OREGON OFFICE of RURAL HEALTH

Oregon Areas of Unmet Health Care Need Report

September 2024

OREGON OFFICE OF RURAL HEALTH

IMPROVING THE QUALITY, AVAILABILITY AND ACCESSIBILITY OF HEALTH CARE FOR RURAL OREGONIANS

OPPORTUNITY Just knock.

Areas of Unmet Health Care Need Report

The Oregon Office of Rural Health first developed the Areas of Unmet Health Care Need Report (AUHCN) in 1998 in response to a mandate from the Oregon Legislature to measure medical underservice in rural areas. This report has since been published annually and is used:

- To qualify a practice site for loan repayment and forgiveness programs (OAR 409-036-0010 [30] [A]);
- As part of a risk assessment formula for rural hospitals to receive cost-based Medicaid reimbursement (SB 607, passed in 1991; HB 3650, passed in 2011); and
- As part of the determination of "medically underserved" geographic areas for the Oregon Governor's Health Care Shortage Area Designation.

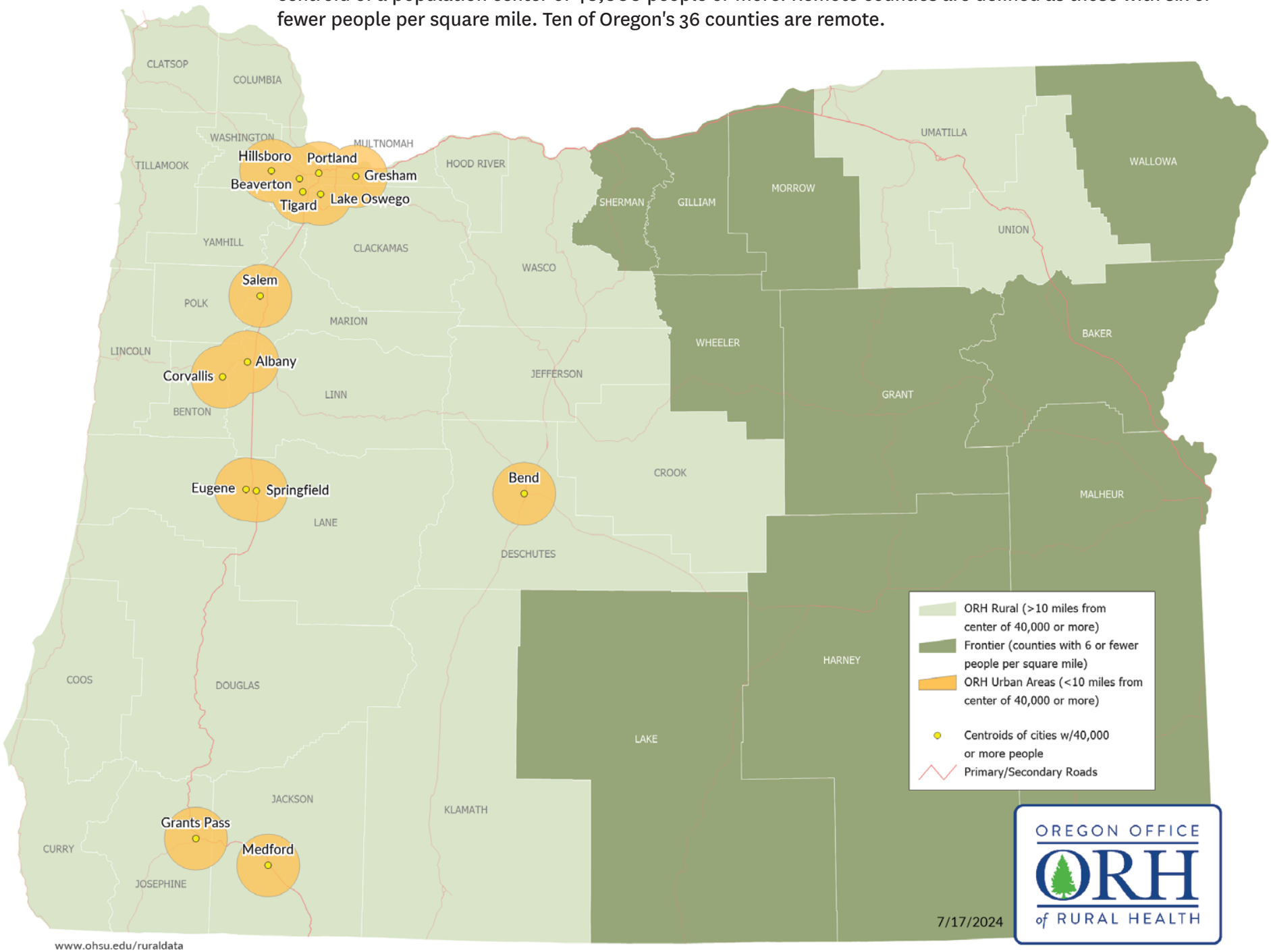
This report includes nine variables that measure availability, affordability and utilization of primary physical, dental, and mental health care in 128 Oregon primary care service areas. It can be used by state partners to prioritize financial and technical assistance, and by health care constituents to advocate for unmet needs in their community.

Contents

We welcome your feedback. If you have any questions or suggestions about this report, please contact Emerson Ong at onge@ohsu.edu.

What is Considered Rural and Remote?

The Oregon Office of Rural Health defines rural as all geographic areas in Oregon 10 or more miles from the centroid of a population center of 40,000 people or more. Remote counties are defined as those with six or fewer people per square mile. Ten of Oregon's 36 counties are remote.



www.ohsu.edu/ruraldata

Summary Results

Overview

This report scores and ranks all 128 Oregon primary care service areas according to nine variables that measure primary, dental and mental health care availability, affordability and utilization. The lowest and worst score possible is zero. The highest and best score possible is 90. A lower score means greater unmet need. For 2024, scores ranged from 21 (worst) to 78 (best), compared to last year, when it was 22 to 78. East Klamath has the lowest score this year, eclipsing Warm Springs, which had the lowest score for the past three years.

Rural and frontier (i.e., remote)[1] service areas have greater unmet need (lower scores) than urban areas. In 2024, Grants Pass became an urban area, so comparisons should be made with that in mind.

Mean (Average) Score by Geographic Area	*2024*	*2023*	*2022*
Oregon	49.7	49.1	49.4
Urban	62.7	61.6	62.1
Rural (without Remote)	46.7	46.1	45.9
Rural (including Remote)	46.5	46.2	46.4
Remote	45.7	46.9	48.9

The mean (average) score for Oregon overall is 49.7, which is similar to last year's average of 49.1. Sixty-nine of 128 service areas fall below that score and are considered Unmet Need Areas. The following are the percentage of Unmet Need areas by geographic type:

Urban:	8% - two out of 25 urban areas
Rural (without remote):	65% - 55 out of 85 rural areas
Rural (including remote):	65% - 67 out of 103 rural/remote areas
Remote:	72% - 13 out of 18 remote area

Greatest Unmet Need Areas	*2024*	*2023*
East Klamath	21	26
Warm Springs	25	22
Glendale	28	29
Shady Cove	30	37
Chiloquin	31	35
Drain/Yoncalla	32	32
Oakridge	32	37
Port Orford	32	34
Powers	32	36
North Lake	34	32
Cascade Locks	34	39
Swisshome/TriangleLake	34	28

Least Unmet Need Areas	*2024*	*2023*
Portland SW	78	78
Tigard	73	70
Portland NE	71	69
Lake Oswego	70	69
Eugene/University	69	65
Oregon City	69	67
Portland NW	69	65
Beaverton	68	67
Bend	68	68
Hood River	67	66
Silverton/Mt. Angel	67	64
Sisters	67	64
Corvallis/Philomath	67	65

[1] While the Federal government continues to use the word "remote," to define areas with low population densities, the Oregon Office of Rural Health is changing its use of the term to "remote." "Remote" will be used instead of "frontier" going forward in this publication.

Highlights

1. The average travel time to the nearest Patient-Centered Primary Care Home (PCPCH) in Oregon is 13 minutes. **However, in the 23 rural or remote service areas where no PCPCH is available, the average drive time doubles to 27 minutes.** (Pages 13-14)

2. The overall ratio of estimated primary care visits that existing providers in Oregon can accommodate is 0.99. Rural and remote regions have a lower average ratio of 0.69, indicating a higher demand than supply. **Nine primary care service areas, all rural or remote, have zero primary care provider FTE.** (Pages 15-17)

3. Oregon has a dentist patient care ratio of 0.47 FTE per 1,000 people, with rural and remote areas averaging 0.3 FTE. **Twenty-four primary care service areas have zero dentist FTE and are all in rural or remote areas.** (Pages 18-19)

4. The state has 1.25 mental health care provider FTE per 1,000 people; however, rural and remote areas only provide 0.56 FTE on average. **All 20 primary care service areas without any mental health provider FTE are rural or remote.** (Pages 20-21)

5. In the years 2018-2022, around 10% of Oregon's population fell between **138% and 200% of the Federal Poverty Level**, making it difficult for them to afford health insurance without employer assistance. **Notably, certain areas such as Burns (22%), Heppner (21%), and Fossil (20%) exhibit rates twice or more than the state average.** (Pages 22-23)

6. For 2018-2022, Oregon's average **inadequate prenatal care rate** is 61.6 per 1,000 births annually. **Remote service areas, on average, display a significantly higher rate of 99.2 per 1,000 births, which is nearly 10% of all births. Warm Springs' rate (316.1) is more than five times the state average. An additional eight service areas, all rural or remote, are more than double the state rate.** (Pages 24-25)

7. Oregon's three-year (2021-2023) average **preventable hospitalization/ACSC rate** is 6.1 per 1,000 people yearly. However, rural and remote areas show a higher average rate of 7.2 per 1,000. **Notably, Warm Springs (21.3), Clatskanie (14.0), North Lake (14.0), and Reedsport (13.9) exhibit rates over double the state average.** (Pages 26-27)

8. Within the same three-year period, **non-traumatic dental emergency department (ED)** visits in Oregon reached a rate of 3.3 per 1,000 people annually, with rural areas having a higher rate of 4.5 per 1,000. **Seventeen service areas, all rural or remote, have over double the state's dental ED visit rate, with Warm Springs leading with a rate of 16.1, several times the state average.** (Pages 28-30)

9. Oregon has a three-year (2021-2023) average **mental health/substance use ED visit rate** is 16.8 per 1,000 people annually. This is the only variable where rural and remote areas (15.6), on average, do better than urban areas (17.3). **However, Warm Springs, a rural area, stands out with a notably high rate of 87.7, several times the state average.** (Pages 31-33)

10. Oregon has an average Unmet Need Score of 49.7 out of 90. **All but two of the 69 service areas that are considered Unmet Need are located in rural or remote areas.** (Page 34)

Figure 1.

