	4.7
31.1 - 32.0	4.3
32.1 - 33.0	4.0
33.1 - 34.0	3.6
34.1 - 35.0	3.3
35.1 - 36.0	3.0
36.1 - 37.0	2.6
37.1 - 39.0	2.0
39.1 - 41.0	1.4
41.1 - 43.0	0.8
43.1 - 45.0	0.2
45.1 +	0



**% Population at 100% Poverty Weighted Values**

<b><u>Percent Below Poverty</u></b>	<b><u>Weighted Value</u></b>
0	25.1
0.1 - 2.0	24.6
2.1 - 4.0	23.7
4.1 - 6.0	22.8
6.1 - 8.0	21.9
8.1 - 10.0	21.0
10.1 - 12.0	20.0
12.1 - 14.0	18.7
14.1 - 16.0	17.4
16.1 - 18.0	16.2
18.1 - 20.0	14.9
20.1 - 22.0	13.6
22.1 - 24.0	12.2
24.1 - 26.0	10.9
26.1 - 28.0	9.3
28.1 - 30.0	7.8
30.1 - 32.0	6.6
32.1 - 34.0	5.6
34.1 - 36.0	4.7
36.1 - 38.0	3.4
38.1 - 40.0	2.1
40.1 - 42.0	1.3
42.1 - 44.0	1.0
44.1 - 46.0	0.7
46.1 - 48.0	0.4
48.1 - 50.0	0.1
50+	0

**% Population age 65 and Over**

<b><u>Percent Age 65 and Over</u></b>	<b><u>Weighted Value</u></b>
0-7.0	20.2
7.1 - 8.0	20.1
8.1 - 9.0	19.9
9.1 - 10.0	19.8
10.1 - 11.0	19.6
11.1 - 12.0	19.4
12.1 - 13.0	19.1
13.1 - 14.0	18.9
14.1 - 15.0	18.7
15.1 - 16.0	17.8
16.1 - 17.0	16.1
17.1 - 18.0	14.4
18.1 - 19.0	12.8
19.1 - 20.0	11.1
20.1 - 21.0	9.8
21.1 - 22.0	8.9
22.1 - 23.0	8.0
23.1 - 24.0	7.0
24.1 - 25.0	6.1
25.1 - 26.0	5.1
26.1 - 27.0	4.0
27.1 - 28.0	2.8
28.1 - 29.0	1.7
29.1 - 30.0	0.6
30+	0

## Section VIII: OFAC Requirements and Scoring

### I. Primary Care OFAC Common Requirements

#### Criteria

- The facility must be a public or non-profit medical facility.
- The facility is providing primary medical care services to an area or population group designated as having a primary care professional shortage.
- The facility cannot fall within a current HPSA or MUA/P of the same discipline.

#### Provisions of Services

- The facility must meet one of the following provisions of services criteria:
  - The facility is within 30 minutes of a HPSA and the facility is accessible to residents of the HPSA (i.e no socioeconomic difference).
  - More than 50% of the facility's health care services are provided to residents of a HPSA.

#### Insufficient Capacity

- The facility must meet at least two of the following insufficient capacity:
  - More than 8,000 outpatient visits per year per FTE of primary care physicians.
  - Excessive use (greater than 35%) of emergency room facilities for routine primary care.
  - Waiting time for appointments is more than 7 days for established patients or more than 14 days for new patients for routine health services.
  - Facility waiting time is greater than 1 hour for patients with appointments or 2 hours for walk-in patients.

#### Suggested Supporting Documents

Document Type Name	When Required?	Suggested Document
<b>Evidence that facility is public or non-profit</b>	Always	Letter establishing non-profit status with IRS Scan of website page that documents type of facility
<b>Evidence that more than 50% of the facility's health care services are provided to</b>	If used as a criteria on the Provision of Services page	Patient origin by zip code or other data provided by facility

