

Supply and Distribution of the Behavioral Health Workforce in Rural America

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Acknowledgements and Disclaimer

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Methods

Data Sources:

- National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data (downloaded October 2015)
- U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes (UIC), 2013
- 2014 Claritas U.S. population data

Methods- County Classification

Counties categorized using their UIC code

Metro- UIC 1,2

(Counties with an urban core with a population of at least 50,000)

Non-Metro- UIC 3-12

Micropolitan- UIC 3,5,8

(Counties with an urban core of at least 10,000, but less than 50,000, population)

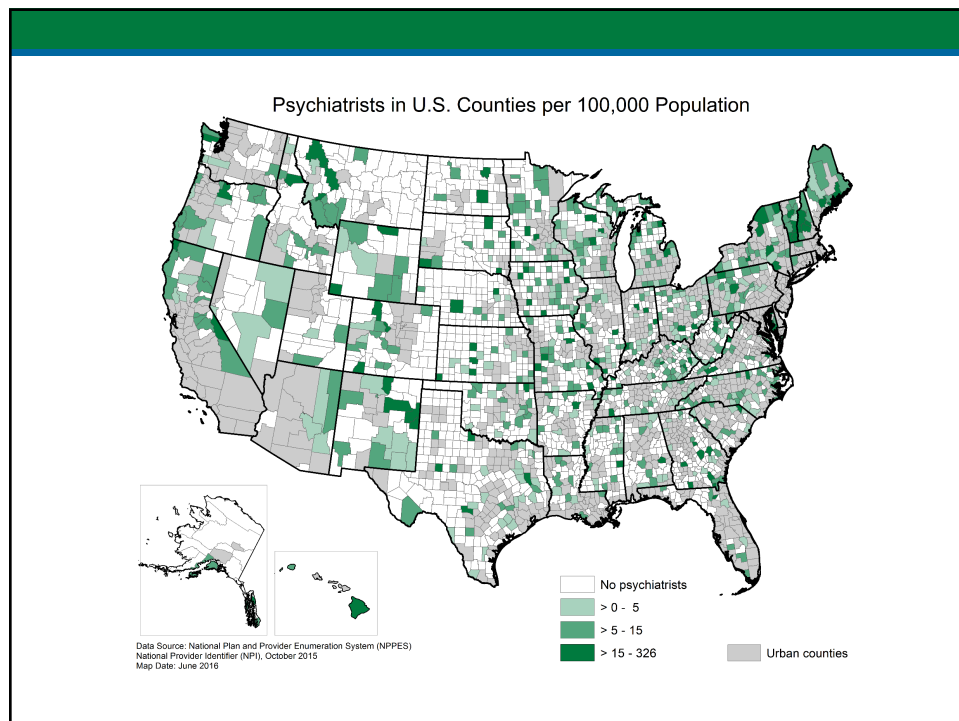
Non-Core- UIC 4,6,7,9-12

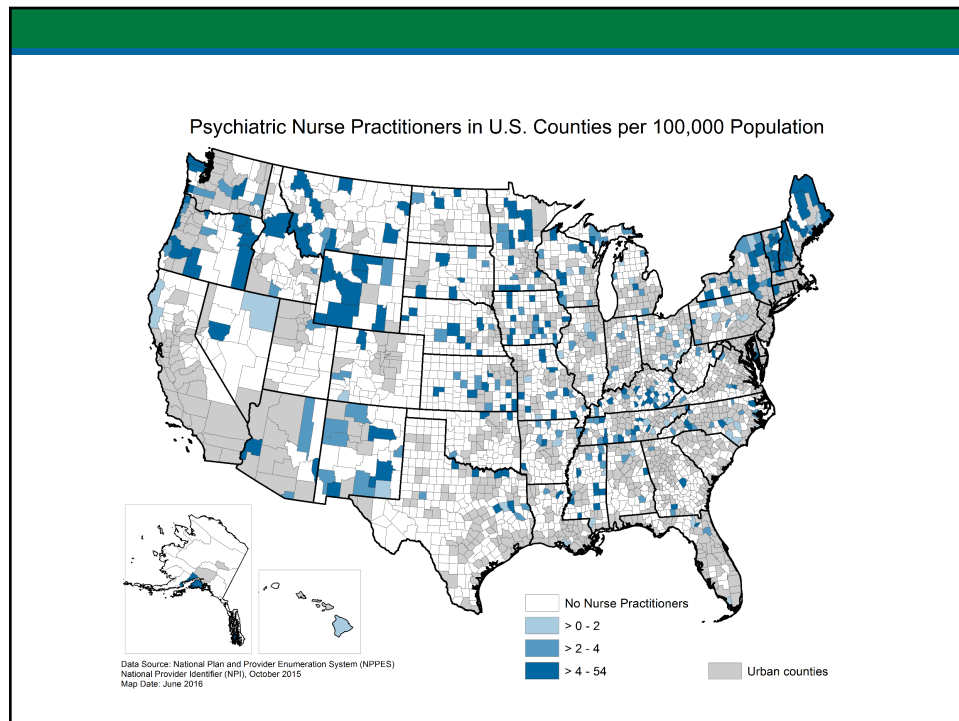
(labeled "noncore" because they are not part of "core-based" metro or micro areas.)

Behavioral Health Providers

- Psychiatrists
- Psychiatric Nurse Practitioners
- Psychologist
- Social Workers
- Counselors

All of these provider types are represented in the NPI data in varying states of completeness





Metropolitan vs Non-metro provider availability

Metro Counties

- 27% lack a psychiatrist
- 17.5/100,000 population
- 19% lack a psychologist
- 33.2/100,000 population
- 42% lack a psych. NP
- 2.2/100,000 population

Non-Metro Counties

- 65% lack a psychiatrist
- 5.8/100,000
- 47% lack a psychologist
- 13.7/100,000 population
- 81% lack a psych. NP
- 1.6/100,000 population