Overall Unmet Need Scores By Service Area

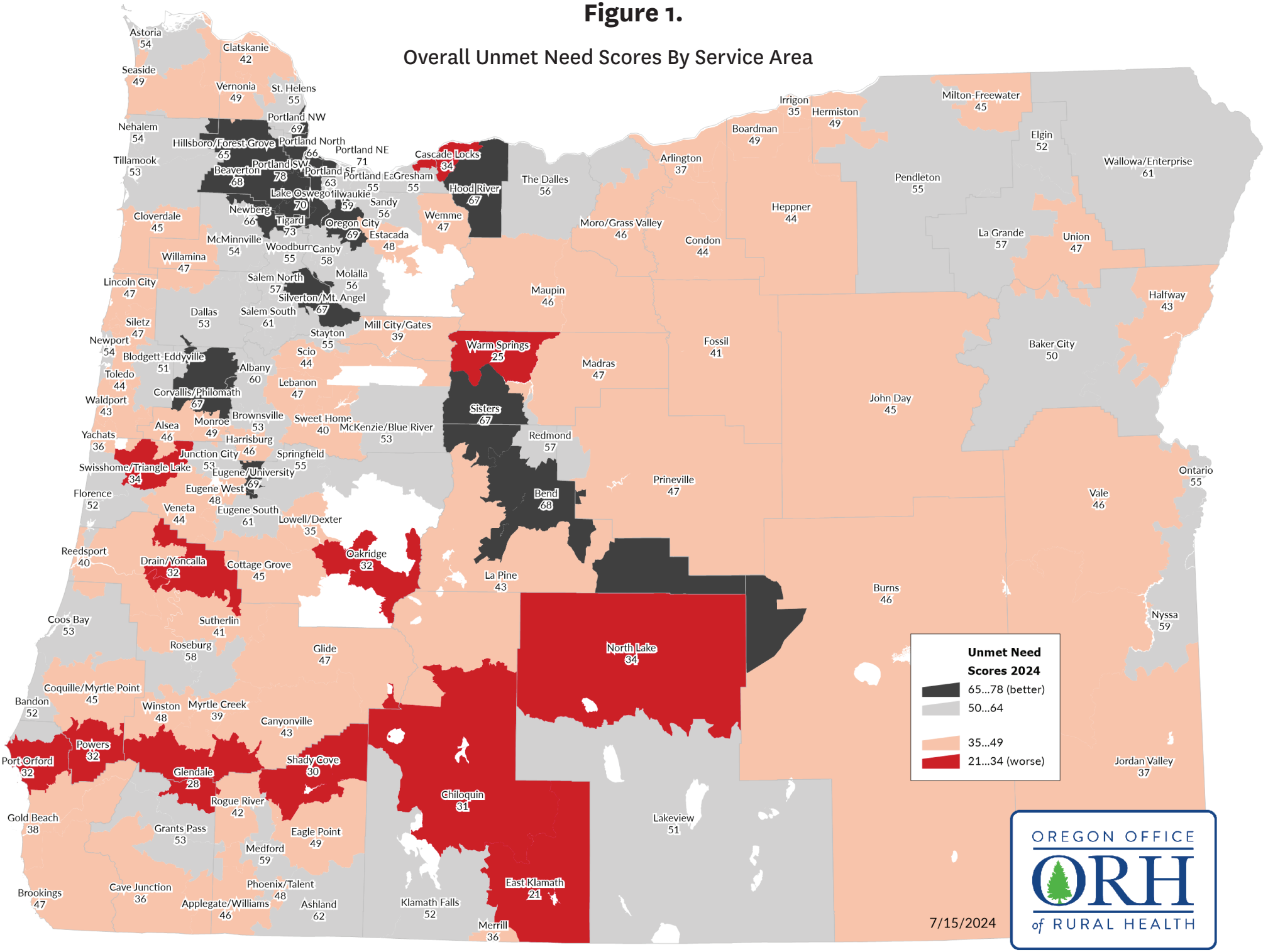


Figure 2.

Ranked Service Area Scores (Highest Unmet Need to Lowest)

The worst score in each column is darkest orange, and the best score is darkest blue, with graduated shading for the numbers between the best and worst.

Service Area	Designation	Total Score	Travel Time to Nearest PCPCH	Primary Care Capacity Ratio	Dentists per 1,000	Mental Health Providers per 1,000	138-200% of Federal Poverty Level	Inadequate Prenatal Care Rate	Preventable Hospitalizations per 1,000	Emergency Dept Dental Visits per 1,000	Emergency Dept Mental Visits per 1,000
East Klamath	Rural	21	32	0.00	0.00	0.00	18%	157.1	10.2	7.1	17.3
Warm Springs	Rural	25	18	1.59	0.48	0.56	18%	316.1	21.3	16.1	87.7
Glendale	Rural	28	22	0.05	0.00	0.00	13%	99.1	9.8	5.6	14.9
Shady Cove	Rural	30	14	0.03	0.38	0.00	16%	102.5	12.1	4.3	16.3
Chiloquin	Rural	31	30	0.34	0.51	0.00	18%	155.6	9.8	7.0	17.7
Drain/Yoncalla	Rural	32	21	0.14	0.00	0.18	12%	65.6	7.8	7.6	11.6
Oakridge	Rural	32	10	0.16	0.00	0.17	18%	93.1	10.3	4.8	15.9
Port Orford	Rural	32	31	0.36	0.00	0.55	18%	64.9	8.4	8.2	17.4
Powers	Rural	32	30	0.00	0.00	0.00	13%	22.2	11.5	5.2	15.9
North Lake	Remote	34	67	0.31	0.00	0.43	11%	150.0	14.0	1.3	10.3
Cascade Locks	Rural	34	21	0.00	0.00	0.00	10%	36.1	8.8	3.5	16.0
Swisshome/Triangle Lake	Rural	34	27	0.00	0.00	0.57	18%	58.8	4.6	6.4	13.7
Irrigon	Remote	35	10	0.37	0.00	0.00	16%	141.1	9.0	5.4	13.2
Lowell/Dexter	Rural	35	22	0.12	0.05	0.41	17%	50.0	5.6	4.7	10.5
Cave Junction	Rural	36	10	0.42	0.00	0.18	18%	97.9	10.0	3.8	16.7
Merrill	Rural	36	25	0.31	0.00	0.00	13%	54.9	6.8	3.6	11.4
Yachats	Rural	36	12	0.00	0.05	0.45	16%	108.1	10.0	5.8	8.1
Arlington	Remote	37	25	0.68	0.00	0.00	13%	71.4	5.4	5.7	10.1
Jordan Valley	Remote	37	75	0.00	0.00	0.00	14%	111.1	0.0	0.0	2.5
Gold Beach	Rural	38	10	0.85	0.00	0.25	13%	134.4	11.7	8.7	23.1
Mill City/Gates	Rural	39	10	0.32	0.19	0.00	14%	62.5	7.8	6.5	15.7
Myrtle Creek	Rural	39	10	0.15	0.07	0.07	10%	73.8	6.1	6.0	15.2
Reedsport	Rural	40	10	0.69	0.10	0.33	13%	144.2	13.9	9.1	21.2
Sweet Home	Rural	40	10	0.27	0.07	0.21	14%	52.9	8.1	4.8	16.5
Fossil	Remote	41	10	0.37	0.11	0.00	20%	39.2	10.2	4.8	4.8
Sutherlin	Rural	41	10	0.31	0.11	0.06	16%	39.9	6.3	3.4	15.4
Clatskanie	Rural	42	10	0.09	0.22	0.12	12%	76.5	14.0	3.1	12.3
Rogue River	Rural	42	10	0.22	0.19	0.24	14%	70.7	8.2	3.4	15.7
Halfway	Remote	43	68	0.40	0.00	0.42	17%	13.5	5.4	2.4	6.0
Canyonville	Rural	43	10	1.15	0.07	0.00	14%	50.4	10.5	4.3	17.8
La Pine	Rural	43	10	0.43	0.19	0.15	15%	93.8	10.3	3.1	14.4

Service Area	Designation	Total Score	Travel Time to Nearest PCPCH	Primary Care Capacity Ratio	Dentists per 1,000	Mental Health Providers per 1,000	138-200% of Federal Poverty Level	Inadequate Prenatal Care Rate	Preventable Hospitalizations per 1,000	Emergency Dept Dental Visits per 1,000	Emergency Dept Mental Visits per 1,000
Waldport	Rural	43	10	0.29	0.10	0.25	7%	82.5	7.9	6.2	15.6
Condon	Remote	44	22	1.03	0.14	0.00	14%	73.2	7.3	2.8	4.7
Heppner	Remote	44	10	0.55	0.05	0.73	21%	75.3	10.4	4.1	9.6
Scio	Rural	44	12	0.05	0.02	0.00	8%	39.9	6.8	3.1	8.2
Toledo	Rural	44	10	0.33	0.18	0.29	13%	41.4	9.0	8.0	16.8
Veneta	Rural	44	10	0.11	0.09	0.10	12%	43.6	7.3	2.7	12.3
John Day	Remote	45	10	0.92	0.15	0.11	12%	86.4	8.2	6.0	13.2
Cloverdale	Rural	45	10	0.16	0.12	0.18	9%	68.8	6.3	4.1	13.4
Coquille/Myrtle Point	Rural	45	10	0.81	0.18	0.24	13%	71.7	11.1	5.6	14.7
Cottage Grove	Rural	45	10	0.45	0.32	0.36	12%	79.6	8.4	8.7	21.3
Milton-Freewater	Rural	45	16	0.06	0.34	0.01	11%	84.2	9.2	0.3	2.1
Burns	Remote	46	10	0.88	0.18	0.41	22%	46.8	10.6	4.8	14.4
Moro/Grass Valley	Remote	46	10	0.57	0.00	0.00	18%	31.7	4.6	5.6	4.3
Vale	Remote	46	10	0.25	0.18	0.04	17%	92.3	3.2	2.2	9.5
Alsea	Rural	46	10	0.51	0.00	0.00	16%	83.3	4.4	0.9	9.5
Applegate/Williams	Rural	46	11	0.05	0.22	0.14	11%	65.4	6.3	2.9	9.8
Harrisburg	Rural	46	10	0.00	0.06	0.41	14%	55.4	5.5	2.8	12.4
Maupin	Rural	46	10	0.28	0.00	0.18	13%	51.9	9.2	2.5	5.8
Brookings	Rural	47	10	0.73	0.54	0.56	17%	88.9	7.7	10.5	19.4
Glide	Rural	47	10	0.23	0.13	0.27	8%	52.2	4.8	4.7	12.8
Lebanon	Rural	47	10	0.89	0.23	0.22	16%	37.9	7.5	4.8	15.9
Lincoln City	Rural	47	10	0.67	0.23	0.46	12%	84.0	8.5	7.8	21.0
Madras	Rural	47	10	0.76	0.22	0.36	9%	111.8	7.6	9.2	19.5
Prineville	Rural	47	10	0.45	0.29	0.48	13%	64.5	8.5	7.5	17.2
Siletz	Rural	47	13	1.32	0.34	0.21	9%	80.5	7.6	7.4	15.4
Union	Rural	47	10	0.19	0.10	0.00	12%	52.1	5.2	3.3	8.9
Wemme	Rural	47	10	0.00	0.23	0.09	10%	63.6	5.7	2.8	10.5
Willamina	Rural	47	10	0.42	0.18	0.43	11%	59.5	9.2	5.2	16.1
Estacada	Rural	48	10	0.25	0.12	0.15	13%	37.4	6.6	2.2	11.1
Winston	Rural	48	10	0.19	0.15	0.53	9%	55.6	8.2	5.8	16.8
Eugene West	Urban	48	10	0.51	0.19	0.48	13%	70.7	6.9	4.1	21.7
Phoenix/Talent	Urban	48	10	0.40	0.17	0.59	12%	59.6	6.1	4.0	16.8
Boardman	Remote	49	10	1.20	0.00	0.33	13%	157.1	3.7	2.6	11.3
Eagle Point	Rural	49	10	0.13	0.13	0.36	10%	53.6	7.6	2.3	12.1
Hermiston	Rural	49	10	1.00	0.29	0.29	15%	116.1	6.3	3.8	13.3

