Shortage Designation Management System (SDMS):

Manual for Policies and Procedures

April 4, 2020

The information collected via the Shortage Designation Management System is used to determine which areas, populations, and facilities have qualifying as Health Professional Shortage Areas for the distribution of NHSC resources. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for this information collection is 0906-0029 and it is valid until 5/31/2020. This information collection is required to obtain or retain a benefit (Section 332 and Section 330(b)(3) of the Public Health Service (PHS) Act). Public reporting burden for this collection of information is estimated to average xx hours per response, including the time for reviewing instructions, searching existing data sources, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to HRSA Reports Clearance Officer, 5600 Fishers Lane, Room 14N136B, Rockville, Maryland, 20857 or paperwork@hrsa.gov.

Shortage Designation Management System (SDMS): MPP Outline

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

The SDMS MPP 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 at least annually to reflect any new policy and procedure decisions.

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Section I: Overview of Designation Types

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 qualify as Health Professional Shortage Areas (HPSAs) or Medically Unserved Areas or Populations (MUA/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 of HHS 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 designated 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 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 the Population at or below 200% Federal Poverty Level.
        - Medicaid Eligible Population HPSA
            - Qualification is based on at least 30% of the Population at or below 200% Federal Poverty Level
            - User can provider alternate population.
        - Migrant Farmworker Population HPSA
            - Defined as all migrant farmworker population.
            - This will be provided by the user.
        - Migrant Seasonal Worker Population HPSA
            - Defined as all migrant seasonal worker population
            - This will be provided by the user.
        - Native American Population HPSA
            - Defined as the American Indian/Alaska Native(single race) Population.
        - Low Income Homeless Population HPSA

- Defined as the Population 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 the Population 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 the Population 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 the Population 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 the Population 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
  - This will be provided by the user.

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/County 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)
- CMS-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 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 demographic (age, sex, race/ethnicity, poverty) and infant health (birth and death events) data used for designations is derived from federal and state data sources. Demographic data are sourced from the U.S. Census American Community Survey (ACS) 2014-2018 5-year estimates. Infant health data are sourced from the Centers for Disease Control (CDC) Mortality and Natality Files from 2014-2018.

II. Federally Provided Data Sets

The following table displays all federally-sourced data points. Data points displayed below can be sourced at the ZIP Code Tabulation Area (ZCTA), Census Tract (CT), County Subdivision (CSD), or County level. CDC counts are aggregated and averaged over 5 years at the US county or county-equivalent of maternal residence.

Applicable Discipline	Data Point	Source File Name	Geography level			
			ZCTA	CT	CSD	County
ALL	Total Population	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	African-American Population	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	American Indian/ Alaska Native Population (single race)	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	American Indian/ Alaska Native Population (alone or in combination with other races)	ACSDT5Y2018.B02010	✓	✓	-	-
ALL	Asian Population	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Caucasian Population	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Hispanic Population	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Native Hawaiian/Pacific Islander Population	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Population at 100% of Federal Poverty Level	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	American Indian/Alaska Native (single race) Population at 100% of Federal Poverty Level	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Population at 200% of Federal Poverty Level	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Population that is Low Income	ACSST5Y2018.S1701	✓	✓	✓	✓
ALL	Population that is Medicaid Eligible	ACSST5Y2018.S1701	-	✓	✓	✓
MH	Age Under 18 Population	ACSST5Y2018.S1701	✓	✓	✓	✓

Applicable Discipline	Data Point	Source File Name	Geography level			
MH	**American Indian/ Alaska Native Population (single race) Age Under 18 Population**	ACSDT5Y2018.B17001C	✓	✓	-	-
MH	**Age 18 to 64 Population**	ACSST5Y2018.S1701	✓	✓	✓	✓
MH	**American Indian/ Alaska Native Population (single race) Age 18 to 64 Population**	ACSDT5Y2018.B17001C	✓	✓	-	-
MH,PC	**Age 65 and Over Population**	ACSST5Y2018.S1701	✓	✓	✓	✓
MH	**American Indian/ Alaska Native Population (single race) Age 65 and Over Population**	ACSDT5Y2018.B17001C	✓	✓	-	-
PC	**Female Age 15 to 44 Population**	ACSST5Y2018.S1701	✓	✓	✓	✓
PC	**American Indian/ Alaska Native Population (single race) Female Age 15 to 44 Population**	ACSDT5Y2018.B17001C	✓	✓	-	-
PC	**Number of Infant Deaths**	CDC Mortality File : 2014-2018	-	✓	✓	✓
PC	**Number of Live Births**	CDC Natality File : 2014 -2018	-	✓	✓	✓
PC	**Number of Low Birthweight Births**	CDC Natality File : 2014 -2018	-	✓	✓	✓

Data from HRSA Bureau of Primary Healthcare (BPHC) Uniform Data System (UDS) is used in the Auto-HPSA scoring process but is not maintained in the system. The following data points are sourced from the most recently available UDS Performance Report data submitted by FQHC and FQHC LAL organizations at organizational level:

- Service Areas (Patients Served by ZIP Code)
- % of Patients Served With Known Income At or Below 100% of the Federal Poverty Level
- Number of Patients Under Age 18
- Number of Patients Age 18 to 64
- Number of Patients Age 65 or Older

III. State/Organization Provided Data Sets

The table below lists all data points in SDMS sourced from US states/territories (State) or Auto-HPSA eligible healthcare organizations (Org). The data points listed below are entered during the creation of the service area in an application or for Auto-HPSAs, and are submitted as part of a rescore request. The user will be required to enter a source and cite the methodology used for determining the population for these groups on the Supplemental Information Form. See Appendix B for information on the submission of patients served data in the Auto-HPSA scoring process.

Applicable Discipline	Data Point	Source	Primary Source				
			ZCTA	CT	CSD	County	Service Area
ALL	Homeless Population	State	-	-	-	-	✓
ALL	Migrant Farmworker Population	State	-	-	-	-	✓
ALL	Migrant Seasonal Worker Population	State	-	-	-	-	✓
ALL	Population at 100% of Federal Poverty Level	State	-	-	-	-	✓
PC	Tourist Population	State	-	-	-	-	✓
PC, DH	Migrant Worker Population	State	-	-	-	-	✓
PC, DH	Seasonal Resident Population	State	-	-	-	-	✓
PC	Age-Sex Adjusted Population	State	-	-	-	-	✓
DH	Number/Percent of Population without Fluoridated Water Indicator	State/Org	-	-	-	-	✓
MH	Substance Misuse Prevalence Indicator	State/Org	-	-	-	-	✓
MH	Alcohol Misuse Prevalence Indicator	State/Org	-	-	-	-	✓
MH	Age Under 18 Population	Org	-	-	-	-	✓
MH	Age 18 to 64 Population	Org	-	-	-	-	✓
MH	Age 65 and Over Population	Org	-	-	-	-	✓

Any FQHC organization that does not have BPHC-submitted UDS Performance Report data that is available to DPSD, as well as RHCs and ITUs, may submit the following data points:

- Service Areas (Patients Served by ZIP Code)
- % of Patients Served With Known Income At or Below 100% of the Federal Poverty Level
- Number of Patients Under Age 18
- Number of Patients Age 18 to 64
- Number of Patients Age 65 or Older

See the PCO Portal User Guide for information on the data submission process.

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 Populations for whom Poverty Status is Determined with the Age-Sex Adjustment, and any combination of the following population types added to Population for whom Poverty Status is Determined or Age-Sex Adjusted population: Tourist, Migrant Worker, and

Seasonal Resident. Users may also enter an adjusted population for the Medicaid Eligible HPSA population.

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 Total Population and any combination of the following population types added to the Population for Whom Poverty Status is Determined: Migrant Worker and Seasonal Resident. Users may also enter an adjusted population for the Medicaid Eligible HPSA population.

Mental Health Adjusted Populations

Users may not enter an adjusted population for a Mental Geographic or Geographic High Needs HPSA as there are no adjustments to the population count in the regulation for mental health designations. User may enter an adjusted population that can include the Total Population and any combination of the following population types added to the Population for Whom Poverty Status is Determined: Migrant Worker and Seasonal Resident. Users may also enter an adjusted population for the Medicaid Eligible HPSA population.

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 Population for whom Poverty Status is Determined. Dental Health Geographic HPSAs may only add Seasonal Residents and Migrant Workers to the Population for whom Poverty Status is Determined. Mental Health does not allow an Adjusted Population for Geographic HPSAs; it uses only the Population for whom Poverty Status is Determined.

