

Primary Care Service Areas Project V2.1
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Health Profession Shortage Area (HPSA) and Medically Underserved Areas/ Medically Underserved Population (MUA/P) link to ZCTAs and PCSAs

This addition to the PCSA dataset provides the user with multiple means to assign markers of underservice (Health Professional Shortage Areas (primary care, mental health, and dental) and Medically Underserved Areas/ Medically Underserved Populations) at the ZCTA level and the PCSA level. The data has been prepared in collaboration with the Robert Graham Center for Primary Care Studies. The HPSA/MUA data were accessed on 04/19/2007, and the population was aggregated from 2006 block level population estimates*. Additional information about federal HPSA and MUA designation may be found online at <http://bhpr.hrsa.gov/shortage/>

I. Health Professional Shortage Areas: Primary Care (HPSA-PC), Mental Health (HPSA-MH), and Dental (HPSA-DC).

The data structure below is illustrated with HPSA-PC. The data structure for HPSA-MH and HPSA-DC are identical to HPSA-PC.

- a. Every U.S. Census block was assigned a binomial HPSA-PC status by using its population centroid. Each Census block assigned as a HPSA-PC was also labeled by one of three possible designation types (Geographic Single County, Geographic Service Area, or Population Groups). Blocks were then aggregated and linked to the ZCTA level and to the PCSA level.
- b. HPSA-PC are denoted in the following ways at ZCTA and PCSA levels: (for additional information regarding variables, please refer to the attached data dictionary)
 - i. The number of people residing within a HPSA-PC at the ZCTA/PCSA level.
 - ii. The percentage of the total population at the ZCTA/PCSA level who reside in a HPSA-PC. (Continuous variable)
 - iii. If the **majority** (greater than or equal to 50%) of the population in a ZCTA/PCSA are in HPSA-PC. (Binary variable)
 - iv. If **any** of the population in a ZCTA/PCSA resides in a block with HPSA-PC assignment (Binary variable)
- c. The three designation types for HPSA-PC can be considered as subclasses of HPSA-PC. While mutually exclusive at the Census block level, when aggregated to the ZCTA or PCSA level any or all of these HPSA-PC subcategories may be present.

*2006 block level population estimates were based on Census 2000 block level population and Claritas Company 2006 block group level population estimates.

- Type 1: Geographic Single County.* Whole county designation as a HPSA_PC
- Type 2: Geographic Service Area.* Portions of a county, or portions of multiple counties, designated as a geographic HPSA-PC
- Type 3: Population Groups.* Population characteristics within an area qualify that area as a HPSA-PC

In the dataset, a flag variable indicates the type of designation(s) present within each ZCTA/PCSA, and the percent of the population within each type of HPSA-PC. For additional information about those variables please refer to the attached data dictionary.

	HPSA_PC Percentage	HPSA_PC Counts	HPSA_MH Percentage	HPSA_MH Counts	HPSA_DC Percentage	HPSA_DC Counts
Block Level HPSA Population*	27.28%	81,302,228	26.64%	79,371,387	26.55%	79,112,789
Block Level Non-HPSA Population	72.72%	216,672,545	73.36%	218,603,387	73.45%	218,861,984
ZCTA Level (Any HPSA) Population	42.91%	127,873,153	36.28%	108,108,751	32.03%	95,440,823
ZCTA Level (Non-Any HPSA) Population	57.09%	170,101,620	63.72%	189,866,022	67.97%	202,533,951
ZCTA Level (Major HPSA) Population	26.93%	80,231,567	26.58%	79,216,263	26.53%	79,054,316
ZCTA Level (Non-Major HPSA) Population	73.07%	217,743,206	73.42%	218,758,511	73.47%	218,920,458
PCSA Level (Any HPSA) Population	69.17%	206,115,465	56.07%	167,080,658	49.44%	147,331,781
PCSA Level (Non-Any HPSA) Population	30.83%	91,859,308	43.93%	130,894,115	50.56%	150,642,992
PCSA Level (Major HPSA) Population	22.68%	67,573,613	24.11%	71,843,221	24.66%	73,477,497
PCSA Level (Non-Major HPSA) Population	77.32%	230,401,161	75.89%	226,131,553	75.34%	224,497,276

II. Medically Underserved Areas/ Medically Underserved Populations (MUA/P)

- a. Every U.S. Census block was assigned a MUA/P status (binomial variable) by using its population centroid. Each Census block assigned as an MUA/P was also labeled with a designation type (MUA, MUP, Governor, or unknown). Blocks were then aggregated and linked to the ZCTA level and to the PCSA level.
- b. MUA/P at the ZCTA and PCSA level are denoted in the following ways: (detailed variable information please refer to the attached data dictionary)
 - i. The number of people residing in MUA/P at the ZCTA/PCSA level
 - ii. The percentage of the population at the ZCTA/PCSA level who reside in MUA/P. (Continuous variable)
 - iii. If the **majority** (greater than or equal to 50%) of the population in a ZCTA/PCSA are MUA/P. (Binary variable)

- iv. If **any** of the population in a ZCTA/PCSA resides in a block with MUA/P assignment (Binary variable).
- c. There are four designation types for MUA/P. While mutually exclusive at the Census block level, when aggregated to the ZCTA or PCSA level any or all of these HPSA-PC subcategories may be present.:

Type 1: MUA. Medically Underserved Area (designated for the resident civilian population)

Type 2: MUP. Medically Underserved Population (designated for a specific population)

Type 3: Governor. An MUP designated at the request of a State Governor based upon documented local conditions and barriers to accessing personal health services.

Type 4: Unknown. Designation type unknown.

In the dataset, a flag variable indicates the type of designation(s) present within each ZCTA/PCSA, and the percent of the population within each MUA/P type. For detailed information about those variables please refer to the attached data dictionary.

	MUA Percentage	MUA Counts
Block Level MUA Population*	32.30%	96,248,267
Block Level Non-MUA Population	67.70%	201,726,507
ZCTA Level (Any MUA) Population	57.02%	169,897,853
ZCTA Level (Non-Any MUA) Population	42.98%	128,076,920
ZCTA Level (Major MUA) Population	31.01%	92,396,589
ZCTA Level (Non-Major MUA) Population	68.99%	205,578,185
PCSA Level (Any MUA) Population	84.52%	251,855,718
PCSA Level (Non-Any MUA) Population	15.48%	46,119,055
PCSA Level (Major MUA) Population	25.56%	76,151,782
PCSA Level (Non-Major MUA) Population	74.44%	221,822,991

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