Metropolitan vs Non-metro provider availability

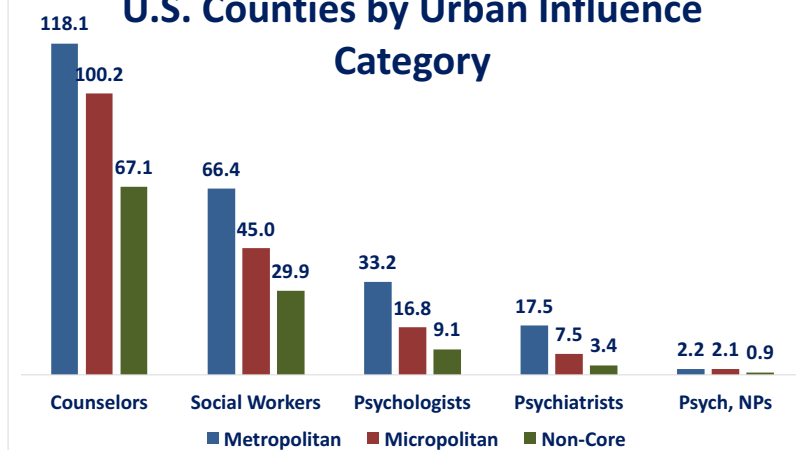
Metropolitan Counties

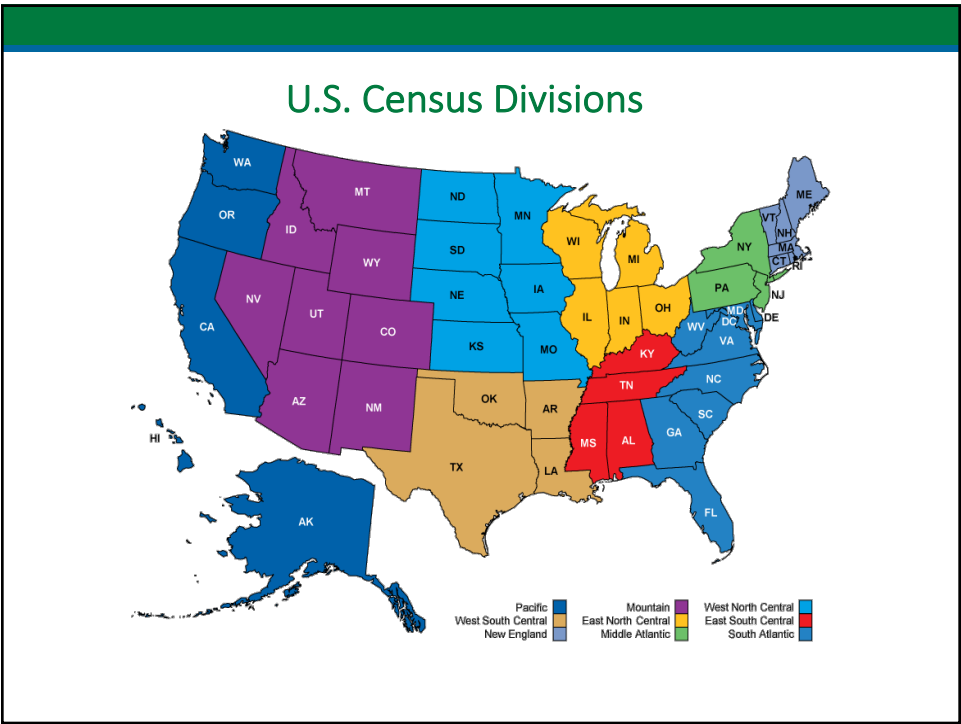
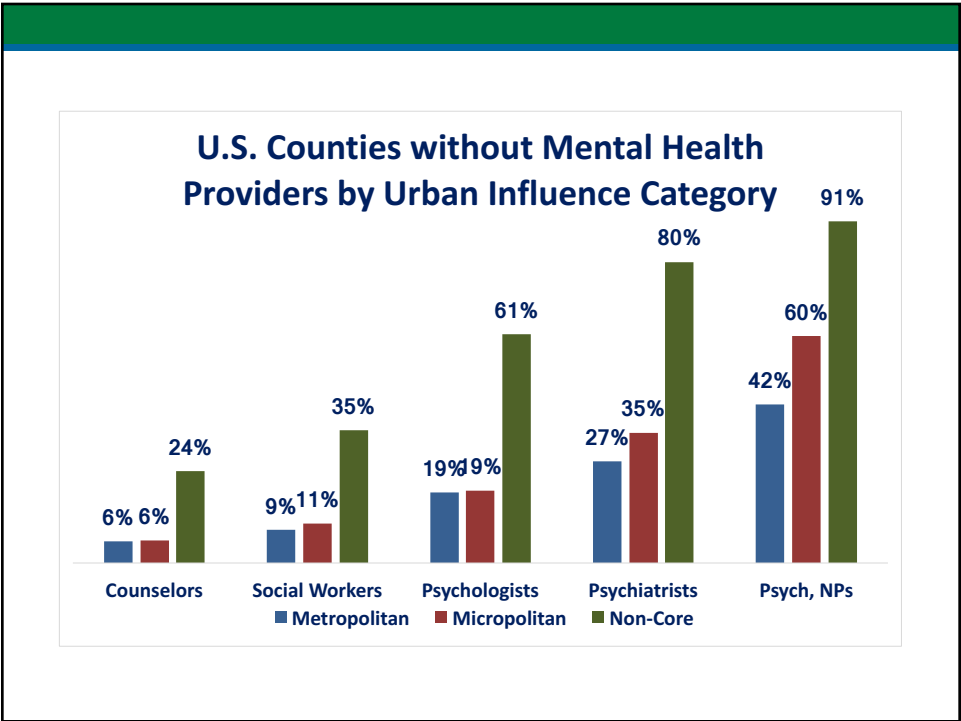
- 9% lack a social worker
- 66.4/100,000 population
- 6% lack a counselor
- 118.1/100,000 population

Non-Metro Counties

- 27% lack a social worker
- 38.9/100,000
- 18% lack a counselor
- 86.7/100,000 population

Providers per 100,000 Population in U.S. Counties by Urban Influence Category





Disparities by Census Division

There are large disparities in the ratios of providers to population by Census Division

More than a 3-fold difference in the psychiatrist and psychologist provider to population ratio between highest and lowest supplied census divisions

The difference is consistent overall and in urban and rural locations

Disparities by Census Division

More than a 5-fold difference in the social worker and psychiatric nurse practitioner provider to population ratio between highest and lowest supplied census divisions.