After calculating the effective population for Seasonal Residents, Tourists, and Migrant Workers, these populations may be added to the Population for whom Poverty Status is Determined 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. The Age-Sex Adjusted Population replaces the original Population for whom Poverty Status is Determined for the RSA.

Sex	Age groups					
	Under 5	5-14	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 Population for whom Poverty Status is Determined 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:

*Effective tourist contribution to population = 0.25 * (fraction of year tourists are present in area) * (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:

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

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 the universe of the Population for whom Poverty Status is Determined to determine the percentage. The process by which Fertilty Rate, Infant Mortality Rate, and Low Birthweight Rate are estimated at the level of the service area is described in **Section III.**

Applicable Discipline	Data Point	Source	Primary Source			
			ZCTA	CT	CSD	County
ALL	**% African-American Population**	System Calculation	✓	✓	✓	✓

Applicable Discipline	Data Point	Source	Primary Source			
ALL	**% American Indian/ Alaska Native Population**	System Calculation	✓	✓	✓	✓
ALL	**% Asian Population**	System Calculation	✓	✓	✓	✓
ALL	**% Caucasian Population**	System Calculation	✓	✓	✓	✓
ALL	**% Hispanic Population**	System Calculation	✓	✓	✓	✓
ALL	**% Native Hawaiian/ Pacific Islander Population**	System Calculation	✓	✓	✓	✓
ALL	**% Population at 100% Federal Poverty Level**	System Calculation	✓	✓	✓	✓
ALL	**% Poverty at 200% Federal Poverty Level**	System Calculation	✓	✓	✓	✓
ALL	**% Population that is Low Income**	System Calculation	✓	✓	✓	✓
ALL	**% Population that is Medicaid Eligible**	System Calculation	✓	✓	✓	✓
MH	**Youth Ratio**	System Calculation	✓	✓	✓	✓
MH	**Elderly Ratio**	System Calculation	✓	✓	✓	✓
MH	**Elderly Population**	System Calculation	✓	✓	✓	✓
MH	**Fertility Rate**	System Calculation	✓	✓	✓	✓
PC	**Infant Mortality Rate**	System Calculation	-	✓	✓	✓
PC	**Low Birthweight Rate**	System Calculation	-	✓	✓	✓

Section III: Statistical Methodology for Demographic and Health Data

I. Background

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

- Demographic (Age, Sex, Race/Ethnicity, and Poverty Data): American Community Survey (ACS) 2014-2018 5-year estimates.
- Infant Health (Birth and Death events): Centers for Disease Control and Prevention (CDC) Period Linked Birth/Infant Death File 2014-2018. The data sourced through the CDC adheres to the CDC methodology for reporting health statistics. Infant health measures are aggregated over 5 years in order to increase precision and circumvent CDC suppression rules intended to protect personal privacy.

The following table displays all of the data points sourced in SDMS from the ACS and the universe surveyed for the data point.

Applicable Discipline	Data Point	Universe Surveyed
ALL	Total Population	PPD
MH/PC	Age 65 and Over Population	PPD
MH	American Indian/ Alaska Native (single race) Age 65 and Over Population	PPD
MH	Age Under 18 Population	PPD
MH	American Indian/ Alaska Native (single race) Under 18 Population	PPD
PC	Females Age 15 to 44 Years Population	PPD
PC	American Indian/ Alaska Native (single race) Females Age 15 to 44 Years Population	PPD
MH	Age 18 to 64 Population	PPD
MH	American Indian/ Alaska Native (single race) 18 to 64 Population	PPD
ALL	African-American Population	PPD
ALL	American Indian / Alaska Native Population (single race)	PPD
ALL	American Indian / Alaska Native Population (alone or in combination with other races)	AIAN
ALL	Asian Population	PPD
ALL	Caucasian Population	PPD
ALL	Hispanic Population	PPD
ALL	Pacific Islanders Population	PPD
ALL	Population at 100% of Federal Poverty Level	PPD
ALL	Population at 200% of Federal Poverty Level	PPD
ALL	Population that is Low Income	PPD
ALL	Population that is Medicaid Eligible	PPD

PPD: Persons for whom poverty has been determined
AIAN: People who are American Indian or Alaska Native alone or in combination with one or more races

II. Estimating Statistics for Sub-county Areas using County Data

Certain demographic and health data are only reported through the primary source at the county level. In the designation process, a formula is used to apportion county data to sub-county areas comprised of census tracts or county subdivisions. This method allows for sub-county estimates which may be used to generate statistics necessary for a designation at the RSA level.

The following formula is used to generate sub-county estimates through weighting county data by the proportion of a relevant population of the sub-county areas in that of the whole county.

$$County\ Level\ Statistic \times \frac{CT\ or\ MCD\ Population\ Estimate}{County\ Population\ Estimate} = Estimated\ CT\ or\ MCD\ Statistic$$

The following table represents all data points that are reported through the primary source at the county level and the relevant population used in sub-county estimation. The population of females age 15 to 44 is used apportion infant mortality and natality data, with the assumption that these events occur at a rate for any area within a given county that is proportional to its population of women of child-bearing age.

Applicable Discipline	Data Point	Population Weighting Factor
PC	Number of Infant Deaths	Females 15-44
PC	Number of Live Births	Females 15-44
PC	Number of Infants Born LBW	Females 15-44

III. Calculating RSA-level Values using Sub-county Data

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

$$\sum Statistic\ \ for\ all\ CTs/MCDs\ in\ RSA = Total\ RSA\ Statistic$$

If the statistic is a percentage or ratio then the numerator 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 Population
ALL	% American Indian/ Alaska Native Population	Total Population

Applicable Discipline	Data Point	Calculation Denominator
ALL	% Asian Population	Total Population
ALL	% Caucasian Population	Total Population
ALL	% Hispanic Population	Total Population
ALL	% Pacific Islander Population	Total Population
ALL	% Population at 100% Federal Poverty Level	Total Population
ALL	% Poverty at 200% Federal Poverty Level	Total Population
ALL	% Population that is Low Income	Total Population
ALL	% Population that is Medicaid Eligible	Total Population
MH	% Elderly	Total Population
MH	Elderly Ratio	Age 18 to 64 Population
MH	Youth Ratio	Age 18 to 64 Population

IV. 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 the total population in a specific geographic area (Geographic HPSA), a subpopulation within a specific geographic area (Population HPSA, Auto-HPSAs) or the population receiving care at a specific facility (e.g. correctional facility, state/county mental hospital, other public or non-profit facility).

The Population-to-Provider ratio is defined as the following, normalized to the form **n:1** when the FTE is greater than zero to enable comparison across designations:

[Relevant Population] **:** [Total FTE of Providers Serving Relevant Population]

Geographic HPSAs, Population HPSAs, and Auto-HPSAs require data on different populations in order to calculate thePopulation-to-Provider ratio. 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.

Type of HPSA	Population counted in Population-to-Provider ratio:
Primary Care Geographic	The total Population for whom Poverty Status is Determined of the service area or The total Population for whom Poverty Status is Determined of the service area with Age-Sex Adjustment + Migrant Worker Population + Tourist Population + Seasonal Resident Population*
Dental Geographic	The total Population for whom Poverty Status is Determined of the service area or The total Population for whom Poverty Status is Determined + Seasonal Residents + Migrant Workers of the service area
Mental Health Geographic	The total Population for whom Poverty Status is Determined of the service area
Low Income Population	The population in the service area that have incomes at or below 200% of the Federal Poverty Level
Medicaid-Eligible Population	The population in the service area that have incomes at or below 200% of the Federal Poverty Level and/or is eligible for Medicaid
Homeless Population*	The Homeless Population within the service area
Migrant Farmworker Population*	The Migrant Farmworker Population within the service area
American Indian/ Alaska Native Population	The American Indian/ Alaska Native Population (single race) within the service area
Migrant Seasonal Workers Population*	The Migrant Seasonal Worker Population with the Rational Service Area
FQHC, FQHC LAL, and RHC Auto-HPSA	The population in the service area that have incomes at or below 200% of the Federal Poverty Level
ITU Auto-HPSA	The American Indian/ Alaska Native Population (Alone or in Combination with One or More races) within the 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 Population for whom Poverty Status is Determined 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 Population for whom Poverty Status is Determined 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.

V. Infant Health and Fertility Rates

Number of live births, number of infant deaths, and number of infants born with low birthweight are sourced from the CDC. Infant birth statistics are aggregated and averaged over a 5-year period in order to increase precision while increasing privacy of individuals. Female Population Age 15-44 from the ACS is used in to standardize fertility rate estimates across populations that may vary in the distribution of women of child-bearing age.