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Monroe	Rural	49	10	0.46	0.00	0.24	13%	41.7	6.8	2.9	9.9
Seaside	Rural	49	10	1.00	0.22	0.51	11%	76.8	8.3	5.4	25.9
Vernonia	Rural	49	10	0.17	0.22	0.00	8%	74.9	5.4	2.5	12.1
OREGON		49.7	13.1	0.99	0.47	1.25	10%	61.6	6.1	3.3	16.8
Baker City	Remote	50	10	0.85	0.25	0.68	14%	58.4	8.1	7.3	16.6
Lakeview	Remote	51	10	1.08	0.33	0.43	11%	112.2	10.8	5.7	18.8
Blodgett-Eddyville	Rural	51	13	0.00	0.00	0.63	8%	15.4	8.9	2.0	7.9
Bandon	Rural	52	10	0.86	0.44	0.48	16%	46.8	11.7	5.9	15.8
Elgin	Rural	52	10	0.82	0.30	0.00	9%	77.7	9.4	3.9	11.3
Florence	Rural	52	10	0.81	0.39	1.01	14%	72.8	7.5	5.5	17.3
Klamath Falls	Rural	52	10	0.96	0.44	0.75	13%	97.7	7.7	7.5	21.5
Brownsville	Rural	53	10	0.24	0.25	0.08	11%	33.7	5.9	2.9	8.9
Coos Bay	Rural	53	10	0.99	0.38	1.05	10%	64.1	11.7	6.3	22.7
Dallas	Rural	53	10	0.30	0.27	0.30	11%	35.0	5.7	4.3	13.9
Junction City	Rural	53	10	0.24	0.16	0.78	11%	56.5	7.0	2.9	12.8
McKenzie/Blue River	Rural	53	10	0.61	0.00	0.49	6%	84.7	6.5	3.9	9.6
Tillamook	Rural	53	10	0.93	0.46	0.39	11%	67.8	6.8	4.5	21.5
Grants Pass	Urban	53	10	0.88	0.53	0.62	14%	62.9	8.8	3.7	19.6
Astoria	Rural	54	10	1.04	0.33	0.82	13%	64.7	8.0	4.5	20.2
McMinnville	Rural	54	10	0.68	0.40	0.63	11%	49.1	7.3	4.5	20.2
Nehalem	Rural	54	10	0.65	0.00	0.72	10%	82.6	6.4	1.8	8.9
Newport	Rural	54	10	1.26	0.66	1.33	13%	64.8	8.3	8.8	23.9
Ontario	Remote	55	10	1.22	0.57	0.88	18%	143.4	4.1	4.4	16.2
Pendleton	Rural	55	10	1.05	0.27	0.74	10%	79.7	7.1	5.0	16.3
St. Helens	Rural	55	10	0.39	0.25	0.42	14%	40.5	7.2	1.8	12.2
Stayton	Rural	55	10	1.26	0.30	0.27	12%	31.6	7.0	5.6	13.9
Woodburn	Rural	55	10	0.61	0.27	0.40	14%	55.2	5.0	2.0	12.0
Gresham	Urban	55	10	0.70	0.46	0.51	10%	70.6	6.0	3.8	18.3
Portland East	Urban	55	10	0.93	0.50	0.74	12%	100.0	7.5	4.1	21.3
Springfield	Urban	55	10	1.58	0.34	0.59	11%	68.8	7.5	5.4	19.4
Molalla	Rural	56	10	0.25	0.32	0.08	7%	45.4	5.9	2.3	11.6
Sandy	Rural	56	10	0.26	0.20	0.34	6%	62.6	4.9	1.8	10.9
The Dalles	Rural	56	10	1.09	0.48	0.71	13%	48.0	7.5	4.7	18.1
La Grande	Rural	57	10	1.21	0.41	1.19	11%	57.2	5.9	4.7	16.4
Redmond	Rural	57	10	0.54	0.46	0.82	13%	53.0	5.4	3.4	14.2

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Salem North	Urban	57	10	0.60	0.42	0.55	12%	50.6	6.5	2.6	14.4
Canby	Rural	58	10	0.50	0.36	0.38	11%	61.1	5.0	1.5	11.8
Roseburg	Rural	58	10	1.34	0.51	1.37	13%	35.9	6.0	5.1	19.6
Nyssa	Remote	59	10	0.60	0.47	0.12	10%	101.6	2.5	1.8	8.8
Medford	Urban	59	10	1.39	0.58	1.27	12%	59.6	7.9	4.0	20.9
Milwaukie	Urban	59	10	0.44	0.50	1.13	8%	50.4	6.4	3.3	18.9
Albany	Urban	60	10	0.74	0.39	0.77	11%	41.6	6.0	3.3	14.1
Wallowa/Enterprise	Remote	61	10	1.55	0.60	0.65	15%	36.2	9.9	2.6	11.0
Eugene South	Urban	61	10	0.25	0.48	1.09	7%	58.9	4.4	2.4	11.8
Salem South	Urban	61	10	1.30	0.58	1.94	12%	53.6	7.1	3.3	19.6
Ashland	Rural	62	10	1.22	0.46	2.26	9%	81.8	4.6	3.3	20.6
Portland SE	Urban	63	10	0.42	0.37	2.50	8%	44.2	4.1	1.8	15.3
Hillsboro/Forest Grove	Urban	65	10	1.24	0.54	0.84	9%	53.0	4.8	2.0	13.3
Newberg	Rural	66	10	1.04	0.39	1.03	8%	46.2	4.5	3.0	12.1
Portland North	Urban	66	10	2.10	0.37	2.06	8%	61.6	5.8	2.9	21.4
Hood River	Rural	67	10	1.69	0.89	1.37	14%	42.1	4.7	2.2	10.9
Silverton/Mt. Angel	Rural	67	10	1.15	0.36	0.55	9%	30.7	5.3	2.1	9.4
Sisters	Rural	67	10	0.52	0.46	1.18	7%	48.9	4.3	1.3	9.7
Corvallis/Philomath	Urban	67	10	1.42	0.44	1.85	10%	39.2	4.1	1.9	15.8
Beaverton	Urban	68	10	1.21	0.62	1.22	7%	51.9	4.2	1.7	14.6
Bend	Urban	68	10	1.35	0.67	2.06	9%	53.9	4.0	1.8	12.7
Eugene/University	Urban	69	10	1.80	0.89	4.55	11%	64.5	5.0	3.6	27.0
Oregon City	Urban	69	10	2.04	0.77	1.76	8%	59.8	5.0	2.3	15.2
Portland NW	Urban	69	10	1.10	0.47	1.59	4%	52.8	4.2	2.0	25.4
Lake Oswego	Urban	70	10	0.60	0.63	1.54	6%	38.5	3.3	1.1	10.2
Portland NE	Urban	71	10	1.80	0.65	3.50	7%	56.8	5.0	2.0	17.9
Tigard	Urban	73	10	1.14	0.66	1.14	5%	45.2	4.1	1.4	12.2
Portland SW	Urban	78	10	2.41	0.99	5.35	6%	43.2	4.4	1.4	19.8

Download this as an Excel spreadsheet from our website: www.ohsu.edu/designations.

Compare the latest four years of Unmet Need Scores and each of the nine variables on a Tableau dashboard: https://public.tableau.com/app/profile/oorh/viz/UnmetNeed/UnmetNeedFinal.

Primary Care Service Areas

County-level data are often used to analyze local information in the United States because most counties have relatively small and homogeneous geographies. However, many of Oregon's 36 counties are very large and diverse in terms of geography and population distribution, containing multiple cities of disparate sizes. To address this, the Oregon Office of Rural Health (ORH) created new sub-county units to provide more accurate and granular data to these communities.

Of the various small geographic boundaries that exist, only postal ZIP codes align with transportation and market patterns. ZIP codes are also often associated with an existing wealth of demographic, socioeconomic and health utilization data. Therefore, ORH, with assistance from other state and local agencies, used ZIP codes as the basis for sub-county service areas, grouping all of Oregon's over 470 ZIP codes into "Primary Care Service Areas" based on the following criteria:[2]

1) Health resources are generally located within 30 minutes travel time.
2) Defined areas are not smaller than a single ZIP code and ZIP codes used are geographically contiguous and/or follow main roads.
3) Defined areas contain a population of at least 800 to 1,000 or more people.
4) Defined areas constitute a "rational" medical trade or market area considering topography, social and political boundaries, and travel patterns.
5) Additional considerations for service areas are boundaries that:
    a) Are congruent with existing special taxing districts (e.g., health or hospital districts); and
    b) Include a population that has a local perception that it constitutes a "community of need" for primary health care services or demonstrates demographic or socioeconomic homogeneity. The population should be large enough (800-1,000 or more) to be capable of financially supporting at least a single mid-level health care provider.

These areas are updated when necessary according to changes in population and health utilization. In 2024, Grants Pass's population exceeded 40,000, converting its designation from rural to urban. Please keep this in mind when comparing urban and rural numbers to previous years.

There are 128 Oregon Primary Care Service Areas:
Urban: 25 | Rural + Remote[3]: 103 | Rural Only: 85 | Remote Only: 18

Six-page demographic, socioeconomic, and health status profiles for each rural and remote service area are updated continuously and available for free. A sample profile and more information are available here.

[2] Van Eck, Ethan; Bennett, Marge et. al. Strategic Plan for Primary Health Care in Rural Oregon, 1985-1990. September 30, 1985. (Available through the Office of Rural Health).
[3] Using the ORH's definition, rural is a geographic area 10 or more miles from the centroid of a city of 40,000 or more. The Bureau of Primary Health Care (BPHC) defines frontier (i.e. remote) as counties with six or fewer people per square mile.

The Variables Used in the AUHCN Calculation

The Oregon Office of Rural Health researched academic publications and collected studies from other State Offices of Rural Health to determine the measures described in this report. These findings were presented to a committee with knowledge of health utilization, hospital data, primary care, dental, and mental health services (see list of individuals and members below).

Data Requirements:

- Data points must be available at the ZIP code geographic level
- Data must be updated annually, at minimum
- Data must be readily available to the Oregon Office of Rural Health

The following nine variables were determined to be the best currently available measures of access to primary care, dental and mental health services for all ages. More detail on the sources and methodology for each variable is included in the following pages.

Category One: Availability of Providers—*Are needed providers available locally?*

1. Travel Time to Nearest Patient Centered Primary Care Home (PCPCH)
2. Primary Care Capacity (Percent of Primary Care Visits Needed Able to Be Met)
3. Dentists per 1,000 Population
4. Mental Health Providers per 1,000 Population

Category Two: Ability to Afford Care—*Can the local population afford health care?*

5. Percent of Population Between 138% and 200% of Federal Poverty Level (FPL)

Category Three: Utilization—*Are primary physical, mental and oral health care being used?*

6. Inadequate Prenatal Care Rate per 1,000 Births
7. Ambulatory Care Sensitive Conditions (ACSC)/Preventable Hospitalizations per 1,000 Population
8. Emergency Department Non-Traumatic Dental Visits per 1,000 Population
9. Emergency Department Mental Health/Substance Use Visits per 1,000 Population

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The Oregon Office of Rural Health would like to thank the following for participating in the Unmet Need Report update in 2017: (These were their titles at that time)

Oregon Health Authority
Jackie Fabrick, Deputy Director, Behavioral Health
Marc Overbeck, Primary Care Office Director
Amanda Peden, Health Policy Analyst
Jeffery Scroggin, Policy Analyst

Oregon Association of Hospitals & Health Systems
Katie Harris, Director of Rural Health & Federal Policy
Andy Van Pelt, Executive Vice President

Greater Oregon Behavioral Health, Inc.
Paul McGinnis, CCO Integration Director

Oregon Health & Science University
Eli Schwarz, Chair of Department of Community Dentistry

Category One: Availability of Providers

1) Travel Time to Nearest Patient Centered Primary Care Home (PCPCH)

Description:
A Patient Centered Primary Care Home (PCPCH) is a health care clinic that has been officially recognized by the Oregon Health Authority (OHA) for providing high quality, patient-centered care. All PCPCHs must possess a minimum set of 11 criteria.[4] Three of these requirements are particularly good indicators of community access to primary care and are instrumental in preventing emergency room misuse, screening and referral for mental health and substance use disorder, 24/7 access to live clinical advice by telephone, and ongoing management of chronic diseases.

Data Source:
List of PCPCHs from Patient-Centered Primary Care Home Program, Oregon Health Authority (July 2024)

Methodology:
Google Maps was used to determine driving times from the largest town in the Primary Care Service Area to the town where the nearest PCPCH is located. Service areas that already have a PCPCH in their largest town are defaulted to a drive time of 10 minutes.

V_1 = Drive time in minutes

Results:
The average drive time to the nearest PCPCH for all 128 Primary Care Service Areas in Oregon remains unchanged at 13 minutes. In remote counties, the average is 22 minutes. Halfway lost its PCPCH designation in the past year, leading to a significant increase in the population's drive time to 68 minutes to Baker City. Twenty-three service areas, all rural or remote, do not have a PCPCH, and drive times average 27 minutes to the nearest PCPCH for these areas.

