

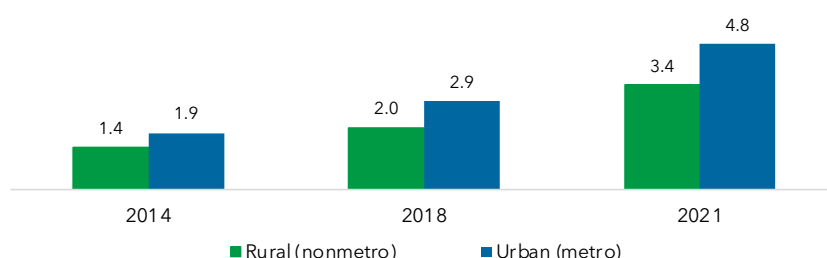
Changes in the Supply and Rural-Urban Distribution of Psychiatric Nurse Practitioners in the U.S., 2014-2021

KEY FINDINGS

- The number of psychiatric nurse practitioners (NPs) per 100,000 population in rural U.S. counties (3.4) was about 70% that of urban counties (4.8).
- The ratio of psychiatric NPs to population more than doubled in rural (242%) and urban counties (252%) from 2014 to 2021.
- The 2021 supply of psychiatric NPs per 100,000 population varied substantially across different types of rural places. Rural counties adjacent to metro counties had a ratio of 3.0, and small and remote counties adjacent to micro counties had a ratio of 2.2. These ratios were lower than those of nonadjacent micropolitan (5.2) and nonadjacent small and remote (4.2) counties.
- More than two thirds (68.5%) of rural counties did not have a psychiatric NP in 2021 compared to 30.9% of urban counties.

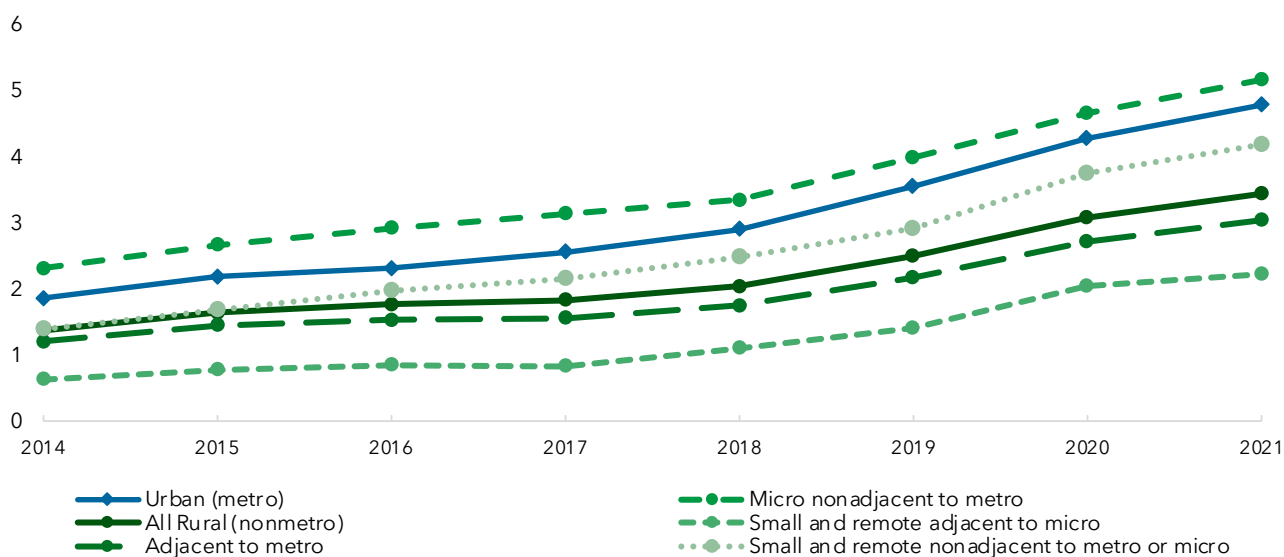
This report describes the rural-urban distribution of psychiatric nurse practitioners in U.S. counties from 2014 to 2021. The following behavioral health and social service providers were included: psychiatric/mental health nurse practitioners. Counties were categorized using the U.S. Department of Agriculture Urban Influence Codes (UIC). For detailed county designations, see page 4.

Figure 1. Psychiatric Nurse Practitioners per 100,000 Population in U.S. Rural and Urban Counties, 2014, 2018, and 2021



Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021.