<b>residents of a HPSA</b>		
<b>Evidence of Travel Time</b>	If automated travel time for Private transportation is edited or the user selects public transportation	Scan of Google Maps (or other internet mapping tool) results for private transit; scan of public transit schedule to show travel time (SDMS should measure from the population center; if there is not one, then measure from the centroid of the most populous component in the RSA).
<b>Evidence of Public Transportation</b>	If the user selects public transportation	Scan of public transit schedule to show travel time
<b>Evidence of % Population using Public Transportation is greater than 30%</b>	If user selects this to pass as a criteria for public transportation selection	Scan of local, state, or federal data used; Census data available at <a href="http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t">http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t</a> This is using the Advanced Search under People: Employment: Commuting (Journey to Work)
<b>Evidence that facility has more than 8000 outpatient visits per year per primary care physician FTE</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
<b>Evidence of excessive use (greater than 35%) of emergency room facilities for routine</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by ER

<b>primary care</b>		
<b>Evidence that waiting time for appointments is greater than 7 days for established patients</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
<b>Evidence that waiting time for appointments is greater than 14 days for new patients for routine health services</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
<b>Evidence that the facility waiting time is greater than 1 hour for patients with appointments</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
<b>Evidence that the facility waiting time is greater than 2 hours for walk-in patients</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility

## II. Dental Health OFAC Common Requirements

### Criteria

- The facility must be a public or non-profit medical facility.
- The facility is providing general dental care services to an area or population group designated as having a dental professional shortage.
- The facility cannot fall within a current HPSA of the same discipline.

### Provisions of Services

- The facility must meet one of the following provisions of services criteria:
  - The facility is within 40 minutes of a HPSA and the facility is accessible to residents of the HPSA (i.e no socioeconomic difference).
  - More than 50% of the facility's dental care services are provided to residents of a HPSA.

### Insufficient Capacity

- The facility must meet one of the following insufficient capacity:
  - More than 5,000 outpatient visits per year per FTE of dentist
  - Facility waiting time for appointments is greater than 6 weeks for routine dental services.

### Suggested Supporting Documents

Document Type Name	When Required?	Suggested Document
<b>Evidence that facility is public or non-profit</b>	Always	Letter establishing non-profit status with IRS Scan of website page that documents type of facility
<b>Evidence that more than 50% of the facility's health care services are provided to residents of a HPSA</b>	If used as a criteria on the Provision of Services page	Patient origin by zip code or other data provided by facility
<b>Evidence of Travel Time</b>	If automated travel time for Private	Scan of Google Maps (or other internet mapping tool) results for private transit; scan of public transit schedule to show travel time (SDMS should measure from the population center; if there is not one,

	transportation is edited or the user selects public transportation	then measure from the centroid of the most populous component in the RSA).
<b>Evidence of Public Transportation</b>	If the user selects public transportation	Scan of public transit schedule to show travel time
<b>Evidence of % Population using Public Transportation is greater than 30%</b>	If user selects this to pass as a criteria for public transportation selection	Scan of local, state, or federal data used; Census data available at <a href="http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t">http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t</a> This is using the Advanced Search under People: Employment: Commuting (Journey to Work)
<b>Evidence that facility has more than 5000 outpatient visits per year per dentist FTE</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
<b>Evidence that waiting time for appointments for routine dental health services is greater than 6 weeks</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility

### III. Mental Health OFAC Common Requirements

#### Criteria

- The facility must be a public or non-profit medical facility or a Community Mental Health Center (CMHC) authorized by L. 94-63.
- The facility is providing mental health services to an area or population group designated as having a mental health professional shortage.
- The facility cannot fall within a current HPSA of the same discipline.

#### Provisions of Services

- The facility must meet one of the following provisions of services criteria:
  - The facility is within 40 minutes of a HPSA and the facility is accessible to residents of the HPSA (i.e no socioeconomic differences).
  - More than 50 % of the facility's mental health care services are provided to residents of a HPSA.
  - The facility will be considered to be providing services to a designated area or population group if the facility, by Federal or State statute, administrative action, or contractual agreement, has been given responsibility for providing and/or coordinating mental health services for the area or population group consistent with applicable state plans.

#### Insufficient Capacity

- The facility must meet one of the following insufficient capacity:
  - More than 1,000 outpatient visits per year per FTE of mental health care providers.
  - More than 3,000 outpatient visits per year per FTE of psychiatrist.
  - No psychiatrists are on staff and this facility is only providing mental health services to the designated area or population.

