



2017-18 PHYSICIAN SUPPLY

Estimates for Washington State, Counties and
Accountable Communities of Health

Office of Financial Management
Health Care Research Center

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2017-18 Physician Supply: Estimates for Washington State, Counties and Accountable Communities of Health

Executive Summary

In 2018, Washington state's physician supply was estimated to have increased by 418 to 19,159 from 18,741 physicians in 2017. This physician supply is equivalent to 256 physicians per 100,000 population in 2017 and 258 physicians per 100,000 in 2018. The median age of physicians remained unchanged at 49 years. The share of female physicians increased from 37.4% to 38.1%. Most of the growth in physician supply from 2017 to 2018 was in the supply of specialists. Despite a growth in numbers of both primary care physicians and specialists, the share of specialists increased by one percentage point to 65% in 2018 while primary care physicians' share decreased from 36% to 35%. Family medicine/general practice was the largest single specialty group with 3,241 physicians in 2017 and 3,316 physicians in 2018. Nearly all specialty groups experienced growth from 2017 to 2018. The increase of 17.6% in the hospitalist group was the largest of all specialties reviewed in this report.

County physician rates varied significantly in 2017 and 2018. Chelan County led all counties in both 2017 and 2018 in the overall physician rate. While Chelan County's rates surpassed 450 physicians per 100,000 population in both 2017 and 2018, only about one fourth of the counties had overall physician rates above the statewide rates of 256 physicians and 258 physicians per 100,000 population in 2017 and 2018, respectively. The median age of physicians by county ranged from a low of 40 years to over 60 years. The share of female physicians was low in most counties, when compared to the statewide share. Less than one sixth of the counties had a share of female physicians that was above the statewide share of 37% in 2017 and 38% in 2018. Large disparities existed in primary care physician rates and specialist rates among the counties. Again, Chelan County led all other counties in those rates with the majority of counties' rates below the statewide rates. In rates of the 13 specialty groups that account for all physicians, however, Chelan County only led in two – the rate of cardiologists in 2017 and the rate of orthopedic surgeons in 2017 and 2018.

Washington created Accountable Communities of Health to improve population health through coordination among providers. Each Accountable Communities of Health (ACH) consists of a county or group of counties. Large differences existed between the ACHs in physician supplies and characteristics. However, the differences at this level were not as large as the differences at the county level. In number of overall physicians per 100,000 population, HealthierHere (King County) was the only ACH with a rate above the statewide rate. The median age of physicians at the ACH level has a difference of six years in 2018 between the lowest median age (47 in SWACH, the southwest Washington ACH) and the highest median age (53 in Olympic Community of Health). Shares of female physicians increased in most ACHs from 2017 to 2018. However, HealthierHere was the only ACH with a share of female physicians (42.6% in 2017 and 43.2% in 2018) above the statewide share in both years. HealthierHere also outranked the other ACHs in primary care physician rates, specialist rates and the rates of most of the 13 specialty groups (7 in 2017 and 8 in 2018).

Detailed findings on physician supplies and physician characteristics are presented in Section 1 (State), Section 2 (County) and Section 3 (ACH). The Appendix includes a section on data sources and method and tables of data used for this report.

This report marks the first-time use of the *redesigned* Network Access Reports for estimates of physician supply in Washington. Health insurance companies conducting business in Washington are required to file the monthly Network Access Reports (NAR) with the state's Office of the Insurance Commissioner (OIC). The purpose of the NARs is to demonstrate adequate provider networks for services provided by the insurance companies. Contents of the NARs include key data elements usually used in provider supply analyses such as provider type, taxonomy and practice location. The NARs are publicly available on the OIC's website. The availability of the NARs on the monthly basis makes it a valuable source for developing timely estimates of provider supplies. The NARs were redesigned in 2017 with major differences in classification of provider specialty. Due to this difference, estimates on physicians' specialties from this report cannot be used to compare with estimates in the 2016 report that was based on earlier NARs. In addition, the use of updated population data in this report has resulted in minor differences in the overall physician rates when compared to the 2016 report.

Section 1. State Physician Supply

Key Findings

- *Overall physician supply.* The estimated number of physicians practicing in Washington increased from 18,741 in 2017 to 19,159 in 2018, an addition of 418 physicians. The statewide physician rate rose from 256 to 258 physicians per 100,000 population from 2017 to 2018.
- *Median age of physicians.* The median age of Washington's physicians remained unchanged from 2017 to 2018, at 49 years.
- *Share of female physicians.* Share of female physicians increased from 37.4% in 2017 to 38.1% in 2018.
- *Age difference between female and male physicians.* There is a 7-year difference in median age between female physicians and male physicians. Female physicians' median age was 45 years in both 2017 and 2018. Male physicians' median age dropped by one year from 52 years in 2017 to 51 years in 2018.
- *Physician supply by specialty.* Aside from the "Other Specialty" group, Family Medicine/General Practice and internal medicine (general) were the two largest of the 13 specialty groups that account for all physicians. The number of Family Medicine/General Practice physicians increased from 3,241 in 2017 to 3,316 in 2018. At the same time, the number of Internal Medicine (general) physicians remained unchanged at 2,365. The Hospitalist specialty had the largest change from 2017 to 2018. The number of hospitalists increased by 17.6%, from 445 to 523.
- *Supplies of primary care physicians and specialist physicians.* The numbers of primary care physicians (PCP) and specialists both increased from 2017 to 2018. However, the faster growth in specialist supply resulted in slightly reduced share and rate of PCPs. There were 6,670 PCPs (36% of all physicians and a rate of 91 PCPs per 100,000 population) in 2017. In 2018, there were 6,703 PCPs (35% of all physicians and a rate of 90 PCPs per 100,000 population). Meanwhile, the number of specialists increased from 12,070 (64% of all physicians and a rate of 164 specialists per 100,000 population) in 2017 to 12,456 (65% of all physicians and a rate of 168 specialists per 100,000 population) in 2018.
- *Physician supplies in counties.* The distribution of physicians among the more populous counties was quite similar in 2017 and 2018. King County alone had over 40% of the state's total physicians. The next four most populous counties (Pierce, Spokane, Snohomish and Clark) each had 5 to 10%. In addition, King County's physician supply increased from 40.5% in 2017 to 42% in 2018, whereas there was a slight decrease in each of the next four most populous counties. The remaining counties each accounted for less than 5% and no physicians were reported for Wahkiakum County in either year.
- *Physicians in Accountable Communities of Health.* HealthierHere, which consists of King County, had the largest share of the state's physicians, at 40.5% in 2017 and 42% in 2018. The shares of physicians in the other eight ACHs were all below 15% in 2017 and 2018.
- *Physicians in urban and rural areas.* The share of total physicians practicing in rural areas was below 6% in both 2017 (5.8%) and 2018 (5.9%). Shares of female physicians in rural areas were below 5% in both years (4.8% in 2017 and 4.9% in 2018).

Total Physician Supply

Washington state had an estimated total supply of 19,159 physicians providing direct patient care in 2018 (Figure 1). This number represents an increase of 418 physicians from the 18,741 physicians in 2017. The 2018 physician supply represented 62% of physicians with active licenses in 2018 filed with the state Department of Health.¹ In 2017, the corresponding percentage was 61. These physician supply estimates also mean that the state's physician-to-population rate in 2018 was 258 physicians per 100,000 population, compared to 256 physicians per 100,000 population in 2017 (Figure 2).

Figure 1. Physician Licenses and Physicians Providing Direct Patient Care, Washington State: 2017 and 2018

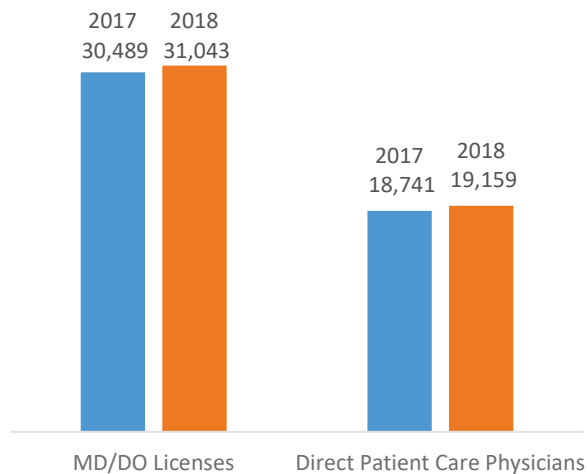
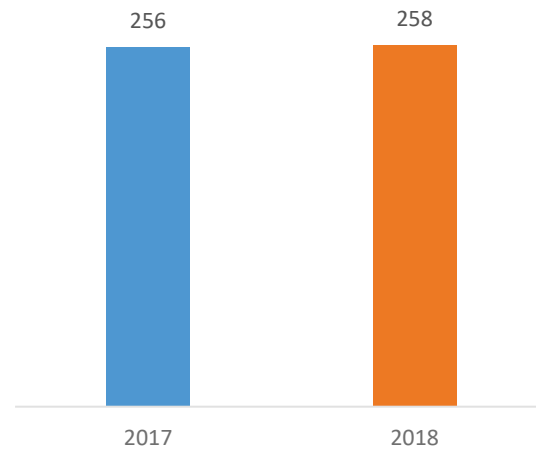


Figure 2. Total Practicing Physicians per 100,000 Population, Washington State: 2017 and 2018



Physician Supply by Specialty

We grouped physicians' primary specialties into 13 categories. The rank order of physicians in these specialties in terms of number, percent and rate (per 100,000 population) in 2018 remained unchanged from the rank order in 2017. There were, however, a few small changes for some specialties.

Aside from the "other Specialty" group,² the top two specialty groups with the largest numbers of physicians were Family Medicine/General Practice and Internal Medicine (General). These specialties accounted for 17% (3,316) and 12% (2,365), respectively, of the total physicians in 2018 (Figure 3). The physician rates of these specialties were 45 and 32 physicians, respectively, per 100,000 population in 2018. The FM/GP physician supply was lower in 2017 at 3,241 while the IM physician supply in 2017 was the same as was in 2018.

Five other specialty groups were in the middle range with 1,300 to 950 physicians in both years: Emergency Medicine, Anesthesiology, Radiology, OB-GYN and Pediatrics. They accounted for 5-7% of the total physician supply and 13-17 physicians per 100,000 population, in both years.

¹ The DOH physician licenses include those issued for MDs and DOs.

² The "Other Specialty" group consists of physicians not included in the other 12 specialty groups.

The remaining five specialty groups each consisted of fewer than 700 physicians in both 2017 and 2018: Psychiatry, Orthopedic Surgery, Cardiology, Surgery (general) and Hospitalist. Each of these specialties accounted for less than 5% of the total physician supply and had 6-9 physicians per 100,000 population.

Of the 13 specialty groups, Pediatrics was the only one with a noticeable reduction in the number of physicians from 2017 to 2018 (997 to 968 physicians). In the other groups, there was either an increase or no real change. The Hospitalist group, while accounting for the smallest fraction of the total physicians among the 13 specialty groups in both years, had the largest increase of 17.6%, from 445 physicians in 2017 to 523 physicians in 2018 (Table 1). In comparison, the distant second largest increase was 6.5% in the Emergency Medicine specialty (from 1,203 to 1,282 physicians) and the overall physician supply increase was 2.2%.

Figure 3. Number, Percent and Rate (per 100,000) of Physicians by Specialty, Washington: 2017 and 2018

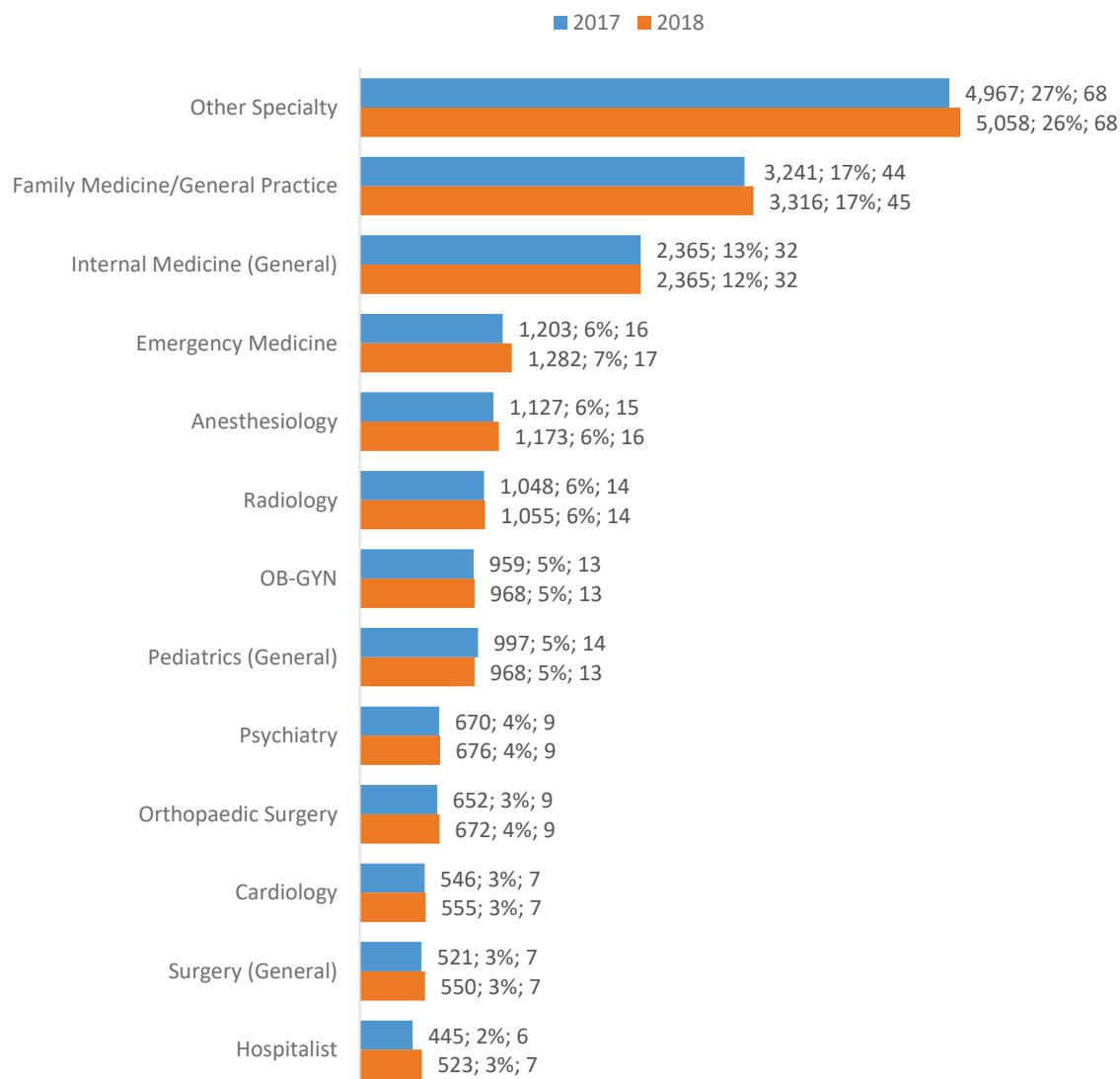


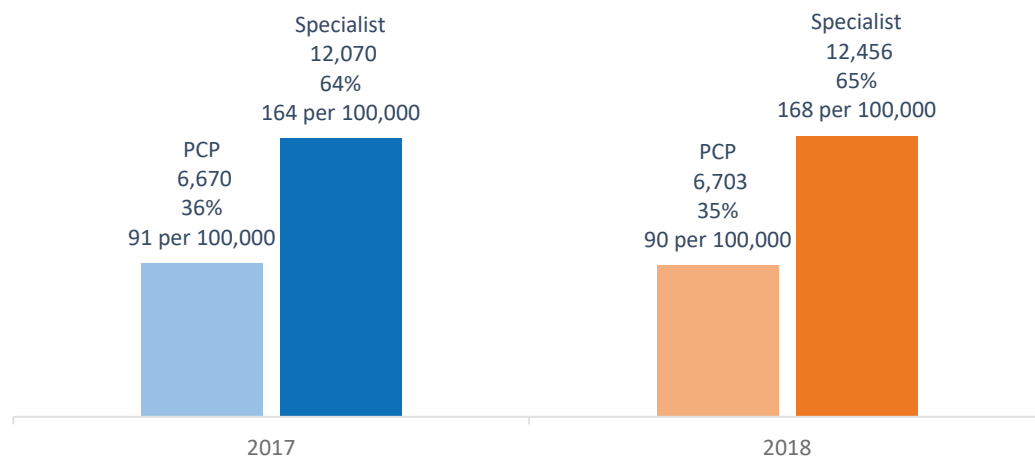
Table 1. Physician Change from 2017 to 2018 by Specialty: Washington

Primary Specialty	2017	2018	Change (N)	Change (%)
Other Specialty	4,967	5,058	91	1.8%
Family Medicine/General Practice	3,241	3,316	74	2.3%
Internal Medicine (General)	2,365	2,365	-1	0.0%
Emergency Medicine	1,203	1,282	79	6.5%
Anesthesiology	1,127	1,173	45	4.0%
Radiology	1,048	1,055	8	0.8%
Pediatrics (General)	997	968	-29	-2.9%
OB-GYN	959	968	9	0.9%
Psychiatry	670	676	6	0.9%
Orthopedic Surgery	652	672	20	3.0%
Cardiology	546	555	9	1.6%
Surgery (General)	521	550	29	5.6%
Hospitalist	445	523	78	17.6%
Total	18,741	19,159	418	2.2%

Supplies of Primary Care Physicians and Specialist Physicians

For this report, primary care physicians (PCP) refer to those practicing in the following four specialties: Family Medicine/General Practice, Geriatric Medicine, Internal Medicine (general) and Pediatrics (general). The remainder constitutes the specialist group. There were 6,703 PCPs in 2018, an increase of 23 physicians from the previous year (Figure 4). However, in terms of percentage of the total physicians, the 35% of PCPs in 2018 was one percentage point lower than in the previous year. This reduced share of PCPs was the result of a faster growth of the specialist group that added 386 physicians to the previous year's 12,070 resulting in 12,456 physicians in 2018. The physician-to-population rate for PCPs decreased from 91 to 90 physicians per 100,000 population, while the rate for specialists increased from 164 to 168 physicians per 100,000 population.

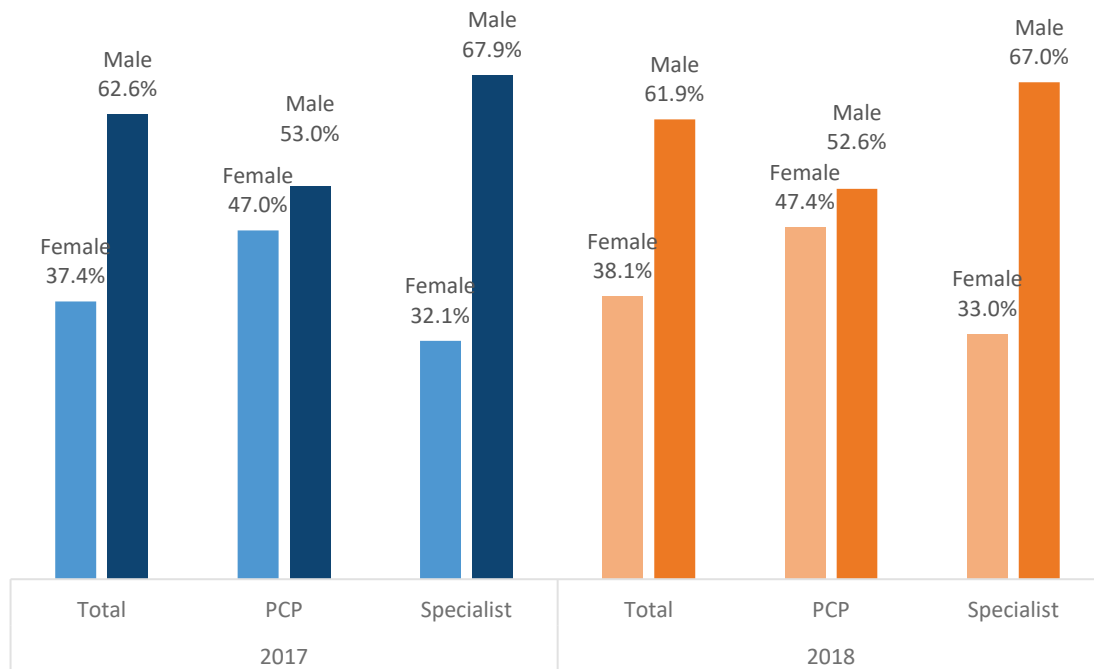
Figure 4. Number, Percent and Rate (per 100,000) of PCPs and Specialists, Washington: 2017 and 2018



Physician Demographics

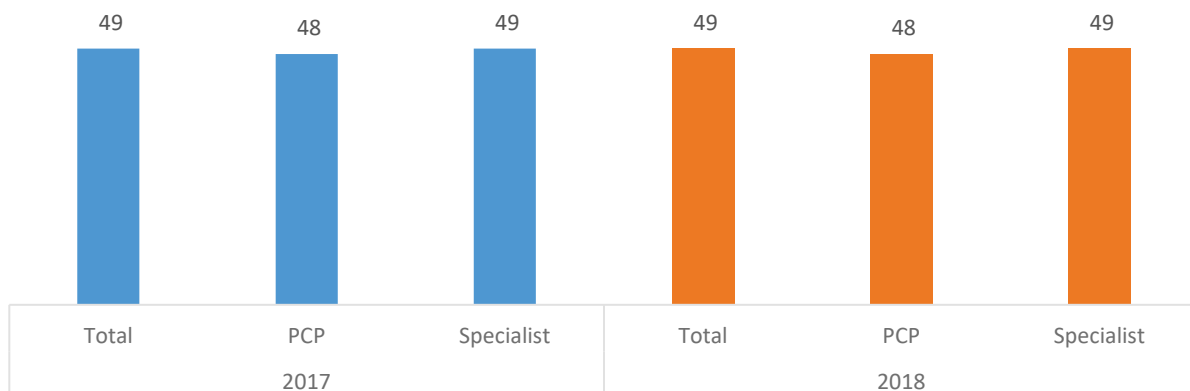
Gender. The gender distribution changed slightly from 2017 to 2018 with an increased share of female physicians. This is true for the total physician supply, PCPs and specialists. For the total physician supply, female physicians' share increased from 37.4% to 38.1% (Figure 5). The increase in the female PCP share was smaller, from 47% to 47.4% while the increase in female specialists was larger, from 32.1% to 33%.

Figure 5. Gender of Total Physicians, PCPs and Specialists (%), Washington: 2017 and 2018



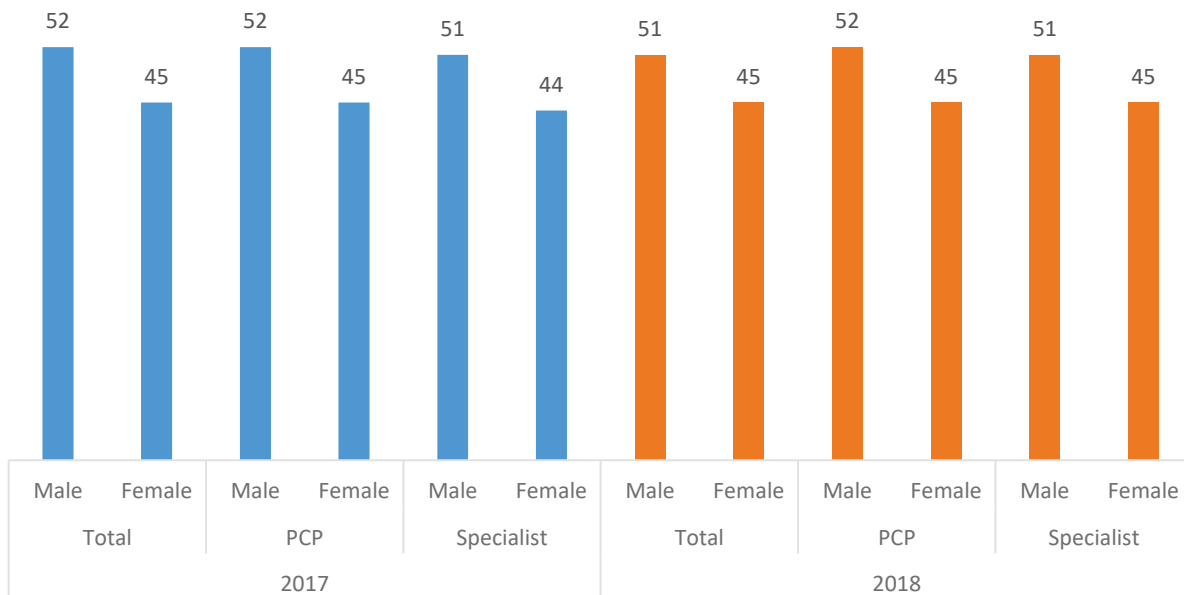
Median age. The physician median age did not change from 2017 to 2018, for total physicians, PCPs and specialists. Overall, physicians' median age was 49 (Figure 6). PCPs had a slightly lower median age of 48. Specialists' median age was also 49.

Figure 6. Median age of Total Physicians, PCPs and Specialists: 2017 and 2018



Median age of male and female physicians. Male physicians overall had a median age of 52 in 2017 (Figure 7). In 2018, their median age was one year lower, at 51. The median age of male PCPs remained the same at 52. The median age of male specialists also remained the same, but a year lower at 51. Female physicians had a median age of 45 years in both 2017 and 2018. Their median age was in general about six to seven years lower than that of male physicians in the corresponding groups.

Figure 7. Median Age of Total Physicians, PCPs and Specialists by Gender, Washington: 2017 and 2018



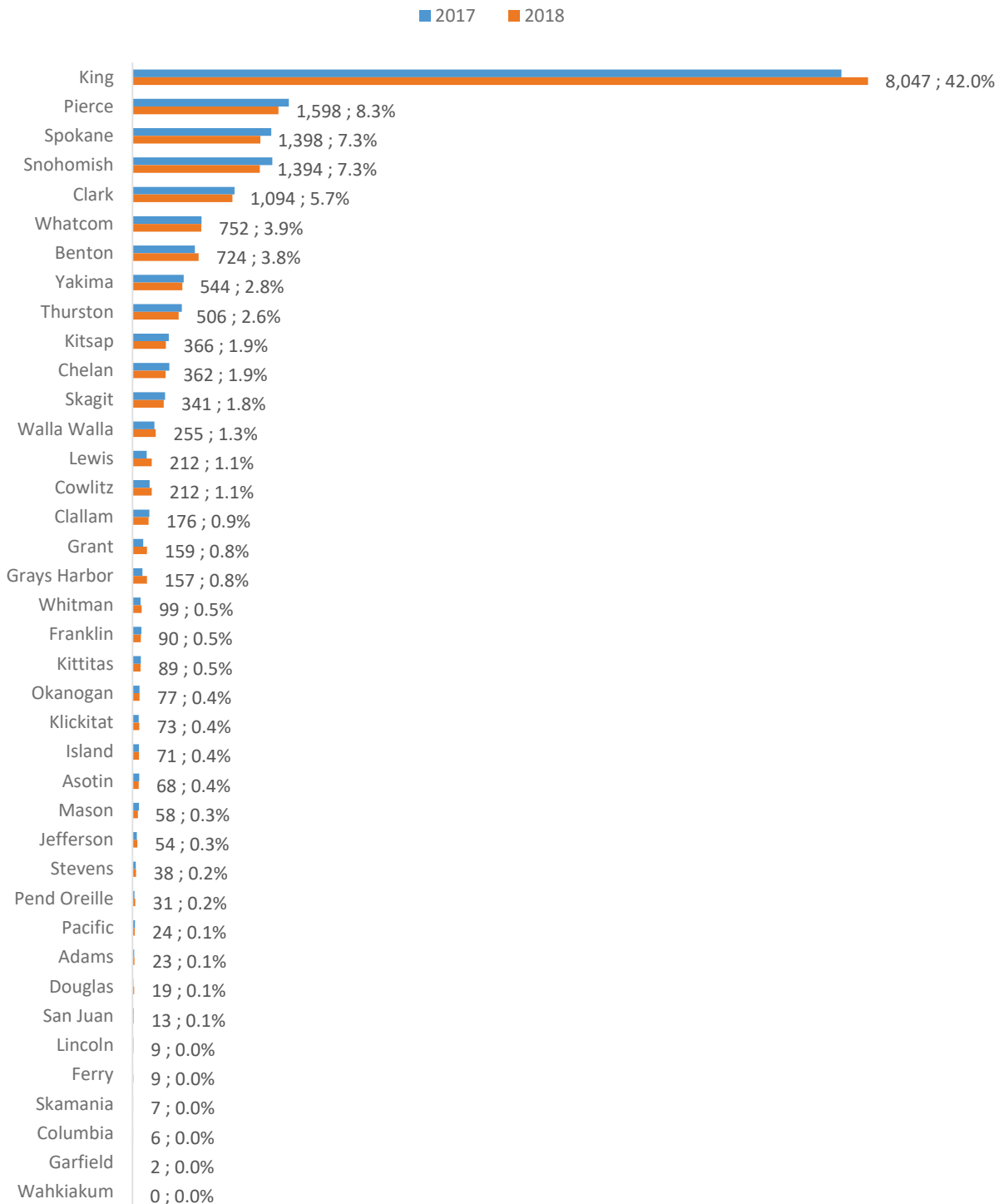
County Physician Supplies

The distribution of total physicians by counties appeared to be quite similar in 2017 and 2018, especially among the more populous counties. The state's most populous county, King County, had the largest share of the total physicians, at 42% or 8,047, in 2018 (Figure 8). The shares for the other counties were far lower, with none of them above 10%. For the next four most populous counties, Pierce had the distant second largest share of 8.3% of the total physicians, followed by Spokane (7.3%), Snohomish (7.3%) and Clark (5.7%). Of the five most populous counties, King was the only one whose share of physicians increased from 2017 to 2018. The other four all experienced a reduction. On the opposite end, six of the least populous counties each had fewer than 10 (or less than 0.1%) of the total physicians: Lincoln, Ferry, Skamania, Columbia, Garfield and Wahkiakum.³ In Wahkiakum, there were no physicians reported in either years.