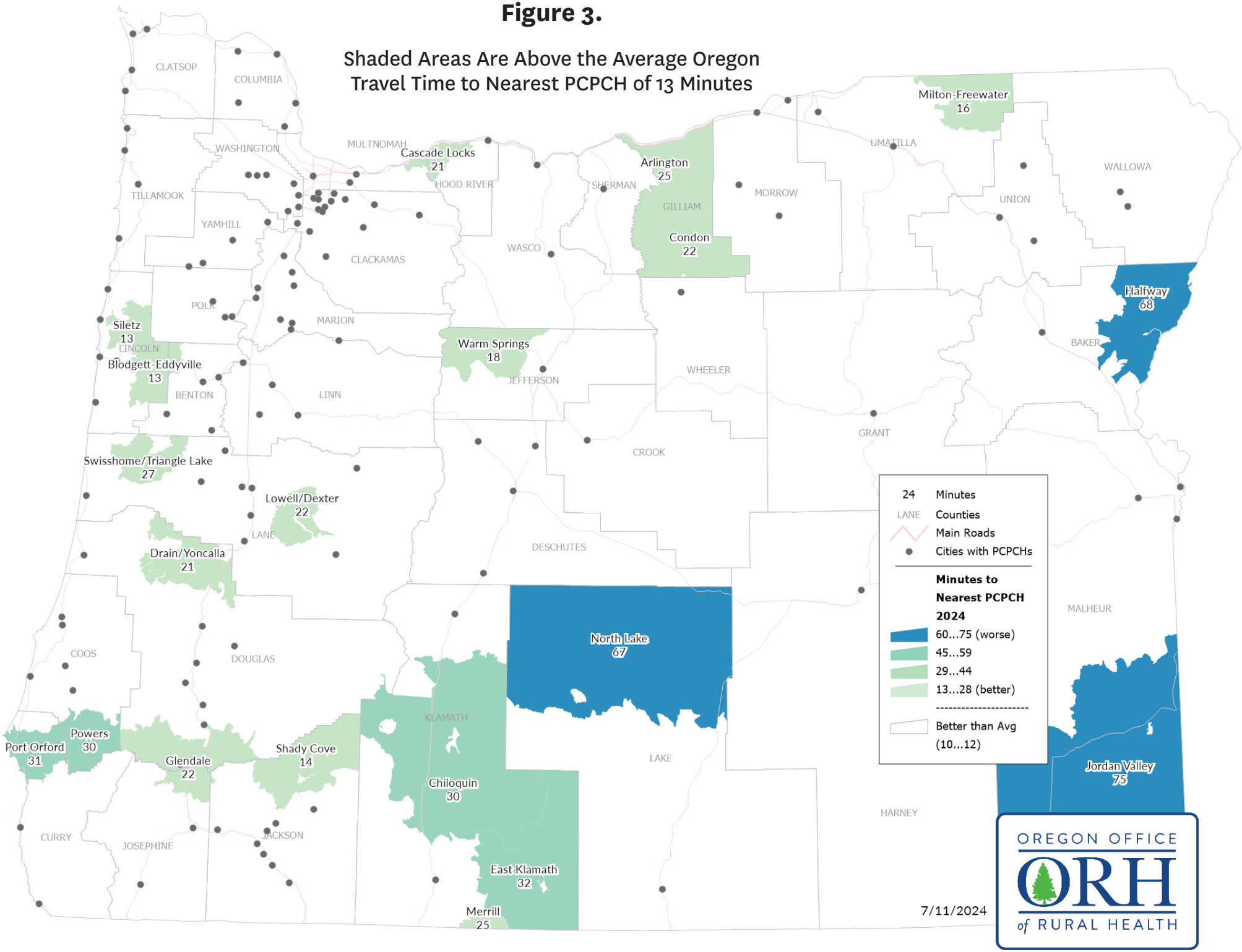
Travel Time to Nearest PCPCH in Minutes (lower is better)	*2024*	*2023*
Oregon	13	13
Urban	10	10
Rural (without Remote)	12	12
Rural (including Remote)	13	13
Remote	22	18

Five Longest Travel Times to PCPCH in Minutes	*2024*	*2023*
Jordan Valley	75	75
Halfway	68	10
North Lake	67	67
East Klamath	32	32
Port Orford	31	31

[4] Oregon Health Authority. (2024). Patient-Centered Primary Care Home Program 2020 Recognition Criteria Technical Specifications and Reporting Guide. https://www.oregon.gov/oha/HPA/dsi-pcpch/Documents/2020-PCPCH-TA-Guide.pdf.

Figure 3.

Shaded Areas Are Above the Average Oregon Travel Time to Nearest PCPCH of 13 Minutes



2) Primary Care Capacity (Percent of Primary Care Visits Able to be Met)

Description:
This measure compares the estimated number of visits that primary care providers in the service area should be able to supply, with the estimated primary care visits needed by the demographic breakdown of the local population (Children and older adults, for example, require more visits). The primary care providers in this variable include general and family physicians, pediatricians, obstetrician-gynecologists, internists, primary care physician associates (PA—formerly known as physician assistants in Oregon), and primary care nurse practitioners (NP).

Data Source:
Estimated Primary Care Visits Provided:
Patient care FTE for all the providers listed above is from the Oregon Health Authority's (OHA) Health Care Workforce Reporting Program Database: licensure surveys[5] using primary and secondary work locations. The physician, PA and NP surveys include renewals as of January 2024. Only providers renewing their licenses are required to fill out the surveys, so first-time licensees are not included in the FTE count. An increasing number of providers also report having a "mobile practice or work in an outcall capacity." These providers are not required to give a work address and are not included in the FTE counts below.

The estimated number of visits provided per year by primary care specialty is the average between the 2022 Health Resources and Services Administration (HRSA) Federally Qualified Health Center (FQHC) National[6] Staffing and Utilization numbers and the Oregon[7] Staffing and Utilization numbers.

Estimated Primary Care Visits Needed:
Periodically adjusted rates from the National Ambulatory Medical Care Survey: State and National Summary Tables, National Center for Health Statistics (2019)[8]

Local population data by ZIP code: Claritas (2024)

Methodology:
a) Estimated Number of Primary Care Visits Provided Per Year =
([FTE of Family Med/Practitioners] x 2220) +
([FTE of General Practitioners] x 2504)
([FTE of Internists] x 2093) +
([FTE of Obstetrician-gynecologists] x 2125) +
([FTE of Pediatricians] x 2271) +
([FTE of Primary care nurse practitioners] x 2062) +
([FTE of Primary care physician associates] x 2234)

[5] Oregon Health Authority: Health Care Workforce Reporting: Office of Health Analytics: State of Oregon. (n.d.). Health Care Workforce Reporting: Oregon Health Authority. https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/Health-Care-Workforce-Reporting.aspx. Note: data from the OHA's Health Care Workforce Reporting Program Database were used to produce this product. Statements contained herein are solely those of the authors and the OHA assumes no responsibility for the accuracy and completeness of the analyses contained in the product.
[6] Health Resources and Services Administration. (n.d.). Federally Qualified Health Center National Staffing and Utilization Table 5. Federally Qualified Health Center (FQHC) National Staffing and Utilization Table 5. https://data.hrsa.gov/tools/data-reporting/program-data/national/table?tableName=5&year=2022.
[7] Health Resources and Services Administration. (n.d.). Federally Qualified Health Center National Staffing and Utilization Table 5. Federally Qualified Health Center (FQHC) Oregon Data Staffing and Utilization Table 5. https://data.hrsa.gov/tools/data-reporting/program-data/state/OR/table?tableName=5
[8] The Centers for Disease Control Ambulatory and Hospital Care Statistics Branch of the National Center for Health Statistics. (2019). National Ambulatory Medical Care Survey: 2019 National Summary Tables. https://www.cdc.gov/nchs/data/ahcd/namcs_summary/2018-namcs-web-tables-508.pdf.

b) Estimated Number of Primary Care Visits Needed = 0.8[9] x
(([Female Population 0-14] x 2) +
([Female Population 15-24] x 2) +
([Female Population 25-44] x 2.6) +
([Female Population 45-64] x 4.1) +
([Female Population 65-74] x 7.2) +
([Female Population 75+] x 7.6) +
([Male Population 0-14] x 1.9) +
([Male Population 15-24] x 1.1) +
([Male Population 25-44] x 1.3) +
([Male Population 45-64] x 3.3) +
([Male Population 65-74] x 5.9) +
([Male Population 75+] x 8))

c) Estimated visits provided is divided by the estimated number of primary care visits needed. The final variable is a ratio of need being met, using the following formula:

$$V_2 = \frac{\text{Estimated Visits Provided}}{\text{Estimated Primary Care Visits Needed}}$$

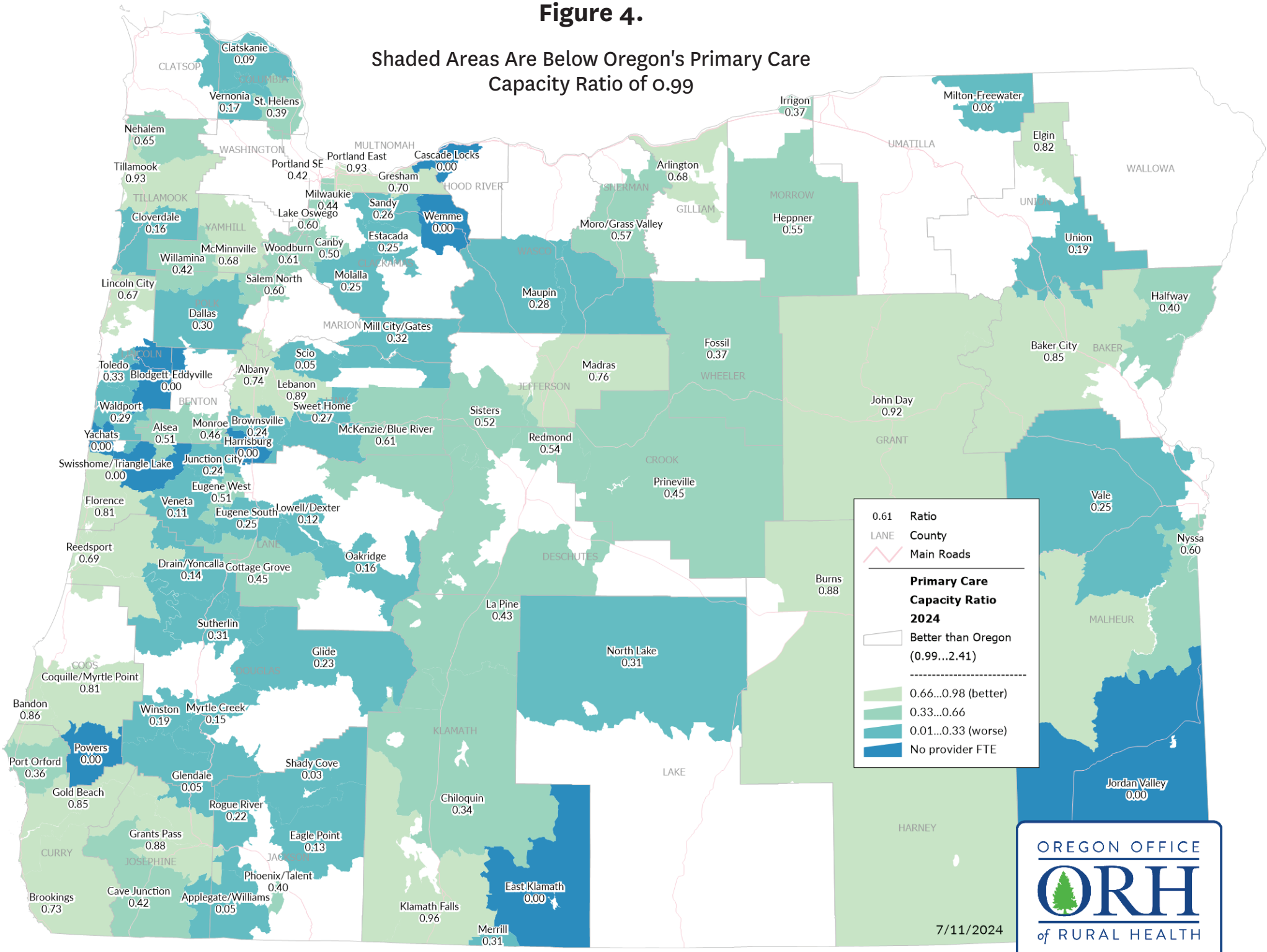
Results:
A ratio of 1.00 signifies a balance between supply and demand, assuming uniform access and affordability. A lower ratio indicates higher demand, whereas a higher ratio indicates excess supply. In Oregon, the estimated ratio of primary care visits that can be accommodated stands at 0.99, which is similar to last year. This ratio implies that if health care providers were evenly distributed across the state, the primary care capacity should sufficiently match patient requirements. However, rural and remote service areas exhibit a lower ratio of 0.69, which shows a pronounced demand-supply gap, especially compared to 1.16 in urban areas. There are nine service areas, all rural, that do not have any primary care provider FTE, including Blodgett-Eddyville, Cascade Locks, East Klamath, Harrisburg, Jordan Valley, Powers, Swisshome/ Triangle Lake, Wemme, and Yachats.