The following formulas are used to calculate Infant Mortality Rate (IMR), Low Birthweight Rate, (LBW) and Fertility Rate:

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

$$\text{LBW} = \frac{Number\ of\ infants\ born\ low\ birthweight}{Number\ of\ live\ births}\ x\ 100$$

$$\text{Fertility Rate} = \frac{Number\ of\ infant\ births}{Female\ Population\ Age\ 15{-}44}\ x\ 1000$$

Some Auto-HPSA service areas are comprised of ZCTAs. For the purpose of calculating IMR and LBW, any ZCTA that falls entirely within a county inherits the IMR and LBW of that county. If a ZCTA crosses county borders, then the ZCTA's IMR and LBW will equal a simple, unweighted average of the counties' IMR and LBW. If a ZCTA crosses state borders, the same rules apply. The ZCTA inherits the average of the counties in which it overlaps. The IMR and LBW of the Auto-HPSA service area is calculated as an average of each ZCTA rate, weighted by the female age 15-44 population in each ZCTA.

Section IV: Provider Management and Provider Data

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 are used for designations.

National Provider Identifier

The provider data set used in SDMS originates from the National Provider Identifier (NPI) file maintained by the Centers 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 per week 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 the populations the provider serves and how much time the provider spends serving these populations. 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 NSC 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 specific 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. The following FTE are assigned by default per regulation and **cannot** be overwritten in the system by any user.

- 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:

Primary Care Specialty	Office Hour Adjustment
FP: Family Practice	Office hours per week * 1.4
IM: Internal Medicine	Office hours per week * 1.8
OBG: Obstetrics and Gynecology	Office hours per week * 1.9
PD: Pediatrics	Office hours per week * 1.4
All Primary Care	Office hours per week * 1.6

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.

Primary Care Provider FTE Calculations		
	Default Calculation	**Alternate Calculation**
Geographic Area Provider FTE	FTE = (# Tour Hours/40)	N/A
Geographic Area High Needs Provider FTE	FTE = (# Tour Hours/40)	N/A
Low Income Population Provider FTE	*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)
Medicaid Population Provider FTE	*Medicaid Claims Available:* FTE=(# Medicaid Claims/5000)	*Medicaid Claims Unavailable:* FTE= (# Tour Hours/40) *(Medicaid Percent)
Migrant Farmworker Population Provider FTE	FTE =(# Tour Hours/40)*(Migrant Farmworker Percent)	N/A
American Indian/Alaska native Population Provider FTE	FTE =(# Tour Hours/40)*American Indian/Alaska Native Percent	N/A

Primary Care Provider FTE Calculations		
Migrant Farmworker and Homeless Population Provider FTE	FTE =[(# Tour Hours/40)*Migrant Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]	N/A
Migrant Seasonal Worker and Homeless Population Provider FTE	FTE =[(# Tour Hours/40)*Migrant Seasonal Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]	N/A
Low Income Homeless Population Provider FTE	*Medicaid Claims Available:* FTE = (# Medicaid Claims/5000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)* Homeless Percent]	*Medicaid Claims Unavailable:* FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent] + [(# Tour Hours/40)*Medicaid Percent]
Low Income Migrant Farmworker Population Provider FTE	*Medicaid Claims Available*: FTE = (# Medicaid Claims/5000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)* Migrant Farmworker Percent]	*Medicaid Claims Unavailable:* FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]
Low Income Homeless Migrant Farmworker Population Provider FTE	*Medicaid Claims Available:* FTE = (# Medicaid Claims/5000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)* Homeless Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]	*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]
Low Income Migrant Seasonal Worker Population Provider FTE	*Medicaid Claims Available:* FTE = (# Medicaid Claims/5000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)* Migrant Seasonal Farmworker Percent]	*Medicaid Claims Unavailable:* FTE =[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]
Low Income Homeless Migrant Seasonal Worker Population Provider FTE	*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]	*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]

Primary Care Provider FTE Calculations		
FQHC, FQHC LAL, and RHC Auto-HPSA	*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)
ITU Auto-HPSA	FTE =(# Tour Hours/40)*American Indian/Alaska Native Percent	N/A

Additional data are required for components of dentist FTE calculations that utilize 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, with the dentist's age 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		
	Default Calculation	**Alternate Calculation**
Geographic Area Provider FTE	FTE = (# Tour Hours/40)*Aux weight	N/A
Geographic Area High Needs Provider FTE	FTE = (# Tour Hours/40) *Aux weight	N/A
Low Income Population Provider FTE	*Medicaid Claims Available:* FTE=(# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent]	*Medicaid Claims Unavailable:* FTE= (# Tour Hours/40)*(Sliding Fee Scale Percent + Medicaid Percent) *Aux weight
Medicaid Population Provider FTE	*Medicaid Claims Available:* FTE=(# Medicaid Claims/4000)	*Medicaid Claims Unavailable:* FTE= (# Tour Hours/40)* (Medicaid Percent) *Aux weight
Migrant Farmworker Population Provider FTE	FTE =(# Tour Hours/40)*Migrant Farmworker Percent*Aux weight	N/A
Native American/Native Alaskan Population Provider FTE	FTE =(# Tour Hours/40)*American Indian/Alaska Native Percent*Aux weight	N/A
Migrant Farmworker and Homeless Population Provider FTE	FTE =**[**[(# Tour Hours/40)*(Migrant Farmworker Percent)] + [(# Tour Hours/40)*Homeless Percent]**]** *Aux weight	N/A
Migrant Seasonal Worker and Homeless Population Provider FTE	FTE =**[**[(# Tour Hours/40)*(Migrant Seasonal Farmworker Percent)] + [(# Tour Hours/40)*Homeless Percent]**]** *Aux weight	N/A
Low Income Homeless Population Provider FTE	*Medicaid Claims Available:* FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]	*Medicaid Claims Unavailable:* FTE =**[**[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]+ [(# Tour Hours/40)*Medicaid Percent]**]** *Aux weight
Low Income Migrant Farmworker Population Provider FTE	*Medicaid Claims Available:* FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)* Migrant Farmworker Percent]	*Medicaid Claims Unavailable:* FTE =**[**[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Farmworker Percent]**]** *Aux weight

Dental Provider FTE Calculations		
Low Income Homeless Migrant Farmworker Population Provider FTE	*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]	*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]**]** *Aux weight
Low Income Migrant Seasonal Worker Population Provider FTE	*Medicaid Claims Available:* FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)* Migrant Seasonal Farmworker Percent]	*Medicaid Claims Unavailable:* FTE =**[**[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Medicaid Percent] + [(# Tour Hours/40)*Migrant Seasonal Farmworker Percent]**]** *Aux weight
Low Income Homeless Migrant Seasonal Worker Population Provider FTE	*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]	*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]**]** * Aux weight
FQHC, FQHC LAL, and RHC Auto-HPSA	*Medicaid Claims Available:* FTE = (# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]	*Medicaid Claims Unavailable:* FTE =**[**[(# Tour Hours/40)*Sliding Fee Scale Percent] + [(# Tour Hours/40)*Homeless Percent]+ [(# Tour Hours/40)*Medicaid Percent]**]** *Aux weight
ITU Auto-HPSA	FTE =(# Tour Hours/40)*American Indian/Alaska Native Percent*Aux weight	N/A

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.

Mental Provider FTE Calculations		
	Default Calculation	**Alternate Calculation**
Geographic Area Provider FTE	FTE = (# Tour Hours/40)	N/A
Geographic Area High Needs Provider FTE	FTE = (# Tour Hours/40)	N/A
Low Income Population Provider FTE	*Medicaid Claims Available:* FTE=(# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent]	*Medicaid Claims Unavailable:* FTE= (# Tour Hours/40)*(Sliding Fee Scale Percent + Medicaid Percent)
Medicaid Population Provider FTE	*Medicaid Claims Available*: FTE=(# Medicaid Claims/4000)	*Medicaid Claims Unavailable:* FTE= (# Tour Hours/40) *Medicaid Percent
Migrant Farmworker Population Provider FTE	FTE =(# Tour Hours/40)*Migrant Farmworker Percent	N/A
American Indian/Alaska Native Population Provider FTE	FTE =(# Tour Hours/40)*American Indian/Alaska Native Percent	N/A
Migrant Farmworker and Homeless Population Provider FTE	FTE =[(# Tour Hours/40)*Migrant Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]	N/A
Migrant Seasonal Worker and Homeless Population Provider FTE	FTE =[(# Tour Hours/40)*Migrant Seasonal Farmworker Percent] + [(# Tour Hours/40)*Homeless Percent]	N/A

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

Mental Provider FTE Calculations		
FQHC, FQHC LAL, and RHC Auto-HPSA	*Medicaid Claims Available:* FTE=(# Medicaid Claims/4000) + [(# Tour Hours/40)*Sliding Fee Scale Percent]	*Medicaid Claims Unavailable:* FTE= (# Tour Hours/40)*(Sliding Fee Scale Percent + Medicaid Percent)
ITU Auto-HPSA	FTE =(# Tour Hours/40)*Native American/Native Alaskan Percent	N/A

Section V: HPSA and MUA/P Designation Components

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. Please note that for any population limit stated below, the user will be permitted to submit an application where limits are not met (in the case of minimum population sizes) or are exceeded (in the case of maximum population sizes). In these cases the user will have to supply justification for why the limit should not be observed. Auto-HPSA service areas are not required to be RSAs, and are developed only for the purposes of scoring. See Appendix B for more information.