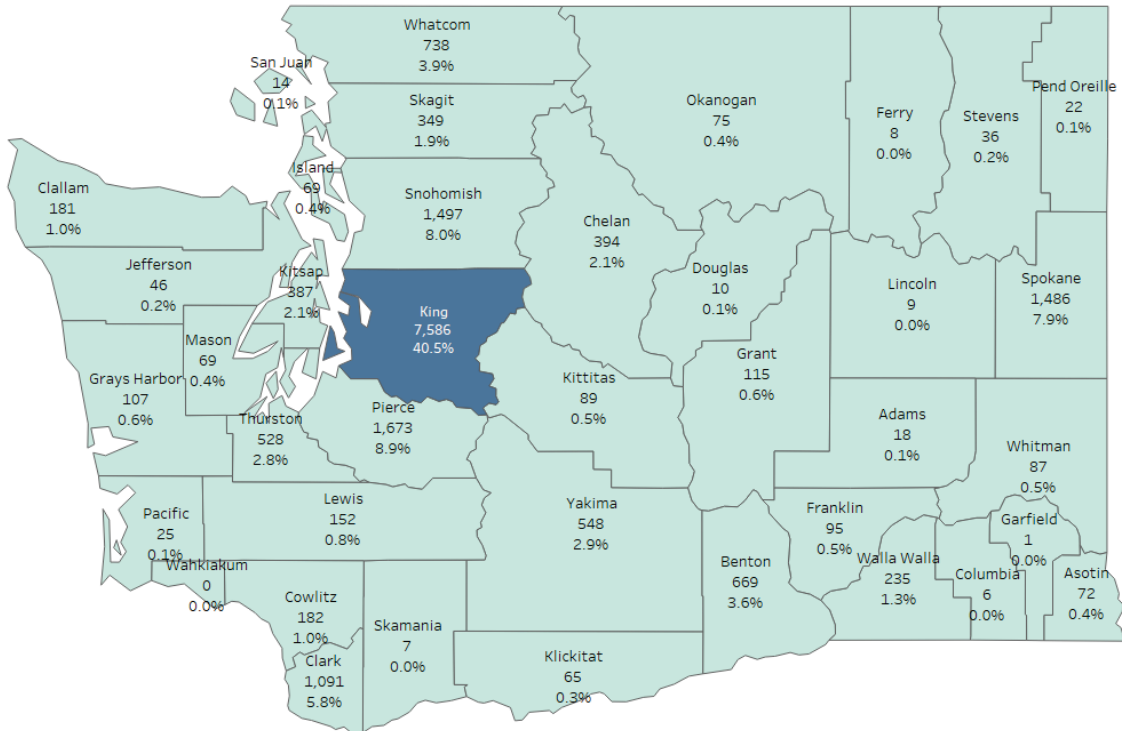
More data on county physician supplies are presented in Section 2.

³ See the Data Source and Notes section in the Appendix about the method used in this study to distribute physicians to counties if they had practice locations in multiple counties.

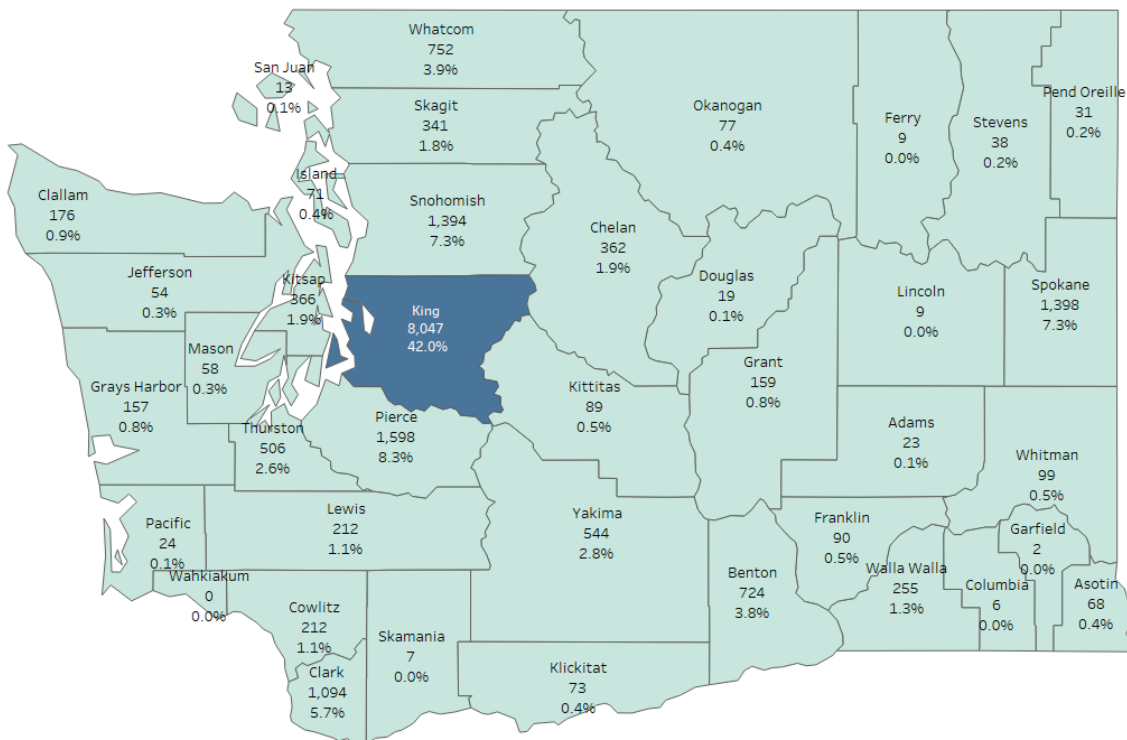
Figure 8. Number and Percent of Physicians by County in 2017 and 2018
(sorted by 2018 distribution; numbers shown for 2018 only)



Map 1. Number and Percent of Physicians: Counties 2017



Map 2. Number and Percent of Physicians: Counties 2018



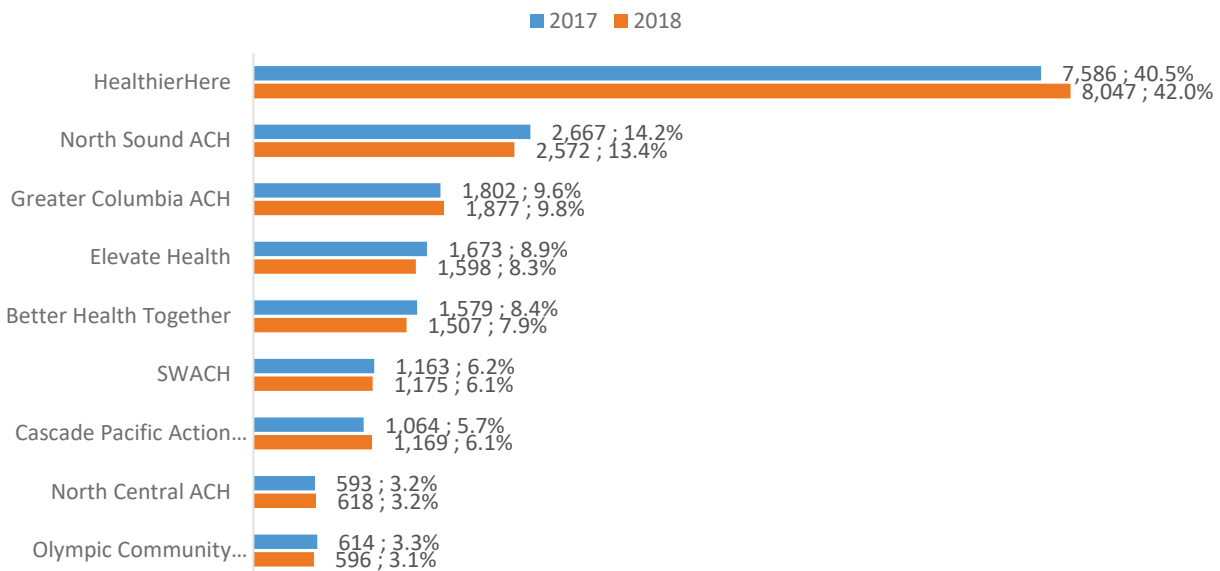
Physician Supplies in Accountable Communities of Health

An Accountable Community of Health or ACH is a regional coalition consisting of representatives from a variety of sectors, working together to improve population health. Each ACH represents a county or a group of adjacent counties. There are nine ACHs in the state:⁴

1. Better Health Together (Counties: Adams, Ferry, Lincoln, Pend Oreille, Spokane and Stevens)
2. Cascade Pacific Action Alliance (Counties: Cowlitz, Grays Harbor, Lewis, Mason, Pacific, Thurston and Wahkiakum)
3. Elevate Health (Counties: Pierce)
4. Greater Columbia ACH (Counties: Asotin, Benton, Columbia, Garfield, Franklin, Kittitas, Walla Walla, Whitman and Yakima)
5. HealthierHere (Counties: King)
6. North Central ACH (Counties: Chelan, Douglas, Grant and Okanogan)
7. North Sound ACH (Counties: Island, San Juan, Skagit, Snohomish and Whatcom)
8. Olympic ACH (Counties: Clallam, Jefferson and Kitsap)
9. SWACH (Southwest Washington ACH) (Counties: Clark, Klickitat and Skamania)

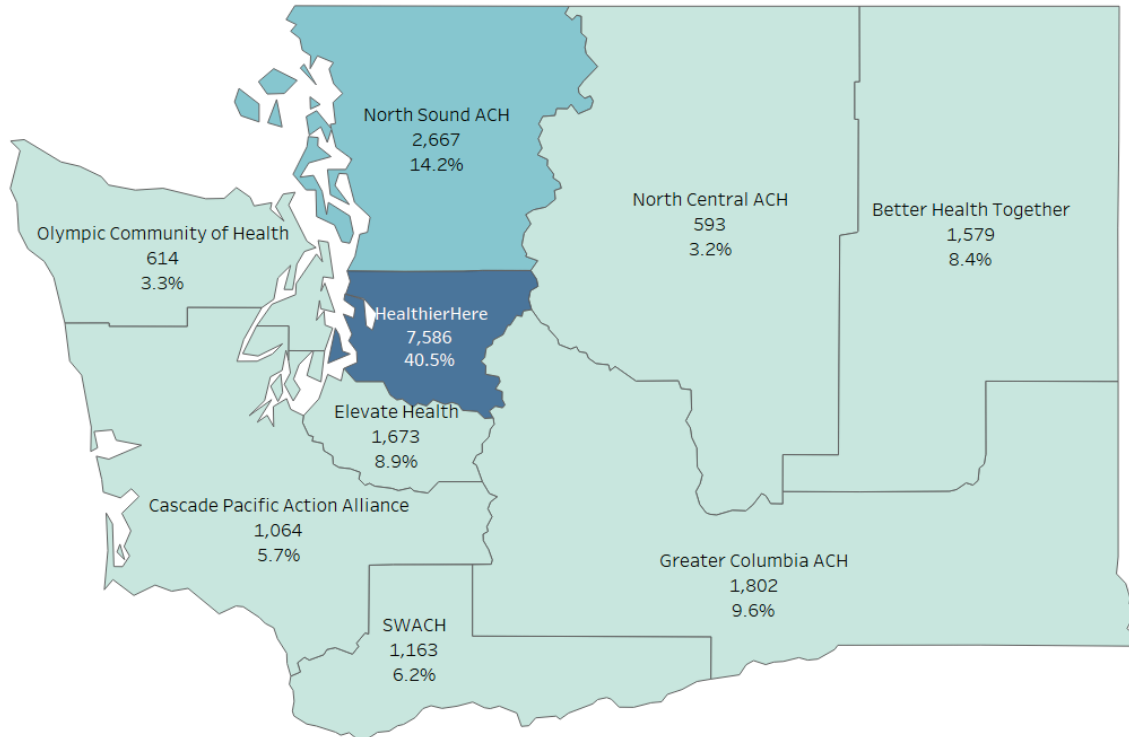
HealthierHere led the other ACHs in number of physicians, with 8,047 physicians or 42% of the state's total physicians, in 2018 (Figure 9). The ACH with the second highest number of physicians was North Sound ACH, which includes Snohomish County and counties to its north. North Sound ACH had 2,572 or 13.4% of the total physicians. The remaining ACHs each had less than 10% of the total physicians. There were three ACHs with physician increases from 2017 to 2018, but HealthierHere's increase of 1.5 percentage point was the largest. More data on ACH physician supplies are presented in Section 3.

Figure 9. Number and Percent of Physicians by ACH: 2017 and 2018
(sorted by 2018 distribution)

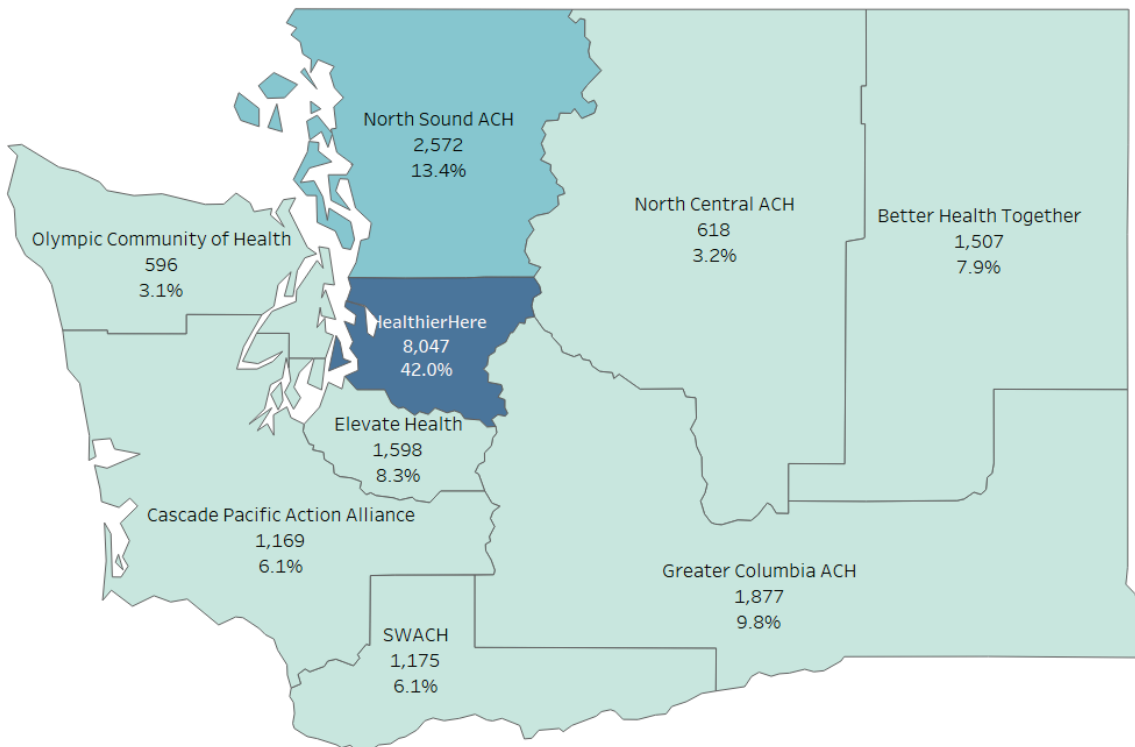


⁴ See <https://www.hca.wa.gov/assets/program/achfactsheet.pdf>.

Map 3. Number and Percent of Physicians: ACH Regions, 2017



Map 4. Number and Percent of Physicians: ACH Regions, 2018

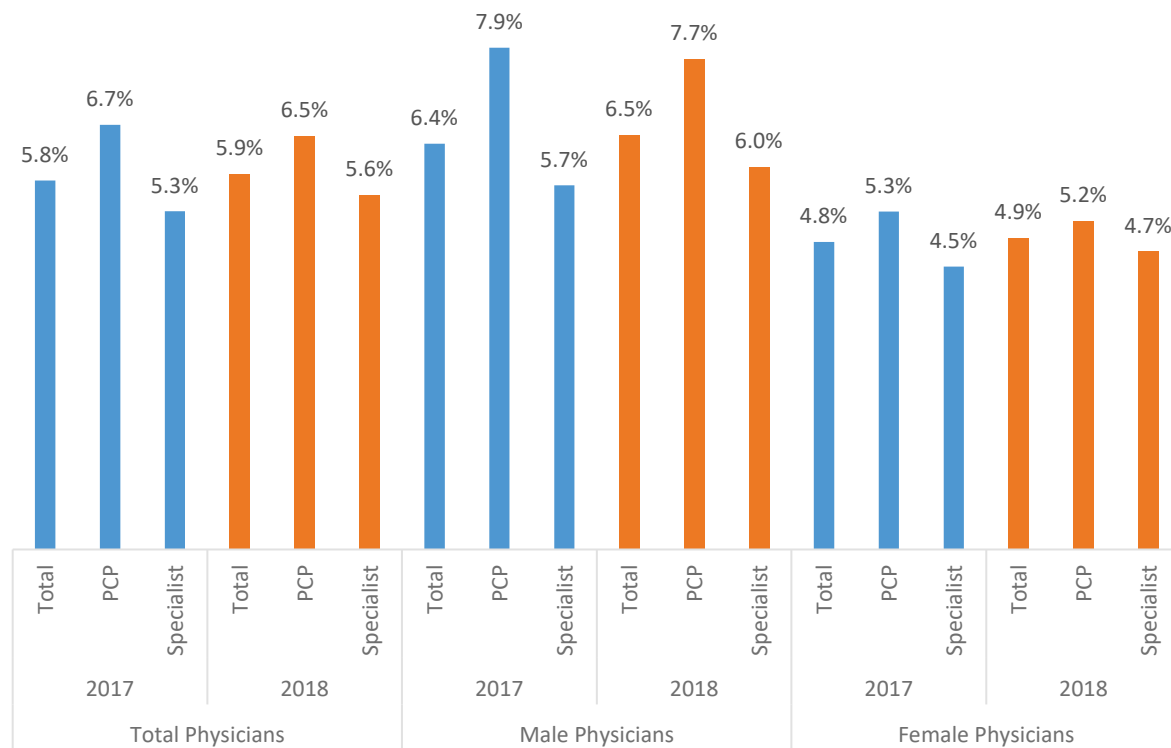


Physician Supplies in Urban and Rural Areas

The overwhelming majority of Washington’s physicians practiced in urban areas.⁵ Approximately only 6% of all physicians practiced in rural areas in both 2017 and 2018 (Figure 10). Proportionately, more PCPs practiced in rural areas than specialists, 6.5% for the former group and 5.6% for the latter group in 2018. The share of PCPs practicing in rural areas decreased slightly while the share for specialists in rural areas increased slightly from 2017 to 2018.

The percentage of female physicians practicing in rural areas was smaller than that of male physicians, 4.9% compared to 6.5%, respectively, in 2018. Similarly, smaller shares of female PCPs and specialists practiced in rural areas, when compared with male PCPs and specialists, in both 2017 and 2018. The share of male physicians in rural areas increased from 5.7 to 6.0% and the share of female physicians increased from 4.5 to 4.7%.

Figure 10. Percent of Physicians Practicing in Rural Areas by Gender and Specialty, Washington: 2017 and 2018



⁵ There are several methods to designate urban and rural areas. The designation in this report is based on the Missouri Census Data Center’s crosswalk file for ZIP Code to Urban/Rural. According to this approach, a ZIP Code can be partially urban and partially rural. For more detailed explanation, see “Urban-Rural Portion” at <http://mcdc.missouri.edu/websas/maggot14.shtml#urbrur>. Also see the section for “Urban/Rural areas” in Data Sources and Method in the appendix.

Section 2. County Physician Supply

Key Findings

- *Overall physician supply.* Overall physician supply rates ranged considerably among the counties. Chelan County led in both 2017 and 2018 in the overall physician rate – 512 physicians and 476 physicians per 100,000 population in 2017 and 2018, respectively. Of the 39 counties, only nine in 2017 and ten in 2018 had overall physician rates above the statewide rates.
- *Median age.* While the statewide median age of physicians 49 years in both 2017 and 2018, there was a wide range at the county level. In 2017, the range was 47 to 61 years. The range widened in 2018, from 41 to 62 years. In most counties (29), the median age was above the statewide median age of 49.
- *Share of female physicians.* While 37% in 2017 and 38% in 2018 of the physicians statewide were female, only five counties in 2017 and six counties in 2018 had shares of female physicians that were above the state average.
- *PCPs.* The supply of PCPs had a wide range among the counties. At the higher end, Chelan County's PCP rate was 201 physicians in 2017 and 176 physicians in 2018 per 100,000 population. At the lower end, the PCP rate in several counties was below 40 physicians per 100,000 population in both years.
- *Specialist physicians.* Chelan also led the specialist rate of all counties in both 2017 and 2018 despite a reduction in 2018. Its rate was 311 physicians in 2017 and 289 physicians in 2018 per 100,000 population. A large number of counties had an increase in specialist rates in 2018, including four of the seven counties with specialist rates higher than that of the statewide rate in 2018.
- *Physician supply by specialty.* In all 13 physician specialty categories used for this report, there were large disparities at the county level. No single county led in physician supply in all categories. The counties that led in physician-to-population rates in the 13 categories are:

Specialty Group	Top Rate County in 2017	Top Rate in 2017	Top Rate County in 2018	Top Rate in 2018
Anesthesiology	Walla Walla	63	Walla Walla	76
Cardiology	Chelan	17	Walla Walla	17
Emergency Medicine	Kittitas	70	Kittitas	75
Family Medicine/General Practice	Klickitat	112	Klickitat	108
Hospitalist	Whatcom	25	Whatcom	37
Internal Medicine (General)	Whatcom	78	Whatcom	82
OB/GYN	Clark	20	Clark	23
Orthopedic Surgery	Chelan	20	Chelan	20
Pediatrics (General)	Benton	27	Benton	31
Psychiatry	King	16	King	17
Radiology	Klickitat	108	Klickitat	135
Surgery (General)	Asotin	37	Asotin	35
Other Specialty	King	109	King	114

Tables 2 and 3 below provide a quick look at how each county compares to the state in its physician characteristics and physician supply in 2017 and 2018. Following these tables are detailed county physician data.

Table 2. At-A-Glance: County Physician Characteristics and Supplies in Comparison to Statewide Average, 2017

	County	State	Adams	Asotin	Benton	Chelan	Clallam	Clark	Columbia	Cowlitz	Douglas	Ferry	Franklin	Garfield	Grant	Grays Harbor	Island	Jefferson	King	Kitsap	Kittitas	Klickitat
Physician Characteristics	Median Age	49	+	+	-	-	+	-	+	=	=	+	+	+	-	=	+	+	-	+	+	+
	% Female	37	-	-	-	-	-	+	-	-	+	-	-	+	-	-	-	+	+	-	-	-
Physicians per 100,000 population	Overall	256	+	+	+	+	+	+	+	+	-	+	+	-	+	+	-	+	+	+	+	+
	PCP	91	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Specialist	165	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	Anesthesiology	15	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	Cardiology	7	+	+	+	+	+	-	-	-	-	-	-	-	+	+	-	-	+	-	+	-
	Emergency Medicine	16	-	+	-	+	+	+	+	-	-	+	-	-	-	-	-	-	+	-	-	+
	Family Medicine/General Practice	44	-	+	+	-	+	-	-	-	-	+	-	-	-	+	-	-	+	-	-	-
	Hospitalist	6	-	+	-	+	+	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-
	Internal Medicine (General)	32	-	+	-	+	+	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-
	OB/GYN	13	-	+	+	+	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	Orthopedic Surgery	9	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	+	+	-	+	+
	Pediatrics (General)	14	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	+	+	-	+	+
	Psychiatry	9	-	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	+	+	-	-
	Radiology	14	-	-	-	+	-	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-
	Surgery (General)	7	-	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	+	-	-	+
Other Specialties	68	-	+	+	+	+	+	-	-	-	-	-	-	-	-	-	+	+	+	-	+	+

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Table 2. At-A-Glance: County Physician Characteristics and Supplies in Comparison to Statewide Average, 2017 (continued)

	County	State	Lewis	Lincoln	Mason	Okanogan	Pacific	Pend Oreille	Pierce	San Juan	Skagit	Skamania	Snohomish	Spokane	Stevens	Thurston	Wahkiakum	Walla Walla	Whatcom	Whitman	Yakima
Physician Characteristics	Median Age	49	+	+	-	+	+	+	=	+	+	+	-	=	+	=	+	+	-	-	+
	% Female	37	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
Physicians per 100,000 population	Overall	256	+	-	+	+	+	+	+	-	+	-	+	+	-	+	-	+	+	+	+
	PCP	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Specialist	165	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	+	+	-	-
	Anesthesiology	15	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	-	+	+
	Cardiology	7	-	-	+	+	+	+	-	-	-	-	-	+	-	-	-	+	-	+	+
	Emergency Medicine	16	-	-	-	+	-	+	-	-	+	-	-	+	-	-	-	+	+	-	-
	Family Medicine/General Practice	44	+	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	+	-	+
	Hospitalist	6	+	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	+	-	-
	Internal Medicine (General)	32	+	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	+	-	-
	OB/GYN	13	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	-	-	+
	Orthopedic Surgery	9	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	-	+	-
	Pediatrics (General)	14	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	-	+	-
	Psychiatry	9	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	-	-	-
	Radiology	14	-	-	-	-	-	-	-	+	+	-	-	+	-	-	-	-	+	-	-
Surgery (General)	7	+	-	+	+	+	+	-	-	-	-	-	-	-	-	-	+	-	+	+	
Other Specialties	68	-	+	-	+	+	+	+	+	-	+	-	-	+	-	-	-	+	+	+	-

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Below state average
Same as state average

Table 3. At-A-Glance: County Physician Characteristics and Supplies in Comparison to Statewide Average, 2018

	County	State	Adams	Asotin	Benton	Chelan	Clallam	Clark	Columbia	Cowlitz	Douglas	Ferry	Franklin	Garfield	Grant	Grays Harbor	Island	Jefferson	King	Kitsap	Kittitas	Klickitat	
Physician Characteristics	Median Age	49	+	+	=	=	+	-	+	+	-	-	+	+	=	-	+	+	-	+	+	+	
	% Female	38	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+	-	-	-	
Physicians per 100,000 population	Overall	258	-	+	+	+	+	-	+	-	-	-	-	-	-	-	-	-	+	-	-	+	
	PCP	90	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	
	Specialist	168	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	
	Anesthesiology	16	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	+	-	-	+	
	Cardiology	7	+	+	+	+	-	-	+	-	-	-	-	-	+	+	-	+	+	-	+	+	
	Emergency Medicine	17	+	+	-	+	+	-	+	-	-	+	-	+	-	-	-	-	+	-	+	+	
	Family Medicine/General Practice	45	-	+	+	-	-	-	-	-	-	+	-	-	-	+	-	-	+	-	-	-	
	Hospitalist	7	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-	+	+	-	-	-	
	Internal Medicine (General)	32	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-	+	+	-	-	-	
	OB/GYN	13	-	+	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	Orthopedic Surgery	9	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	+
	Pediatrics (General)	13	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	+
	Psychiatry	9	-	+	+	+	-	+	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	Radiology	14	-	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	Surgery (General)	7	-	-	+	+	-	-	-	-	-	-	+	-	+	+	-	-	+	-	-	-	+
Other Specialties	68	-	+	+	+	+	-	-	-	+	-	-	-	-	-	+	+	+	+	-	+	+	

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- Above state average
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Table 3. At-A-Glance: County Physician Characteristics and Supplies in Comparison to Statewide Average, 2018 (continued)