Primary Care Capacity Ratio (higher is better)	*2024*	*2023*
Oregon	0.99	0.98
Urban	1.16	1.13
Rural (without Remote)	0.67	0.70
Rural (including Remote)	0.69	0.72
Remote	0.91	1.01

[9] All multipliers are from the National Ambulatory Medical Care Survey; which estimates visits to all types of physicians. Since primary care from all providers in rural areas accounts for 80% of those visits, the calculation here is multiplied by 0.8.

Figure 4.

Shaded Areas Are Below Oregon's Primary Care Capacity Ratio of 0.99



3) Dentists Per 1,000 Population

Description:
Patient care FTE of local dentists as a ratio to local population.

Data Sources:
Dentist patient care FTE is from the Oregon Health Authority's Health Care Workforce Reporting Program: licensure survey (renewals as of January 2024) for both primary and secondary work locations. Only providers renewing their licenses are required to fill out the surveys, so first-time licensees are not included in the FTE count.

Local population: Claritas (2024)

Methodology:

$$V_3 = \frac{\text{Dentist patient care FTE}}{\text{Local population}} \times 1{,}000$$

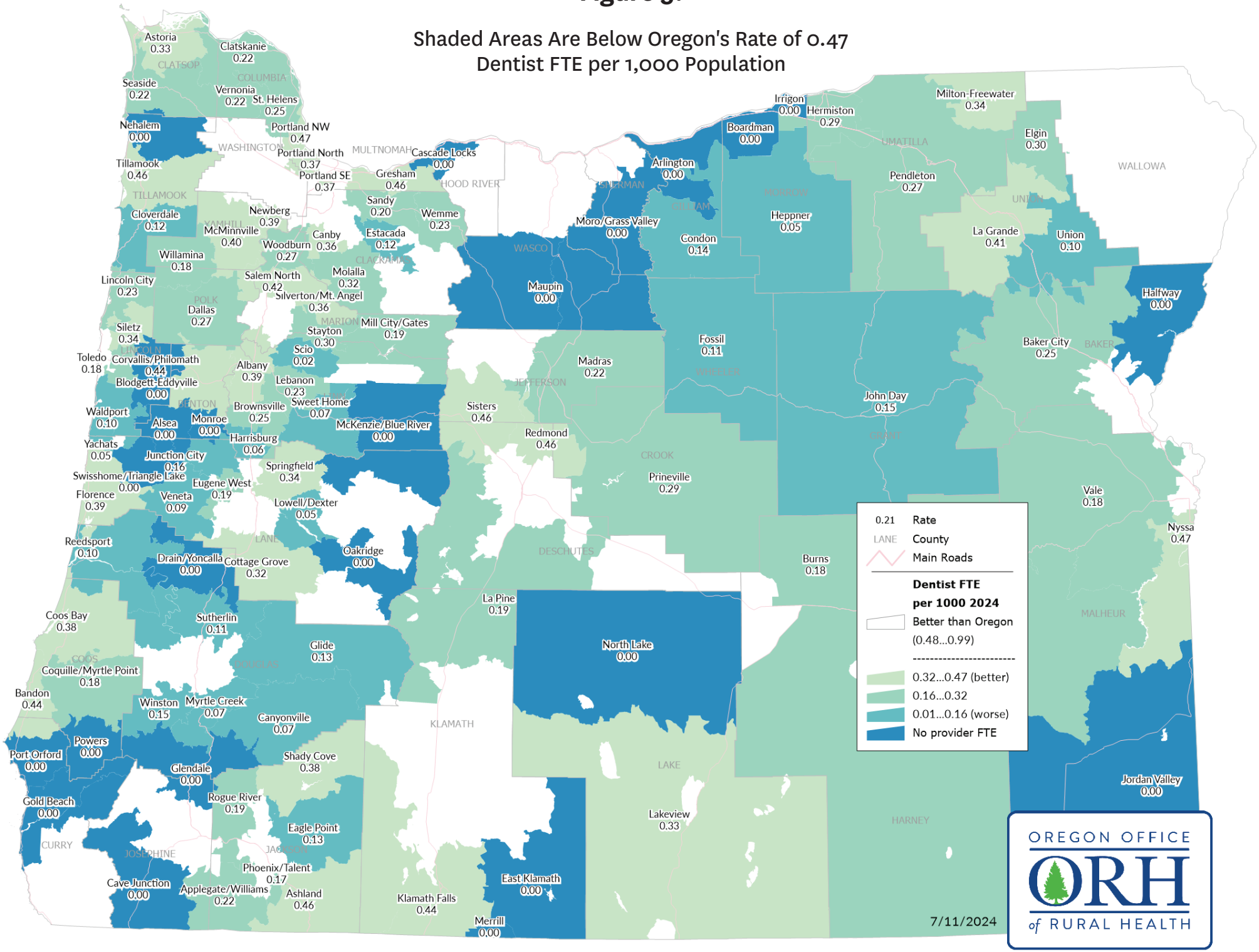
Results:
Oregon has 0.47 dentist patient care FTE per 1,000 people, which is the same as last year. Twenty-four primary care service areas (all rural or remote) have no dentist FTE. The urban areas of Portland SW (0.99) and Eugene/University (0.89) have the highest numbers of dentists per 1,000 people.

Primary Care Service Areas with no dentists include: Alsea, Arlington, Blodgett-Eddyville, Boardman, Cascade Locks, Cave Junction, Drain/Yoncalla, East Klamath, Glendale, Gold Beach, Halfway, Irrigon, Jordan Valley, Maupin, McKenzie/Blue River, Merrill, Monroe, Moro/Grass Valley, Nehalem, North Lake, Oakridge, Port Orford, Powers, and Swisshome/Triangle Lake.

Dentists per 1,000 Population (higher is better)	*2024*	*2023*
Oregon	0.47	0.47
Urban	0.55	0.55
Rural (without Remote)	0.31	0.32
Rural (including Remote)	0.31	0.32
Remote	0.30	0.34

Figure 5.

Shaded Areas Are Below Oregon's Rate of 0.47
Dentist FTE per 1,000 Population



4) Mental Health Providers Per 1,000 Population

Description:
Count of all psychiatrist FTE, psychologist FTE, licensed professional counselor/marriage and family therapist FTE, clinical social worker FTE, psychiatric nurse practitioner FTE, and psychiatric physician associate FTE as a ratio to the local population.

Data Source:
All providers' patient care FTE numbers are from the Oregon Health Authority's Health Care Workforce Reporting Program: licensure surveys for both primary and secondary work locations for renewals as of January 2024. Only providers renewing their licenses are required to fill out the surveys, so first-time licensees are not included in the FTE count. Providers who perform telehealth/mobile work and do not have a physical work address are also not included.

Local population data: Claritas (2024)

Methodology:

$$V_4 = \frac{\text{Sum of mental health provider FTE}}{\text{Local population}} \times 1000$$

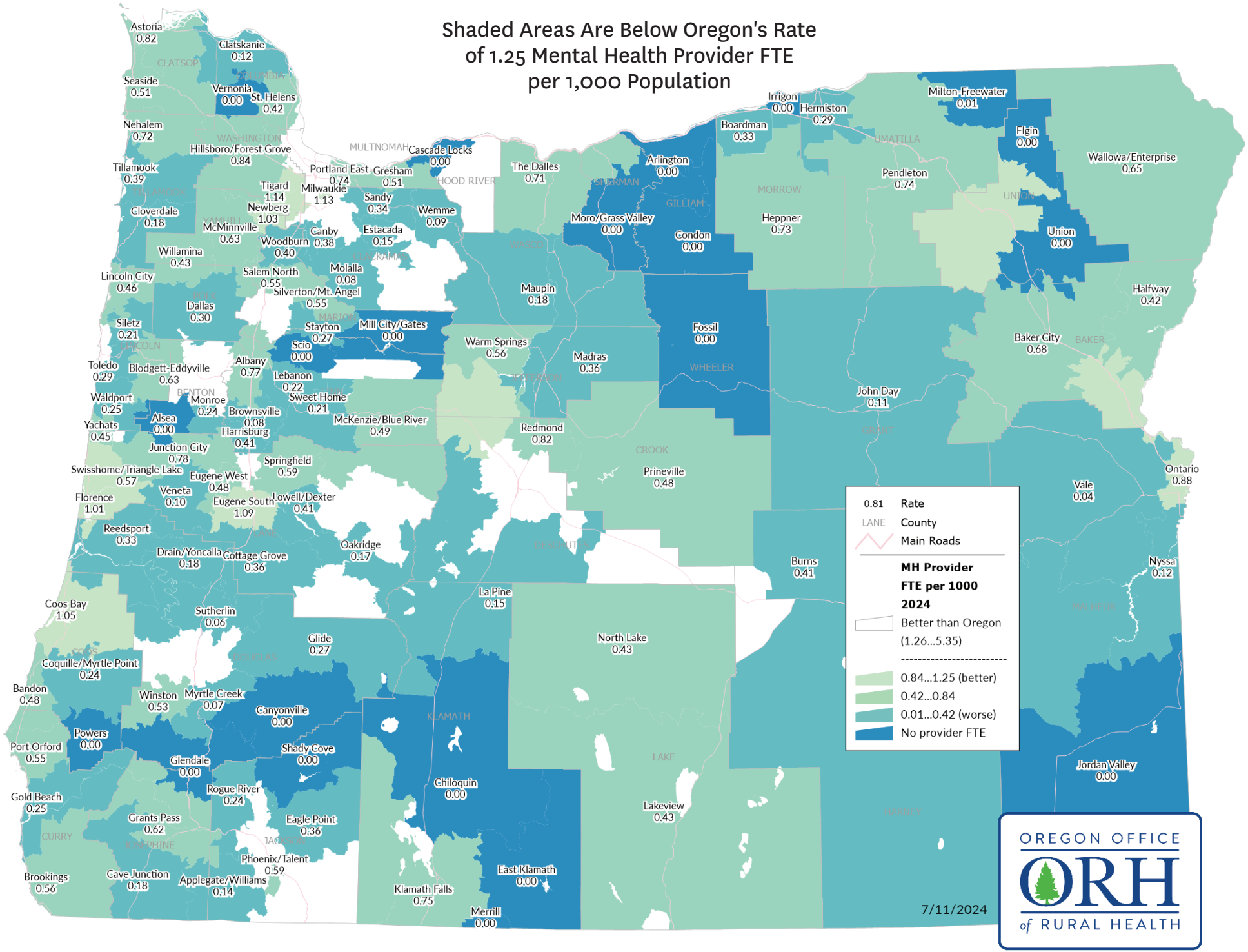
Results:
There are 1.25 mental health provider FTE per 1,000 people in Oregon, which is slightly higher than last year's rate of 1.15. Twenty service areas (all rural or remote) have no mental health providers. The highest FTE per 1,000 are in the urban areas of Portland SW (5.4), Eugene/University (4.6) and Portland NE (3.5).