Figure 2. Psychiatric Nurse Practitioners per 100,000 Population in U.S. Rural and Urban Counties, 2014-2021



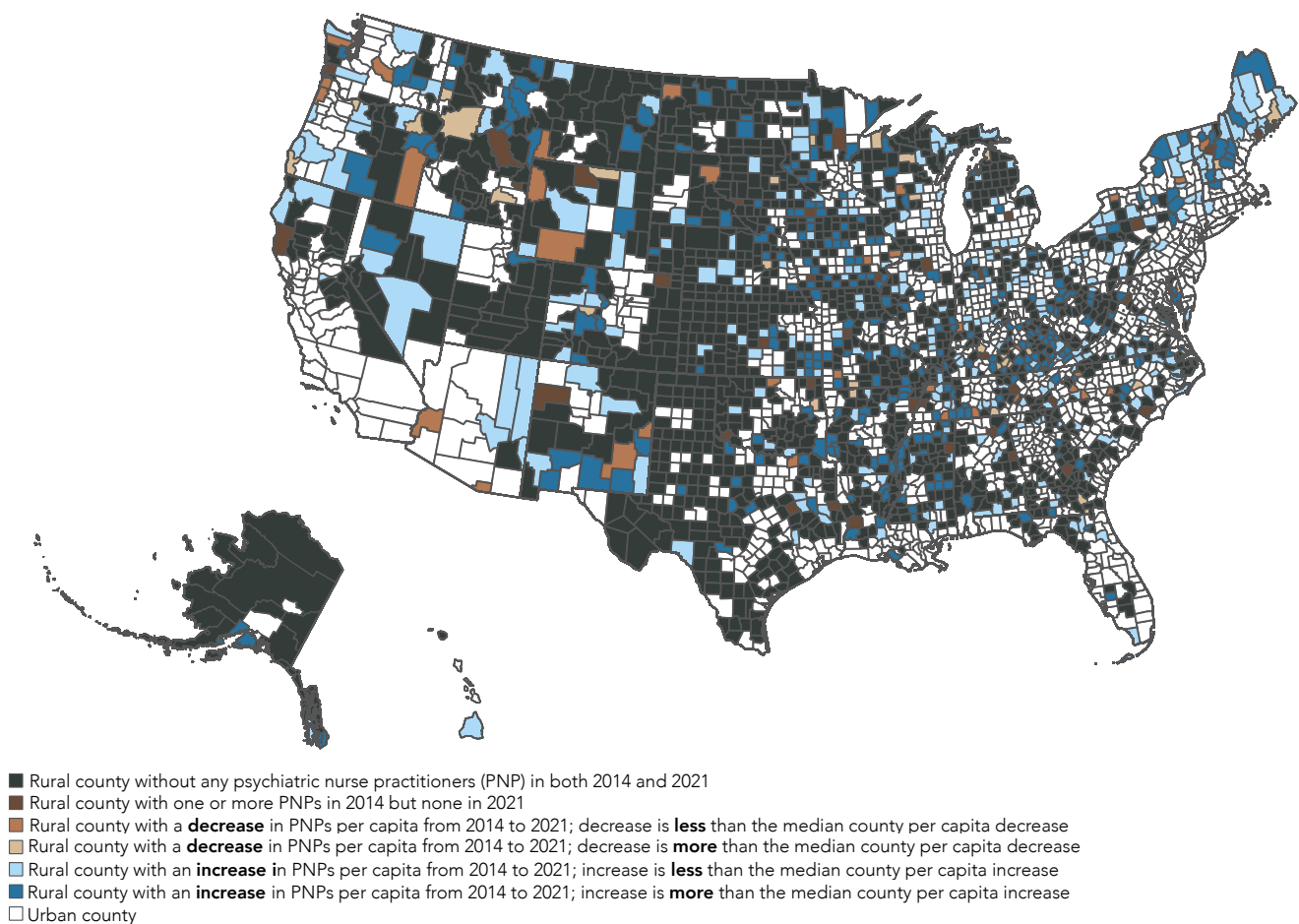
Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021.

Table 1. Psychiatric Nurse Practitioners per 100,000 Population in U.S. Rural and Urban Counties, 2014-2021

	2014	2015	2016	2017	2018	2019	2020	2021
Urban (metro)	1.9	2.2	2.3	2.6	2.9	3.6	4.3	4.8
All Rural (nonmetro)	1.4	1.6	1.8	1.8	2.0	2.5	3.1	3.4
Adjacent to metro	1.2	1.5	1.5	1.6	1.8	2.2	2.7	3.0
Micro nonadjacent to metro	2.3	2.7	2.9	3.1	3.3	4.0	4.7	5.2
Small and remote adjacent to micro	0.6	0.8	0.9	0.8	1.1	1.4	2.0	2.2
Small and remote nonadjacent to metro or micro	1.4	1.7	2.0	2.2	2.5	2.9	3.8	4.2

Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021.