	County	State	Lewis	Lincoln	Mason	Okanogan	Pacific	Pend Oreille	Pierce	San Juan	Skagit	Skamania	Snohomish	Spokane	Stevens	Thurston	Wahkiakum	Walla Walla	Whatcom	Whitman	Yakima	
Physician Characteristics	Median Age	49		+	-	+	+	-	+	+	+	+			+		+	+	-	-	+	
	% Female	38	-	+	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	
Physicians per 100,000 population	Overall	258	+	-	-	-	-	-	-	-	+	-	-	+	-	-	-	+	+	-	-	
	PCP	90	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	-	-
	Specialist	168	+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+	-	-
	Anesthesiology	16	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	+	-	-	+
	Cardiology	7	+	-	+	+	+	+	-	-	-	-	-	+	-	-	-	-	+	-	+	-
	Emergency Medicine	17	+	+	-	-	-	+	-	-	+	-	-	+	-	-	-	-	+	+	+	-
	Family Medicine/General Practice	45	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+	+	-	-
	Hospitalist	7																				
	Internal Medicine (General)	32	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+	+	-	-
	OB/GYN	13	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+
	Orthopedic Surgery	9																				
	Pediatrics (General)	13	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	+	-
	Psychiatry	9	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	-	-	-
	Radiology	14	-	-	-	-	-	-	-	-	+	+	-	-	+	-	-	-	-	+	+	-
	Surgery (General)	7	+	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	+	-	+	+
Other Specialties	68	-	+	-	+	-	+	-	-	-	+	-	-	-	-	-	-	+	-	+	-	

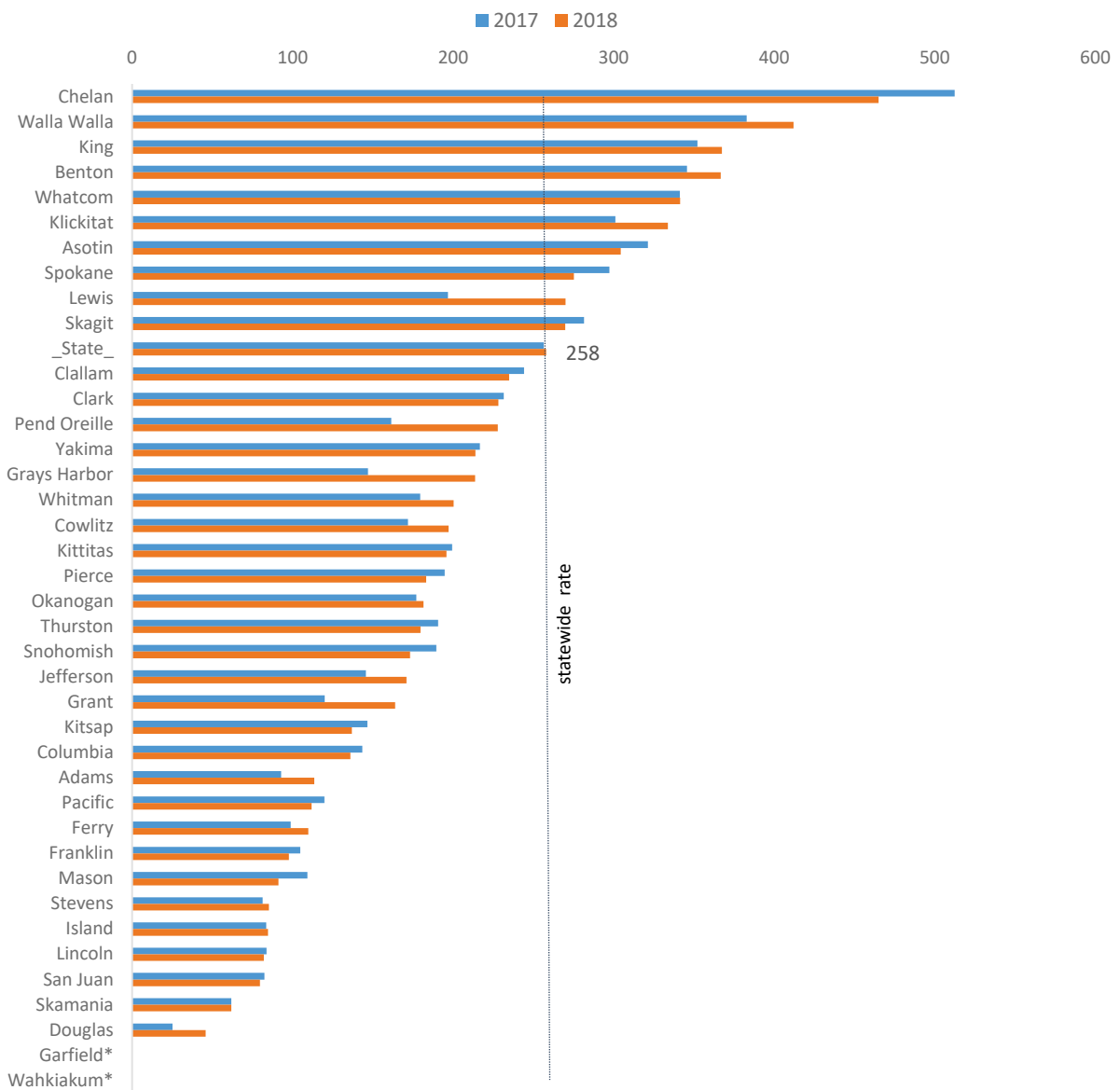
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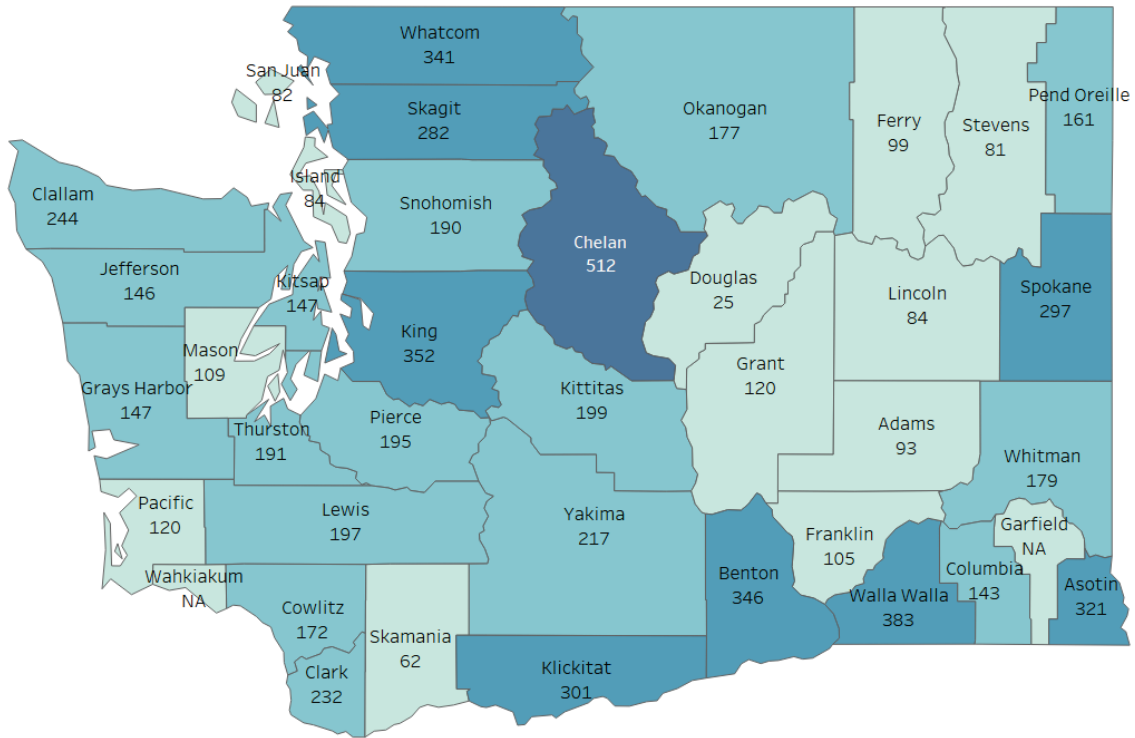
County – Overall Physicians

Counties in Washington varied greatly in numbers of overall physicians per 100,000 population. In 2017, the county overall physician rates ranged from a low of 25 physicians per 100,000 (Douglas) to a high of 512 per 100,000 population (Chelan). In 2018, the gap shrank slightly with the rate in Douglas rising to 45 physicians per 100,000 population and the rate for Chelan decreasing to 476 per 100,000. The rates for the majority of the counties were below the state average rates (256 physicians in 2017 and 258 physicians in 2018). Only ten counties in 2018 and nine counties in 2017 had physician rates above the state average rates. However, from 2017 to 2018, the physician rates increased notably in several counties, including Lewis, Pend Oreille and Grays Harbor.

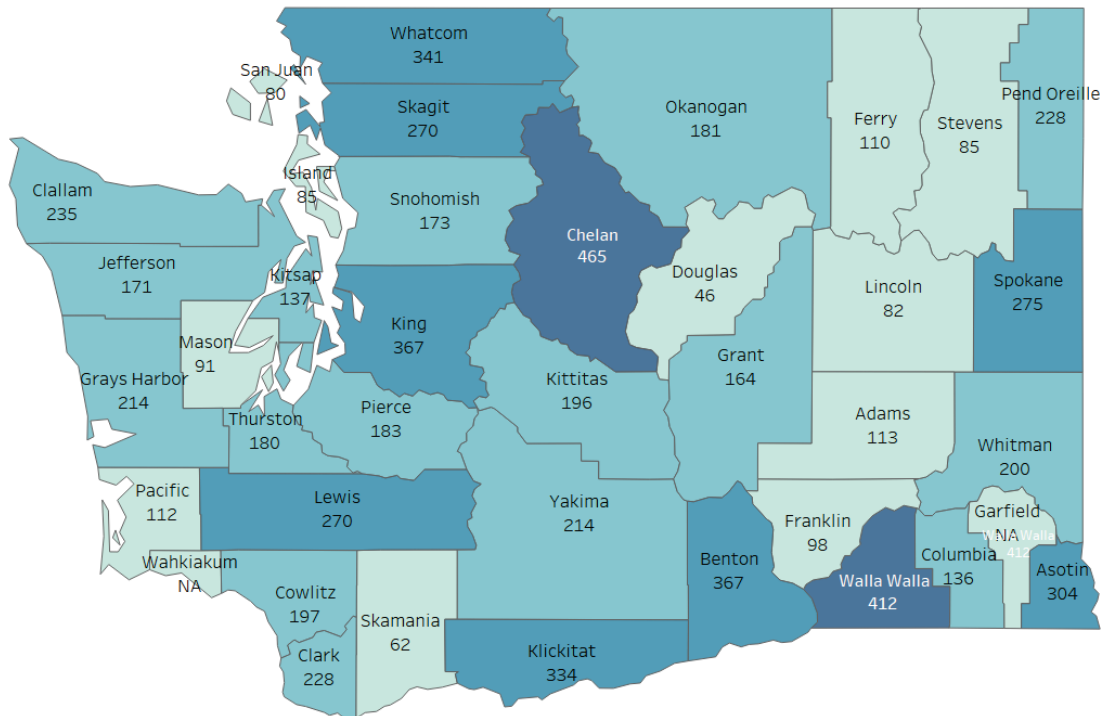
Figure 11. Overall Physician Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 5. Overall Physicians per 100,000 Population: Counties, 2017



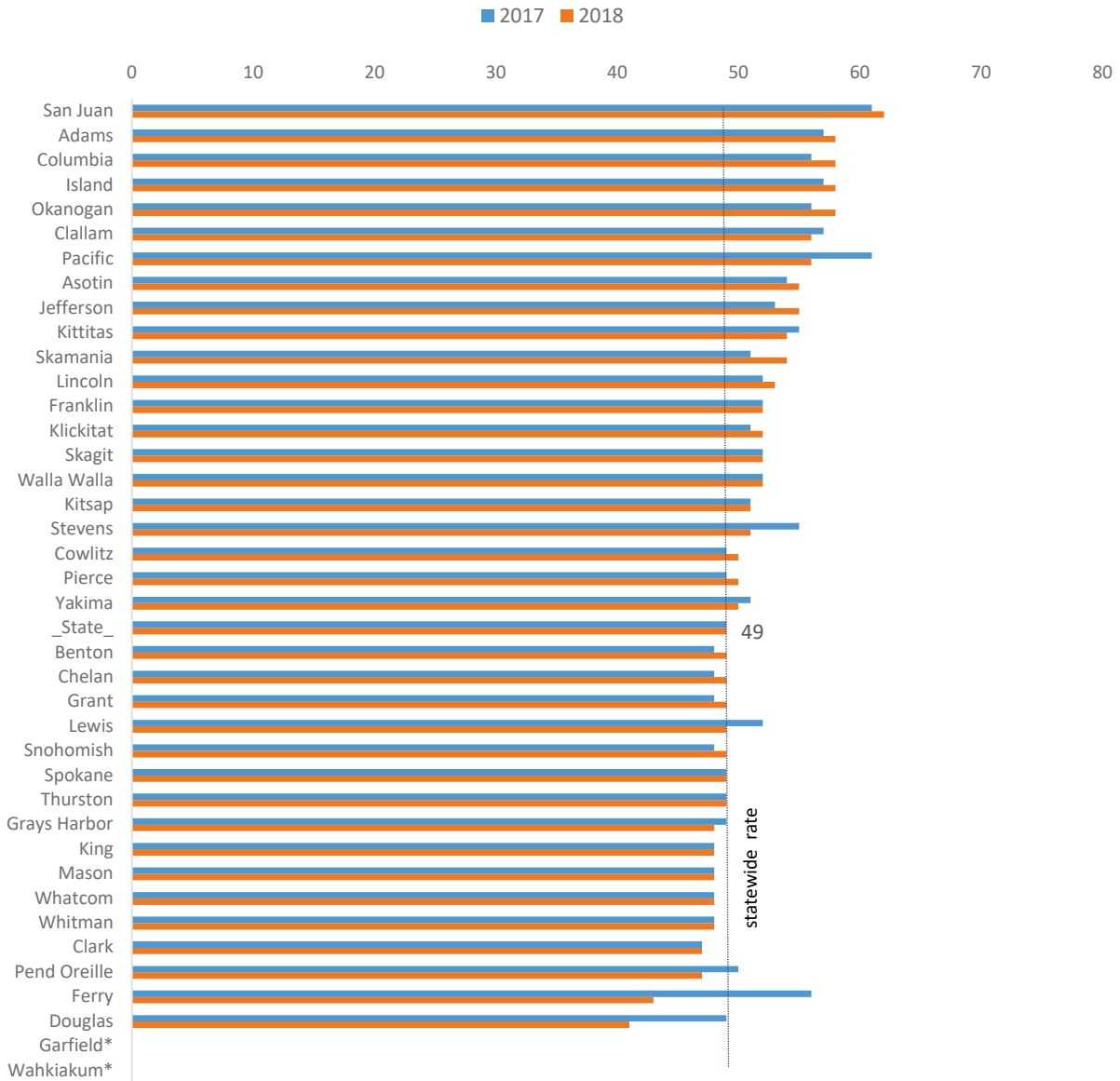
Map 6. Overall Physicians per 100,000 Population: Counties, 2018



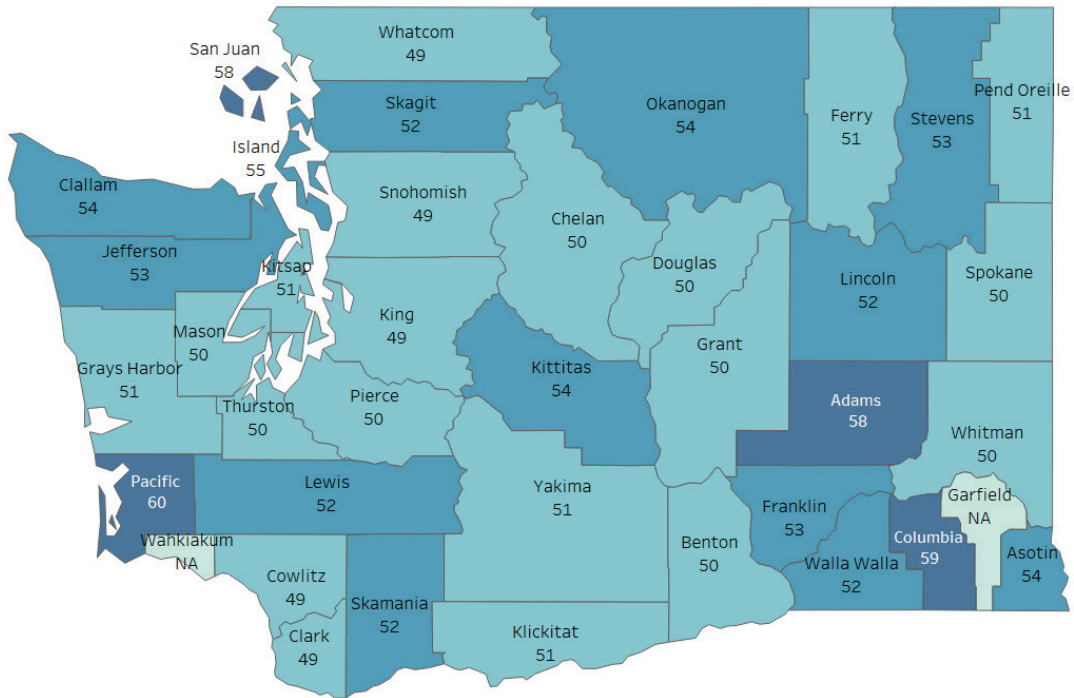
County – Age of Physicians

The physician median age among the counties in 2017 ranged from the high of 61 years (in San Juan and Pacific) to the low of 47 years (in Clark). The range widened in 2018, from the high of 62 years in San Juan to the low of 41 years in Douglas. In comparison, the median age for physicians statewide was 49 in both years. However, for most counties, physician median age differed only slightly from the statewide physician median age in both years. The following counties experienced a large decrease in their physicians’ median age: Ferry, Douglas, Pacific and Stevens.

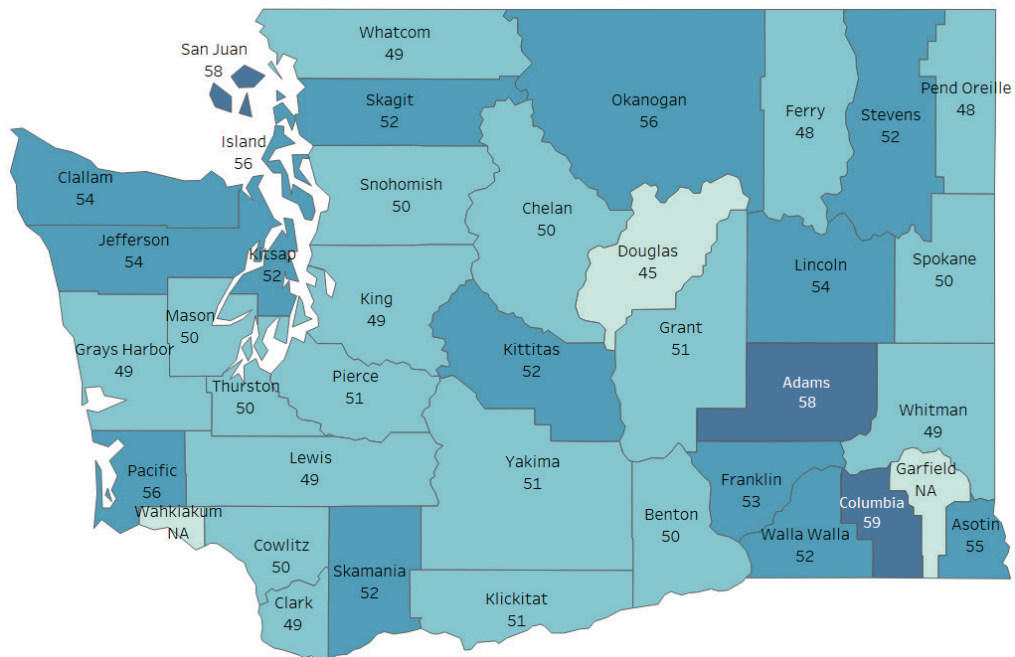
Figure 12. Physician Median Age by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 7. Physician Median Age: Counties, 2017



Map 8. Median Age of Physicians: Counties, 2018



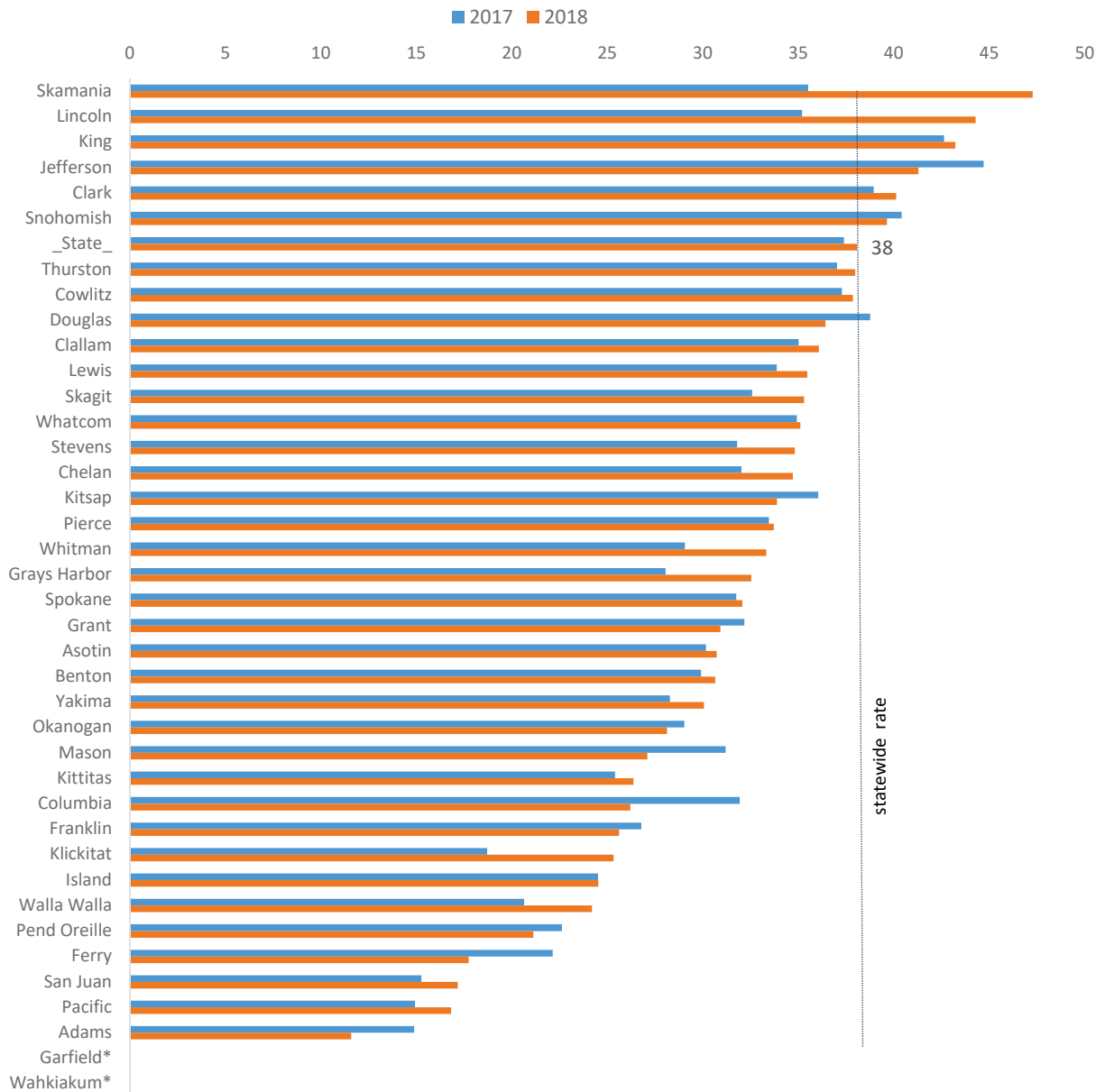
County – Percentage of Female Physicians

In 2018, 38% of the state’s total physicians were female compared to 37% in 2017. However, shares of female physicians were lower in most counties. In fact, there were only six counties in which the share of female physicians was above the state average in 2018: Skamania (47%), Lincoln (44%), King (43%), Jefferson (41%), Clark (40%) and Snohomish (40%). On the opposite end, four counties had shares of female physicians that were less than 20%: Adams (12%), Pacific (17%), San Juan (17%) and Ferry (18%). Skamania and Lincoln had large increases in their shares of female physicians from 2017 to 2018.

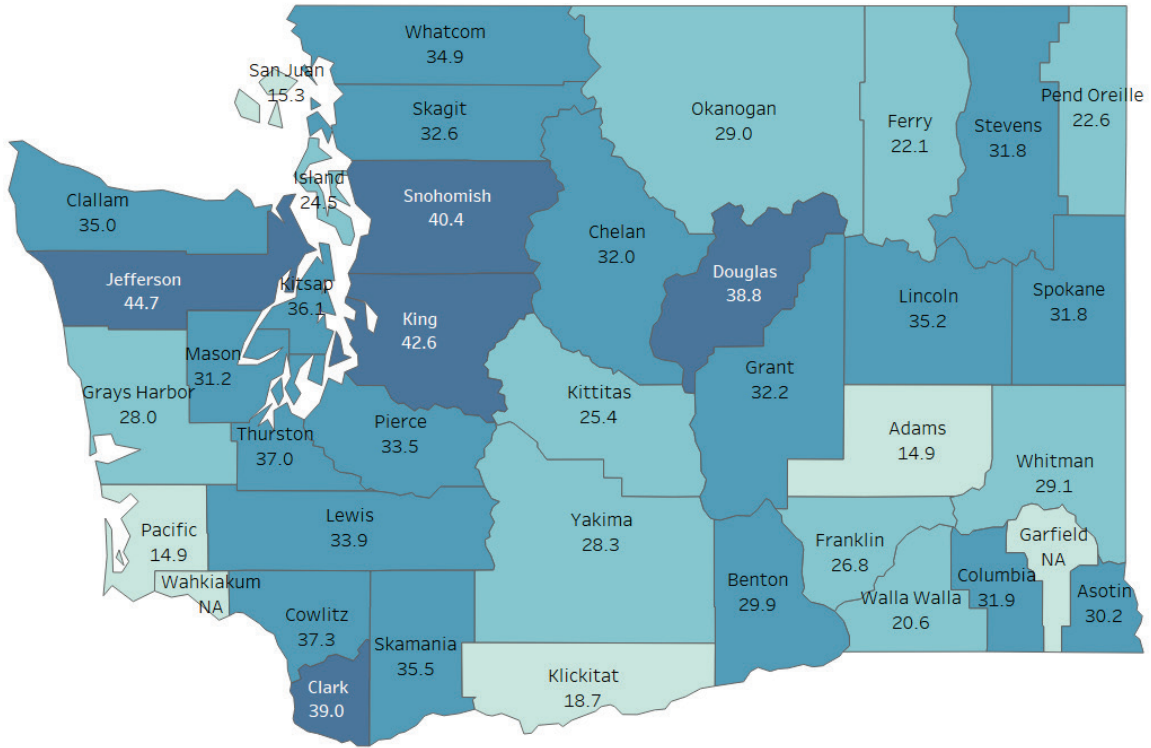
Figure 13. Percentage of Female Physicians by County, 2017 and 2018

(sorted by 2018 distribution)

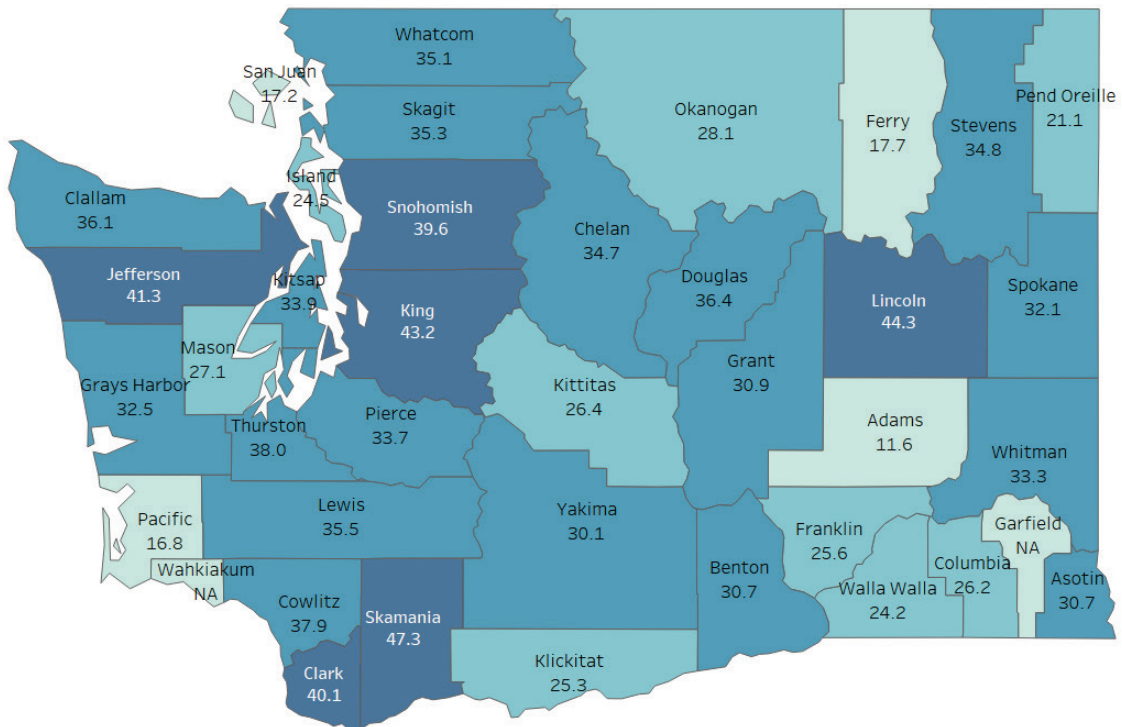
(* = too few physicians for rate calculation)