Primary Care Service Areas with no mental health provider FTE include: Alsea, Arlington, Canyonville, Cascade Locks, Chiloquin, Condon, East Klamath, Elgin, Fossil, Glendale, Irrigon, Jordan Valley, Merrill, Mill City/Gates, Moro/Grass Valley, Powers, Scio, Shady Cove, Union, and Vernonia.

Mental Health Providers per 1,000 Population (higher is better)	*2024*	*2023*
Oregon	1.25	1.15
Urban	1.60	1.48
Rural (without Remote)	0.57	0.53
Rural (including Remote)	0.56	0.52
Remote	0.47	0.44

Figure 6.

Shaded Areas Are Below Oregon's Rate of 1.25 Mental Health Provider FTE per 1,000 Population



Category Two: Ability to Afford Care

5) Percent of Population Between 138% and 200% of the Federal Poverty Level

Description:
The percentage of the local population who are above the Medicaid cutoff of 138% of Federal Poverty Level (FPL) but still too poor to afford health insurance on their own (unless their employer provides health insurance). In 2023, the 200% poverty threshold was $31,704 for one person and $49,052 for a family of three with one child.

Data Source:
American Community Survey (2018-2022)[10,11]

Methodology:
V5 = 200% FPL – 138% FPL

Results:
Approximately 10% of Oregonians live between 138% and 200% of the Federal Poverty Level, which is the same as last year. The rate ranges from a low of 4% in Portland NW to almost a quarter of the population in Burns (22%).

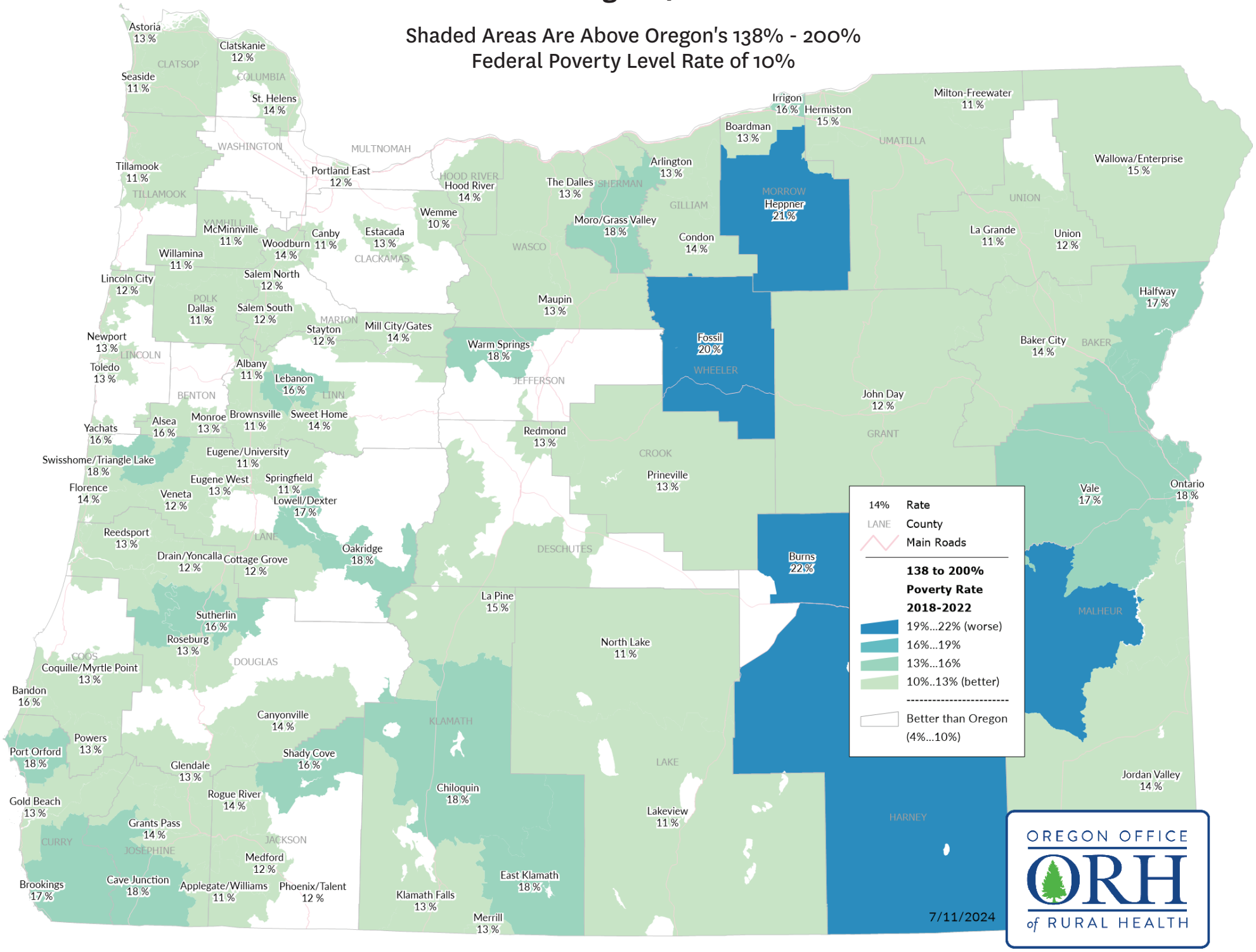
Percent 138-200% Federal Poverty Level (lower is better)	*2024*	*2023*
Oregon	10%	10%
Urban	9%	9%
Rural (without Remote)	12%	13%
Rural (including Remote)	12%	13%
Remote	15%	15%

Highest 138-200% Federal Poverty Level Rates	*2024*	*2023*
Burns	22%	24%
Heppner	21%	20%
Fossil	20%	24%
Moro/Grass Valley	18%	19%
Port Orford	18%	12%

[10] U.S. Census Bureau. (n.d.). Explore Census data. https://data.census.gov/.
[11] Because American Community Survey data are based on samples, they are subject to a margin of error, particularly in places with a low population, and are best regarded as estimates.

Figure 7.

Shaded Areas Are Above Oregon's 138% - 200%
Federal Poverty Level Rate of 10%



Category Three: Utilization

6) Inadequate Prenatal Care Rate per 1,000 Births

Description:
In Oregon, inadequate prenatal care is defined as care that did not begin until the third trimester or consisted of fewer than five prenatal visits. This is a good indicator of how often required primary care is accessed and utilized, as inadequate prenatal care more often results in higher rates of low-birthweight babies[12], premature births, stillbirths, neonatal death, and infant death[13] .

Data Source:
Most recent five years (2018-2022) of inadequate prenatal care data by ZIP code from the Oregon Health Authority Center for Health Statistics.

Methodology:

$$V_6 = \frac{\text{5 years of inadequate prenatal care births}}{\text{5 years of total births}} \times 1000$$

Results:
Between 2018 and 2022, Oregon's average inadequate prenatal care rate was 61.6 per 1,000 births per year, slightly higher than 60.3 for 2017 to 2021. The rate for remote areas is 61% more, at 99.2 per 1000 births. Nine service areas have over twice Oregon's rate, with Warm Springs (316.1) exceeding it by almost five times.

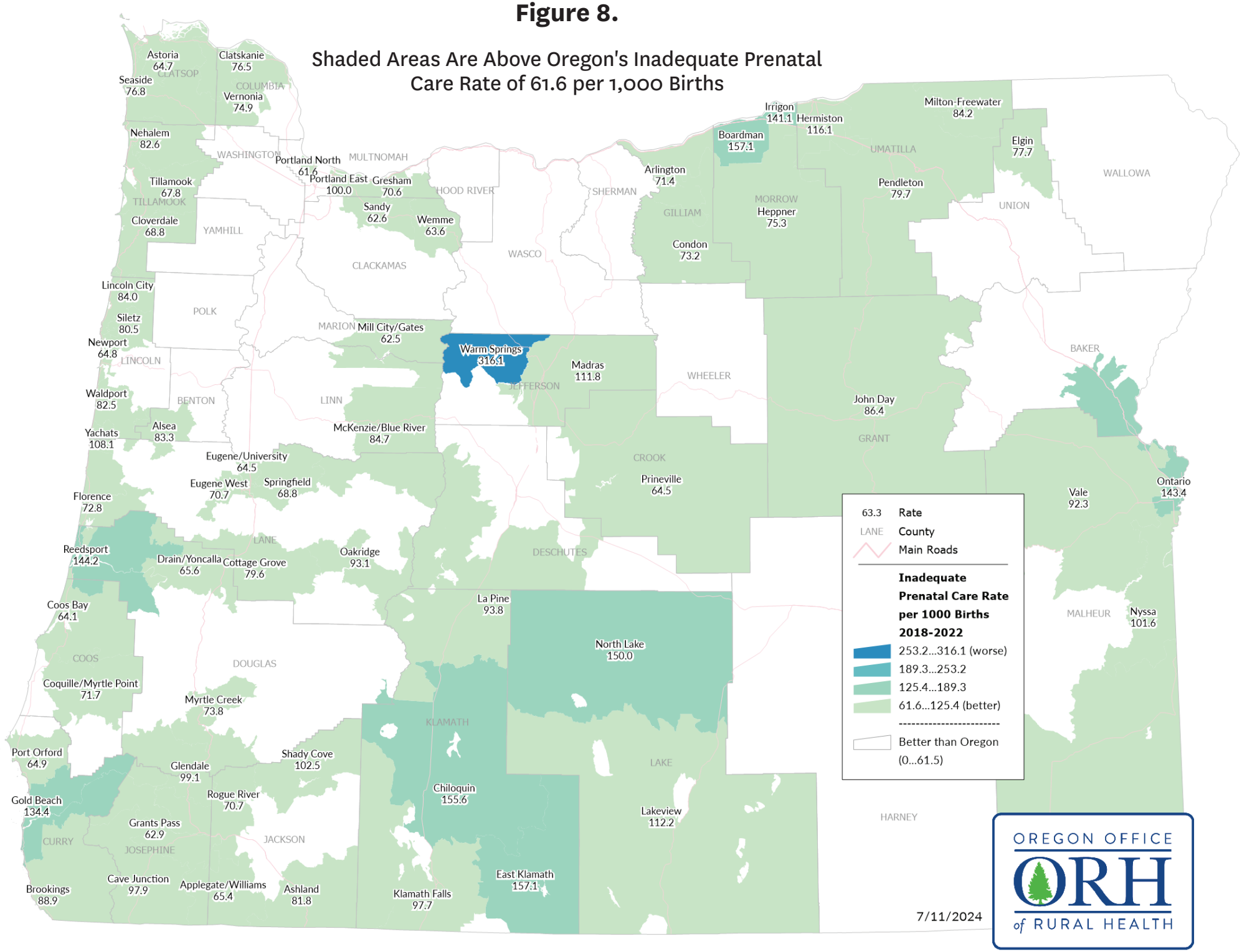
Inadequate Prenatal Care per 1,000 Births (lower is better)	*2024*	*2023*
Oregon	61.6	60.3
Urban	58.6	56.9
Rural (without Remote)	66.7	63.3
Rural (including Remote)	64.0	65.7
Remote	99.2	97.3

Five Highest Inadequate Prenatal Care Rates	*2024*	*2023*
Warm Springs	316.1	293.1
East Klamath	157.1	161.3
Boardman	157.1	154.6
Chiloquin	155.6	102.6
North Lake	150.0	142.9

[12] Oregon Health Authority. (2017). Volume 1. Oregon Vital Statistics Report 2017, 2-10. https://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/VITALSTATISTICS/ANNUALREPORTS/VOLUME1/Documents/2017/Chapter2Narrative.pdf.
[13] Partridge S, Balayla J, Holcroft, C., & Abenhaim H. (2012). Inadequate Prenatal Care Utilization and Risks of Infant Mortality and Poor Birth Outcome: A Retrospective Analysis of 28,729,765 U.S. Deliveries over 8 Years. American Journal of Perinatology, 29(10), 787-794. https://doi.org/10.1055/s-0032-1316439.

Figure 8.