Primary Care Geographic HPSA, Population HPSA and MUA/P RSA Qualifications

- A group of census tracts, a group of county subdivisions, a whole county, or multiple whole counties can be selected to create a service area.
- The population designated in the RSA should not ideally exceed 250,000.
- A whole county, or multiple whole counties with centroids within 30 minutes of each other are considered rational for an RSA.
- A Sub-County RSA, meaning a group of census tracts or CSDs, can be rational if the following is true:
    - RSA cannot be smaller than a single CT or CSD.
    - RSA components must physically connect without a break and may not contain interior gaps (i.e. donut holes).
    - RSA cannot include components that are already designated.
- User must also provide an explanation, with evidence, of why a Sub-County RSA is valid using based on at least one of the following:
    - 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.
- For HPSAs, the Population-to-Provider ratio minimums should be met.
    - Geographic: If there is an FTE greater than zero then the ratio of 3,500:1 should be met. If the FTE is zero then the population should be at least 500.
    - Geographic High Needs and HPSA Population: If there is an FTE greater than zero then the ratio of 3,000:1 must be exceeded. If the FTE is zero then the population should 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. DPSD staff will review all primary care applications to ensure compliance with policies and regulations.

HPSA Type	Additional Population Qualifications
Geographic	Total Population for whom Poverty Status is Determined + Tourist Population + Migrant Worker Population + Seasonal Resident Population
Geographic High Needs	Geographic Population must meet one of the following: ▪ More than 20% of the population has incomes at or below 100% FPL. ▪ More than 100 births per year per 1,000 women ages 15-44. ▪ More than 20 infant deaths per 1,000 live births. ▪ Meets two criteria for insufficient capacity: ○ More than (greater than) 8,000 office or outpatient visits per year per FTE per primary care physician serving in the area Unusually long waits for appointments for routine medical services (that is, more than 7 days for established patients and 14 days for new patients). ○ 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). ○ Evidence of excessive use of emergency room facilities for routine primary care. ○ A substantial proportion (two-thirds or more) of the area's physicians do not accept new patients. ○ Abnormally low utilization of health services, as indicated by an average of two or fewer (less than or equal to) office visits per year on the part of the area's population.
Population Low Income	At least 30% of the population has income at or below 200% FPL
Population Low Income plus Special Populations	At least 30% of the population has income at or below 200% FPL plus Special Population is > 0
Population Medicaid	User entered Population Medicaid, Population > 0
Migrant Farmworker Population	User entered Migrant Farmworker Population, Population > 0
Migrant Seasonal Worker Population	User entered Migrant Seasonal Worker Population, Population > 0

HPSA Type	Additional Population Qualifications
Homeless Population	User entered Homeless population, Population > 0
Native American Population	All Native American population, Population > 0

Dental Health Geographic and Population HPSA RSA Qualifications

- A group of census tracts, a group of county subdivisions, a whole county, or multiple whole counties can be selected to create a service area.
- The population designated in the RSA should not ideally exceed 250,000.
- A whole county, or multiple whole counties with centroids within 30 minutes of each other are considered rational for a RSA.
- A Sub-County RSA, meaning a group of census tracts or CSDs, can be rational if the following is true:
    - RSA cannot be smaller than a single CT or CSD.
    - RSA components must physically connect without a break and may not contain interior gaps (i.e. donut holes).
    - RSA cannot include components that are already designated.
- User must also provide an explanation, with evidence, of why a Sub-County RSA is valid using based on at least one of the following:
    - 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 should be met.
    - Geographic: If there is an FTE greater than zero then the ratio of 5,000:1 should be met. If the FTE is zero then the population should 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 exceeded. If the FTE is zero then the population should 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. DPSD staff will review all dental health applications to ensure compliance with policies and regulations.

HPSA Type	Additional Population Qualifications
Geographic	Total Population for whom Poverty Status is Determined + Tourist Population + Migrant Worker Population + Seasonal Resident Population
Geographic High Needs	Geographic Population must meet one of the following: ▪ More than 20% of the population has incomes at or below 100% FPL. ▪ More than 50% of the population has no fluoridated water. Or ▪ Meets two criteria for insufficient capacity: ○ More than (greater than) 5,000 visits per year per FTE dentist serving the area. ○ Unusually long waits for appointments for routine dental services (that is, more than six weeks). ○ A substantial proportion (two-thirds or more) of the area's dentists do not accept new patients.
Population Low Income	At least 30% of the population has income at or below 200% FPL
Population Low Income plus Special Populations	At least 30% of the population has income at or below 200% FPL plus Special Population is > 0
Population Medicaid	User entered Population Medicaid, Population > 0
Migrant Farmworker Population	User entered Migrant Farmworker Population, Population > 0
Migrant Seasonal Worker Population	User entered Migrant Seasonal Worker Population, Population > 0
Homeless Population	User entered Homeless Population, Population > 0

Mental Health Geographic and Population HPSA Non-Catchment Area RSA Qualifications

- A group of census tracts, a group of county subdivisions, a whole county, or multiple whole counties can be selected to create a service area.

The population designated in ***non-catchment*** area RSAs should not ideally exceed 250,000, whether the RSA is composed of a whole county, multiple counties, county subdivisions, or census tracts.

- A whole county or multiple whole counties with centroids within 30 minutes of each other are considered rational for a RSA.
- A Sub-County RSA, meaning a group of census tracts or CSDs, can be rational if the following is true:
    - RSA cannot be smaller than a single CT or CSD.
    - RSA components must physically connect without a break and may not contain interior gaps (i.e. donut holes).
    - RSA cannot include components that are already designated.
- User must also provide an explanation, with evidence, of why a Sub-County RSA is valid using based on at least one of the following:
    - 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 should be met.
    - Geographic, Psychiatrists Only: If there is an FTE greater than zero then the ratio of 30,000:1 should be met.
    - Geographic, Core Mental Health Only: If there is an FTE greater than zero then the ratio of 9,000:1 should 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 should meet 6,000:1 and the Psychiatrist ratio should meet 20,000:1.
    - Geographic, No Providers: If the FTE is zero then the population should 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 should 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 should 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 should meet 4,500:1 and the Psychiatrist ratio must should 15,000:1.
    - Geographic High Needs and Population, No Providers: If the FTE is zero then the population should 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. DPSD staff will review all mental health applications to ensure compliance with policies and regulations.

HPSA Type	Additional Population Qualifications
Geographic	Total Population for whom Poverty Status is Determined
Geographic High Needs	Population must meet one of the following: ▪ More than 20% of the population has incomes at or below 100% FPL. ▪ The Youth Ratio (# of persons under 18 divided by the number of adults 18-64) is greater than 0.6:1. ▪ The Elderly Ratio (# of persons age 65 and older divided by the total # of adults 18-64) is greater than 0.25:1. ▪ Alcohol or substance abuse prevalence data shows the area to be among the worst quartile in the nation, state, or region.
Population Low Income	At least 30% of the population has income at or below 200% FPL
Population Low Income plus Special Populations	At least 30% of the population has income at or below 200% FPL plus Special Population is > 0
Population Medicaid	User entered Population Medicaid, Population > 0
Migrant Farmworker Population	User entered Migrant Farmworker Population, Population > 0
Migrant Seasonal Worker Population	User entered Migrant Seasonal Worker Population, Population > 0
Homeless Population	User entered Homeless Population, Population > 0

Mental Health Geographic and Population HPSA Catchment Area RSA Qualifications

- A group of census tracts, a group of county subdivisions, a whole county, or multiple whole counties can be selected to create a service area.
- The population designated in the catchment area RSA must not exceed 999,999.
- A whole county is considered rational for an RSA.
- The criteria for population low income, population low income plus special populations and population Medicaid (listed in the table above) do not apply for these types of catchment areas.
- 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 should be met.
    - Geographic, Psychiatrists Only: If there is an FTE greater than zero then the ratio of 30,000:1 should be met.
    - Geographic, Core Mental Health Only: If there is an FTE greater than zero then the ratio of 9,000:1 should 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 should meet 6,000:1 and the Psychiatrist ratio should meet 20,000:1.
- Geographic, No Providers: If the FTE is zero then the population should 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 should 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 should 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 should meet 4,500:1 and the Psychiatrist ratio should meet 15,000:1.
- Geographic High Needs and Population, No Providers: If the FTE is zero then the population should be at least 1,500.