Map 9. Percentage of Female Physicians, Counties, 2017



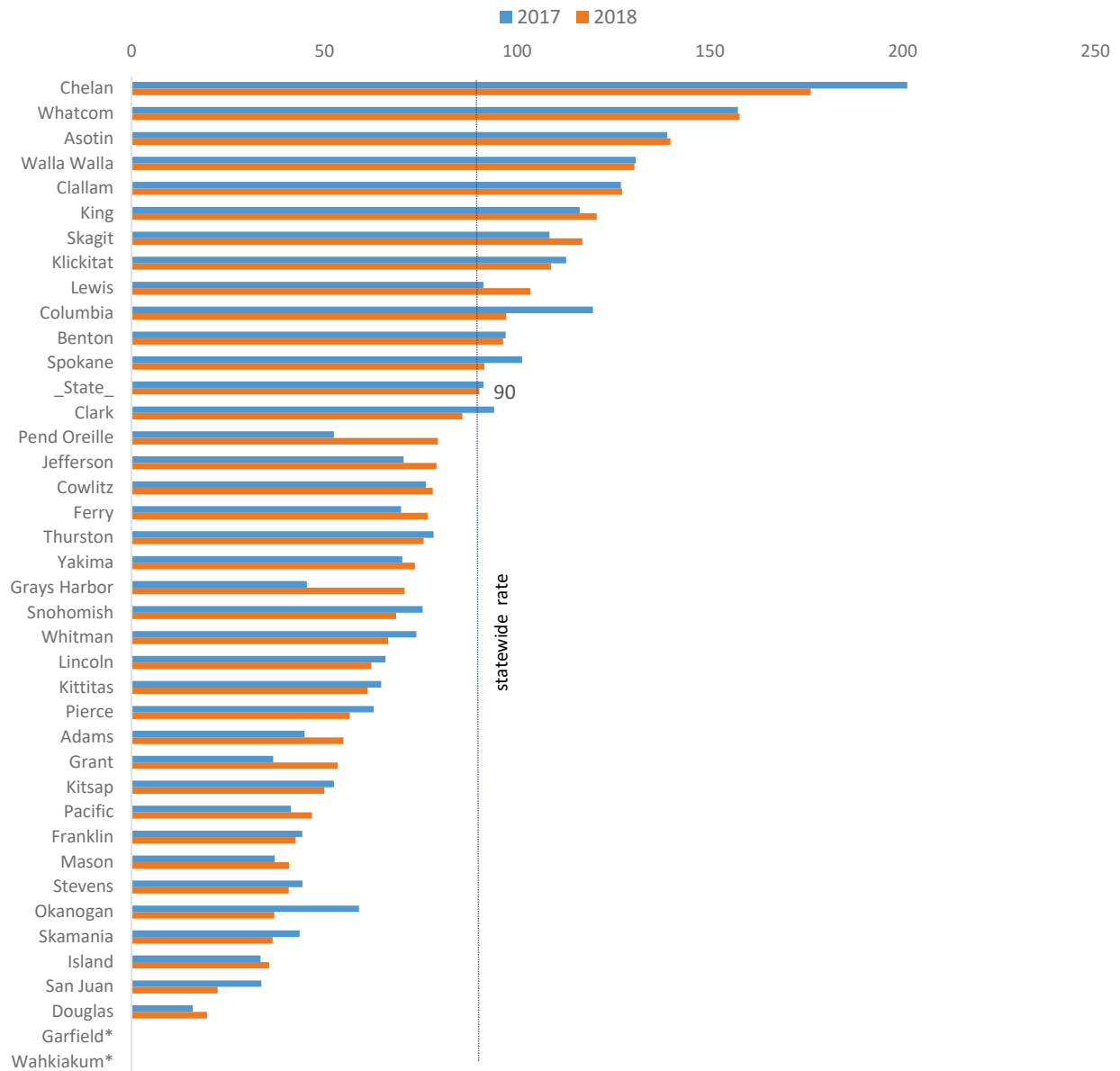
Map 10. . Percentage of Female Physicians, Counties, 2018



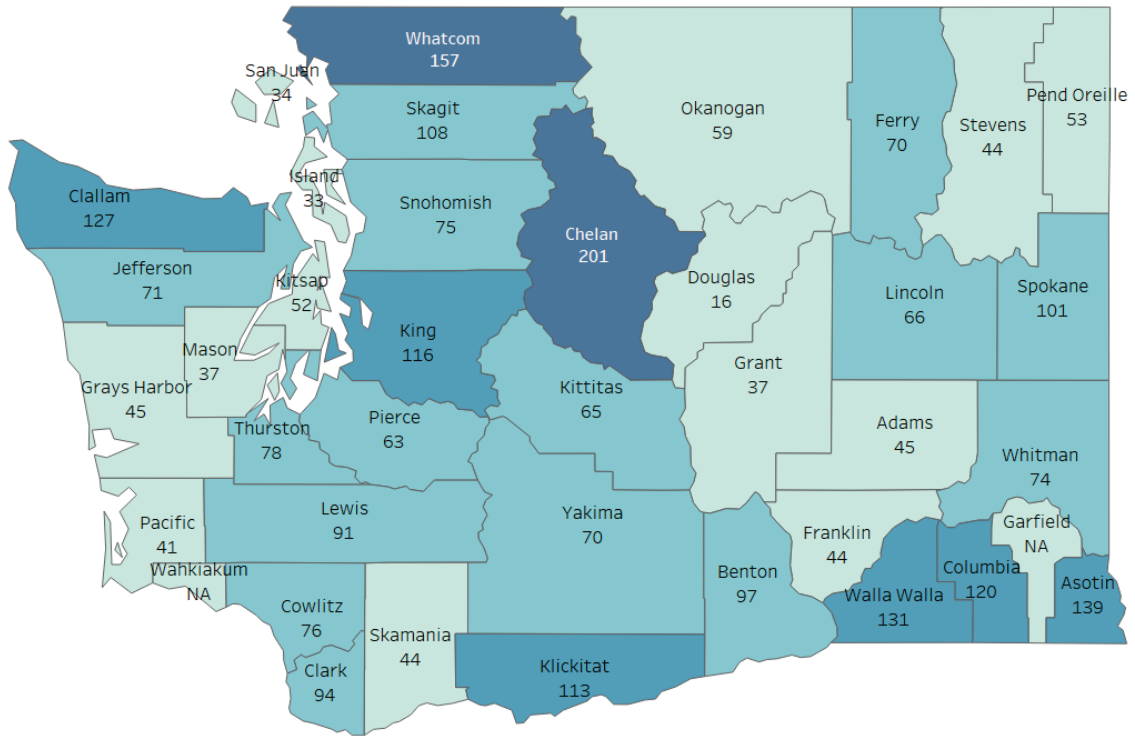
County – PCPs

Chelan led the other counties in rates of PCPs in both in 2017 and 2018, despite a decrease from 201 to 176 PCPs per 100,000 population during the two-year period. Chelan’s rate in 2018 was twice as high as that of the statewide rate of 90 PCPs per 100,000 population. At the lower end, Douglas, San Juan and Island had the lowest PCP rates, below 40 physicians per 100,000 population in both years. Counties that experienced a large reduction in PCP rates included Chelan, Columbia and Okanogan. Lewis, Pend Oreille, Grays Harbor and Grant, on the other hand, experienced relatively large increases in their PCP rates.

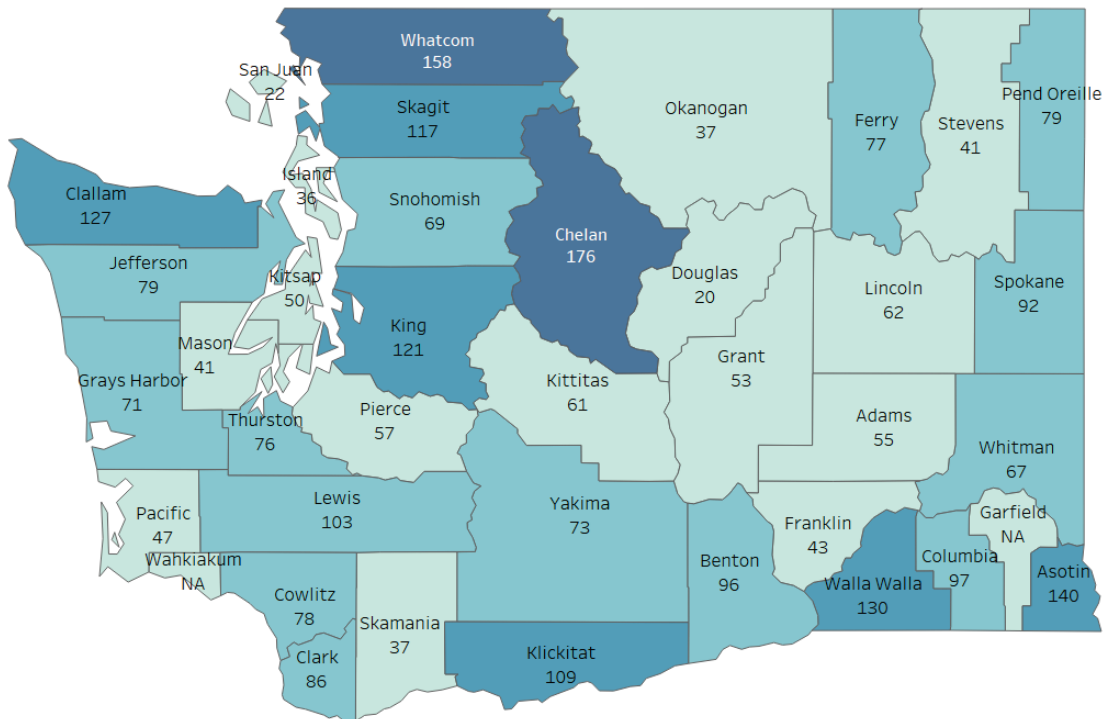
Figure 14. PCP Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 11. PCPs per 100,000 Population, Counties, 2017



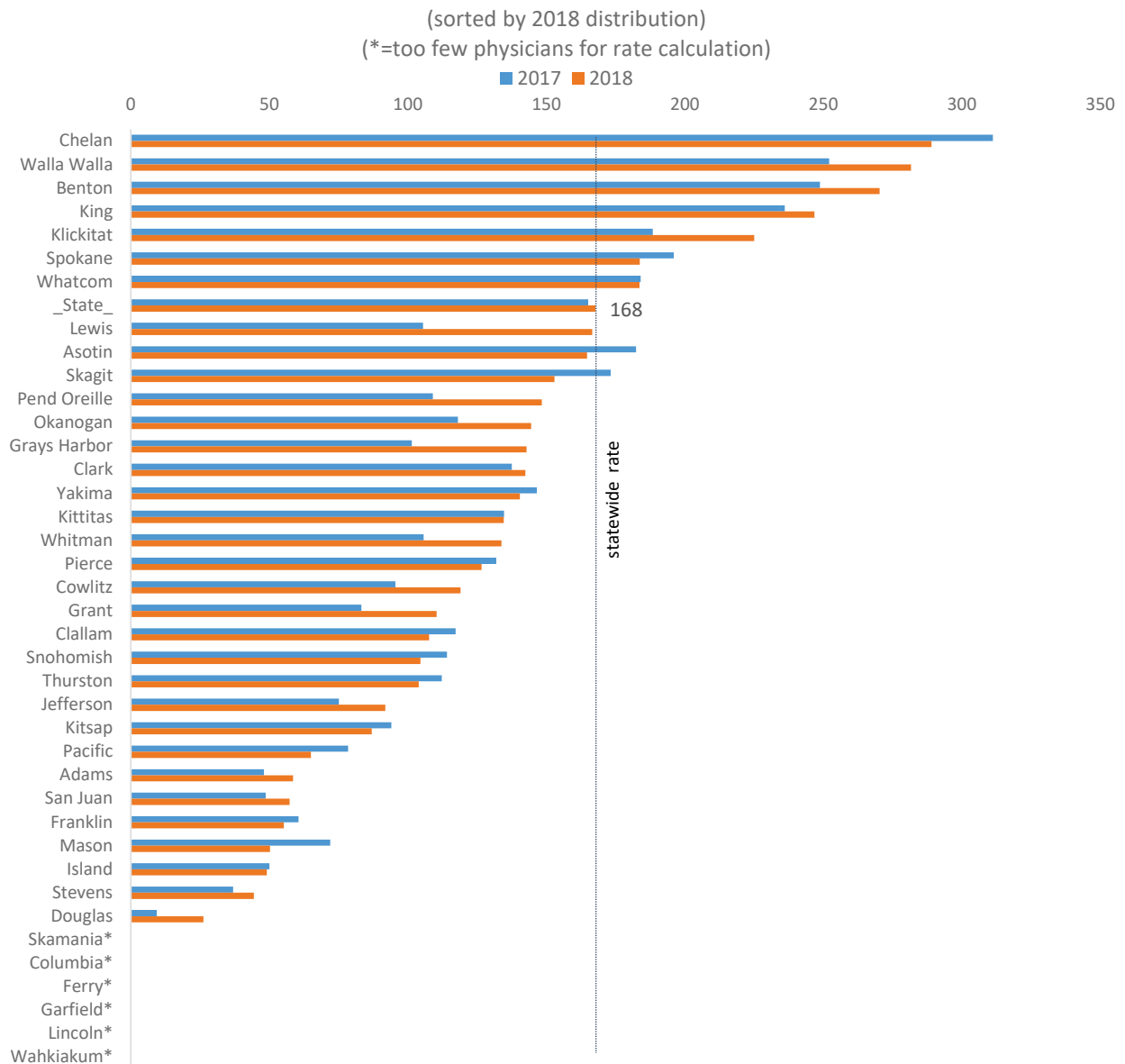
Map 12. PCPs per 100,000 Population, Counties, 2018



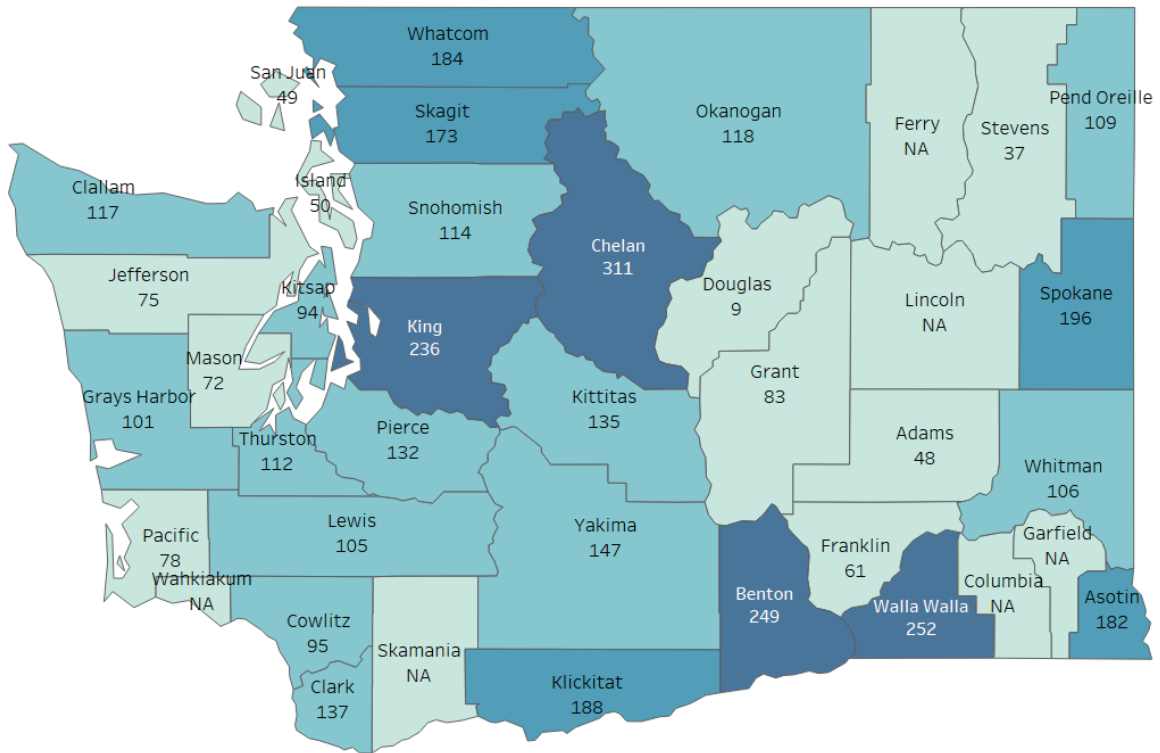
County – Specialists

Chelan County led the other counties not only in PCP rates, but also in specialist rates in both 2017 and 2018 despite, again, a decrease from 311 to 289 specialists per 100,000 population during the two-year period. The statewide rate in 2018 was 168 physicians per 100,000 population. Only six other counties, besides Chelan, had a specialist rate in 2018 that exceeded the statewide rate. The other six counties were Walla Walla, Benton, King, Klickitat, Spokane and Whatcom. Of these seven counties with specialist rates above the statewide in 2018, four had an increase in their rates from 2017 to 2018: Walla Walla, Benton, King and Klickitat. Among the 26 counties shown to have specialist physician rates below the statewide specialist rate in 2018, the lowest rates were below 50 specialists per 100,000 population. However, more than half of these counties also experienced increases in their specialist rates from 2017 to 2018.

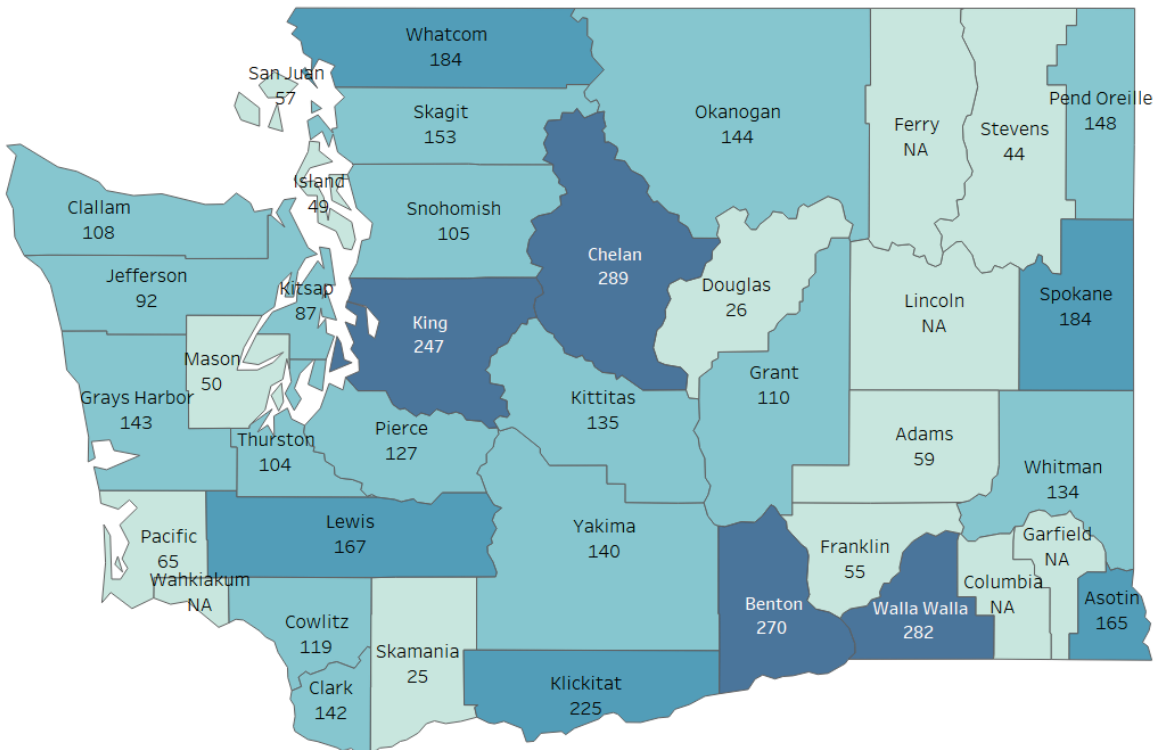
Figure 15. Specialist Rates (per 100,000) by County, 2017 and 2018



Map 13. Specialists per 100,000 Population, Counties, 2017



Map 14. Specialists per 100,000 Population, Counties, 2018

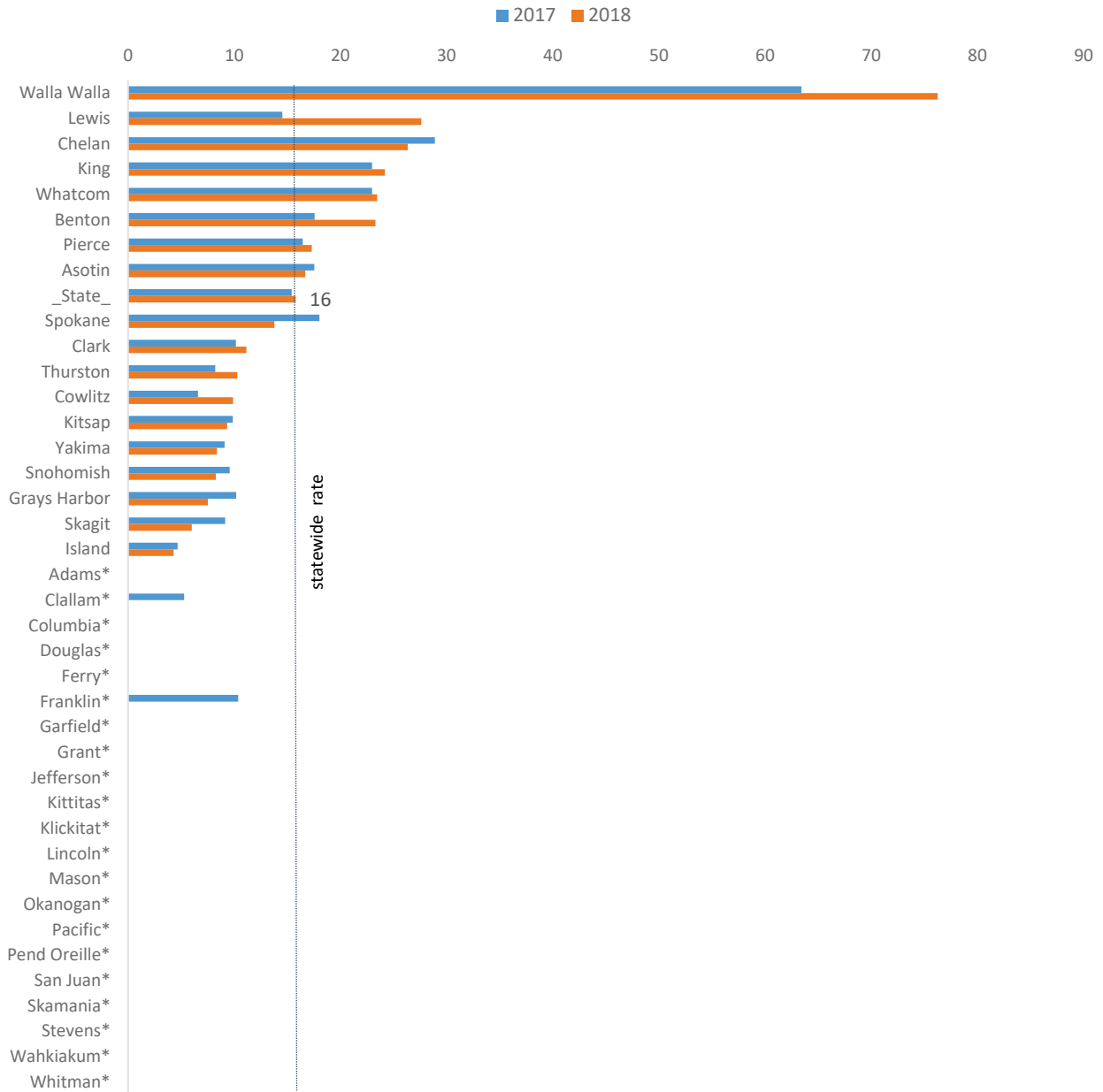


County – Anesthesiologists

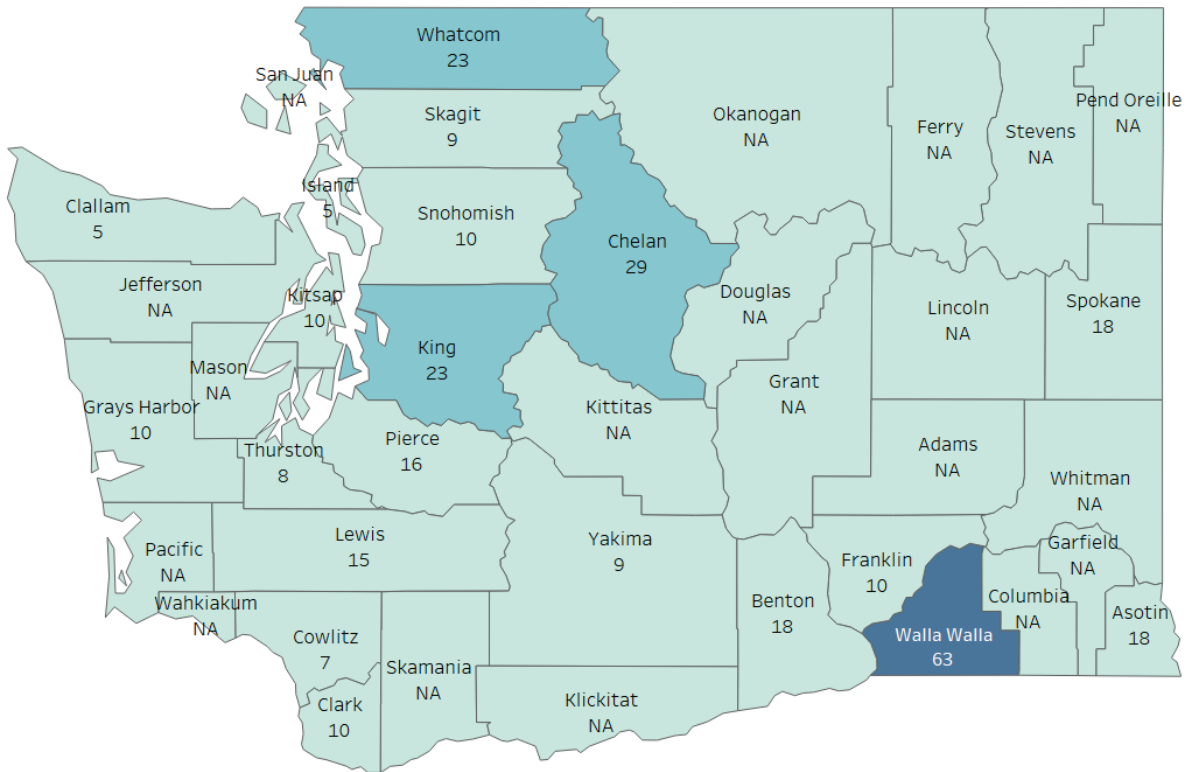
Walla Walla far outranked other counties in its anesthesiologist rates. In 2018, the county’s anesthesiologist rate was 76 physicians per 100,000 population. This rate was nearly five times as high as the statewide rate of 16 anesthesiologists per 100,000 population. In 2017, Walla Walla’s rate, although also the highest, was somewhat lower, at 63. That was still considerably higher than the next highest rate of 29 in Chelan. Lewis County experienced a large increase in its anesthesiologist rate, from 15 physicians to 28 physicians per 100,000 population from 2017 to 2018. Twenty-one counties had either no or too few anesthesiologists for physician rate calculation.