The difference is consistent overall and in rural locations.

Percent of U.S. Counties Without a Psychiatrist by Census Division

Census Division	Overall	Metro	Non-Metro
New England (67 counties)	6%	3%	9%
Middle Atlantic (150 counties)	9%	4%	19%
East North Central (437 counties)	42%	22%	55%
West North Central (618 counties)	69%	40%	77%
South Atlantic (582 counties)	42%	29%	58%
East South Central (364 counties)	57%	40%	65%
West South Central (469 counties)	64%	36%	77%
Mountain (281 counties)	61%	28%	71%
Pacific (167 counties)	34%	9%	56%

Percent of U.S. Counties Without a Psychologist by Census Division

Census Division	Overall	Metro	Non-Metro
New England (67 counties)	1%	3%	0%
Middle Atlantic (150 counties)	5%	2%	9%
East North Central (437 counties)	22%	12%	29%
West North Central (618 counties)	56%	33%	62%
South Atlantic (582 counties)	27%	17%	38%
East South Central (364 counties)	46%	34%	52%
West South Central (469 counties)	49%	26%	61%
Mountain (281 counties)	40%	18%	46%
Pacific (167 counties)	22%	5%	37%

Percent of U.S. Counties Without any Mental Health Providers* by Census Division

Census Division	Overall	Metro	Non-Metro
New England (67 counties)	1%	3%	0%
Middle Atlantic (150 counties)	1%	0%	4%
East North Central (437 counties)	3%	2%	4%
West North Central (618 counties)	20%	3%	24%
South Atlantic (582 counties)	5%	2%	8%
East South Central (364 counties)	7%	3%	8%
West South Central (469 counties)	14%	7%	18%
Mountain (281 counties)	8%	2%	10%
Pacific (167 counties)	3%	1%	4%

*Mental Health Providers include: Psychiatrists, Psychologists, Social Workers, Psychiatric Nurse Practitioners, Counselors

State level Data Sheets

Available at the WWAMI RHRC website:

<https://depts.washington.edu/fammed/rhrc/publications/the-supply-and-distribution-of-the-behavioral-health-workforce-in-america-a-state-level-analysis/>

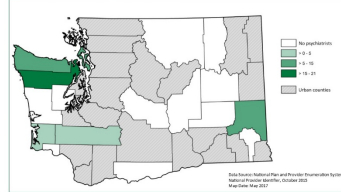
Full National Report (WWAMI RHRC Data Brief #160) is also available on the WWAMI RHRC website.

Washington State Level Data Sheet

Washington State Behavioral Health Workforce, 2015

The tables, maps, and graphs presented below show behavioral health professionals in Washington State as of October 2015. Counties were categorized as Metropolitan, Micropolitan or Non-core using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs) as follows: Metropolitan (UIC 1, 2), Micropolitan (UIC 3, 5, 8), and Non-core (UIC 4, 6, 7, 9-12). For detailed county category designations, see reverse.