Figure 3. Change in Psychiatric Nurse Practitioners per 100,000 Population in U.S. Rural Counties, 2014-2021



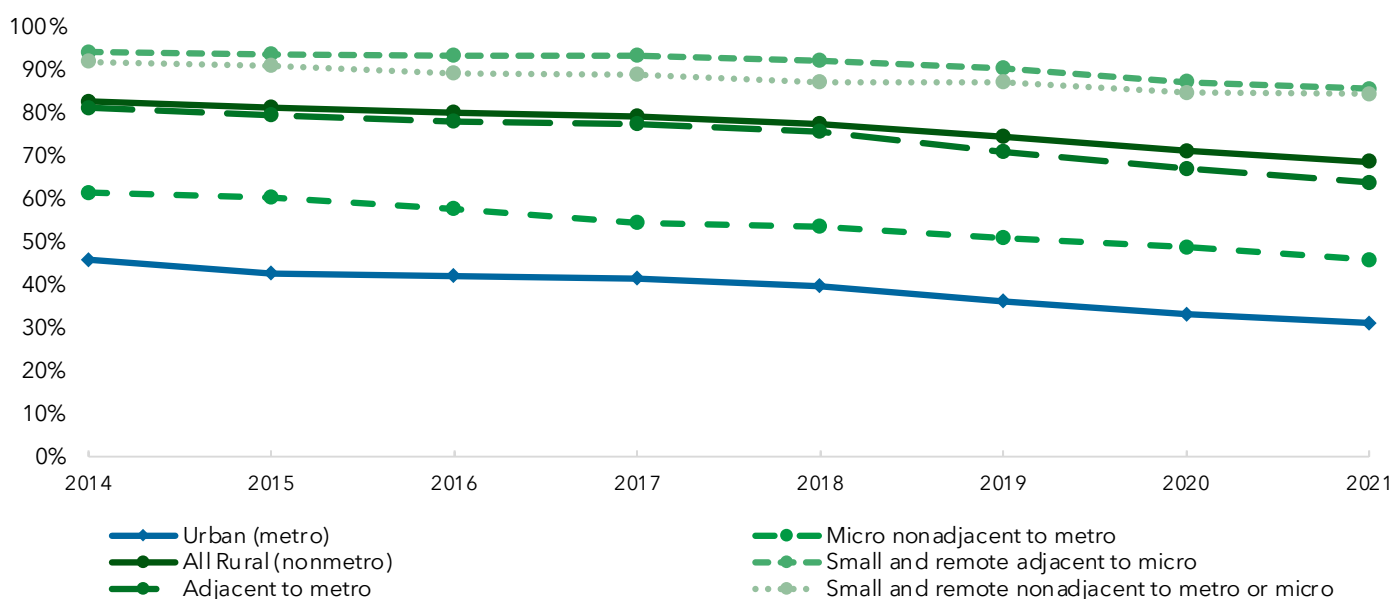
Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021.

Table 2. Psychiatric Nurse Practitioners per 100,000 Population in U.S. Counties by Rural-Urban Location and Census Division†, 2014 and 2021

	Urban		All Rural		Rural							
	Metro		Nonmetro		Adjacent to metro		Micropolitan nonadjacent to metro		Small and remote adjacent to micro		Small and remote nonadjacent to metro or micro	
	2014	2021	2014	2021	2014	2021	2014	2021	2014	2021	2014	2021
Total U.S.	1.9	4.8	1.4	3.4	1.2	3.0	2.3	5.2	0.6	2.2	1.4	4.2
New England	5.0	9.6	5.1	9.3	5.4	9.5	4.8	7.0	2.7	11.2	4.5	10.8
Middle Atlantic	2.6	5.8	1.9	4.0	1.8	3.8	3.3	8.2	0.0	0.7	**	**
East North Central	0.9	3.3	0.7	2.1	0.6	2.0	1.2	3.3	0.2	1.4	0.5	1.0
West North Central	2.0	5.2	1.8	4.5	1.7	4.7	2.8	6.4	0.4	1.6	2.0	3.9
South Atlantic	1.5	4.3	0.5	2.1	0.5	2.0	0.8	2.9	0.0	2.3	0.4	0.8
East South Central	3.2	7.6	1.8	5.5	1.4	3.9	3.1	9.4	0.9	3.9	1.8	11.3
West South Central	1.1	4.2	0.5	1.7	0.4	1.7	0.9	2.1	0.3	0.5	0.0	2.3
Mountain	2.5	6.2	2.0	3.7	1.5	3.1	2.7	4.6	2.2	3.8	1.3	2.4
Pacific	1.5	3.3	2.3	3.7	2.2	3.2	2.9	4.4	5.1	2.4	1.0	3.7

Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021. **There are no small and remote nonadjacent to metro or micro counties in the Middle Atlantic Census Division. †Census Divisions: New England—CT, ME, MA, NH, RI, VT; Middle Atlantic—NJ, NY, PA; East North Central—IL, IN, MI, OH, WI; West North Central—IA, KS, MN, MO, NE, ND, SD; South Atlantic—DE, DC, FL, GA, MD, NC, SC, VA, WV; East South Central—AL, KY, MS, TN; West South Central—AR, LA, OK, TX; Mountain—AZ, CO, ID, MT, NV, NM, UT, WY; Pacific—AK, CA, HI, OR, WA.