#### Suggested Supporting Documents

Document Type Name	When Required?	Suggested Document
Evidence that facility is public or non-profit	Always	Letter establishing non-profit status with IRS Scan of website page that documents type of facility
Evidence that more than 50% of the facility's	If used as a criteria on the Provision of	Patient origin by zip code or other data provided by facility



<b>health care services are provided to residents of a HPSA</b>	Services page	
<b>Evidence of Travel Time</b>	If automated travel time for Private transportation is edited or the user selects public transportation	Scan of Google Maps (or other mapping tool) results for private transit; scan of public transit schedule to show travel time (SDMS should measure from the population center; if there is not one, then measure from the centroid of the most populous component in the RSA).
<b>Evidence of Public Transportation</b>	If the user selects public transportation	Scan of public transit schedule to show travel time
<b>Evidence of % Population using Public Transportation is greater than 30%</b>	If user selects this to pass as a criteria for public transportation selection	Scan of local, state, or federal data used; Census data available at <a href="http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t">http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t</a> This is using the Advanced Search under People: Employment: Commuting (Journey to Work)
<b>Evidence that facility has more than 1000 outpatient visits per year per mental health care provider FTE</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
<b>Evidence that facility has more than 3000 outpatient</b>	If user selects this criteria on the Insufficient	Scan of documentation provided by facility

<b>visits per year per psychiatrist FTE</b>	capacity page	
<b>Evidence that no psychiatrists are on staff and this facility is the only facility providing mental health services to the designated area or population</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility and/or other local or state source
<b>Evidence that the facility has been given responsibility for providing and/or coordinating mental health services to an area or population group, consistent with applicable State plans.</b>	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility and/or other local or state source

#### IV. OFAC Scoring

The facility score and the degree of shortage is the same as the HPSA or MUA/P score and degree of shortage of the designated area or population group which it serves.

## Section IX: State/County Mental Hospital Requirements and Scoring

### I. State/ County Mental Hospital Common Requirements

#### Criteria

- The state or county mental hospital must have an average daily inpatient census of at least 100.
- The number of workload units per FTE psychiatrist available at the hospital must be greater than or equal to 300.

#### Total Workload Units Calculation

- The total workload units is calculated in the following way:

$$\begin{aligned}
 & \textit{Total Workload Units} \\
 &= \textit{Average daily inpatient census number} + 2 \\
 & * (\textit{Number of inpatient admissions per year}) + 0.5 \\
 & * (\textit{Number of admissions to day care and outpatient services per year})
 \end{aligned}$$

### II. State/County Mental Hospital Scoring

The state and county mental hospital scoring is equivalent to the hospital's degree of shortage.

#### Degree of Shortage

- The following table demonstrates the criteria based on the Total Workload Units/Psychiatrist FTE Ratio (R) that is used to determine the hospital's Degree of Shortage:

Group Number	Criteria	Degree of Shortage Points
1	No psychiatrists or $R > 1,800$	20
2	$1,800 > R > 1,200$	16
3	$1,200 > R > 600$	12
4	$600 > R > 300$	8

#### Psychiatrists Shortage

- The psychiatrists short is defined as the number of psychiatrists needed to meet the Total Workload Units: PSY FTE ratio. The following calculation determines the Psychiatrists Shortage.

$$(\textit{Total Workload Units})/300 - \textit{Psychiatrist FTE}$$

**Suggested Supporting Documents**

<b>Document Type Name</b>	<b>When Required?</b>	<b>Acceptable Document</b>
<b>Evidence of Mean Daily Inpatient Census</b>	Always	Scan of documentation provided by facility
<b>Evidence of Inpatient Admissions/year</b>	Always	Scan of documentation provided by facility
<b>Evidence of Admissions to Day Care and Outpatient Services/year</b>	Always	Scan of documentation provided by facility

## Section X: Correctional Facility Requirements and Scoring

### I. Primary Care Correctional Facility Common Requirements

#### Criteria

- Federal and State correctional facilities must be medium or maximum security.
- The institution must have at least 250 inmates.
- The ratio of the number of internees per year to the number of FTE primary care physicians serving the institution must be at least 1000:1.