Figure 16. Anesthesiologist Rates (per 100,000) by County, 2017 and 2018

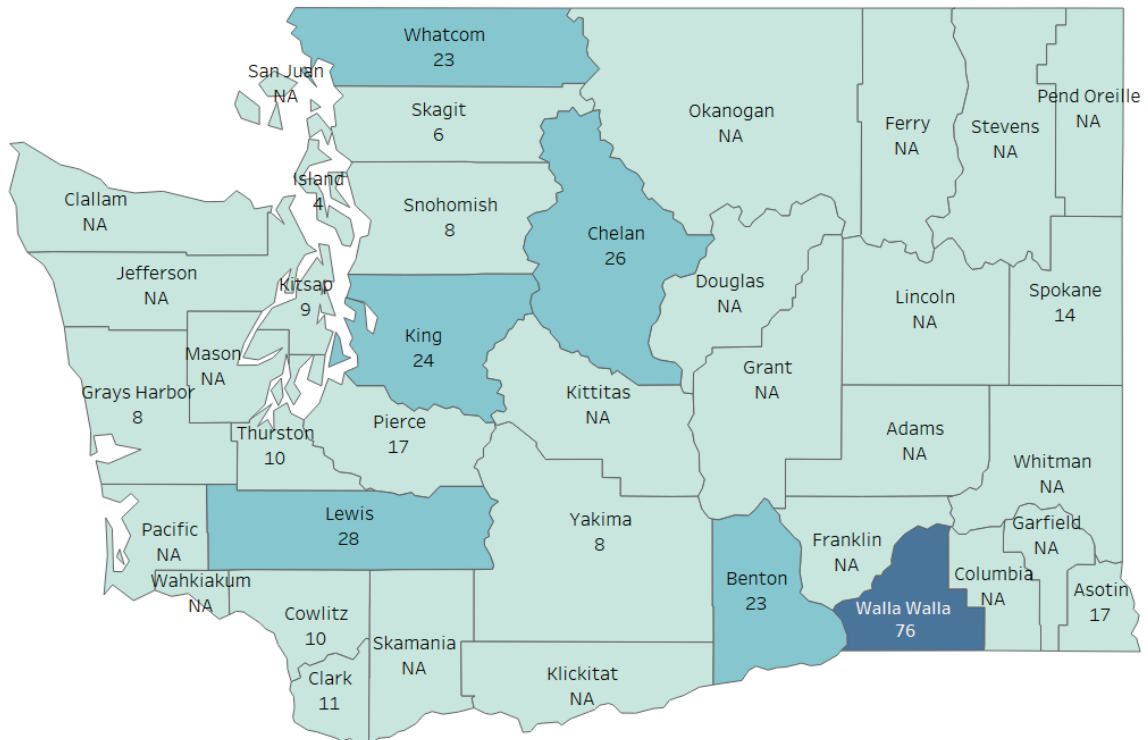
(sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 15. Anesthesiologists per 100,000 Population, Counties, 2017



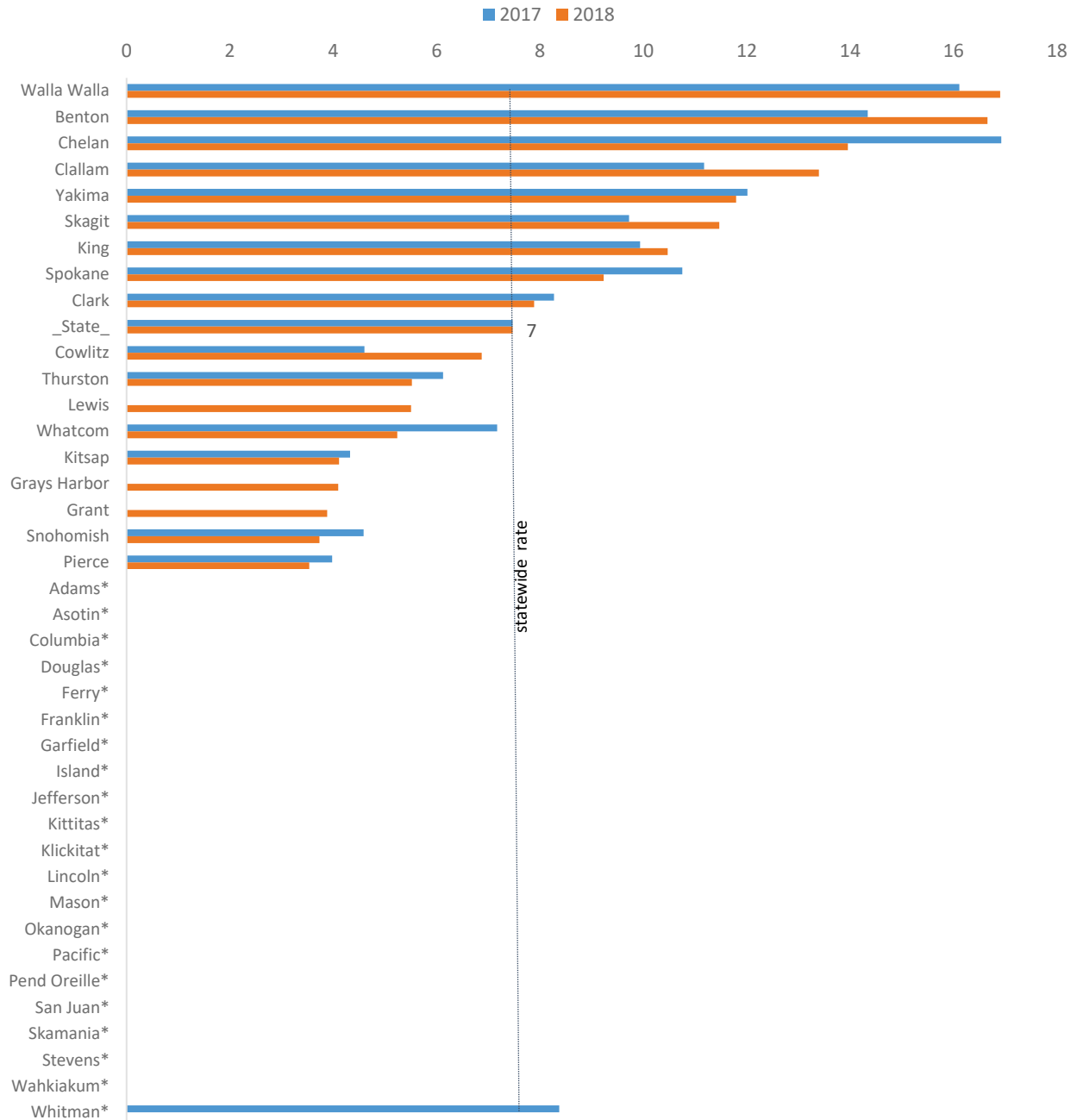
Map 16. Anesthesiologists per 100,000 Population, Counties, 2018



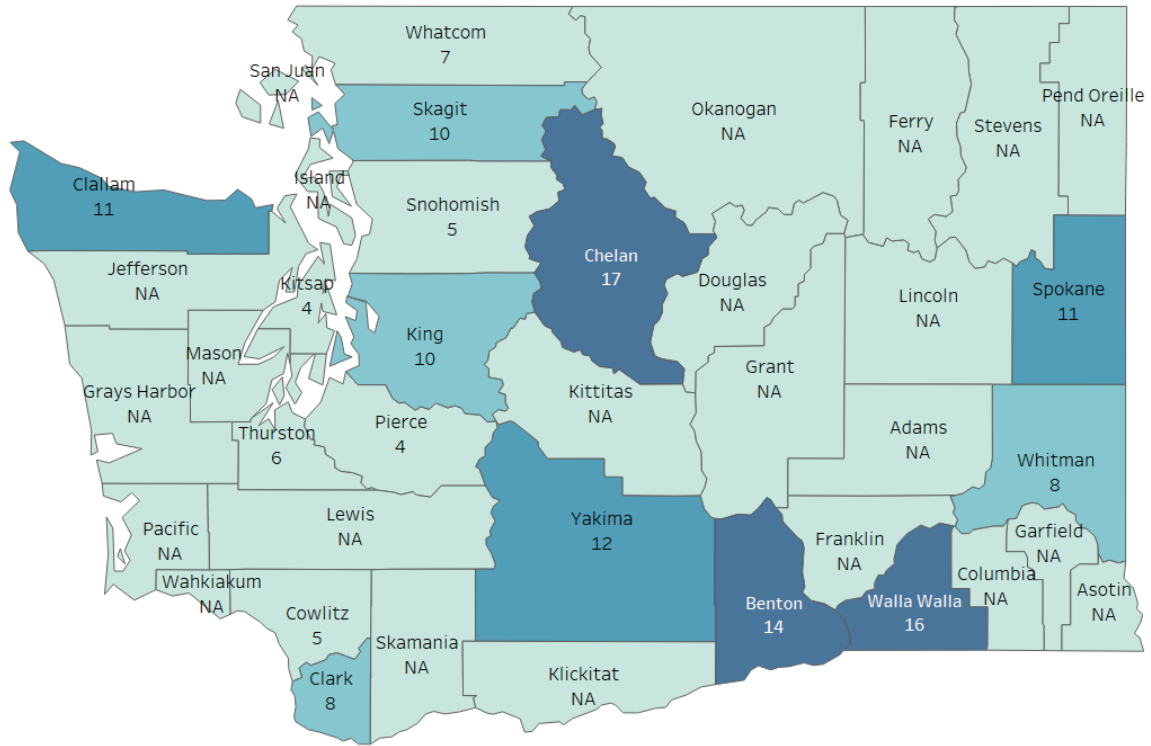
County – Cardiologists

Walla Walla and Benton replaced Chelan in 2018 as counties with the highest cardiologist rates, at 17 physicians per 100,000 population. Chelan’s rate in 2017 was also 17 cardiologists per 100,000 population. Its rate dropped to 14 cardiologists and ranked third in 2018. Twenty-one counties had either no or too few cardiologists in 2018 for physician rate calculation.

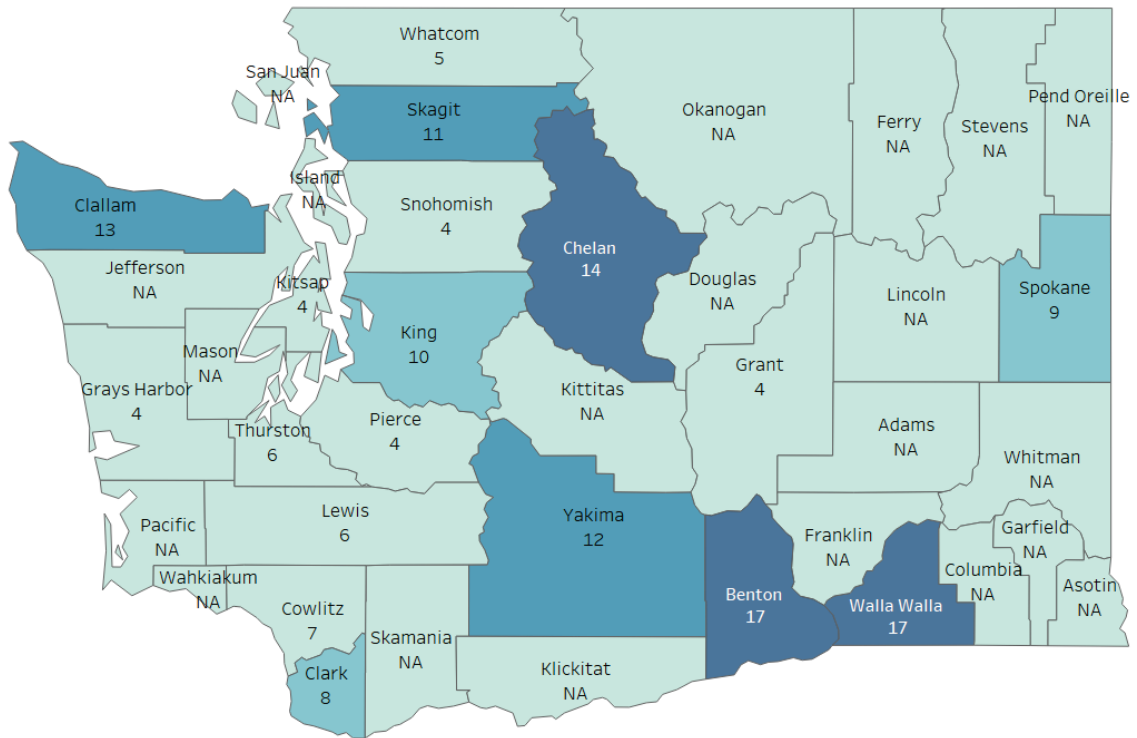
Figure 17. Cardiologist Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 17. Cardiologists per 100,000 Population, Counties, 2017



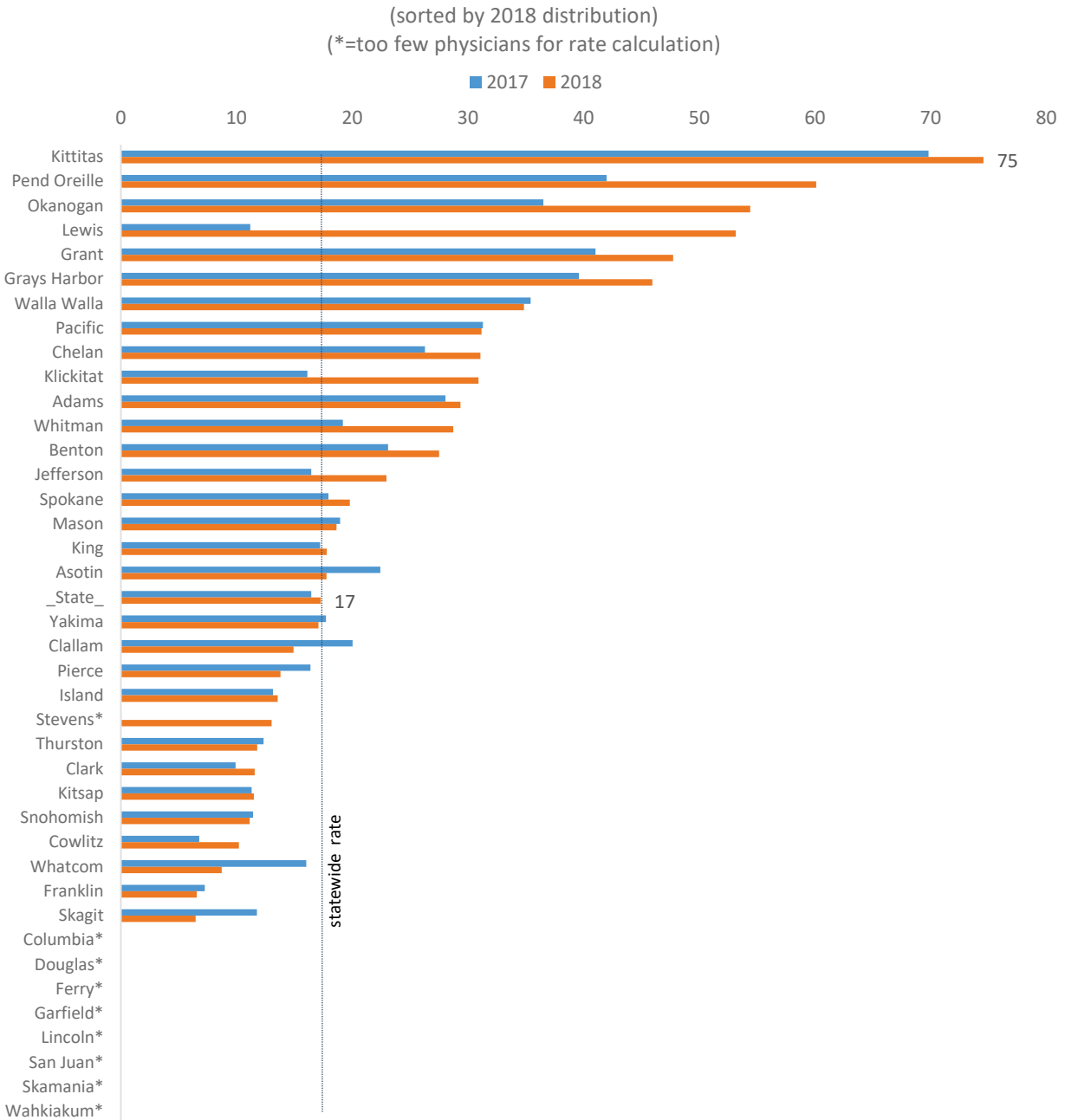
Map 18. Cardiologists per 100,000 Population, Counties, 2018



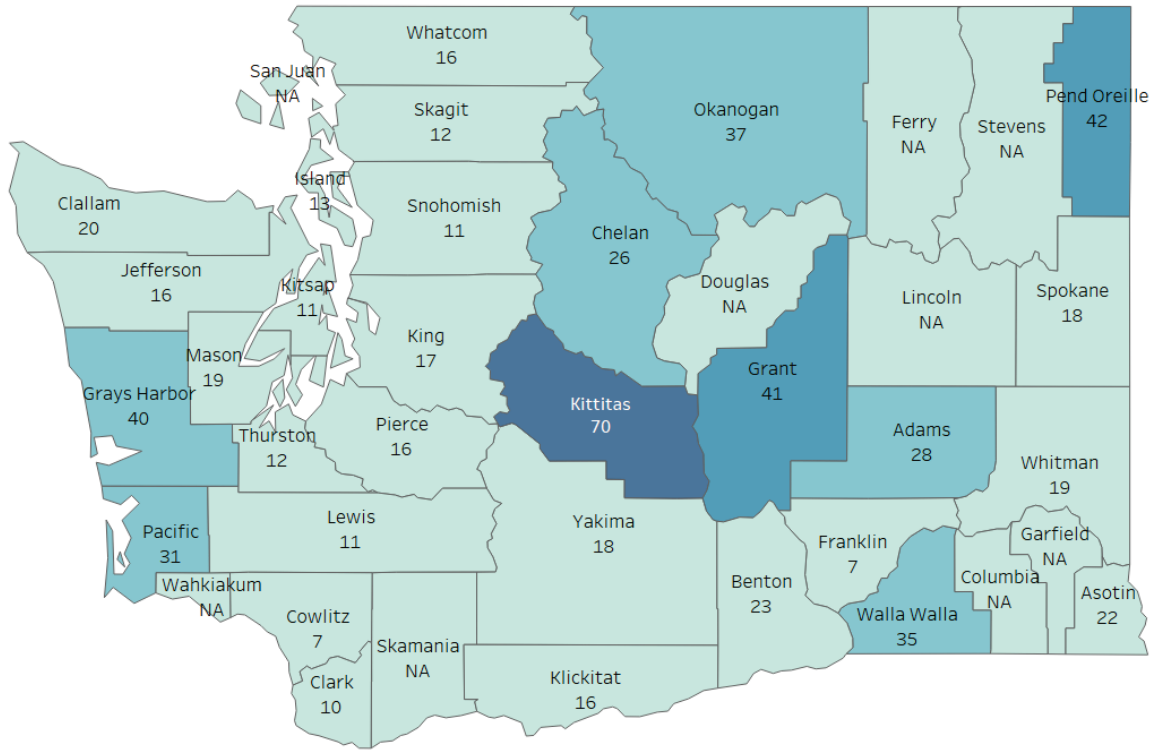
County – Emergency Medicine Physicians

The highest rates of emergency medicine physicians were found in some of the state’s small counties. In 2018, Kittitas had the highest rate at 75 EM physicians per 100,000 population, compared to the statewide rate of 17 EM physicians. Kittitas was followed by Pend Oreille (60 physicians per 100,000), Okanogan (54), Lewis (53), Grant (48) and Grays Harbor (46). The EM physicians for these six counties increased from 2017 to 2018. The increase in Lewis’ rate was most impressive, from 11 physicians (per 100,000) in 2017 to 53 physicians (per 100,000) in 2018.

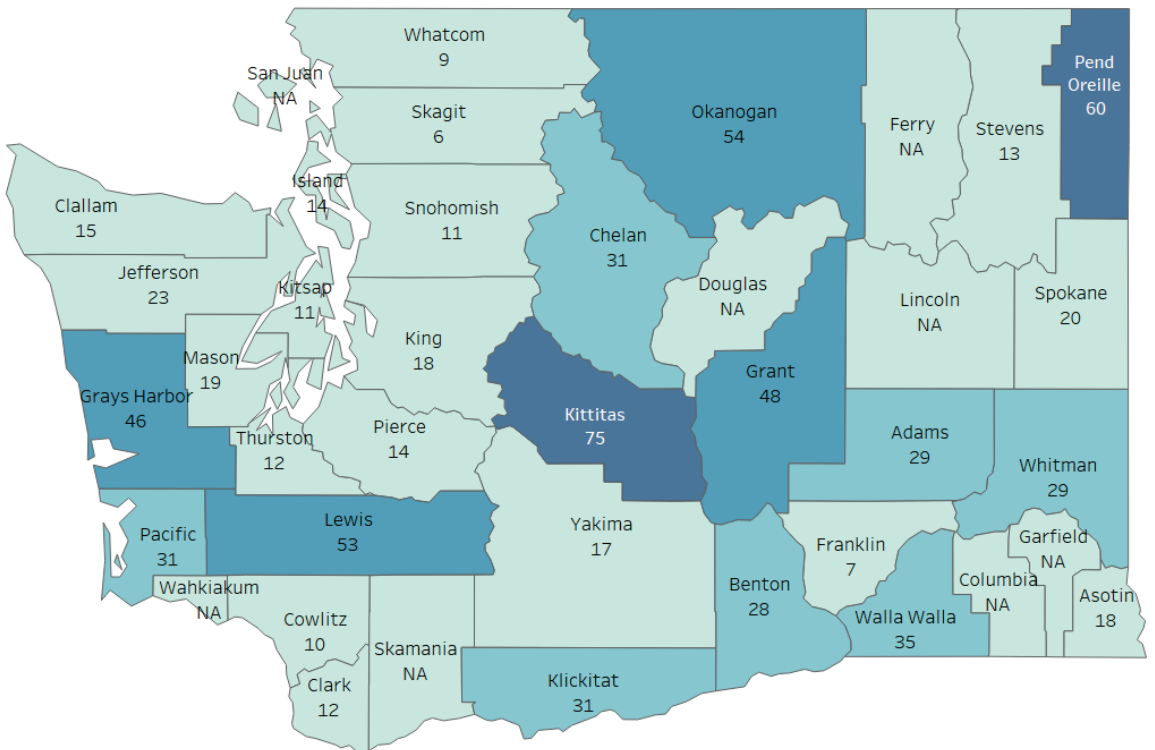
Figure 18. Emergency Medicine Physician Rates (per 100,000) by County, 2017 and 2018



Map 19. Emergency Medicine Physicians per 100,000 Population, Counties, 2017



Map 20. Emergency Medicine Physicians per 100,000 Population, Counties, 2018

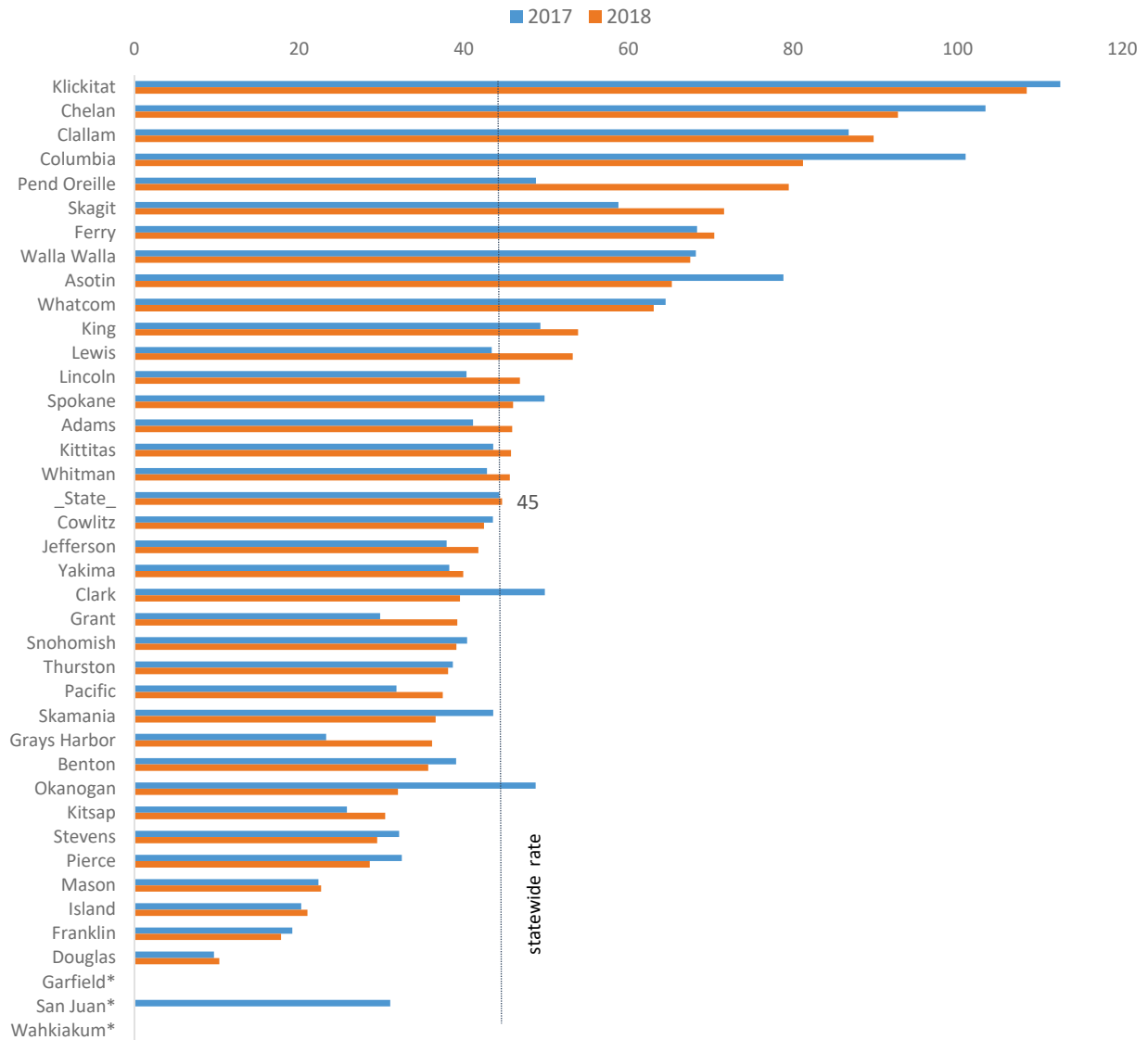


County – Family Medicine/General Practice Physicians

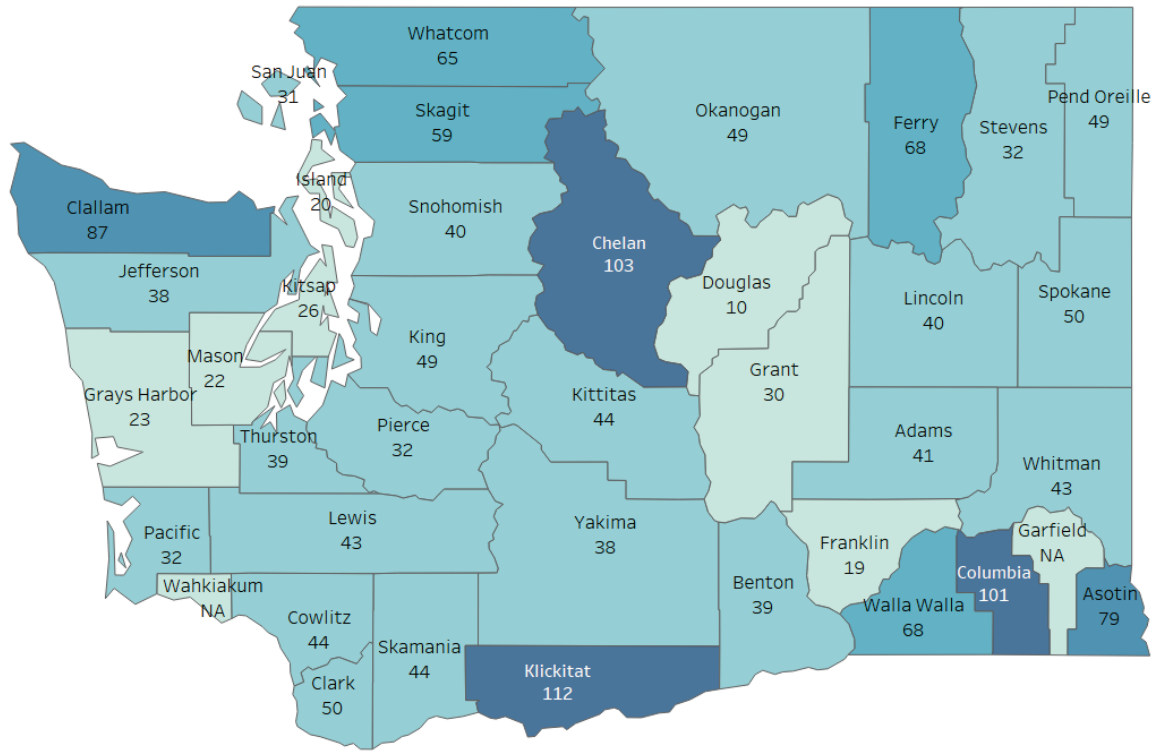
In 2018, the statewide rate of family medicine/general practice physicians was 45 per 100,000 population. There were 17 counties with a rate above the statewide rate. Four of these counties had the highest rates in both 2017 and 2018: Columbia (101 and 81 FM/GP physicians per 100,000 population), Chelan (103 and 93), Clallam (87 and 90) and Klickitat (112 and 108). Note that three of the four counties with the highest rates experienced a decline in their rates from 2017 to 2018. Other counties that experienced sizeable declines in their rates included Asotin (79 to 65 FM/GP physicians per 100,000 population), Clark (50 to 40), Skamania (44 to 37) and Okanogan (49 to 32). Pend Oreille, on the other than hand, had a large increase in its rate, from 49 to 79 FM/GP physicians per 100,000 population. Rates for Douglas, Franklin, Island and Mason remained the lowest both years, all below 25 FM/GP physicians per 100,000 population.