II. Definition of Centroid and Population Center

Centroid Definition

- The centroid of an RSA is the weighted geographic center of all sub-county components within the RSA to account for each components population and size. If the RSA is a whole county, then the geographic center of the county will be used.

Population Center

- The RSA 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 originate from the population center in SDMS.
- The population used to define the population center varies based on the designation type being created.

HPSA Type	Population Used for Pop Center
Geographic	Total Population for whom Poverty Status is Determined
Geographic High Needs	Total Population for whom Poverty Status is Determined
Population Low Income	Population at 200% FPL
Population Low Income plus Special Populations	Population at 200% FPL
Population Medicaid	Population at 200% FPL

HPSA Type	Population Used for Pop Center
Population Migrant Farmworker	Population at 200% FPL
Population Migrant Seasonal Worker	Population at 200% FPL
Population Homeless	Population at 200% FPL
Population Native American	Native American Population
Population Other	Total Population for whom Poverty Status is Determined

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 uses transportation data provided by Esri. Street network and speed limit data are 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.

- A 30- or 40- minute travel polygon is used in the Auto-HPSA scoring process. See Appendix B.

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 County Subdivisions) 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. Users will be permitted to submit applications when the CAs are outside of the preferred population thresholds delineated below.

User Creation of Contiguous Areas

- Components used to create contiguous areas include:
  - CSDs
  - CTs
  - Counties

- A single contiguous area must be rational (i.e. based on travel patterns, socio-economic similarities, etc.).
- 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 any **non-catchment** contiguous area, the population ideally should not exceed 250,000.
- For catchment area designations that are contiguous, the population ideally should not exceed 999,999.

Contiguous Area Analysis

The table below represents all the checks run 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.

<table>
<tr><th>Contiguous Area System Checks</th><th colspan="4">Passing Qualifications</th><th>System Check?</th></tr>
<tr><td>Is it an Inaccessible HPSA?</td><td colspan="4">If a contiguous area is an inaccessible HPSA based on the type of designation proposed

Refer to Inaccessible HPSA table below</td><td>Yes</td></tr>
<tr><td>Is there a Demographic Disparity?</td><td colspan="4">Please reference Demographic Disparity Calculation below.</td><td>Yes</td></tr>
<tr><td rowspan="3">Are the providers Excessively Distant?</td><td colspan="4">System searches travel time for all providers in the contiguous area. A contiguous area is considered excessively distant if there are no usable providers or the providers are more than the following travel time for each discipline:</td><td rowspan="3">Yes</td></tr>
<tr><td>Primary Care</td><td colspan="2">Dental</td><td>Mental</td></tr>
<tr><td>30 minutes</td><td colspan="2">40 minutes</td><td>40 minutes</td></tr>
<tr><td>Is there a Lack of Economic Access?</td><td colspan="4">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.</td><td>Yes</td></tr>
<tr><td rowspan="3">Is it Over-utilized?</td><td colspan="4">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:</td><td rowspan="3">Yes</td></tr>
<tr><td>Primary Care</td><td>Dental</td><td colspan="2">Mental</td></tr>
</table>

Contiguous Area System Checks	Passing Qualifications			System Check?
	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 *(See Appendix AI for more information)*	

For any contiguous area that failed the system analysis based on physical barriers (mountains, lakes, rivers, airports, military bases), linguistic barriers and/or other access barriers, the user can force pass the analysis but must provide an explanation in the supplemental information form.

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

Proposed Rational Service Area Is:	Inaccessible HPSA for Contiguous Area deemed inaccessible if currently designated as a:
Geographic	Geographic HPSA, Geographic High Needs HPSA
Geographic High Needs (PC): **- Births per 1,000 women aged 15-44 years >100** **OR** **- Infant deaths per 1,000 live births >20** **OR** **- Justified Insufficient capacity information**	Geographic HPSA, Geographic High Needs HPSA

Proposed Rational Service Area Is:	Inaccessible HPSA for Contiguous Area deemed inaccessible if currently designated as a:
Geographic High Needs (DH): **- More than 50% of the population has no fluoridated water** **OR** **- Justified Insufficient capacity information**	Geographic HPSA, Geographic High Needs HPSA
Geographic High Needs (MH): **- The Youth Ratio is greater than 0.6** **OR** **- The Elderly Ratio is greater than 0.25:1** **OR** **- Alcohol or substance abuse prevalence data shows the area to be among the worst quartile in the nation, state, or region**	Geographic HPSA, Geographic High Needs HPSA
Geographic High Needs (all disciplines) **Pov 100% >20%**	Geographic HPSA, Geographic High Needs 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 Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA

Proposed Rational Service Area Is:	Inaccessible HPSA for Contiguous Area deemed inaccessible if currently designated as a:
Population Low Income	Geographic HPSA, Geographic High Needs 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 Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA
Population Medicaid Eligible	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA
Population Migrant Farmworker	Geographic HPSA, Geographic High Needs HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA
Population Migrant Seasonal Worker	Geographic HPSA, Geographic High Needs HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA
Population Native American	Geographic HPSA, Geographic High Needs HPSA, Native American Population HPSA

Proposed Rational Service Area Is:	Inaccessible HPSA for Contiguous Area deemed inaccessible if currently designated as a:
Population Low Income Homeless	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA, Homeless Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA
Population Low Income Migrant Farmworker	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Seasonal Worker Population HPSA
Population Low Income Homeless Migrant Farmworker	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Seasonal Worker Population HPSA, Homeless Population HPSA
Population Low Income Migrant Seasonal Worker	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Seasonal Worker Population HPSA

Proposed Rational Service Area Is:	Inaccessible HPSA for Contiguous Area deemed inaccessible if currently designated as a:
Population Low Income Homeless Migrant Seasonal Worker	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Seasonal Worker Population HPSA, Homeless Population HPSA
Population Migrant Farmworker and Homeless	Geographic HPSA, Geographic High Needs HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Seasonal Worker Population HPSA, Homeless Population HPSA
Population Migrant Seasonal Worker and Homeless	Geographic HPSA, Geographic High Needs HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Migrant Farmworker Population HPSA, Migrant Seasonal Worker Population HPSA, Homeless Population HPSA
Population Homeless	Geographic HPSA, Geographic High Needs HPSA, Low Income Population HPSA, Low Income Homeless Population HPSA, Low Income Migrant Farmworker Population HPSA, Low Income Homeless Migrant Farmworker Population HPSA, Low Income Migrant Seasonal Worker Population HPSA, Low Income Migrant Seasonal Worker Homeless Population HPSA, Medicaid Eligible Population HPSA, Migrant Farmworker and Homeless Population HPSA, Migrant Seasonal Worker and Homeless Population HPSA, Homeless Population HPSA
Population Other	Geographic HPSA, Geographic High Needs 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/Alaska Native (single race)
- % 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
Determining the Base	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
RSA as the base	1. The system will identify the RSA statistic	a. If the RSA statistic is less than 15%, 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	

Step	System Determination	Outcome
	3. The system will compare the two statistics using the RSA figure as the starting point	i. If the Contiguous Area has a statistics percentage greater than or equal to the RSA + 15%, the system will confirm the demographic disparity 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
Contiguous Area as the base	1. The system will identify the Contiguous Area statistic	a. If the Contiguous Area figure is less than 15%, the system will add 15% to the Contiguous Area percentage to be compared to the RSA
	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
	2. The system will identify the same statistic for the RSA	

Step	System Determination	Outcome
	3. The system will compare the two statistics using the Contiguous Area figure as the starting point	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 Source of Non-Designated Accessible Care (NSC)

Purpose of Identifying the NSC

The main purpose of identifying the NSC 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 NSC.

The system will determine the NSC by determining the qualifying provider with the shortest path originating from the Centroid/Population Center to the geographic coordinates of the provider. For the purposes of the HPSA designation, the NSC must practice in the discipline of the designation and cannot do any of the following, as described in Section IV on Contiguous Area Analysis:

- Serve in a geographic or like population HPSA;
- Serve in an over-utilized area;
- Serve in an area that is inaccessible due to a physical barrier.