#### Number of Internees Calculation

- The number of internees is calculated in the following way:
  - If the number of new inmates per year and the mean length-of-stay are not specified, or if the information provided does not indicate that intake medical examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year}$$

- If the mean length- of- stay is specified as one year or more, and intake medical examinations are routinely performed upon entry, then

$$\text{Number of Internees}$$

$$= \text{Mean number of inmates/year} + 0.3 * (\text{Mean New Inmates/year})$$

- If the mean length- of- stay is specified as less than one year, and intake medical examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year} + 0.2 * (1 + \text{MLOS}/2) * (\text{Mean new inmates/year}) \text{ where MLOS is in a fraction of a year}$$

### II. Primary Care Correctional Facility Scoring

The correctional facility scoring is equivalent to the institution's degree of shortage plus point for the intersecting geographic and geographic high needs HPSA

#### Degree of Shortage

- The following table demonstrates the criteria based on the number of inmates and/or the ratio of Internees to Primary Care physicians Ratio (R) that is used to determine the institutions Degree of Shortage:

Group Number	Criteria	Degree of Shortage Points
1	Institutions with 500 or more inmates and no physicians	12
2	Other institutions with no physicians and institutions with R greater than or equal to 2000:1	6
3	Institutions with a ratio greater than or equal to 1,000:1 but less than 2,000: 1	3

### Intersecting HPSA Points

- The intersecting HPSA points are determined in the following way:
  - Geographic HPSA score between 20-25; Points = 12
  - Geographic HPSA score between 14-19; Points = 9
  - Geographic HPSA score between 8-13; Points = 6
  - Geographic HPSA score between 1-7; Points = 3
  - Not located in a geographic HPSA; Points = 0

### Physician Short

- The physician short is defined as the number of physicians needed to meet the Internee/ Provider FTE ratio. The following calculation determines the physicians short.

$$\text{Internees}/1000 - \text{FTE}$$

### III. Dental Health Correctional Facility Common Requirements

#### Criteria

- Federal and State correctional facilities must be medium or maximum security.
- The institution must have at least 250 inmates.
- The ratio of the number of internees per year to the number of FTE dentists serving the institution must be at least 1500:1.

#### Number of Internees Calculation

- The number of internees is calculated in the following way:
  - If the number of new inmates per year and the mean length-of-stay are not specified, or if the information provided does not indicate that intake dental examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year}$$

- If the mean length- of- stay is specified as one year or more, and intake dental examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year} + \text{Mean new inmates/year}$$

- If the mean length- of- stay is specified as less than one year, and intake dental examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year} + (1/3) * [1 + (2 * \text{MLOS})] * (\text{Mean new inmates/year}) \text{ where MLOS is in a fraction of a year}$$

### IV. Dental Health Correctional Facility Scoring

The correctional facility scoring is equivalent to the institution's degree of shortage plus point for the intersecting geographic and geographic high needs HPSA

#### Degree of Shortage

- The following table demonstrates the criteria based on the number of inmates and/or the ratio of Internees to dentists Ratio (R) that is used to determine the institutions Degree of Shortage:

Group Number	Criteria	Degree of Shortage Points
1	Institutions with 500 or more inmates and no dentists	12

<b>2</b>	Other institutions with no dentists and institutions with R greater than or equal to 3000: 1	<b>6</b>
<b>3</b>	Institutions R greater than or equal to 1500:1 but less than 3000: 1	<b>3</b>

### Intersecting HPSA Points

- The intersecting HPSA points are determined in the following way:
  - Geographic HPSA score between 20-26; Points = 12
  - Geographic HPSA score between 14-19; Points = 9
  - Geographic HPSA score between 8-13; Points = 6
  - Geographic HPSA score between 1-7; Points = 3
  - Not located in a geographic HPSA; Points = 0

### Physicians Short

- The physician short is defined as the number of dentists needed to meet the Internee/ Provider FTE ratio. The following calculation determines the physicians short.

$$\text{Internees}/1500 - \text{FTE}$$



## V. Mental Health Correctional Facility Common Requirements

### Criteria

- Federal and State correctional facilities must be medium or maximum security.
- The institution must have at least 250 inmates.
- The ratio of the number of internees per year to the number of FTE psychiatrists serving the institution must be at least 2000:1.