Figure 19. Family Medicine/General Practice Physician Rates (per 100,000) by County, 2017 and 2018

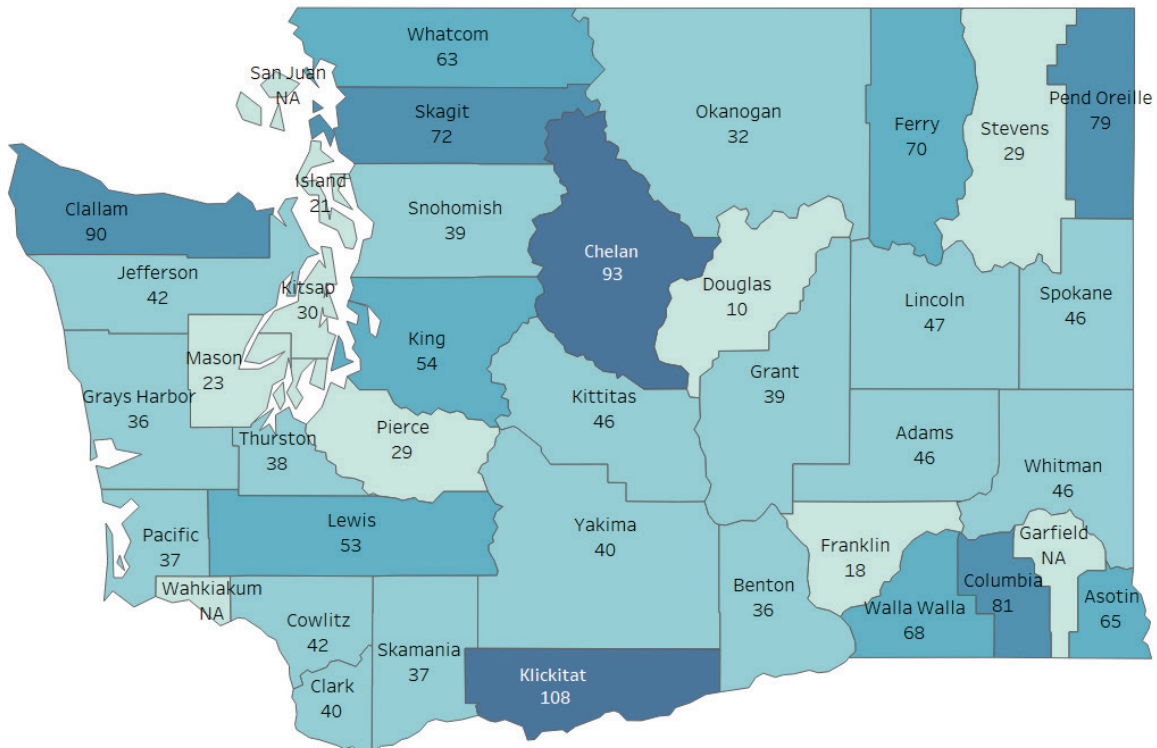
(sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 21. Family Medicine/General Practice Physicians per 100,000 Population, Counties, 2017



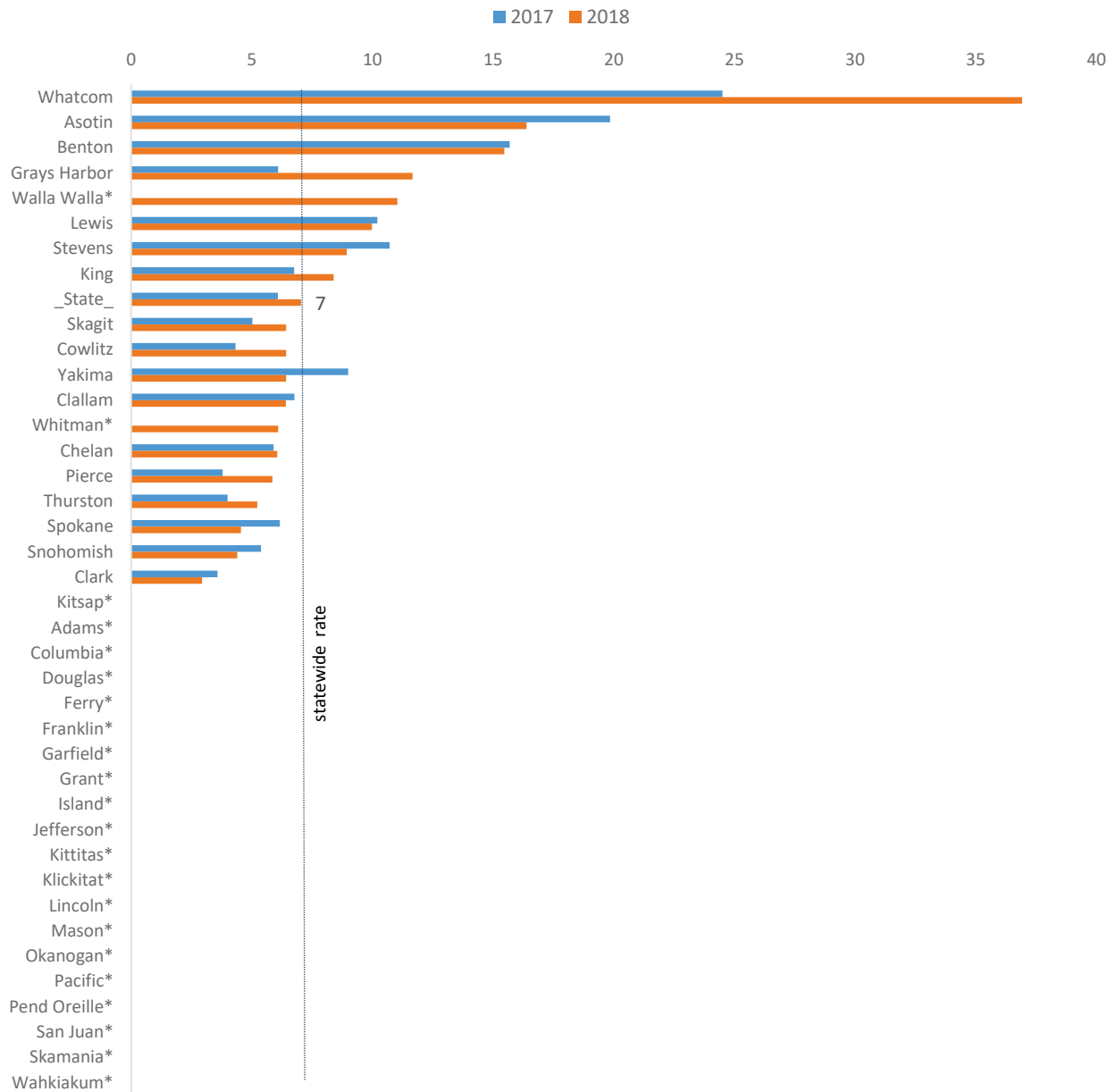
Map 22. Family Medicine/General Practice Physicians per 100,000 Population, Counties, 2018



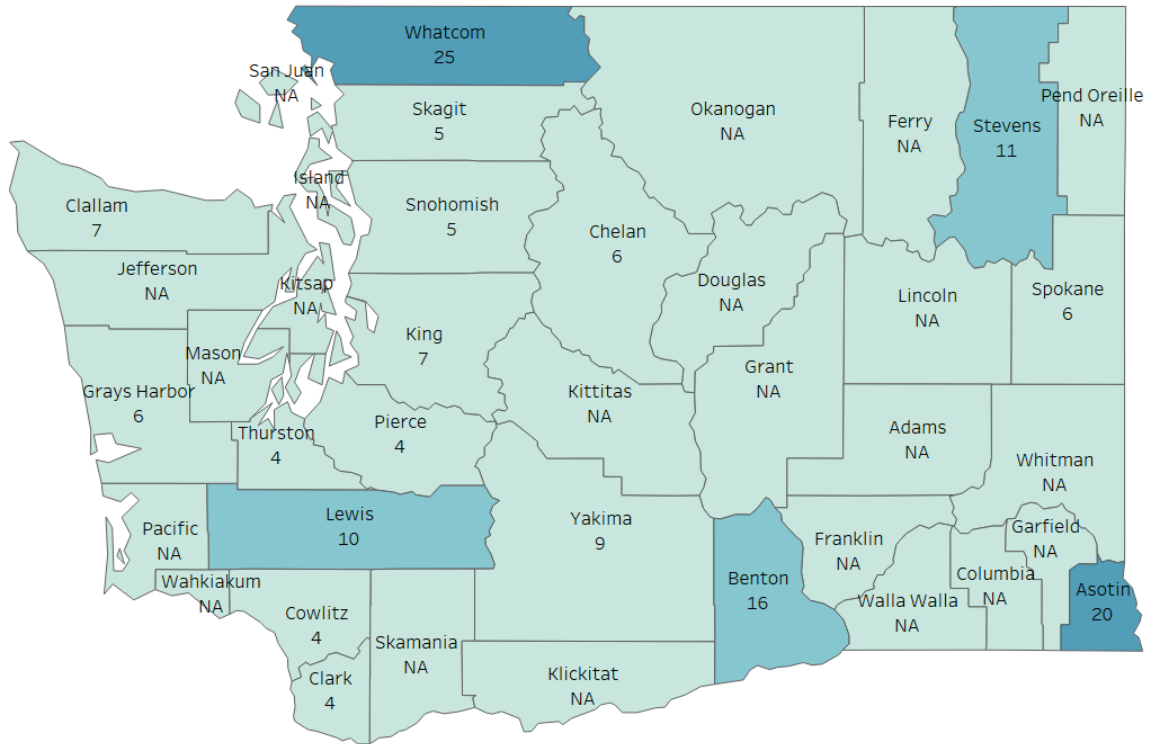
County – Hospitalists

The specialty of hospitalist is still an emerging one. In 2018, nearly half of the counties (19) had no hospitalists or too few for reliable calculation of physician rates. Whatcom County increased its lead in hospitalist rate from 2017 to 2018: 25 to 37 physicians per 100,000 population. Asotin and Benton’s rates remained among the top three in 2018 as were in 2017. The sizeable increases in hospitalist rates in counties of Grays Harbor, King, Skagit, Cowlitz, Pierce and Thurston, in addition to Whatcom, contributed to the increase in the statewide rate from six to seven hospitalists per 100,000 population from 2017 to 2018.

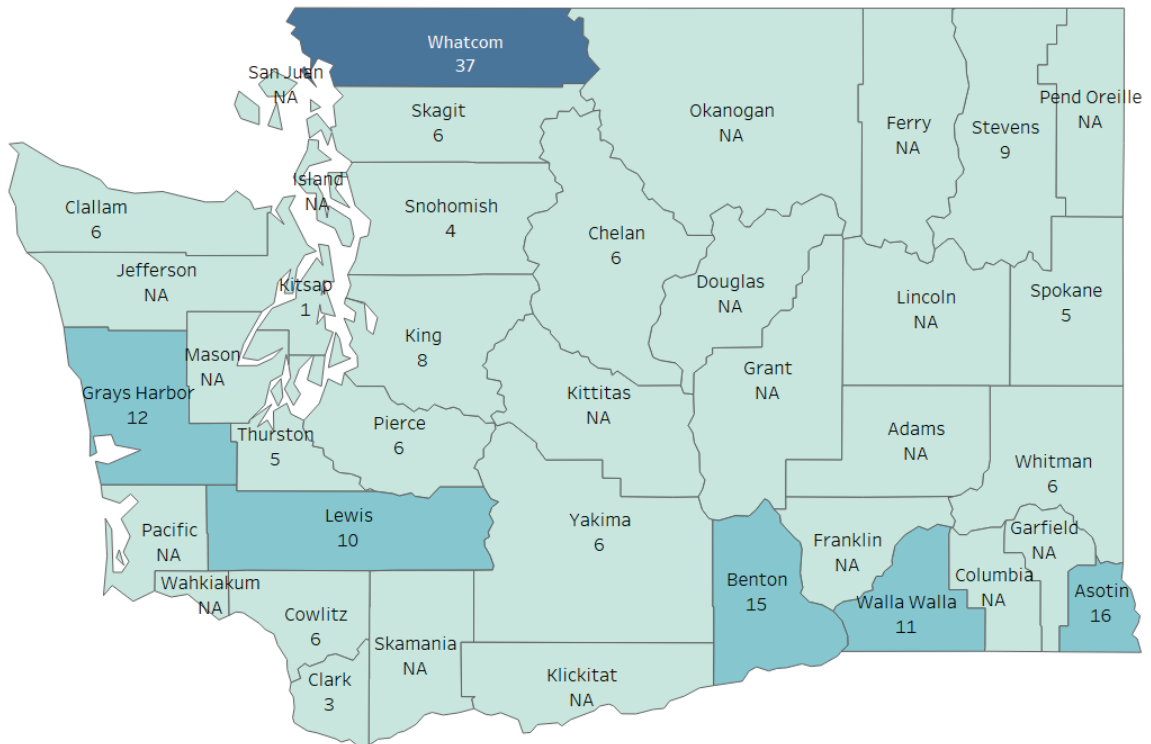
Figure 20. Hospitalist Physician Rates (per 100,000) by County, 2017 and 2018
(sorted by 2018 distribution)
(*=too few physicians for rate calculation)



Map 23. Hospitalists per 100,000 Population, Counties, 2017



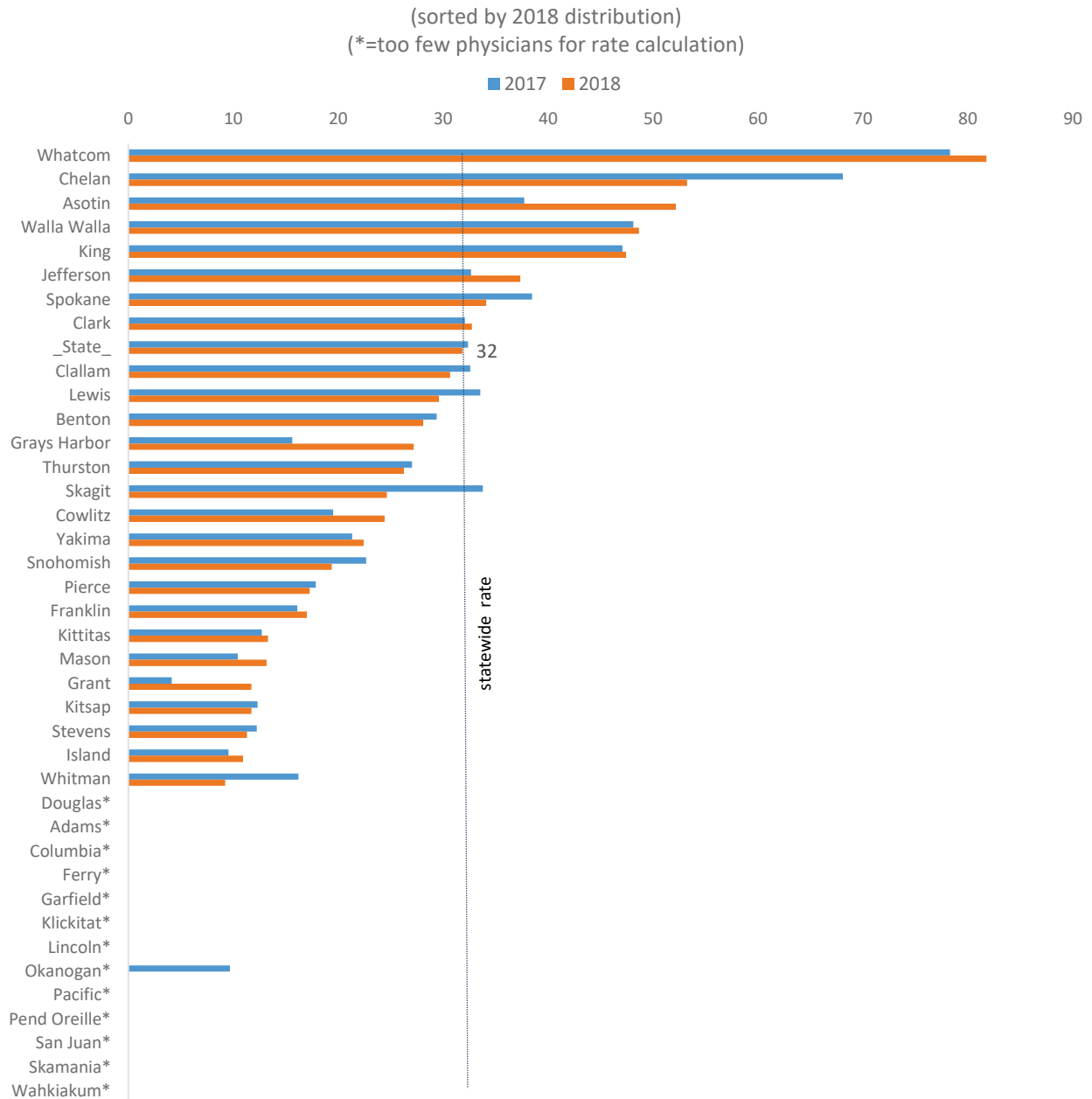
Map 24. Hospitalists per 100,000 Population, Counties, 2018



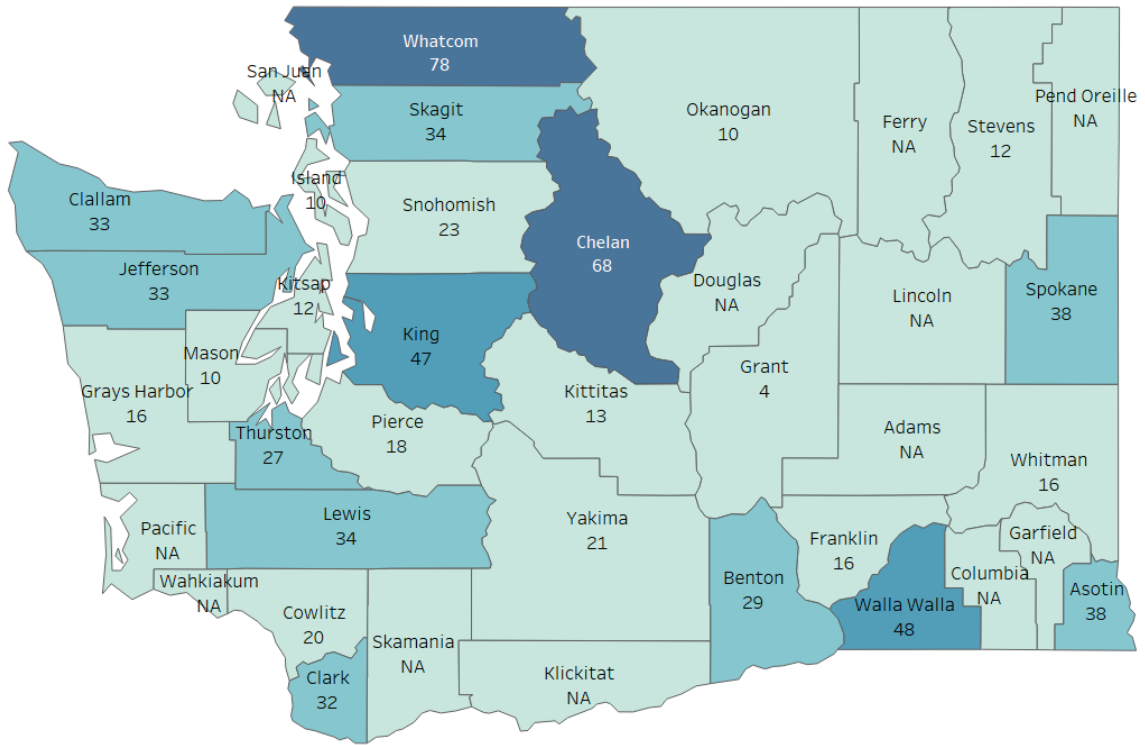
County – Internal Medicine (General) Physicians

Whatcom County’s rate of 82 general internal medicine physicians per 100,000 population ranked the highest among all counties in 2018. That rate is more than twice as large as the statewide rate of 32 IM physicians per 100,000 population. It also represents a slight increase over the county’s rate of 78 IM physicians in 2017. Only eight counties had rates in 2018 that exceeded the statewide rate, including three with large populations: King, Spokane and Clark. Three other counties had large increases in their rates from 2017 to 2018: Asotin (38 to 52 IM physicians), Grays Harbor (16 to 27) and Grant (4 to 12). At the same time, another three counties experienced large decreases in their rates: Chelan (68 to 53 IM physicians per 100,000 population), Skagit (34 to 25) and Whitman (16 to 9).

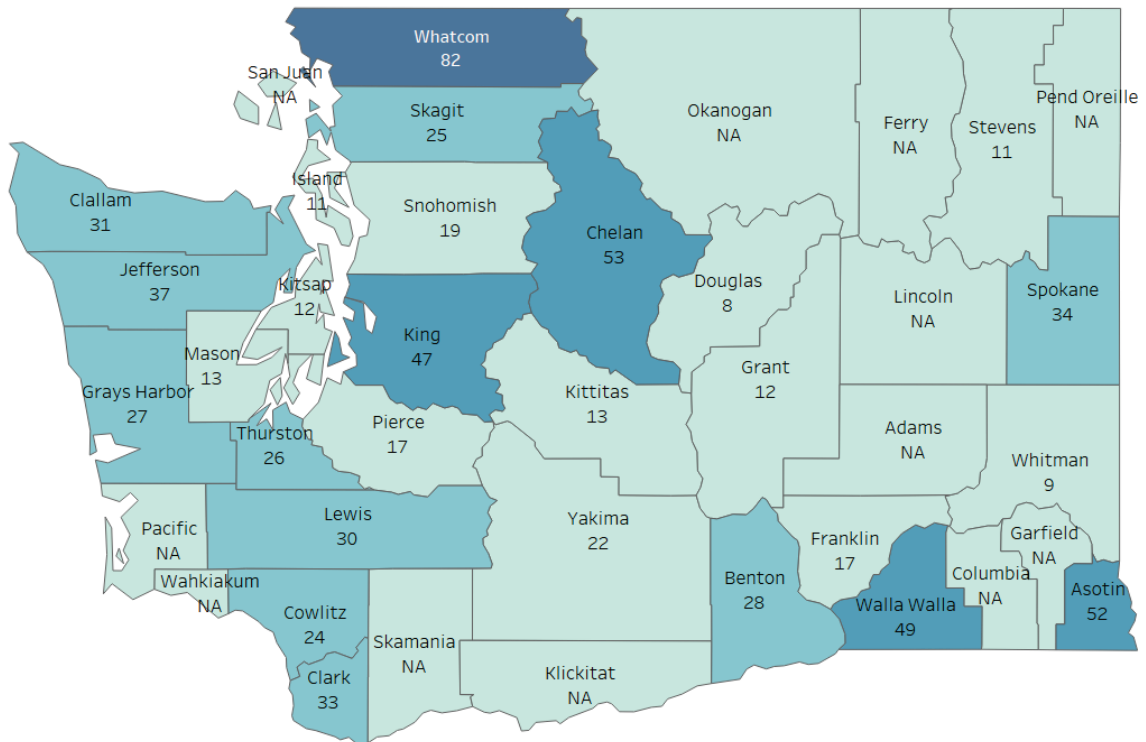
Figure 21. Internal Medicine (General) Physician Rates (per 100,000) by County, 2017 and 2018



Map 25. Internal Medicine (General) Physicians per 100,000 Population, Counties, 2017



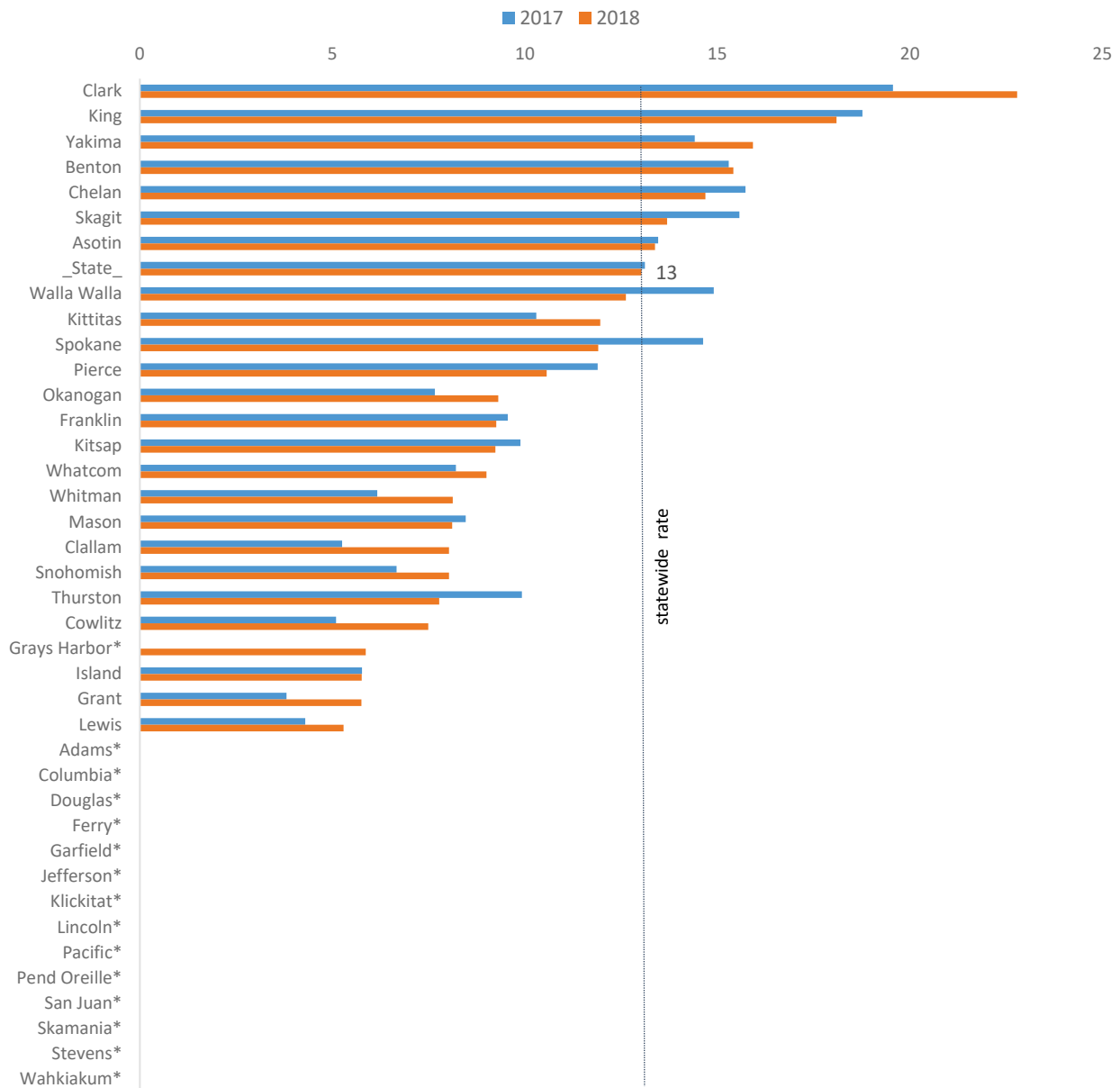
Map 26. Internal Medicine (General) Physicians per 100,000 Population, Counties, 2018



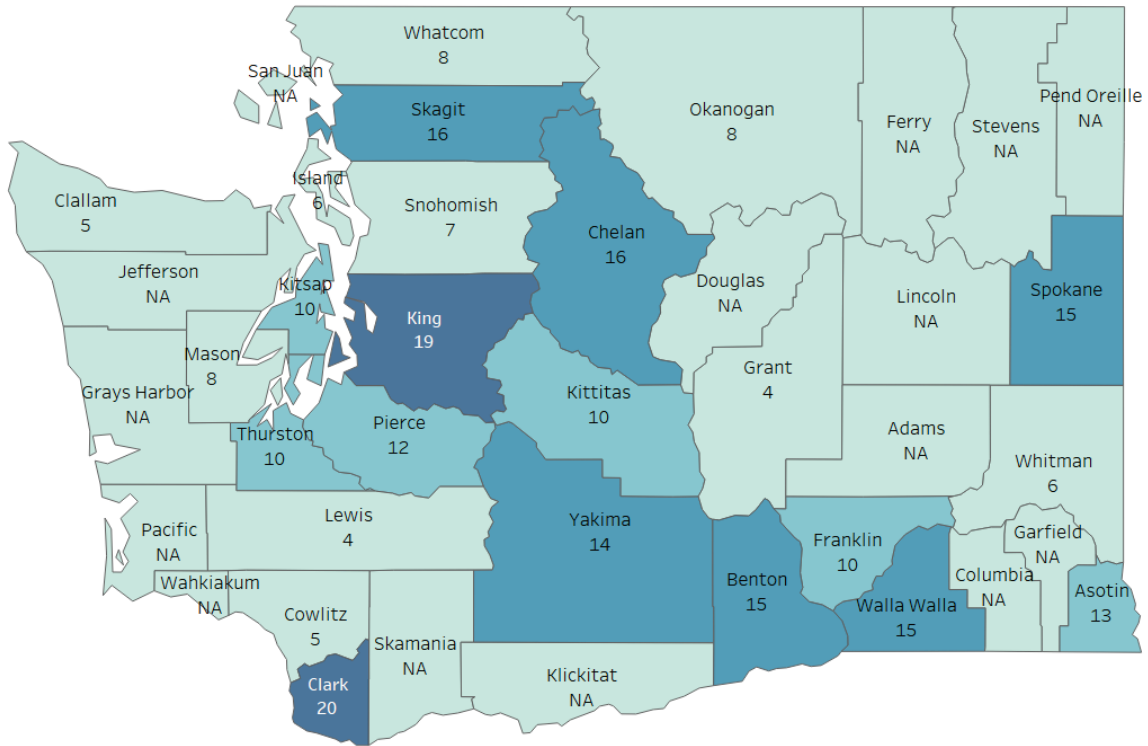
County – OB/GYNs

Statewide, the OB/GYN rate was 13 physicians per 100,000 population in 2018. Only seven counties had rates in 2018 that were higher than the statewide rate: Clark, King, Yakima, Benton, Chelan, Skagit and Asotin. Clark had the highest rate of 23 OB/GYNs per 100,000 population, an increase from 20 in 2017, also the highest in that year. Noticeable increases in OB/GYN rates also occurred in Yakima, Kittitas, Okanogan, Whitman, Clallam, Snohomish, Cowlitz, and Grant. Four counties experienced declines in their OB/GYN rates: Skagit, Walla Walla, Spokane and Thurston. In the meanwhile, more than one third of the counties (14) had too few OB/GYNs for reliable physician rate calculation.