Shaded Areas Are Above Oregon's Inadequate Prenatal Care Rate of 61.6 per 1,000 Births



7) Ambulatory Care Sensitive Conditions/Preventable Hospitalizations per 1,000

Description:
Ambulatory Care Sensitive Conditions (ACSC), also known as preventable hospitalizations, are a set of inpatient discharges that may have been avoidable had they been treated earlier with timely and effective primary care. These include common conditions such as asthma, diabetes, hypertension, and pneumonia that shouldn't have resulted in inpatient admissions.

Data Source:
All Oregon (2021-2023) and Washington (2017-2019) hospital inpatient discharges for the latest three available calendar years are from Apprise Health Insights.

Primary diagnoses filtered using the ACSC ICD-10 codes introduced and updated by John Billings.[14-15]

Local population: Claritas (2024)

Methodology:

$$V_7 = \frac{(3 \text{ Years of ACSC Discharges}/ 3)}{\text{Local population}} \times 1000$$

Results:
Oregon has a three-year average ACSC rate of 6.1 per 1,000 people, a slight increase from last year's rate of 5.8. It's important to note that this calculation only includes hospital data from Oregon and Washington. Oregon residents seeking treatment in hospitals in other states are not factored into this calculation. Consequently, communities situated near Oregon's borders, where the closest hospital might be in Idaho or California, face an underrepresentation of their overall hospital utilization. As a result, their ACSC rate is likely higher than what is reported here. This scenario particularly impacts an area like Jordan Valley, which shows no preventable hospitalizations.

Preventable hospitalizations in Oregon overall have been steadily increasing since the pandemic low point in 2020 but are still lower than 2019. Five service areas have over twice the state rate, with Warm Springs (21.3) at the highest number by far.

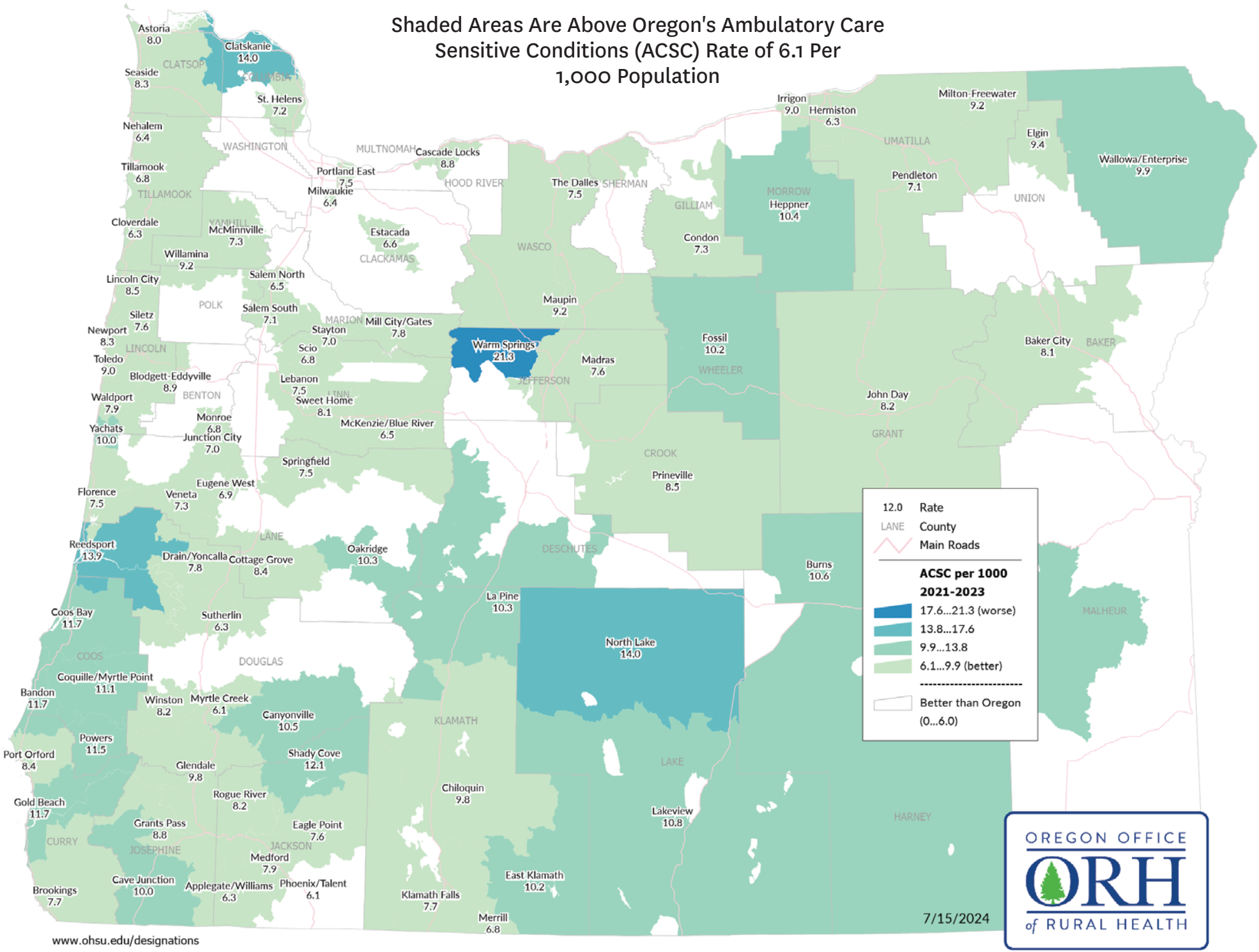
ACSC per 1,000 (lower is better)	*2024*	*2023*
Oregon	6.1	5.8
Urban	5.5	5.0
Rural (without Remote)	7.2	7.1
Rural (including Remote)	7.2	7.1
Remote	7.1	6.9

Five Highest ACSC Rates	*2024*	*2023*
Warm Springs	21.3	22.2
Clatskanie	14.0	13.8
North Lake	14.0	11.0
Reedsport	13.9	15.0
Shady Cove	12.1	11.4

[14] Billings J, Zeitel L, Lukomnik J, Carey TS, Blank AE, Newman L. Impact of socioeconomic status on hospital use in New York City. Health Aff (Millwood). 1993 Spring;12(1):162-73. https://pubmed.ncbi.nlm.nih.gov/8509018/.
[15] Updated ICD-10 list available at: https://wagner.nyu.edu/faculty/billings/acs-algorithm.

Figure 9.

Shaded Areas Are Above Oregon's Ambulatory Care Sensitive Conditions (ACSC) Rate of 6.1 Per 1,000 Population



8) Emergency Department Non-Traumatic Dental Visits Per 1,000 Population

Description:
Visits to the Emergency Department (ED) with a principal diagnosis of dental problems that are not a result of trauma for the latest three calendar years. Visits to the ED for non-traumatic oral health conditions are often the result of limited access to a primary dental provider.[16] Often these visits result in opioid and antibiotic prescriptions rather than definitive dental care.[17]

Data Source:
All Oregon hospital inpatient and outpatient ED visits for the latest three calendar years (2021-2023) from Apprise Health Insights.

Principal diagnoses are filtered using the non-traumatic dental codes from the published article: "Emergency Department Visits for Non-traumatic Dental Problems: A Mixed-Methods Study."[18] ICD-9 codes used in the study were updated to ICD-10.

Local population: Claritas (2024)

Methodology:

$$V_8 = \frac{(\text{3 Years of Non-Traumatic Dental ED Visits}/\ 3)}{\text{Local Population}} \times 1000$$

Results:
Oregon has a three-year average non-traumatic dental ED visit rate of 3.3 per 1,000 per year, which is slightly higher than last year's rate of 3.0. It's important to note that this calculation only includes hospital data from Oregon. Oregon residents who seek treatment in hospitals located in other states are not factored into this calculation. Consequently, communities situated near Oregon's borders, where the closest hospital might be in an adjacent state, are underrepresented in their hospital utilization. In other words, what is reported here is likely less than their actual rate. This applies to places such as Milton-Freewater (0.3), Jordan Valley (0.0)—which received the two best results—and Brookings (10.5).

Seventeen service areas (all rural or remote) have over double the state rate of dental ED visits, and Warm Springs (16.1) far exceeds that number.

The amount of statewide non-traumatic dental visits to the ED had been steadily decreasing since the 2020 pandemic low point but is still lower than in 2019:

2019: 16,130
2020: 12,929
2021: 13,234
2022: 13,752
2023: 14,888

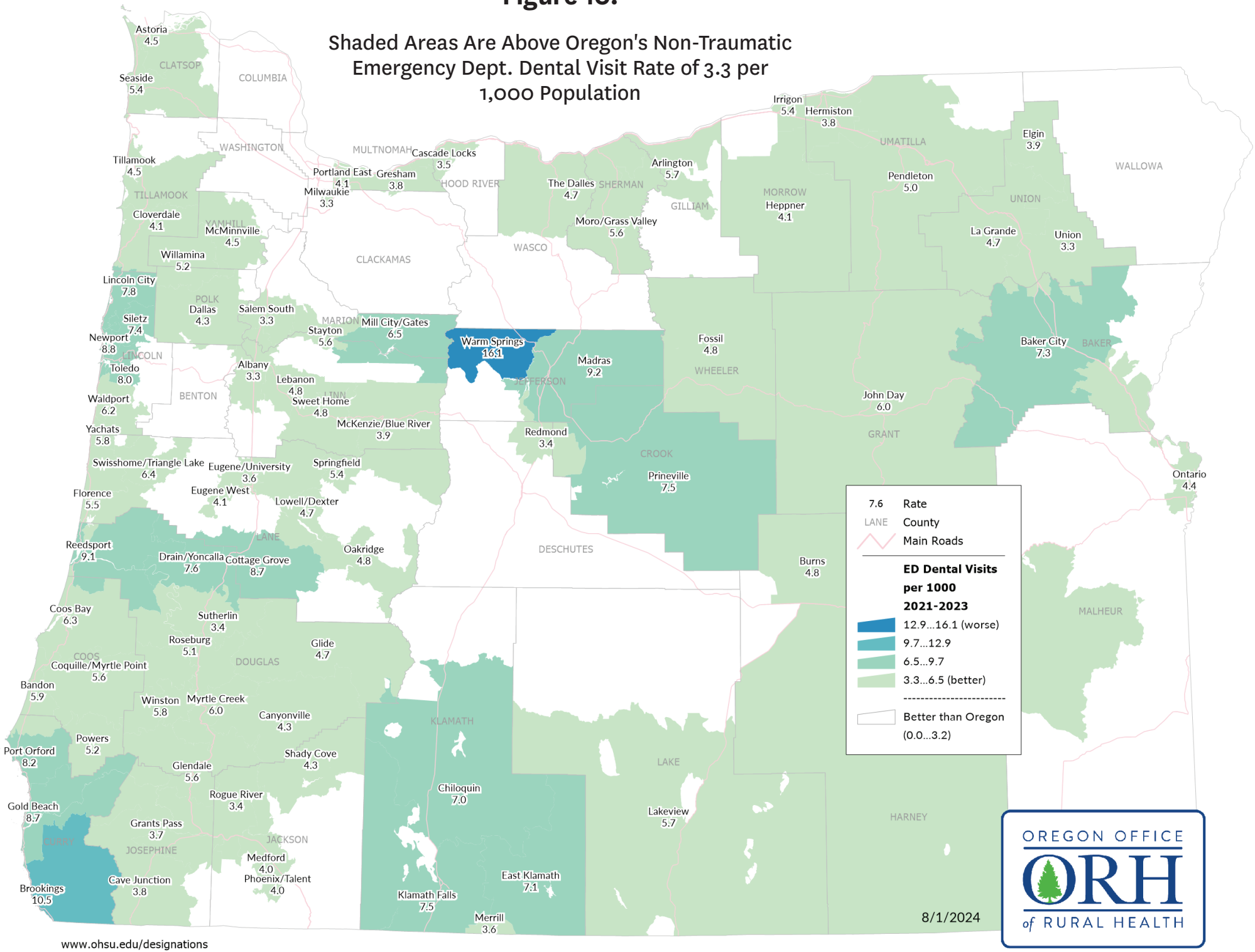
[16] Sun BC, Chi DL, Schwarz E, Milgrom P, Yagapen A, Malveau S, Chen Z, Chan B, Danner S, Owen E, Morton V, Lowe RA. Emergency department visits for nontraumatic dental problems: a mixed-methods study. Am J Public Health. 2015 May;105(5):947-55. https://pubmed.ncbi.nlm.nih.gov/25790415/.
[17] Ibid.
[18] Ibid.