Figure 4. Percentage of U.S. Rural and Urban Counties Without a Psychiatric Nurse Practitioner, 2014-2021



Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021.

Table 3. Percentage of U.S. Rural and Urban Counties Without a Psychiatric Nurse Practitioner, 2014-2021

	2014	2015	2016	2017	2018	2019	2020	2021
Urban (metro)	45.7%	42.4%	42.0%	41.4%	39.5%	36.1%	33.0%	30.9%
All Rural (nonmetro)	82.5%	81.2%	79.9%	79.0%	77.4%	74.4%	71.0%	68.5%
Adjacent to metro	81.1%	79.4%	78.0%	77.4%	75.6%	71.0%	66.9%	63.6%
Micro nonadjacent to metro	61.3%	60.2%	57.6%	54.3%	53.5%	50.9%	48.7%	45.7%
Small and remote adjacent to micro	94.1%	93.6%	93.3%	93.3%	92.0%	90.3%	87.1%	85.5%
Small and remote nonadjacent to metro or micro	91.8%	90.8%	89.2%	88.9%	86.9%	86.9%	84.6%	84.3%

Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021.

Table 4. Percentage of U.S. Rural Counties Without a Psychiatric Nurse Practitioner by Census Division†, 2014-2021

	2014	2015	2016	2017	2018	2019	2020	2021
Total U.S.	82.5%	81.2%	79.9%	79.0%	77.4%	74.4%	71.0%	68.5%
New England	18.2%	21.2%	21.2%	24.2%	18.2%	9.1%	12.1%	15.2%
Middle Atlantic	51.9%	53.7%	48.1%	46.3%	40.7%	40.7%	40.7%	38.9%
East North Central	82.9%	82.1%	78.3%	76.8%	74.9%	69.6%	66.2%	62.0%
West North Central	85.1%	82.9%	82.0%	81.8%	80.8%	78.8%	75.5%	73.9%
South Atlantic	89.6%	87.4%	86.7%	84.1%	81.5%	78.1%	75.6%	71.9%
East South Central	75.1%	74.3%	74.3%	72.2%	69.7%	66.0%	60.6%	56.4%
West South Central	93.9%	92.4%	91.4%	91.1%	89.5%	88.2%	84.4%	82.8%
Mountain	81.0%	80.1%	80.1%	80.1%	80.1%	76.4%	72.7%	70.4%
Pacific	72.2%	72.2%	66.7%	68.9%	70.0%	66.7%	63.3%	64.4%

Data source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), 2014-2021. †Census Divisions: New England—CT, ME, MA, NH, RI, VT; Middle Atlantic—NJ, NY, PA; East North Central—IL, IN, MI, OH, WI; West North Central—IA, KS, MN, MO, NE, ND, SD; South Atlantic—DE, DC, FL, GA, MD, NC, SC, VA, WV; East South Central—AL, KY, MS, TN; West South Central—AR, LA, OK, TX; Mountain—AZ, CO, ID, MT, NV, NM, UT, WY; Pacific—AK, CA, HI, OR, WA.

County Category Designations

Urban: Metropolitan, i.e., counties with an urban core with a population of at least 50,000 residents (UIC 1-2).

All rural: Nonmetropolitan, i.e., counties without an urban core population of at least 50,000 residents (UIC 3-12).

Adjacent to metro: Counties next to a metropolitan county whose largest town has up to 49,999 residents (UIC 3-7).

Micro nonadjacent to metro: Micropolitan counties not next to a metropolitan county whose largest town has 10,000-49,999 residents (UIC 8).

Small and remote adjacent to micro: Counties next to a micropolitan county whose largest town has less than 10,000 residents (UIC 9-10).

Small and remote nonadjacent to metro or micro: Counties not next to a metropolitan or micropolitan county whose largest town has less than 10,000 residents (UIC 11-12).

Suggested Citation: Andrilla CHA, Woolcock SC, Garberson LA, Patterson DG. *Changes in the Supply and Rural-Urban Distribution of Psychiatric Nurse Practitioners in the U.S., 2014-2021*. Data Brief. WWAMI Rural Health Research Center, University of Washington; October 2022.

Funding: This study was supported by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under cooperative agreement #U1CRH03712. The information, conclusions, and opinions expressed in this policy brief are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.