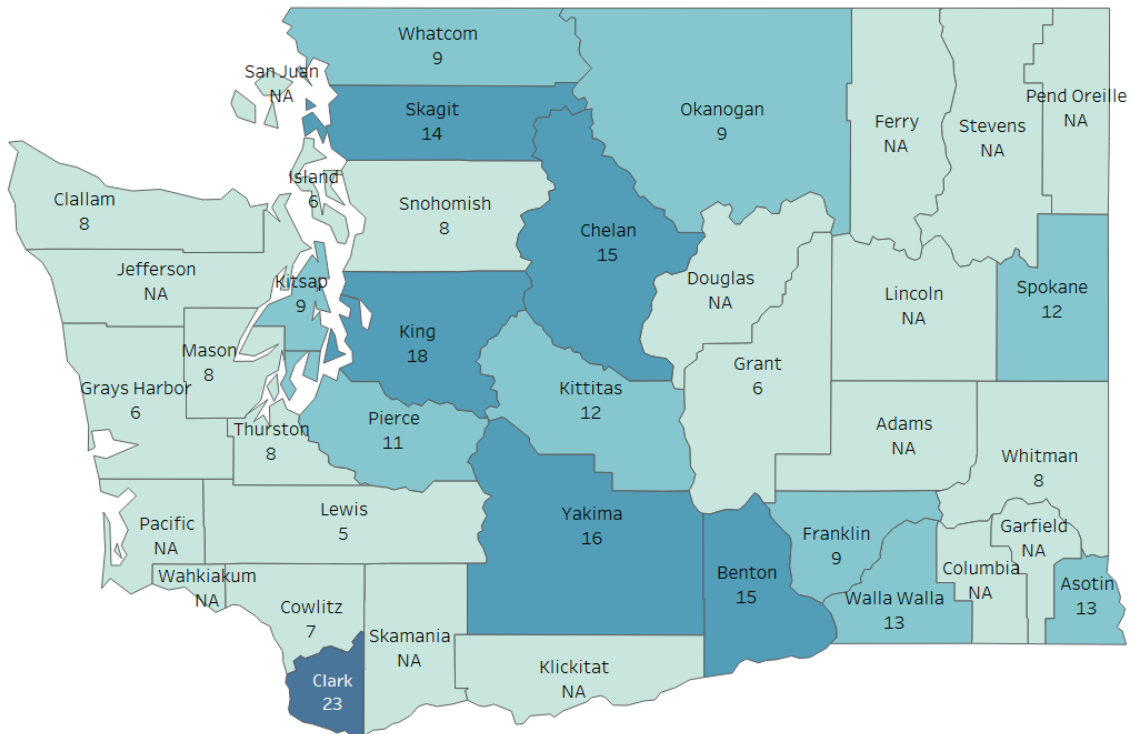
Figure 22. OB/GYN Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 27. OB/GYNs per 100,000 Population, Counties, 2017



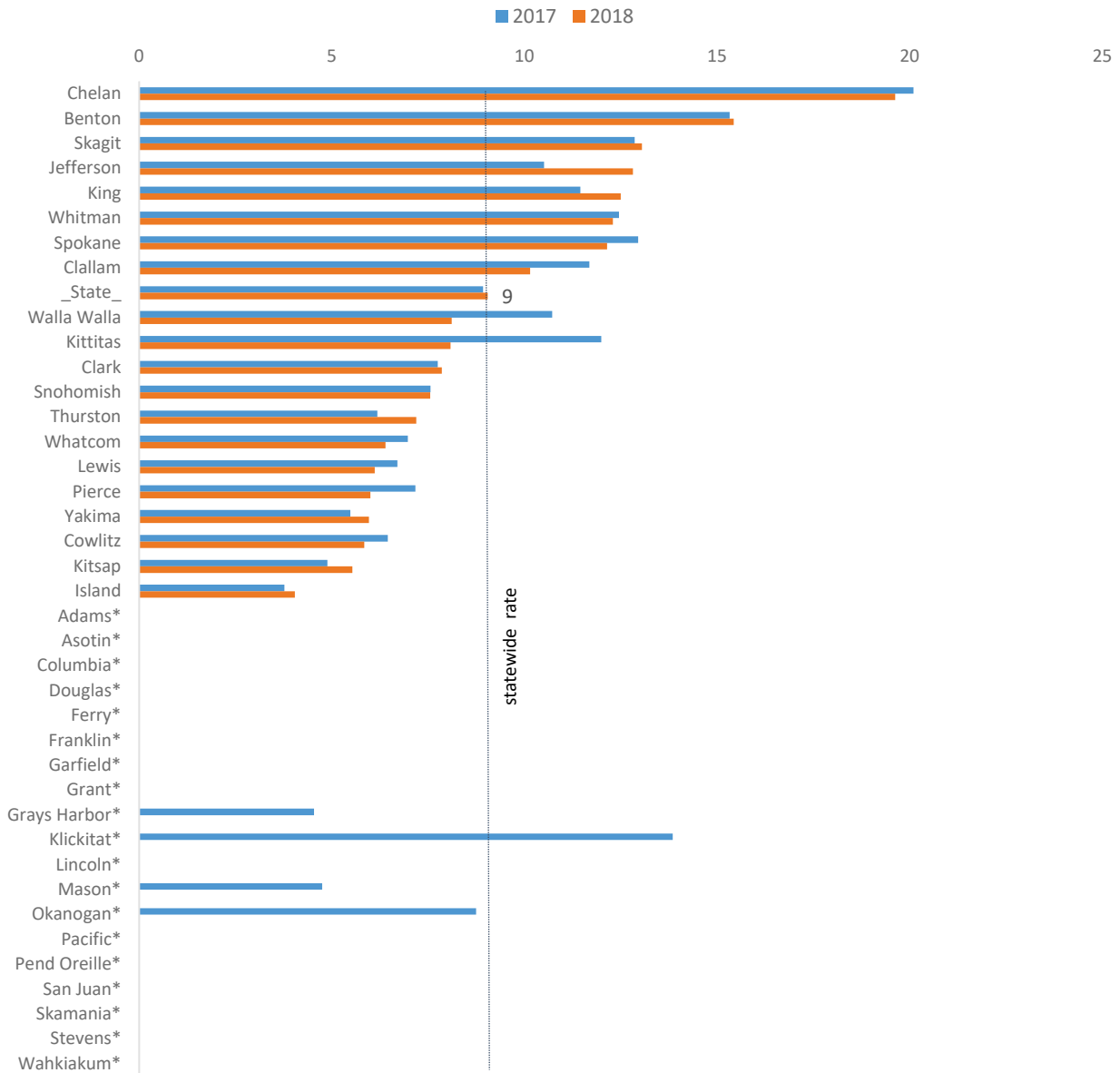
Map 28. OB/GYNs per 100,000 Population, Counties, 2018



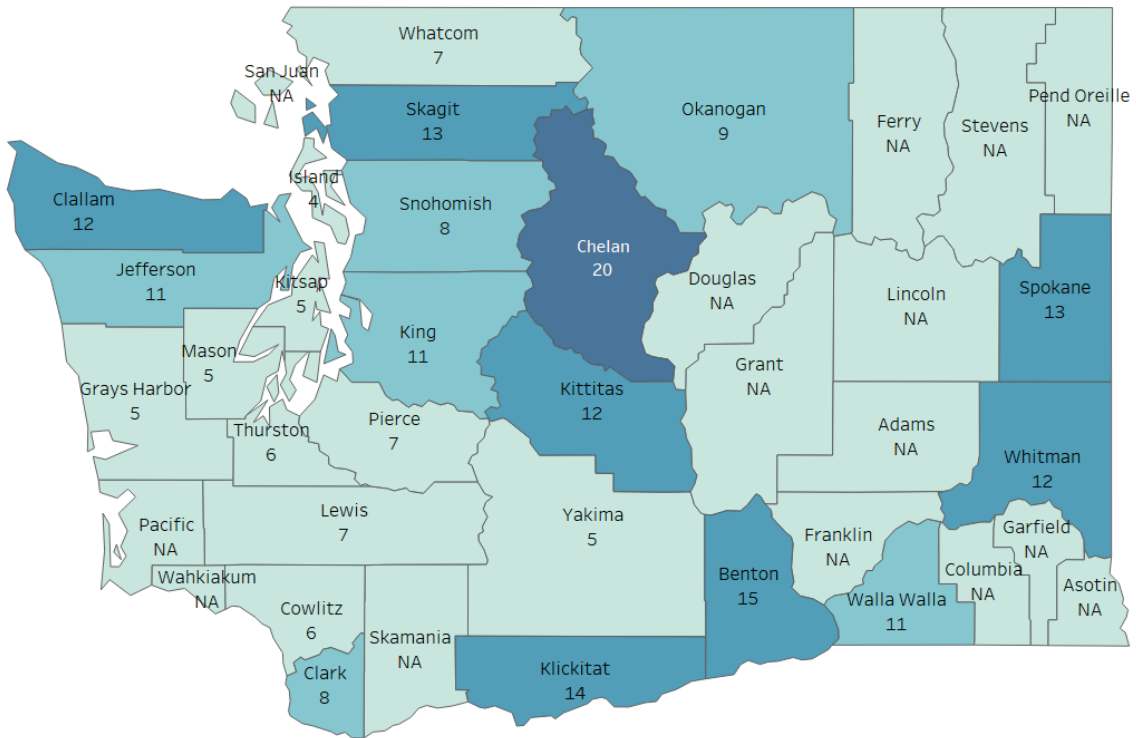
County – Orthopedic Surgeons

The statewide rate of orthopedic surgeons did not change from 2017 to 2018 (9 physicians per 100,000 population). Neither did the two highest county rates: Chelan at 20 and Benton at 15. However, the number of orthopedic surgeons in Grays Harbor, Klickitat, Mason and Okanogan dropped in 2018 to below a level for reliable physician rate calculation. In all, 19 counties in 2018 had either no orthopedic surgeons or too few for physician rate calculation. In addition, a relatively notable rate decline from 2017 to 2018 took place in two other counties: Walla Walla (11 to 8 physicians) and Kittitas (12 to 8 physicians).

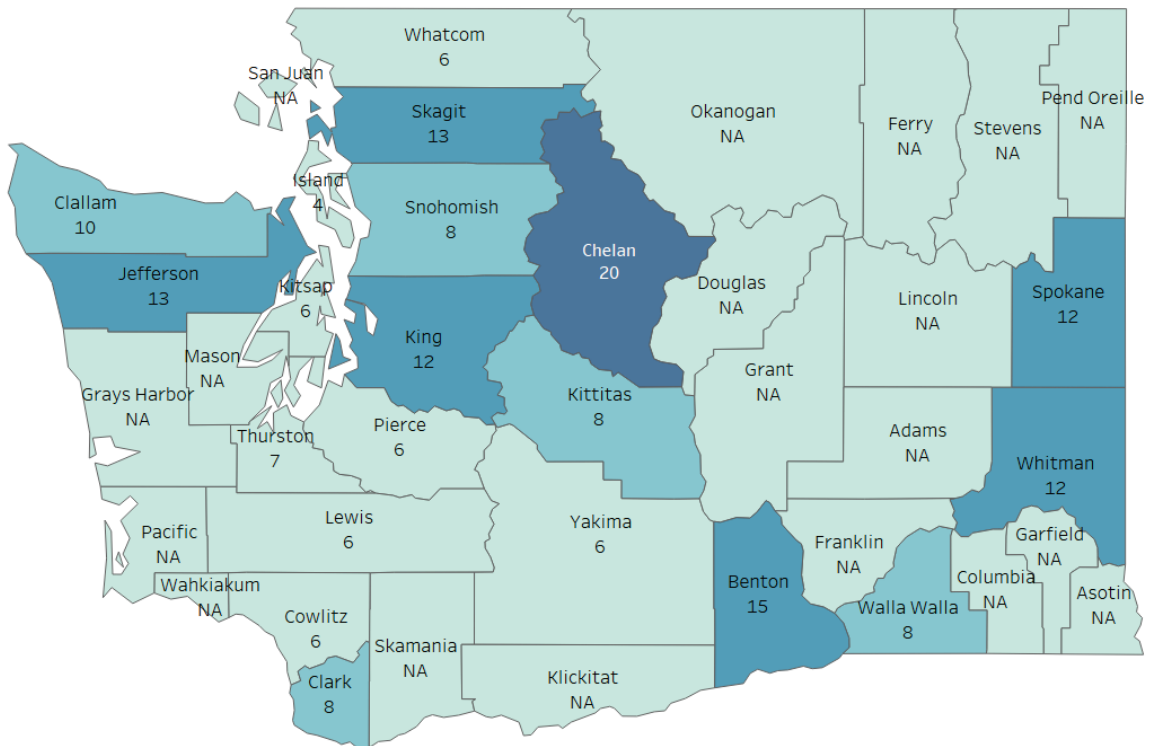
Figure 23. Orthopedic Surgery Physician Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 29. Orthopedic Surgeons per 100,000 Population, Counties, 2017



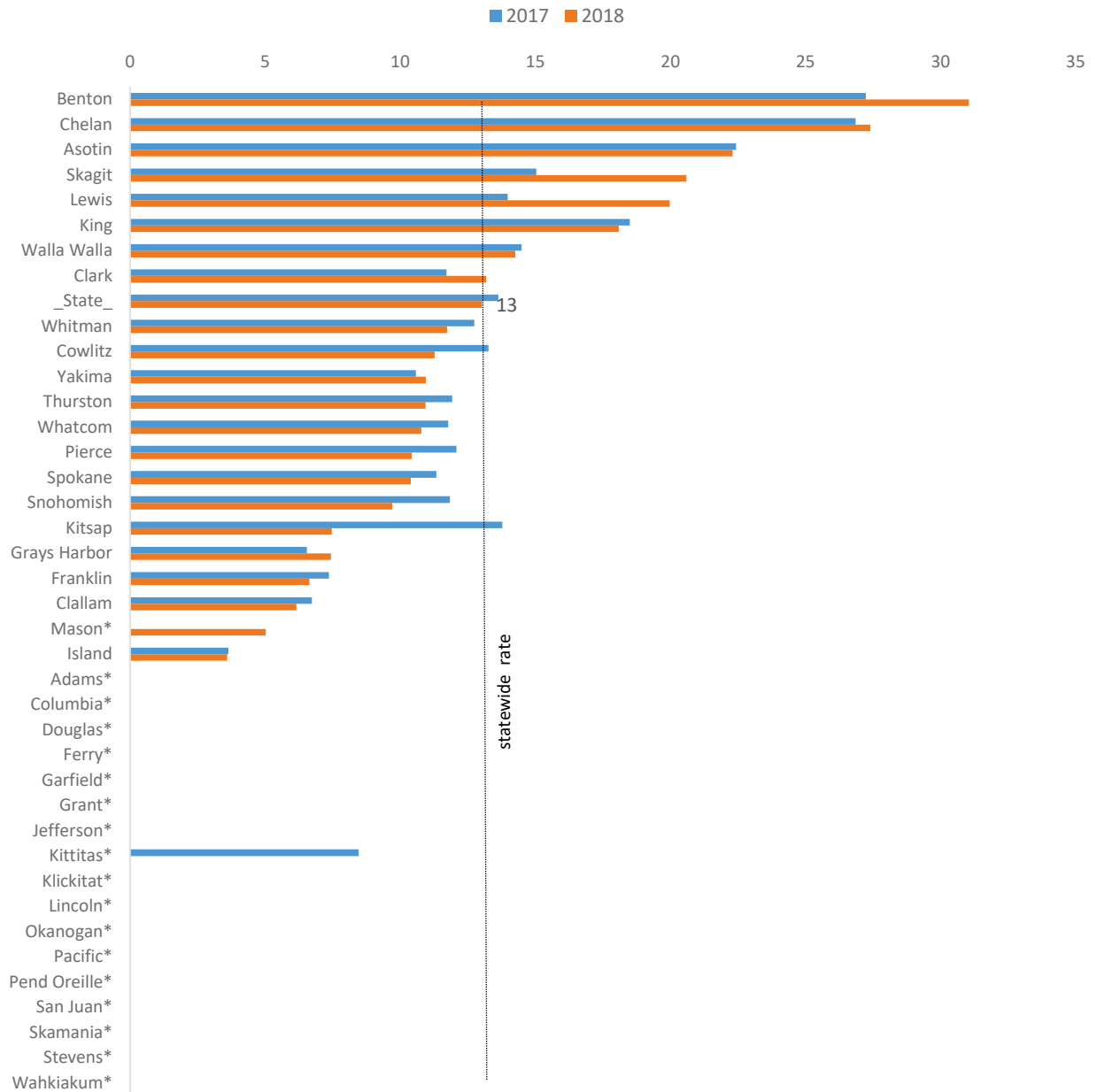
Map 30. Orthopedic Surgeons per 100,000 Population, Counties, 2018



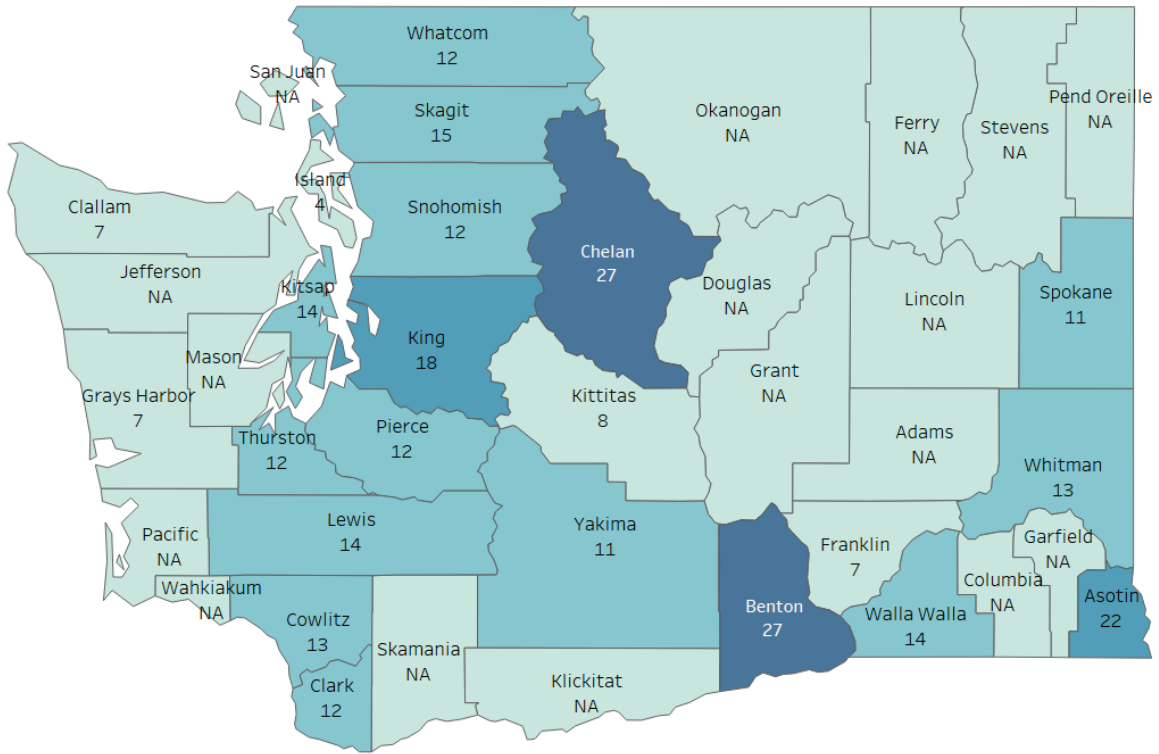
County – Pediatricians (General)

The same three counties had the highest general pediatrician rates in 2017 and 2018: Benton, Chelan and Asotin. Only eight counties had pediatrician rates at or above the 2018 statewide rate of 13 pediatricians per 100,000 population. These eight had either an increase or no change in their rates from 2017 to 2018. Counties with rates below the statewide rate in 2018 nearly all experienced a decline in their rates from the previous year. Finally, 17 counties in 2018 had too few pediatricians for physician rate calculation.

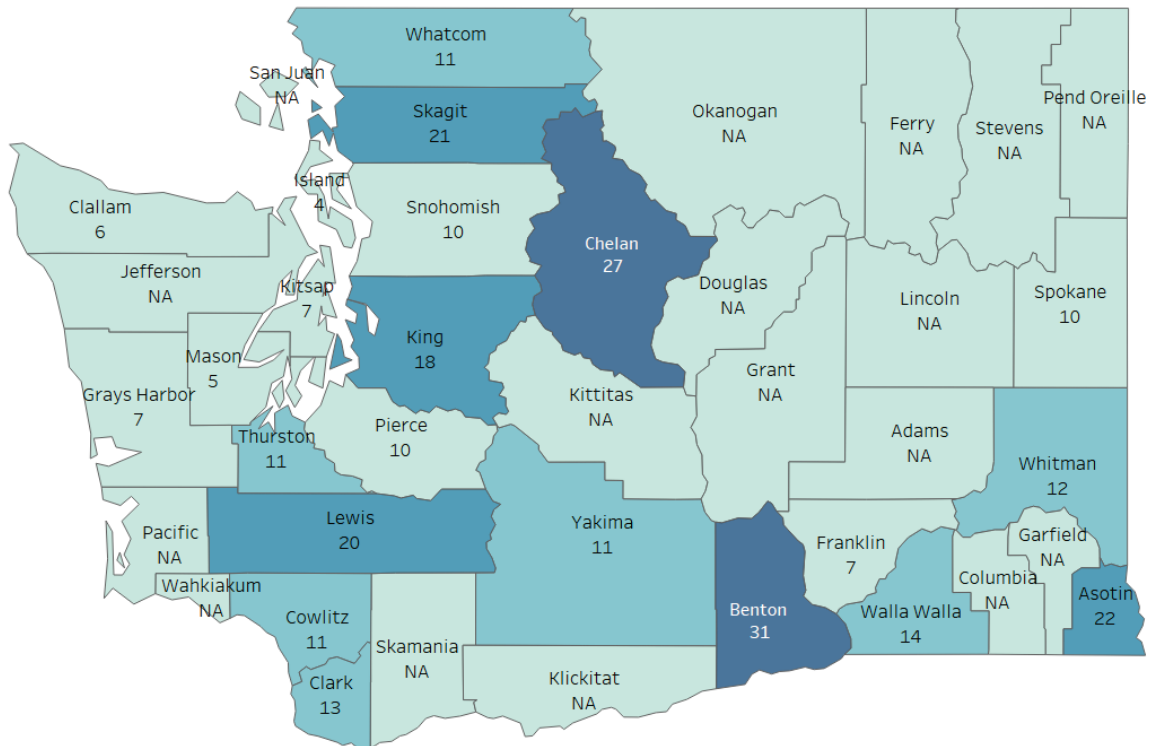
Figure 24. Pediatrics (General) Physician Rates (per 100,000) by County, 2017 and 2018 (sorted by 2018 distribution) (*=too few physicians for rate calculation)



Map 31. Pediatricians (General) per 100,000 Population, Counties, 2017



Map 32. Pediatricians (General) per 100,000 Population, Counties, 2018

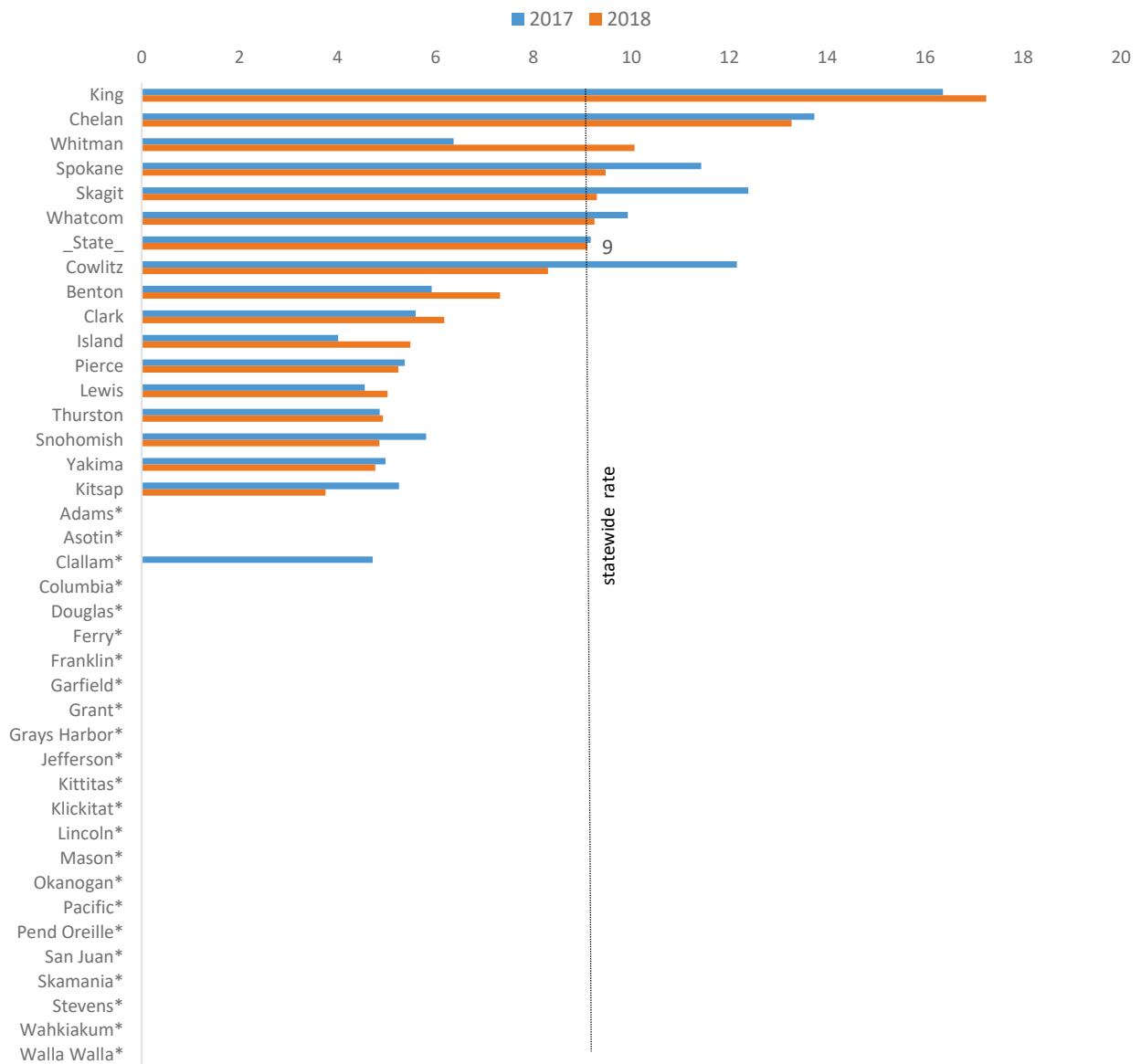


County – Psychiatrists

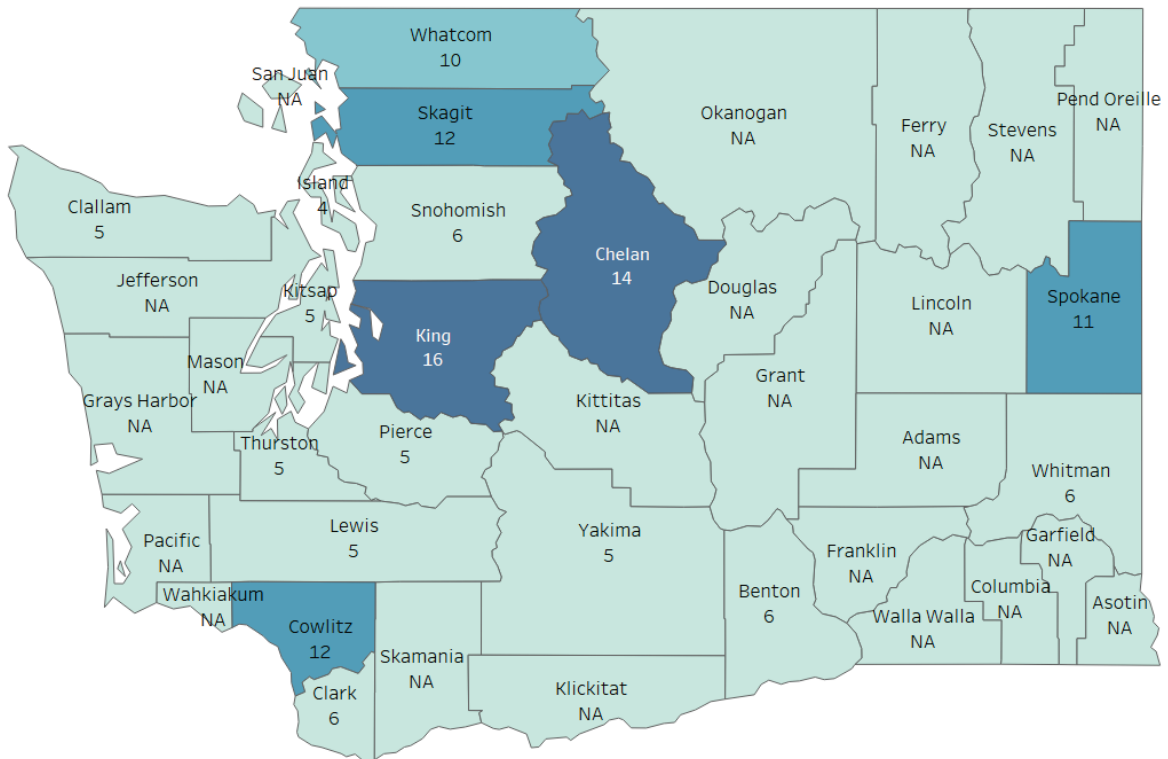
More than half of the counties, 23 in all, had no or too few psychiatrists in 2018 for physician rate calculation. Of the remaining 16 counties, only six had rates above the statewide rate of nine psychiatrists per 100,000 population. King had the highest county-level rate in 2018 at 17 per 100,000 population. Its rate in 2017 was also the highest, at 16 psychiatrists per 100,000 population. Chelan’s rate was the second highest in both years, at 14 in 2017 and 13 in 2018. Over the one-year period, Whitman’s rate had the largest gain, changing from six psychiatrists to 11 psychiatrists per 100,000 population. Cowlitz’ rate went through the largest decline from 12 psychiatrists to eight per 100,000 population.