Psychiatrists in Washington Counties per 100,000 Population



Behavioral Health Providers per 100,000 Population in Washington Counties by Metro/Non-Metro Status

	Pharmacies (100,000 Population)	Pharmacies (100,000 Population)	Senior Markets (100,000 Population)	Pharmacy 101 (100,000 Population)	Community (100,000 Population)
Washington	14.61	10.71	11.41	4.1	20.8
Metropolitan	(13.02)	(13.17)	(2.70)	(194)	(13,400)
Metropolitan	15.9	5.29	41.3	5.0	21.2
Metropolitan	(10.6)	(2.10)	(2.30)	(111)	(13,260)
San Mateo	30	14.6	55.7	2.6	19.9
San Mateo	(23)	(10.6)	(114)	(19)	(1,070)
Microsmall	5.8	12.5	14.3	2.1	25.6
Microsmall	(2)	(3)	(77)	(12)	(12)
Noncore	4.6	18.9	22.1	4.6	18.2
Noncore	(2)	(2)	(2)	(2)	(2)

Data Source: National and/or State Demographic Statistics, Bureau of Economic Analysis, 2012-2013, 2014-2015. U.S. Department of Agriculture, 2012-2013.

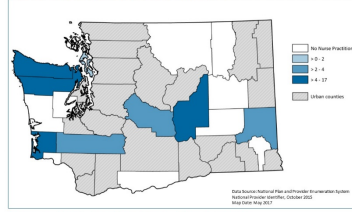
RURAL HEALTH RESEARCH CENTER **RHRC** Rural Health Research & Policy Centers The Supply and Distribution of the Behavioral Health Workforce in America: A State-Level Analysis



The Supply and Distribution of the Behavioral Health Workforce In America: A State-Level Analysis

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Psychiatric Nurse Practitioners in Washington Counties per 100,000 Population



Washington Counties Without Behavioral Health Providers by Metro/Non Metro Status

	Countries without Psychiatric Paraphilias (Percent)	Countries without Psychiatric Paraphilias (Percent)	Countries without Social Maturity (Percent)	Countries without Psychiatric Paraphilias 10% (Percent)	Countries without Paraphilias (Percent)	Total Countries with PMF (Percent)
Washington						
US (country)	16(5)	13(5)	11(5)	14(5)	0(0)	0(0)
Macropolys						
US (country)	12(5)	12(5)	3(0)	22(5)	0(0)	0(0)
Non-Mono						
US (country)	12	4	5	5	0	0
Macropolys	16(5)	22(5)	24(5)	16(5)	0(0)	0(0)
Non-Mono	5	1	1	2	0	0
US (country)	12	13	11(5)	13(5)	0(0)	0(0)
Non-sex						
US (country)	12	13	14(5)	7	0	0

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 3-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas. UIC 4, 6, 7, 9, 12.

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Washington, July 2017.




The Supply and Distribution of the Behavioral Health Workforce in America: A State-Level Analysis



The Supply and Distribution of the Behavioral Health Workforce in America: A State-Level Analysis

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Summary and Implications

- Rural-urban disparities in behavioral health provider supply extend beyond the well-known shortages of psychiatrists to include clinical psychologists, psychiatric nurse practitioners, social workers and counselors.
- The **non-core rural counties** have the greatest shortages, **17%** do not have a behavioral health provider
- The provider to population ratio of psychiatrists, psychologists, psychiatric nurse practitioners, and social workers in **non-core counties** is **less than half** the rate of metropolitan counties.
- There is significant regional variation in the supply of behavioral health providers with the **South and Midwest** having **less than half** the per capita supply than the Northeast

Limitations

Primary care providers not included in analysis

Physician Assistants not included in the analysis

Not all providers are in the NPI file

Providers use their NPI number to bill the Centers for Medicare and Medicare Services for services provided

- Some providers bill using an institutional NPI number
- Some providers bill under another person's NPI number
- Differs by type of provider

Social workers and counselors may be under-represented in this work.

Psychiatrists, Psychiatric Nurse Practitioners and Psychologists are well represented in the NPI when compared to other datasets (e.g. American Medical Association Physician Masterfile)

Next Steps – the rural behavioral health workforce

PCP's deliver a lot of behavioral health visits, especially in rural areas. How do we include those visits in estimating care available to rural residents?

Possible data sources include Medicare data – WWAMI RHRC may be addressing this in Year 2 – examining who treats Medicare beneficiaries for anxiety and depression in rural America.

Role of other professions in rural behavioral health delivery including Behavioral Health Aides, Physician Assistants, (non-psych) Nurse Practitioners.



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