ED Dental Visits per 1,000 (lower is better)	*2024*	*2023*
Oregon	3.3	3.0
Urban	2.7	2.5
Rural (without Remote)	4.5	4.2
Rural (including Remote)	4.5	4.2
Remote	4.4	4.2

Highest ED Dental Visit Rates	*2024*	*2023*
Warm Springs	16.1	17.7
Brookings	10.5	9.4
Madras	9.2	8.5
Reedsport	9.1	8.2
Newport	8.8	7.9

Figure 10.

Shaded Areas Are Above Oregon's Non-Traumatic Emergency Dept. Dental Visit Rate of 3.3 per 1,000 Population



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9) Emergency Department Mental Health/Substance Use Visits Per 1,000 Population

Description:
Visits to the Emergency Department (ED) with a principal diagnosis of mood disorders, anxiety disorders, alcohol/drug use, psychotic and personality disorders, suicide attempts, and suicidal ideations for the latest three calendar years. ED visits for mental health/substance use (MHSU) conditions are potentially preventable with adequate primary care.[19] They are more than twice as likely to result in a hospital admission.[20] The rate of MHSU ED visits in the past few years is highest among low-income populations.[21] In the Mental Health America (MHA) 2024 ranking, Oregon has the highest prevalence of adult and youth mental illness and substance use issues of all 50 states and the District of Columbia.[22]

Data Source:
All Oregon hospital inpatient and outpatient ED visits for the latest three calendar years (2021-2023) from Apprise Health Insights.

Principal diagnoses are filtered for the Clinical Classification Software (CCS) diagnosis groups used in the Agency for Healthcare Research and Quality (AHRQ) study "Mental Health and Substance Abuse-Related Emergency Department Visits among Adults, 2007."[23] . In 2021, CCS was replaced by Clinical Classification System Refined (CCSR), and the equivalent codes (Mental, Behavioral, and Neurodevelopmental Disorders) were used in this filter.

Local population: Claritas (2024)

Methodology:

$$V_9 = \frac{(3 \text{ Years of ED Mental Health/Substance Use Visits}/ 3)}{\text{Local Population}} \times 1000$$

Results:
Oregon's current three-year average mental health/substance use ED visit rate is 16.8 per 1,000 population per year, which is slightly higher than last year's rate of 16.3. Only Oregon hospital data are collected, so Oregon residents who go to hospitals in other states are not counted in this calculation. For a few communities near the Oregon border where the closest hospital is in an adjacent state, this means that only part of their hospital usage is captured, and is most likely higher than reported here. This applies to places like Milton-Freewater (2.1), Jordan Valley (2.5)—the two best results—and Brookings (19.4).

This is the only variable where rural areas (15.6) as a whole perform better than urban areas (17.3). However, the worst performing service area, Warm Springs (87.7), is rural and over five times the state's rate.

[19]Rockett IRH, Putnam SL, Jia H, Chang C, Smith GS. Unmet substance abuse treatment need, health services utilization, and cost: a population-based emergency department study. Annals of Emergency Medicine. 2005; 45(2):118–27.
[20]Owens PL, Mutter R, Stocks C. Mental Health and Substance Abuse-Related Emergency Department Visits Among Adults, 2007. HCUP Statistical Brief #92. July 2010. Agency for Healthcare Research and Quality, Rockville, MD.
[21]Weiss AJ, Barrett ML, Heslin KC, Stocks C. Trends in Emergency Department Visits Involving Mental and Substance Use Disorders, 2006–2013. HCUP Statistical Brief #216. 2016. Agency for Healthcare Research and Quality, Rockville, MD.
[22]https://mhanational.org/issues/2024/ranking-states.
[23]Owens PL, et al. Mental Health and Substance Abuse-Related Emergency Department Visits Among Adults, 2007.

Unfortunately, the rates for Warm Springs do contain a caveat: 2023 is the first year that the Claritas population data utilizes the 2020 Decennial Census numbers, and it is believed that the Census numbers for the Warm Springs reservation are an undercount. An undercount in the population, which is used as the denominator in calculating rates, would increase the rate even if the numerator remained the same from year to year. This applies to any rate that uses the Warm Springs population as a denominator.

The number of statewide mental health/substance use visits to the ED fell in 2022 to its lowest number in years but increased again in 2023.

2019: 78,851
2020: 72,611
2021: 74,900
2022: 69,144
2023: 70,436

However, the number of ED visits just for CCSR MBD012: Suicidal ideation/attempt/intentional self-harm did not show the same decline in 2022 and is currently at its highest number in years:

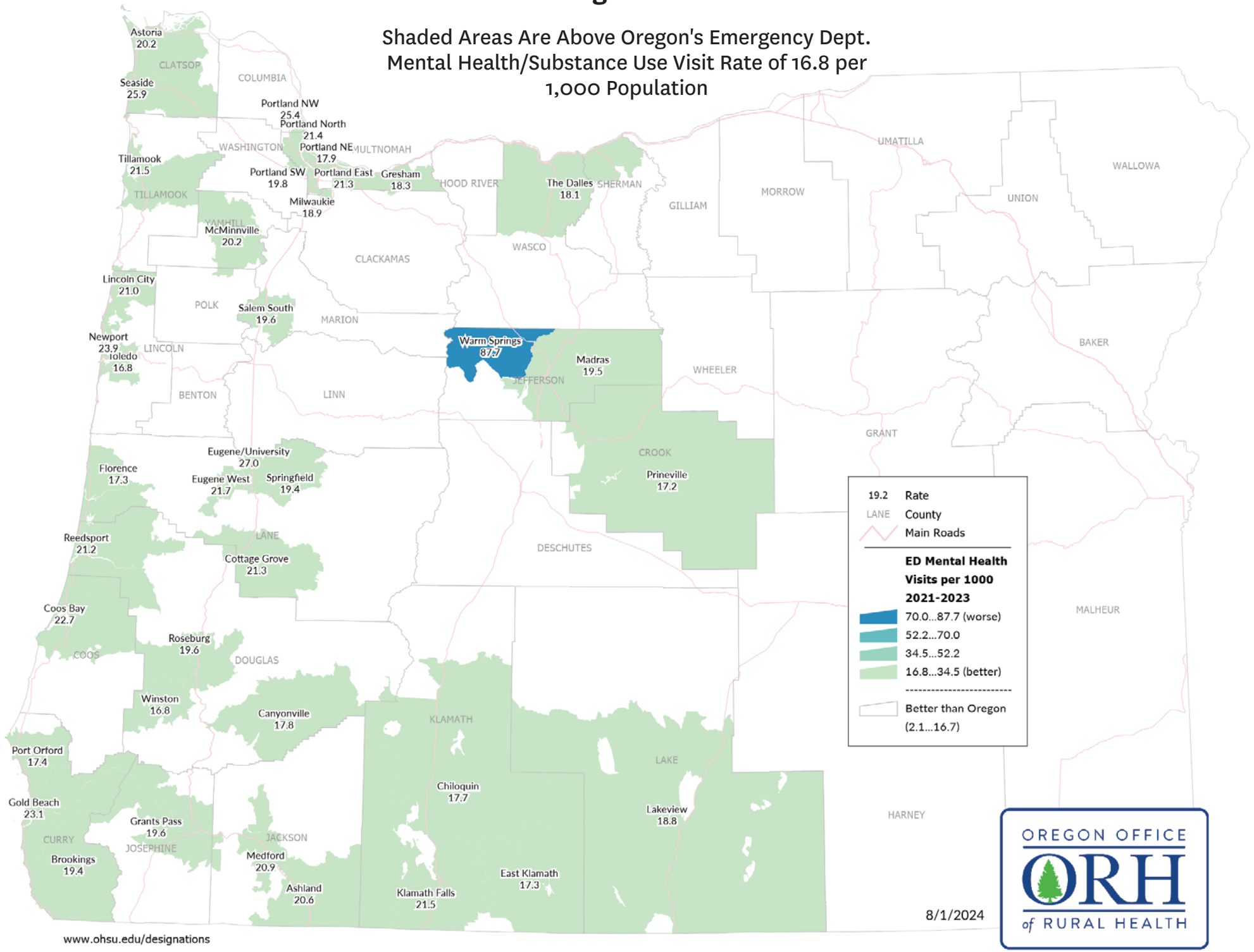
2019: 11,679
2020: 11,668
2021: 13,077
2022: 13,957
2023: 14,197

ED MHSU Visits per 1,000 (lower is better)	*2024*	*2023*
Oregon	16.8	16.3
Urban	17.3	17.4
Rural (without Remote)	15.8	15.9
Rural (including Remote)	15.6	15.7
Remote	13.3	13.6

Five Highest ED MHSU Rates	*2024*	*2023*
Warm Springs	87.7	74.5
Eugene/University	27.0	26.0
Seaside	25.9	25.5
Portland NW	25.4	27.8
Newport	23.9	21.8

Figure 11.

Shaded Areas Are Above Oregon's Emergency Dept. Mental Health/Substance Use Visit Rate of 16.8 per 1,000 Population



Total Scores

Methodology:
A score of between 0 (worst) and 10 (best) is calculated for each of the nine variables based on the variance of the lowest and highest numbers from the mean of each variable. The scores are added together to produce a final Unmet Need Total Score (with 90 being the best possible result):

$V_1 + V_2 + V_3 + V_4 + V_5 + V_6 + V_7 + V_8 + V_9$ = Unmet Need Total Score (0 to 90)

Results:
The highest (best) scoring primary care service area is Portland SW (78 out of 90), and the highest-scoring rural service area is a three-way tie between Sisters, Silverton/Mt. Angel, and Hood River (all 67). East Klamath has the lowest (worst) score of 21, followed by Warm Springs (25) and Glendale (28). Rural and remote areas comprise all but two of the 69 service areas that fall below the mean score of 49.7 for the state. However, of the 10 highest-scoring service areas, none are rural. See the map and list of scores starting on page 6 of this report.

Warm Springs, which had the worst score in the previous three years, was hit hard by the COVID-19 pandemic. Hospitalizations caused this service area to have the worst score (0 out of 10) for both mental health and dental health ED visits as well as ACSC/preventable hospitalizations. This service area also has the worst score (0) for inadequate prenatal health care, with a rate multiple times the state rate. These poor utilization results exist despite numbers that show adequate provider availability in the local area.

A caveat about the ranking is that all three of the hospital utilization variables (ACSC, ED Dental, and ED Mental) utilize data from Oregon and Washington hospitals only (ACSC) or Oregon hospitals only (ED Dental and Mental). Three rural service areas—Brookings (46), Jordan Valley (38), and Milton-Freewater (45)—mainly use hospitals that are located in adjacent states. As a result, their visit numbers for these variables are incomplete and may give the impression that these communities have better health care service utilization than is actually the case. Their total scores and rankings should be interpreted with this in mind.

Mean (Average) Score by Geographic Area	*2024*	*2023*
Oregon	49.7	49.1
Urban	62.7	61.6
Rural (without Remote)	46.7	46.1
Rural (including Remote)	46.5	46.2
Remote	45.7	46.9

Areas With the Lowest Total Scores	*2024*	*2023*
East Klamath	21	26
Warm Springs	25	22
Glendale	28	29
Shady Cove	30	37
Chiloquin	31	35

OREGON OFFICE of RURAL HEALTH

Get in touch

1.866.674.4376
503.494.4450
ruralweb@ohsu.edu
www.ohsu.edu/orh

MAILING ADDRESS
Oregon Office of Rural Health
Oregon Health & Science University
3181 SW Sam Jackson Park Rd., L 593
Portland, OR 97239

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