### Number of Internees Calculation

- The number of internees is calculated in the following way:
  - If the number of new inmates per year and the mean length-of-stay are not specified, or if the information provided does not indicate that intake psychiatric examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year}$$

- If the mean length- of- stay is specified as one year or more, and intake psychiatric examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year} + \text{Mean new inmates/year}$$

- If the mean length- of- stay is specified as less than one year, and intake psychiatric examinations are routinely performed upon entry, then

$$\text{Number of Internees} = \text{Mean number of inmates/year} + (1/3) * [1 + (2 * \text{MLOS})] * (\text{Mean new inmates/year}) \text{ where MLOS is in a fraction of a year}$$

## VI. Mental Health Correctional Facility Scoring

The correctional facility scoring is equivalent to the institution's degree of shortage plus point for the intersecting geographic and geographic high needs HPSA

### Degree of Shortage

- The following table demonstrates the criteria based on the number of inmates and/or the ratio of Internees to psychiatrist Ratio (R) that is used to determine the institutions Degree of Shortage:

Group Number	Criteria	Degree of Shortage Points
1	Facilities with 500 or more	12

	inmates or residents and no psychiatrists	
<b>2</b>	Other institutions with no psychiatrists and institutions with R greater than or equal to 3000:1;	<b>6</b>
<b>3</b>	Institutions with R greater than or equal to 2000:1 but less than 3000:1	<b>3</b>

### Intersecting HPSA Points

- The intersecting HPSA points are determined in the following way:
  - Geographic HPSA score between 20-26; Points = 12
  - Geographic HPSA score between 14-19; Points = 9
  - Geographic HPSA score between 8-13; Points = 6
  - Geographic HPSA score between 1-7; Points = 3
  - Not located in a geographic HPSA; Points = 0

### Psychiatrist Short

- The psychiatrists short is defined as the number of psychiatrists needed to meet the Internee/psychiatrist FTE ratio. The following calculation determines the Psychiatrists Short.

$$\text{Internees}/2000 - \text{FTE}$$

### Suggested Supporting Documents- All Disciplines

<b>Document Type Name</b>	<b>When Required?</b>	<b>Acceptable Document</b>
<b>Evidence of Mean Inmates/year</b>	Always	Scan of documentation provided by facility
<b>Evidence of Routine Intake Exams performed</b>	If user enters information on the Facility Criteria page	Scan of documentation provided by facility
<b>Evidence of Mean New Inmates/year</b>	If user enters information on the Facility Criteria page	Scan of documentation provided by facility
<b>Evidence of Mean Length of Stay for inmates</b>	If user enters information on the Facility Criteria page	Scan of documentation provided by facility

## Appendix I: Future Updates

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Appendix I contains future updates to specific areas that are currently being tracked by DPSD. Updates to the system will be available in a future release, and any related content will be updated within the MPPS document and User Guides.

### 1. Contiguous Area Analysis Over-Utilized Measure for Mental Health

#### **SDMS will be updated to reflect these measures:**

- Providers in CAs will be considered over-utilized if the population-to-provider ratio for psychiatrists  $\geq 10,000:1$  and the population-to-provider ratio for Core Mental Health providers is  $\geq 3,000:1$
- If there is no data on Core Mental Health providers other than psychiatrists or the Core Mental Health other than psychiatrists FTE = 0, CA providers will be considered over-utilized if the population-to-provider ratio for psychiatrists is  $\geq 20,000:1$

### 2. Dental Geographic High Needs/Insufficient Capacity Qualification

#### **SDMS will be updated to reflect these measures:**

1. More than 20% of the population has incomes at or below 100% FPL.
2. More than 50% of the population has no fluoridated water.
3. Meets two criteria for insufficient capacity:
  - a. More than 5,000 visits per year per FTE dentist serving the area.
  - b. Unusually long waits for appointments for routine dental services (that is, more than six weeks).
  - c. A substantial proportion (two-thirds or more) of the area's dentists do not accept new patients.