Selection of the NSC

The system will identify the NSC 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 NSC in the radiuses above the user will be prompted to identify the NSC. The system will then calculate the travel time and distance for that provider using the ESRI road network.

The user may also manually select an alternate NSC by entering the miles and minutes for a provider or continue without a NSC from the system-identified provider. The user will be required to provide an explanation on the Supplemental Information Form if they chose to continue with a NSC that is not the system-identified default.

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

SDMS determines over-utilization by calculating the population to provider ratio of a service area unique to each provider for NSC purposes. The data used to calculate over-utilization reflects the residents relevant to the designation type located within a provider travel polygon. The size of the travel polygon depends on the application discipline: 30 minutes for primary care, 40 minutes for dental and mental health designations. A potential NSC is considered over-utilized If the population-to-provider ratio exceeds the thresholds for each discipline as described earlier in this section in the table under **Contiguous Area Analysis**

For Geographic and Population HPSA designations, the NSC selected by default must have an FTE > 0 for that designation type. In the Auto-HPSA scoring process, the NSC selected by default for FQHCs, FQHC LALs, and RHCs must serve Medicaid patients and provide services on a sliding fee scale. ITU Auto-HPSA NSCs must serve the Native America/Alaska Native population.

Section VI: HPSA Scoring

Once all of the RSA components of a designation have been identified, the Contiguous Area analysis completed, the NSC identified, and the application is deemed eligible for submission, the designation can be scored. For each HPSA, the system calculates a score based on the following criteria and formulas. Listed below is the HPSA scoring methodology, differentiated by discipline.

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 (Based on Infant Mortality Rate or Low Birthweight 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, Population HPSAs, and Auto-HPSAs is scored according to the values in the table below. *Only Auto-HPSAs are capable of scoring zero points.*

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
Ratio < 3,000:1	0 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 exceed a Population-to-Provider Ratio of 3,000:1 if the provider FTE is greater than zero. 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 (greater than) 8,000 office or outpatient visits per year per FTE per primary care physician serving in 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 Birthweight Rate (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

Primary Care Nearest Source of Non-Designated Accessible Care (NSC)

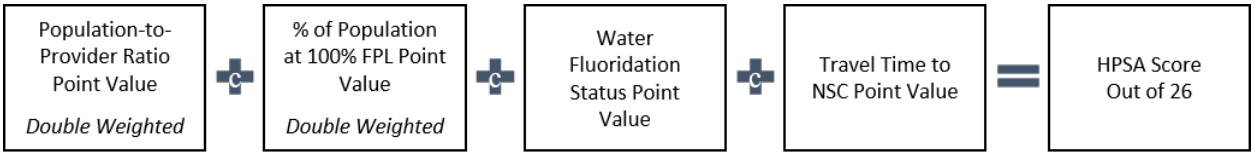
The system will calculate the time and distance to the nearest source of care by using the shortest path analysis discussed above in the travel time and NSC section. Primary care NSC travel time and distance is then generated. The following table displays the scoring thresholds for Primary Care NSC Travel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

Score for Travel Time or Distance to NSC	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

Score for Travel Time or Distance to NSC	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. *Only Auto-HPSAs are capable of scoring zero points.*

Score for Pop: FTE Ratio	Points
Ratio ≥ 10,000 : 1 or no dentists and population ≥ 3,000	5 points
Ratio < 10,000:1 but ≥ 8,000:1 or no dentists and population ≥ 2,500 and <3,000	4 points
Ratio < 8,000:1 but ≥ 6,000:1 or no dentists and population ≥ 2,000 and <2,500	3 points
Ratio < 6,000:1 but ≥ 5,000:1 or no dentists and population ≥ 1,500 and <2,000	2 points
Ratio < 5,000:1 but ≥ 4,000:1 or no dentists and population ≥ 1,000 and <1,500	1 points
Ratio < 4,000:1	0 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 exceed a Population-to-Provider Ratio of 4,000:1 if the provider FTE is greater than zero. 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 A 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 two criteria for insufficient capacity:
    a. More than (greater 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

Water Fluoridation Status

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:

Score for Water Fluoridation Status	Points
Fluoridated Water Available for ≤ 50% of Population	1 point
Fluoridated Water Available for > 50% of Population	0 points

Nearest Source of Non-designated Accessible Care (NSC)

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 NSC section. Dental NSC travel time and distance is then generated. The following table displays the scoring thresholds based on Dental NSC Travel Time and Distance:

Score for Travel Time or Distance to NSC	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. Only Auto-HPSAs are capable of scoring zero points.

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	≥12000:1 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)	
Ratio	Score
≥30,000:1 and <35,000:1	1
≥35,000:1 and <40,000:1	2
≥40,000:1 and <45,000:1	3
≥45,000:1 and <50,000:1	4

Core Mental Health Geographic (Non High Need)	
Ratio	Score
≥9,000:1 and <12,000:1	1
≥12,000:1 and <15,000:1	2
≥15,000:1 and <18,000:1	3
≥18,000:1 and <24,000:1	4

Psychiatrists Only Geographic (Non High Need)	
≥50,000:1 and <55,000:1	5
≥55,000:1 and <60,000:1	6
≥60,000:1	7

Core Mental Health Geographic (Non High Need)	
≥24,000:1 and <30,000:1	5
≥30,000:1 and <36,000:1	6
≥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 0.6:1.
3. The Elderly Ratio (# of persons age 65 and older divided by the total # of adults 18-64) is greater than 0.25:1.
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 and Auto-HPSAs: The population used for the Mental Health Population HPSA and Auto-HPSA population-to-provider calculations is the population of the service area. 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

**Auto-HPSA service areas with ratios below the minimum values in the above matrix receive zero points*

Psychiatrists Only and Core Mental Health Only

Psychiatrists Only (Population/Auto)	
Ratio	**Score**
<20,000:1	0
≥20,000:1 and <25,000:1	1
≥25,000:1 and <30,000:1	2
≥30,000:1 and <35,000:1	3
≥35,000:1 and <40,000:1	4
≥40,000:1 and <45,000:1	5
≥45,000:1 and <50,000:1	6
≥50,000:1	7

Core Mental Health (Population/Auto)	
Ratio	**Score**
<6,000:1	0
≥6,000:1 and <7,500:1	1
≥7,500:1 and <9,000:1	2
≥9,000:1 and <12,000:1	3
≥12,000:1 and <15,000:1	4
≥15,000:1 and <18,000:1	5
≥18,000:1 and <24,000:1	6
≥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	0
≥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

No Psych or CMH Providers (Population)	
≥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.

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

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:

$$Elderly\ Ratio = \frac{Population\ Age\ 65\ and\ over}{Population\ Age\ 18-64}$$

$$Youth\ Ratio = \frac{Population\ Age\ under\ 18}{Population\ Age\ 18-64}$$

Points are assigned as follows:

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

Youth Ratio	Points
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 are 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:

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

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

Nearest Source of Non-designated Accessible Care (NSC)

The system will calculate the time and distance to the nearest source of non-designated accessible care by using the shortest path analysis discussed above in the travel time and NSC 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 NSC travel time is then generated. The following table displays the scoring thresholds based on Mental Health NSC Travel Time:

Score for Travel Time or Distance to NSC	Points
≥ 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

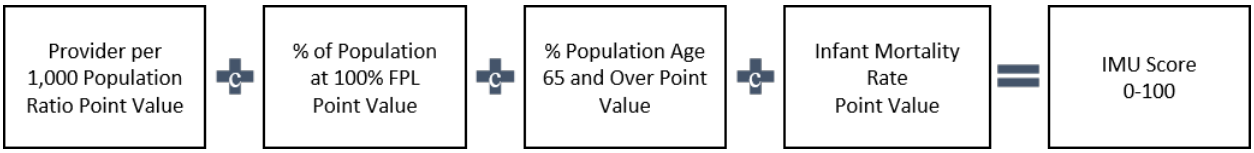
I. MUA/P Common Requirements

Rational Service Area

- Defined in terms of:
  - Whole County.
  - County Subdivisions (CSDs) with population centers within 30 minutes time of each other.
  - Census Tracts.
- RSA Population for whom Poverty Status is Determined 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 CSD.
  - 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.



- Provider per 1,000 population ratio
  - The ratio of the total Primary Care Provider FTE per 1,000 population for the service area using the Population for whom Poverty Status is Determined.
- % Population at 100% of the Federal Poverty Level
  - Total population for whom Poverty Status is Determined is used as the denominator.
- % Population age 65 and over
  - Total population for whom Poverty Status is Determined is used as the denominator.
- Infant Mortality Rate (IMR)
  - Please refer to the Infant Health Index section under the Section III for details on the methodology used to calculate IMR.

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 point value, per the established criteria in the tables below.

Provider per 1,000 population ratio Point Values

Provider per 1,000 population ratio	Points
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

Provider per 1,000 population ratio	Points
over 1.250	28.7

Infant Mortality Rate Point Values

Infant Mortality Rate	Points
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 Point Values

Percent Below Poverty	Points
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 Point Values

Percent Age 65 and Over	Points
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 provides 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 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.

Evidence of Insufficient Capacity

- Evidence must be given that the facility meets at least two of the following indicators of insufficient capacity:
  - There are more than 8,000 outpatient visits per year per FTE of primary care physicians.
  - There is excessive use (greater than 35% of patient visits) 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
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

Document Type Name	When Required?	Suggested Document
Evidence that more than 50% of the facility's health care services are provided to residents of a HPSA	If used as criterion on the Provision of Services page	Patient origin statistics by zip code or other data provided by facility
Evidence of Travel Time	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 a population center was not calculated, then measure from the centroid of the most populous component in the RSA)
Evidence of Public Transportation	If the user selects public transportation	Scan of public transit schedule to show travel time
Evidence that % of Population using Public Transportation is greater than 30%	If user selects this to pass as a criteria for public transportation selection	Scan of local, state, or federal data concerning % of the population using public transportation; Census data can also be used if appropriate
Evidence that facility has more than 8000 outpatient visits per year per primary care physician FTE	If user selects this criteria on the Insufficient capacity page	Scan of documentation concerning outpatient visits per year per primary care physician FTE, provided by facility
Evidence of excessive use (greater than 35%) of emergency room facilities for routine primary care	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by ER

Document Type Name	When Required?	Suggested Document
Evidence that waiting time for appointments is greater than 7 days for established patients	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
Evidence that waiting time for appointments is greater than 14 days for new patients for routine health services	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
Evidence that the facility waiting time is greater than 1 hour for patients with appointments	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
Evidence that the facility waiting time is greater than 2 hours for walk-in patients	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
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 health care services are provided to residents of a HPSA	If used as criterion on the Provision of Services page	Patient origin by zip code statistics or other data provided by facility
Evidence of Travel Time	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 a population center was not calculated, then measure from the centroid of the most populous component in the RSA)
Evidence of Public Transportation	If the user selects public transportation	Scan of public transit schedule to show travel time

Document Type Name	When Required?	Suggested Document
Evidence of % of Population using Public Transportation is greater than 30%	If user selects this to pass as a criteria for public transportation selection	Scan of local, state, or federal data concerning% of the population using public transportation; Census data can also be used if appropriate
Evidence that facility has more than 5000 outpatient visits per year per dentist FTE	If user selects this criteria on the Insufficient capacity page	Scan of documentation concerning outpatient visits per year per dentist FTE, provided by facility
Evidence that waiting time for appointments for routine dental health services is greater than 6 weeks	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 statue, 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 health care services are provided to residents of a HPSA	If used as criterion on the Provision of Services page	Patient origin by zip code statistics or other data provided by facility
Evidence of Travel Time	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 a population center was not calculated, then measure from the centroid of the most populous component in the RSA)
Evidence of Public Transportation	If the user selects public transportation	Scan of public transit schedule to show travel time

Document Type Name	When Required?	Suggested Document
Evidence of % of Population using Public Transportation is greater than 30%	If user selects this to pass as a criteria for public transportation selection	Scan of local, state, or federal data concerning % of the population using public transportation; Census data can also be used if appropriate
Evidence that facility has more than 1000 outpatient visits per year per mental health care provider FTE	If user selects this criteria on the Insufficient capacity page	Scan of documentation concerning outpatient visits per year per mental health care provider FTE, provided by facility
Evidence that facility has more than 3000 outpatient visits per year per psychiatrist FTE	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility
Evidence that no psychiatrists are on staff and this facility is the only facility providing mental health services to the designated area or population	If user selects this criteria on the Insufficient capacity page	Scan of documentation provided by facility and/or other local or state source

Document Type Name	When Required?	Suggested Document
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.	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 is the same as the HPSA score of the designated area or population group for 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:

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

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.

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

Suggested Supporting Documents

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year$$

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year\ +\ 0.3 * (Mean\ New\ Inmates/year)$$

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year\ +\ 0.2 * (1\ +\ MLOS/2) * (Mean\ new\ inmates/year)$$ 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.

$$Internees/1000 - FTE$$

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year$$

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

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

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year\ +\ (1/3) * [1\ +\ (2 * MLOS)]\ * (Mean\ new\ inmates/year)$$ 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**
2	Other institutions with no dentists and institutions with R greater than or equal to 3000: 1	**6**
3	Institutions R greater than or equal to 1500:1 but less than 3000: 1	**3**

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.

$$Internees/1500 - FTE$$

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year$$

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

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

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

$$Number\ of\ Internees = Mean\ number\ of\ inmates/year\ +\ (1/3) * [1\ +\ (2 * MLOS)]\ *\ (Mean\ new\ inmates/year)$$ 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 inmates or residents and no psychiatrists	**12**
2	Other institutions with no psychiatrists and institutions with R greater than or equal to 3000:1;	**6**
3	Institutions with R greater than or equal to 2000:1 but less than 3000:1	**3**

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.

$$Internees/2000 - FTE$$

Suggested Supporting Documents- All Disciplines

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

Appendix A: Future Updates

Appendix A 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 MPP 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 ≥ 10,000:1 and the population-to-provider ratio for Core Mental Health providers is ≥ 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 ≥ 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.

Appendix B: Auto-HPSAs

This appendix is intended to outline policies and procedures unique to the Auto-HPSA scoring process. For information on processes concerning submission of data and Auto-HPSA rescore requests, the reader should consult the Designation Management User Guide.

I. Re-scoring an Auto-HPSA

System Data Rescore

Either the Organizational Point of Contact (POC) or State Primary Care Office (PCO) may submit a system data rescore request. These requests can be made for an organization's Primary Care, Dental Health and/or Mental Health scores. No supplemental data can be submitted. The purpose of these requests is to recalculate scores using the most current Federal, State, and Provider data in the system. No review is required.

Supplemental Data Rescore

Either the Organizational Point of Contact (POC) or State Primary Care Office (PCO) may submit a supplemental data rescore request. The system will determine which designations to update based on the supplemental data entered.The data that may be submitted depends on the requestor type As described previously, FQHC and FQHC LALs are not permitted to submit supplemental data that has already been added to the system from UDS.

The next three tables show the detailed list of data that may be submitted by the POC or PCO and the susbscores that are recalculated upon submission and approval across each discipline. The system will check for user-entered data. For those indicated with an * below, if present, the system will use user-entered data in scoring. Otherwise, it will use the standard system data in SDMS.

	PRIMARY CARE SUBSCORES						
Facility Data Submitted by PCO/POC	Pop:Provider Ratio	%Population at 100% FPL	IMR or LBWR	NSC Site A	NSC Site B	NSC Site C	Average NSC
Service Areas (Patients Served by Zipcode)	X	X*	X				
% of Patients Served With Known Income At Or Below 100% FPL		X					
Site A geolocation (when service area is ZCTAs)				X			X
Site B geolocation (when service area is ZCTAs)					X		X
Site C geolocation (when service area is ZCTAs)						X	X
Site A geolocation (when service area is CTs)	X	X	X	X			X
Site B geolocation (when service area is CTs)	X	X	X		X		X
Site C geolocation (when service area is CTs)	X	X	X			X	X
Site A Primary Care NSC				X			X
Site B Primary Care NSC					X		X
Site C Primary Care NSC						X	X

	DENTAL HEALTH SUBSCORES						
Facility Data Submitted by PCO/POC	Pop:Provider Ratio	%Population at 100% FPL	Fluoridated Water	NSC Site A	NSC Site B	NSC Site C	Average NSC
Service Areas (Patients Served by Zipcode)	X	X*					
Fluoridated water			X				
% of Patients Served With Known Income At Or Below 100% FPL		X					
Site A geolocation (when service area is ZCTAs)				X			X
Site B geolocation (when service area is ZCTAs)					X		X
Site C geolocation (when service area is ZCTAs)						X	X
Site A geolocation (when service area is CTs)	X	X	X	X			X
Site B geolocation (when service area is CTs)	X	X	X		X		X
Site C geolocation (when service area is CTs)	X	X	X			X	X
Site A Dental Health NSC				X			X
Site B Dental Health NSC					X		X
Site C Dental Health NSC						X	X

	MENTAL HEALTH SUBSCORES									
Facility Data Submitted by PCO/POC	Pop:Provider Ratio	%Population at 100% FPL	Substabce Misuse Prev.	Alcohol Misuse Prev.	Elderly Ratio	Youth Ratio	NSC Site A	NSC Site B	NSC Site C	Average NSC
Service Areas (Patients Served by Zipcode)	X	X*			X*	X*				
Substance misuse prevalence			X							
Alcohol misuse prevalence				X						
% of Patients Served With Known Income At Or Below 100% FPL		X								
Patients <18						X				
Patients 18-64					X	X				
Patients 65+					X					
Site A geolocation (when service area is ZCTAs)							X			X
Site B geolocation (when service area is ZCTAs)								X		X
Site C geolocation (when service area is ZCTAs)									X	X
Site A geolocation (when service area is CTs)	X	X			X	X	X			X
Site B geolocation (when service area is CTs)	X	X			X	X		X		X
Site C geolocation (when service area is CTs)	X	X			X	X			X	X
Site A Mental Health NSC							X			X
Site B Mental Health NSC								X		X
Site C Mental Health NSC									X	X

II. Auto-HPSA Service Areas

Auto-HPSA scoring is similar to Population HPSA scoring in that the data points derived to calculate the score are generally for a service area and specific subpopulation. The service areas for any FQHC or FQHC LAL which has UDS data will be the 75% Core Service Area (as described below) calculated by BPHC. These service areas cannot be replaced or updated by submission of supplemental data.

The service areas for RHCs, ITU, and any FQHC or FQHC LAL without UDS data will by default based on all census tracts that intersect with a 30-minute (for Primary Care) or 40-minute (for Dental and Mental Health) travel polygon around each site within the organization. As described in the previous section, POCs may submit supplemental data consisting of the most recently available total annual patient counts by residential zip codes. This analysis mimics that peformed by BPHC with UDS-submitted zip codes and patient counts and is described below:

1. Zip codes are converted to ZCTAs through a crosswalk. Any patient counts associated with zip codes not represented in this crosswalk are discarded from the remining steps
2. The list of ZCTAs is ordered in descending order by patient count
3. The patient counts are summed starting at the top of the list until at least 75% of the total patient counts reported have been reached. This list of ZCTAs is the 75% Core Service Area and is used to generate HPSA scores in a supplemental data rescore
4. Zip codes with 10 or fewer patients are not reported individually but grouped together and reported as “Other Zip Codes” in the supporting documentation provided. These counts are not used in the Core Service Area analysis.

Appendix C: Active Taxonomies

This appendix provides a list of active taxonomies.

TAXONOMY CODE	TAXONOMY TYPE	CLASSIFICATION	SPECIALIZATION	PROVIDER DISCIPLINE TYPE	PROVIDER SPECIALTY TYPE
122300000X	Dental Providers	Dentist	Dentist	DH	CPSY
1223G0001X	Dental Providers	Dentist	General Practice	DH	CPSY
1223P0221X	Dental Providers	Dentist	Pediatric Dentistry	DH	CPSY
103T00000X	Behavioral Health & Social Service Providers	Psychologist	Psychologist	MH	CPSY
103TA0400X	Behavioral Health & Social Service Providers	Psychologist	Addiction (Substance Use Disorder)	MH	CPSY
103TA0700X	Behavioral Health & Social Service Providers	Psychologist	Adult Development & Aging	MH	CPSY
103TB0200X	Behavioral Health & Social Service Providers	Psychologist	Cognitive & Behavioral	MH	CPSY
103TC0700X	Behavioral Health & Social Service Providers	Psychologist	Clinical	MH	CPSY
103TC1900X	Behavioral Health & Social Service Providers	Psychologist	Counseling	MH	CPSY
103TC2200X	Behavioral Health & Social Service Providers	Psychologist	Clinical Child & Adolescent	MH	CPSY
103TE1000X	Behavioral Health & Social Service Providers	Psychologist	Educational	MH	CPSY
103TF0000X	Behavioral Health & Social Service Providers	Psychologist	Family	MH	CPSY

TAXONOMY CODE	TAXONOMY TYPE	CLASSIFICATION	SPECIALIZATION	PROVIDER DISCIPLINE TYPE	PROVIDER SPECIALTY TYPE
103TH0004X	Behavioral Health & Social Service Providers	Psychologist	Health	MH	CPSY
103TH0100X	Behavioral Health & Social Service Providers	Psychologist	Health Service	MH	CPSY
103TP0016X	Behavioral Health & Social Service Providers	Psychologist	Prescribing (Medical)	MH	CPSY
103TP0814X	Behavioral Health & Social Service Providers	Psychologist	Psychoanalysis	MH	CSW
103TP2700X	Behavioral Health & Social Service Providers	Psychologist	Psychotherapy	MH	CSW
103TS0200X	Behavioral Health & Social Service Providers	Psychologist	School	MH	CSW
104100000X	Behavioral Health & Social Service Providers	Social Worker	Social Worker	MH	MFT
1041C0700X	Behavioral Health & Social Service Providers	Social Worker	Clinical	MH	GDT
1041S0200X	Behavioral Health & Social Service Providers	Social Worker	School	MH	GDT
106H00000X	Behavioral Health & Social Service Providers	Marriage & Family Therapist	Marriage & Family Therapist	MH	GDT
2084A0401X	Allopathic & Osteopathic Physicians	Psychiatry & Neurology	Addiction Medicine	MH	FP
2084P0800X	Allopathic & Osteopathic Physicians	Psychiatry & Neurology	Psychiatry	MH	FP
2084P0802X	Allopathic & Osteopathic Physicians	Psychiatry & Neurology	Addiction Psychiatry	MH	FP

TAXONOMY CODE	TAXONOMY TYPE	CLASSIFICATION	SPECIALIZATION	PROVIDER DISCIPLINE TYPE	PROVIDER SPECIALTY TYPE
2084P0804X	Allopathic & Osteopathic Physicians	Psychiatry & Neurology	Child & Adolescent Psychiatry	MH	FP
2084P0805X	Allopathic & Osteopathic Physicians	Psychiatry & Neurology	Geriatric Psychiatry	MH	IM
363LP0808X	Physician Assistants & Advanced Practice Nursing Providers	Nurse Practitioner	Psych/Mental Health	MH	IM
364SP0807X	Physician Assistants & Advanced Practice Nursing Providers	Clinical Nurse Specialist	Psych/Mental Health, Child & Adolescent	MH	IM
364SP0808X	Physician Assistants & Advanced Practice Nursing Providers	Clinical Nurse Specialist	Psych/Mental Health	MH	OBG
364SP0809X	Physician Assistants & Advanced Practice Nursing Providers	Clinical Nurse Specialist	Psych/Mental Health, Adult	MH	OBG
207Q00000X	Allopathic & Osteopathic Physicians	Family Medicine	Family Medicine	PC	OBG
207QA0000X	Allopathic & Osteopathic Physicians	Family Medicine	Adolescent Medicine	PC	PD
207QA0505X	Allopathic & Osteopathic Physicians	Family Medicine	Adult Medicine	PC	PD
207QG0300X	Allopathic & Osteopathic Physicians	Family Medicine	Geriatric Medicine	PC	PSY
207R00000X	Allopathic & Osteopathic Physicians	Internal Medicine	Internal Medicine	PC	PSY
207RA0000X	Allopathic & Osteopathic Physicians	Internal Medicine	Adolescent Medicine	PC	PSY
207RG0300X	Allopathic & Osteopathic Physicians	Internal Medicine	Geriatric Medicine	PC	PSY

TAXONOMY CODE	TAXONOMY TYPE	CLASSIFICATION	SPECIALIZATION	PROVIDER DISCIPLINE TYPE	PROVIDER SPECIALTY TYPE
207V00000X	Allopathic & Osteopathic Physicians	Obstetrics & Gynecology	Obstetrics & Gynecology	PC	PSY
207VG0400X	Allopathic & Osteopathic Physicians	Obstetrics & Gynecology	Gynecology	PC	GP
207VX0000X	Allopathic & Osteopathic Physicians	Obstetrics & Gynecology	Obstetrics	PC	PNS
208000000X	Allopathic & Osteopathic Physicians	Pediatrics	Pediatrics	PC	PNS
2080A0000X	Allopathic & Osteopathic Physicians	Pediatrics	Adolescent Medicine	PC	PNS
208D00000X	Allopathic & Osteopathic Physicians	General Practice	General Practice	PC	PNS