Figure 25. Psychiatry Physician Rates (per 100,000) by County, 2017 and 2018

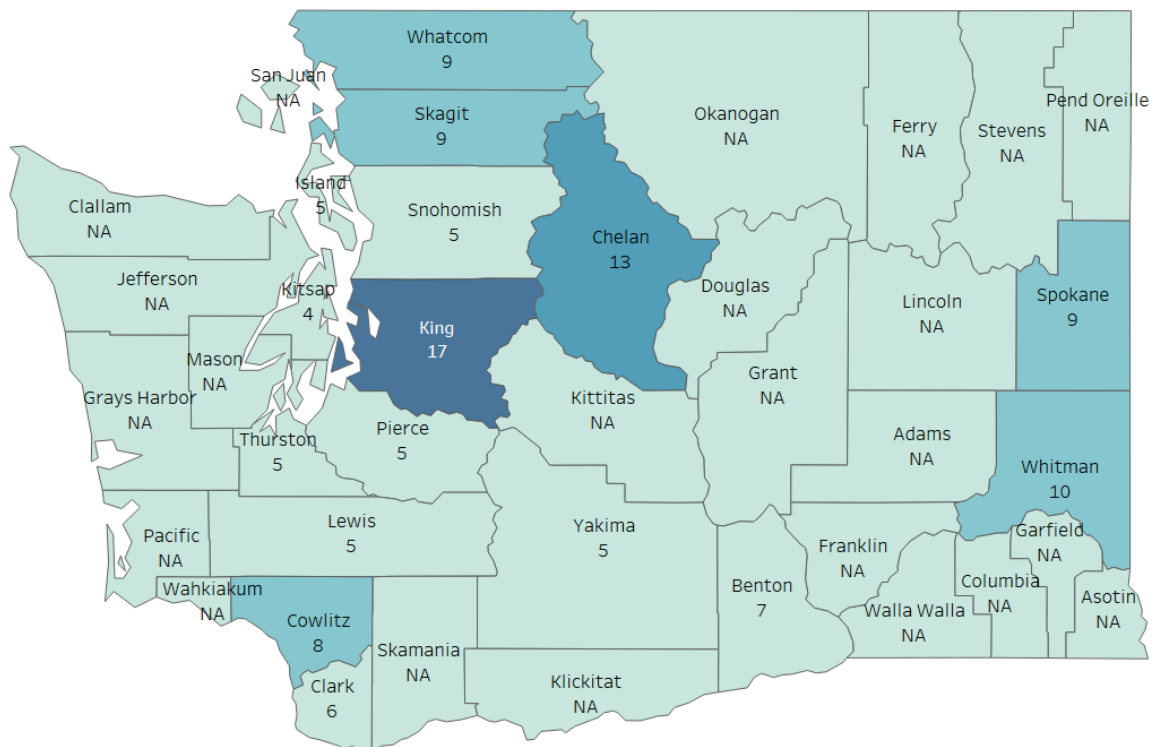
(sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 33. Psychiatrists per 100,000 Population, Counties, 2017



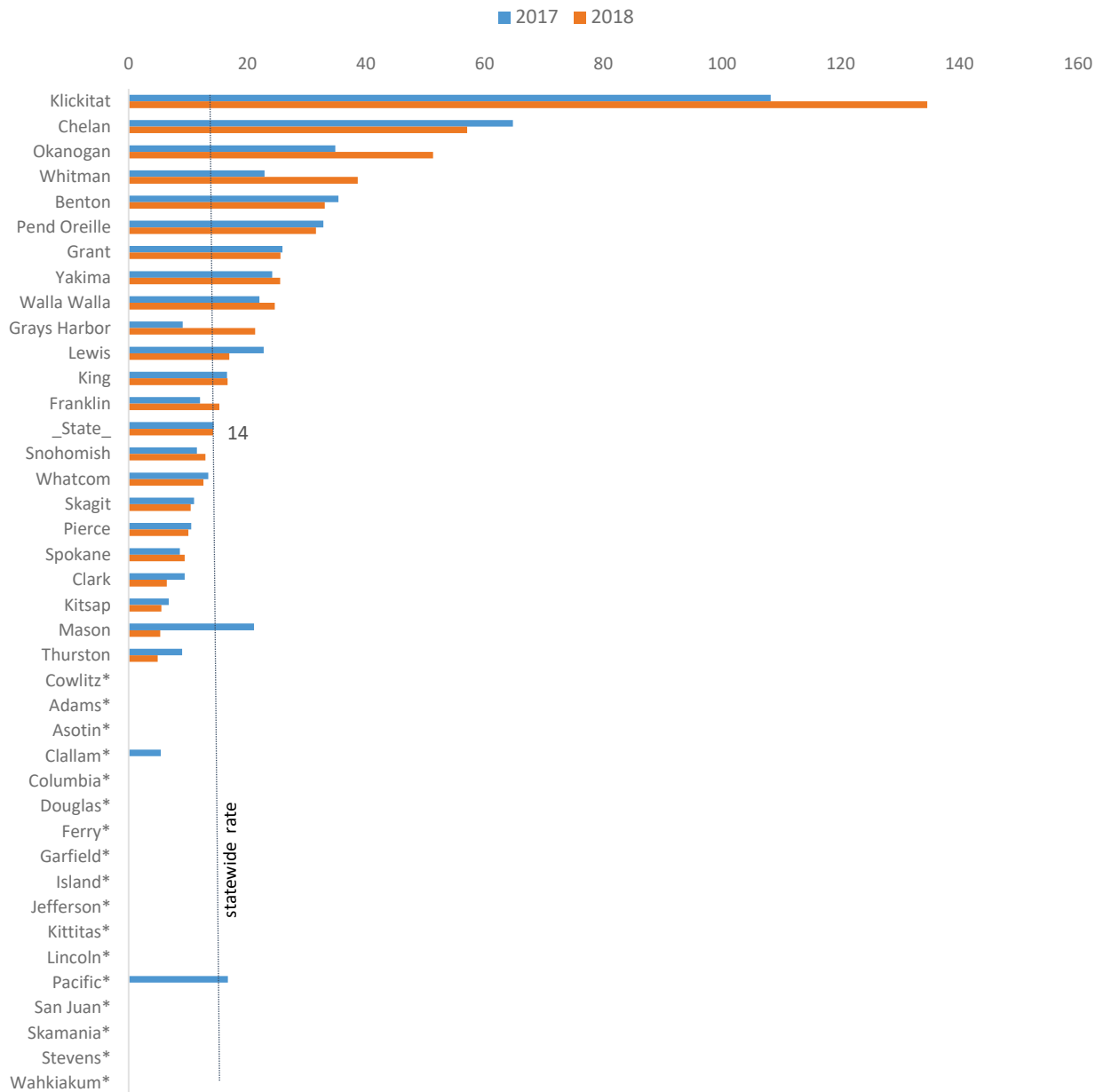
Map 34. Psychiatrists per 100,000 Population, Counties, 2018



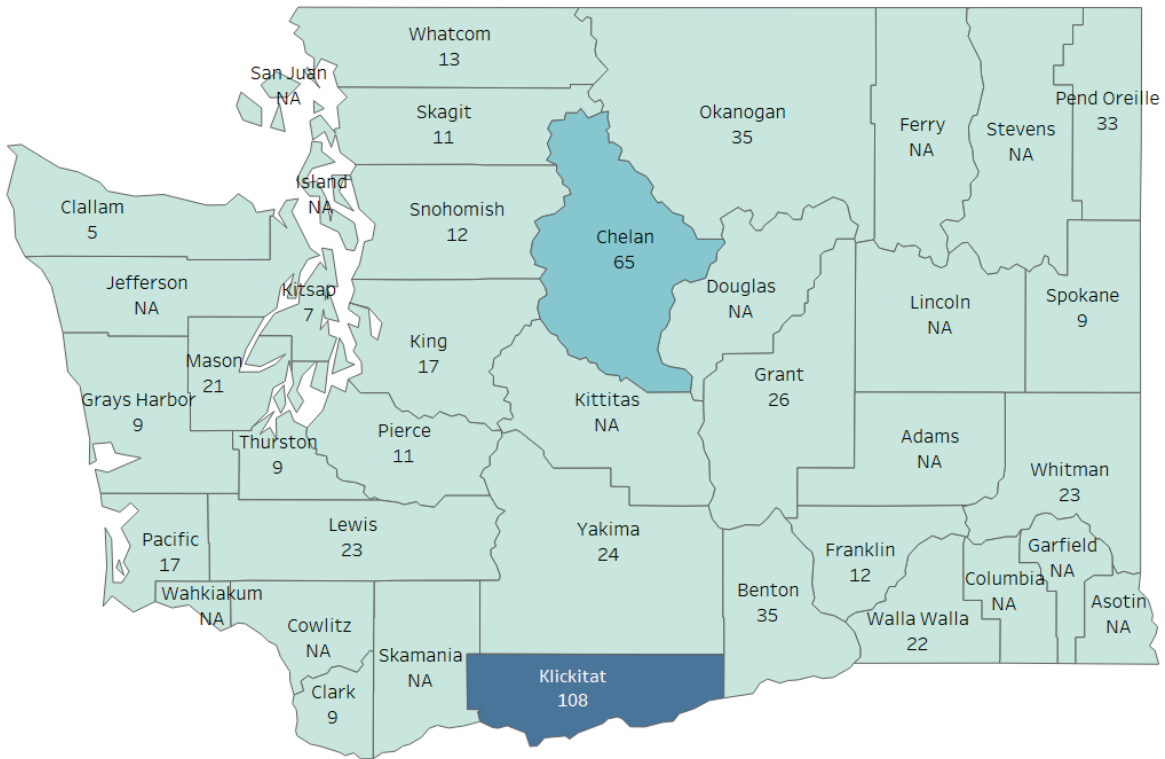
County – Radiologists

Radiologist rates at the county level had perhaps the greatest variation of all specialty physician rates. While the statewide rate was 14 radiologists per 100,000 population in both 2017 and 2018, Klickitat’s rate of 108 in 2017 was about eight times as high as the statewide rate and its rate of 135 in 2018 was about ten times as high. At the lower end, several counties (Thurston, Mason, Kitsap and Clark) in 2018 had a radiologist rate that was less than half of the statewide rate, in addition to 17 counties that had either no radiologists or had too few for reliable rate calculation.

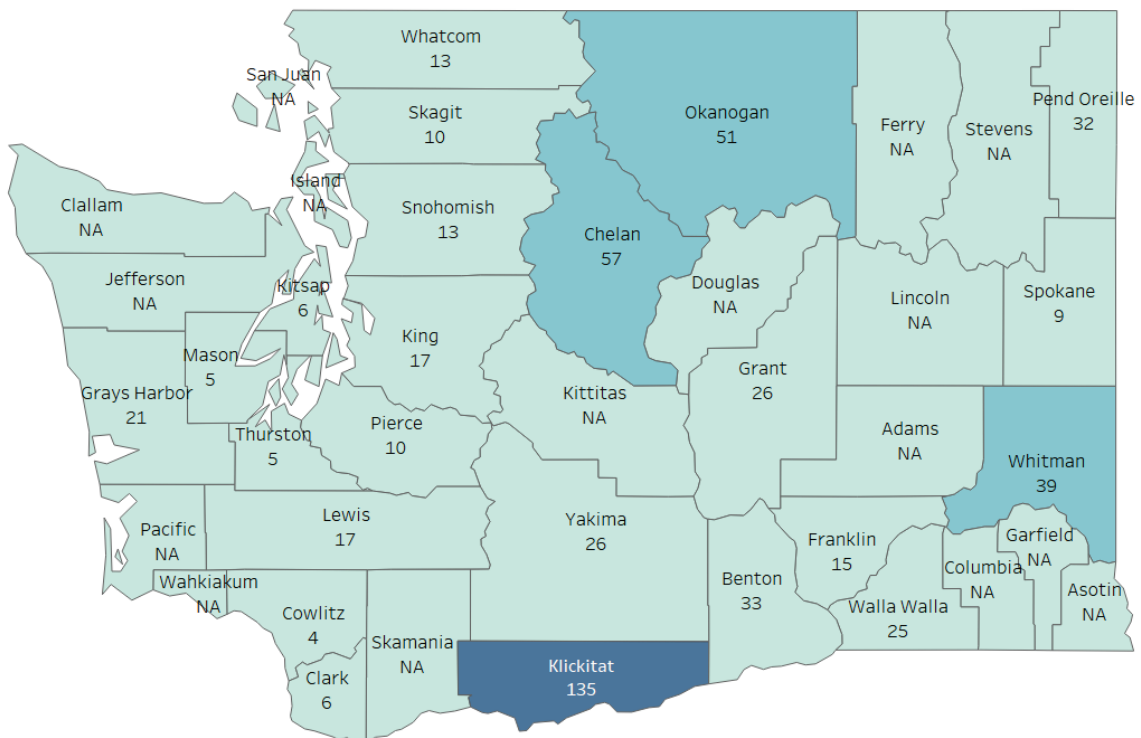
Figure 26. Radiologist Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 35. Radiologists per 100,000 Population, Counties, 2017



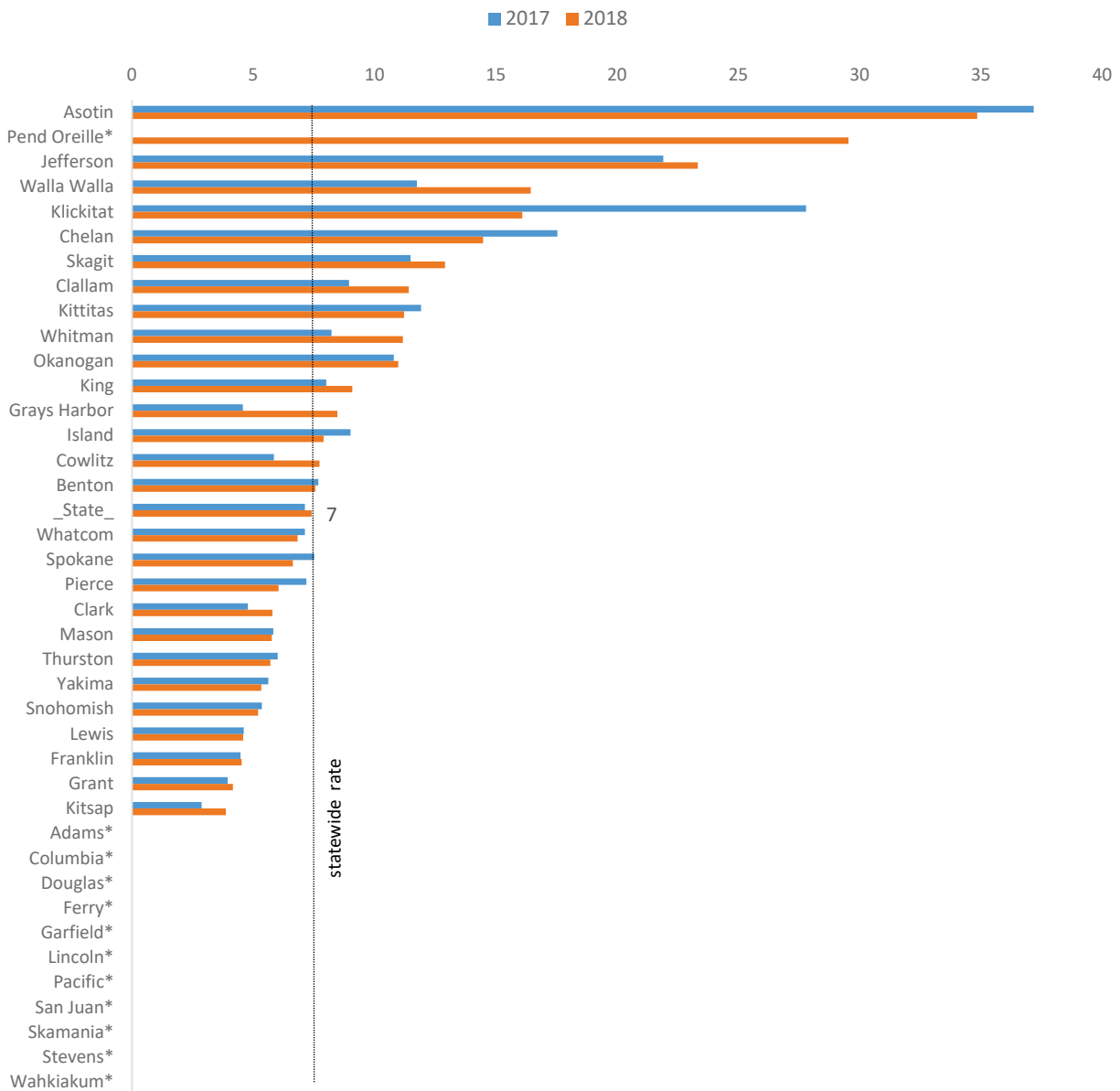
Map 36. Radiologists per 100,000 Population, Counties, 2018



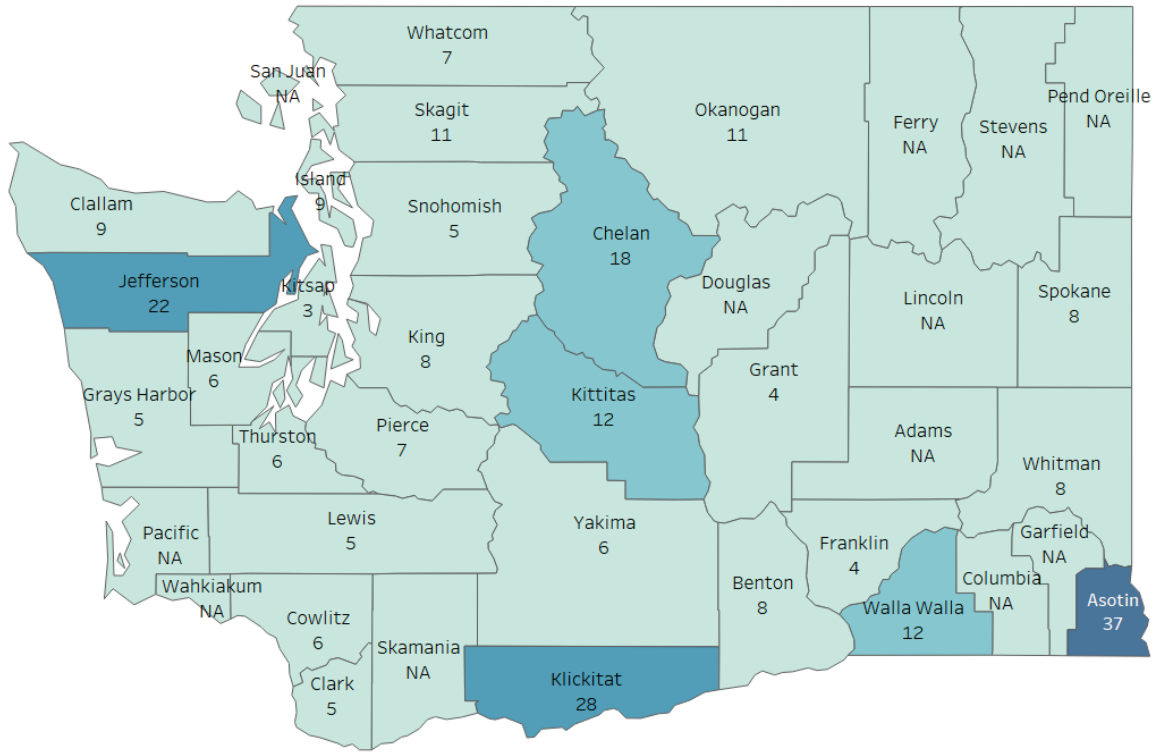
County – Surgeons (General)

Counties with general surgeon rates above the statewide rate of seven surgeons per 100,000 population in 2018 were all less populous counties except for King. The relatively more populous counties of Spokane, Pierce, Clark and Snohomish all had rates below the statewide rate. Asotin had the highest rate in both 2017 (37 general surgeons per 100,000 population) and 2018 (35). Counties that had noticeable increases in their general surgeon rates from 2017 to 2018 were Pend Oreille, Walla Walla, Whitman and Grays Harbor. Klickitat had a large reduction in its rate from 28 to 14 general surgeons per 100,000 population from 2017 to 2018. Eleven counties had too few general surgeons for physician rate calculation.

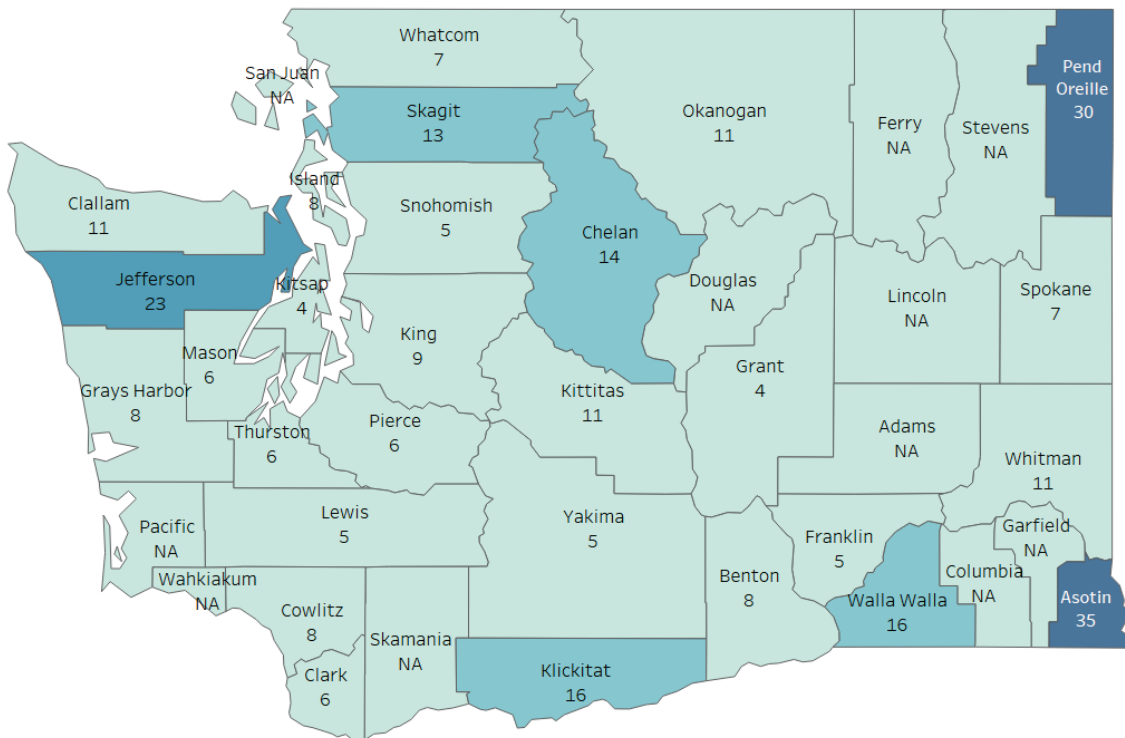
Figure 27. Surgery Physician Rates (per 100,000) by County, 2017 and 2018
 (sorted by 2018 distribution)
 (*=too few physicians for rate calculation)



Map 37. Surgeons (General) per 100,000 Population, Counties, 2017



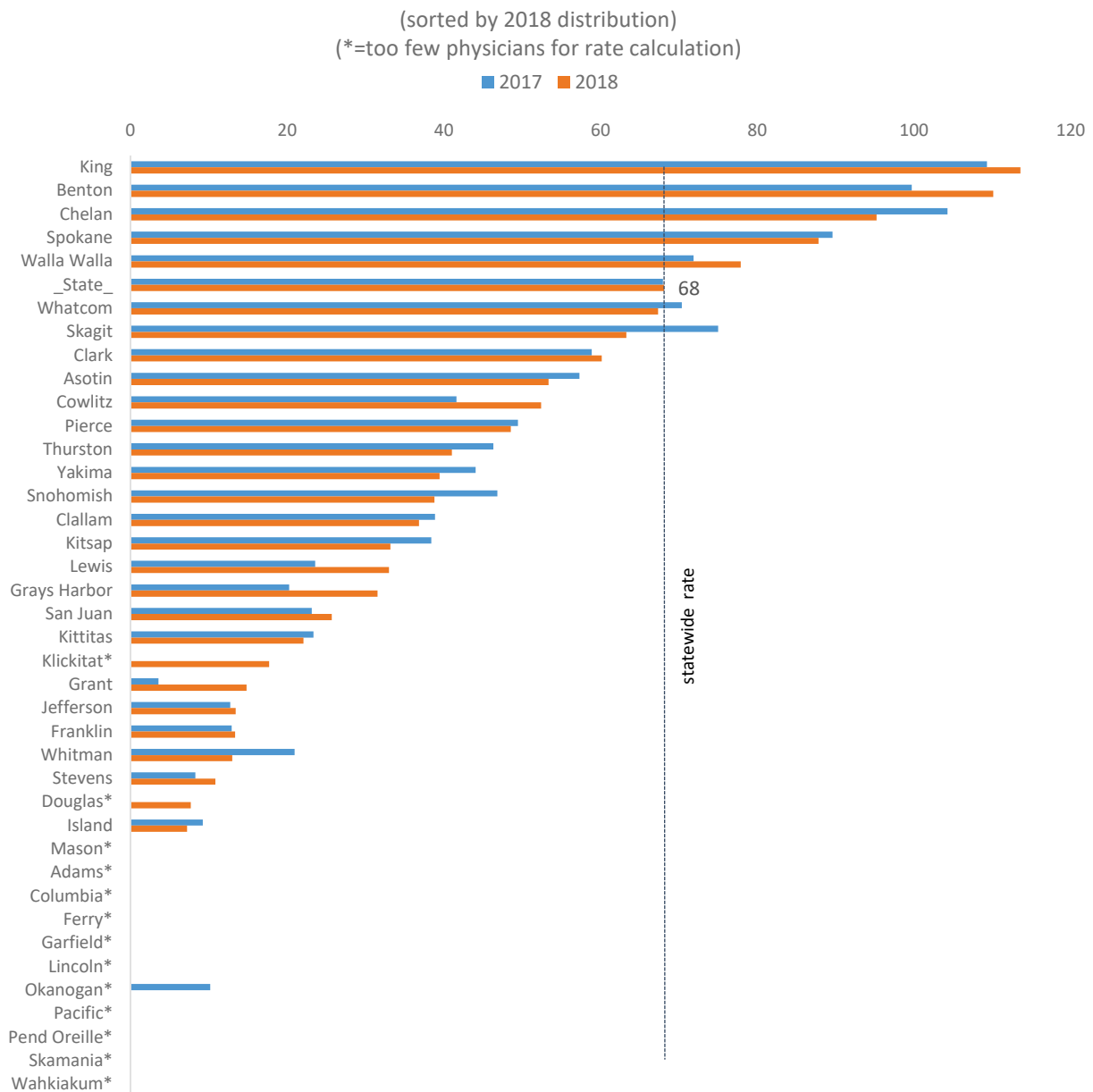
Map 38. Surgeons (General) per 100,000 Population, Counties, 2018



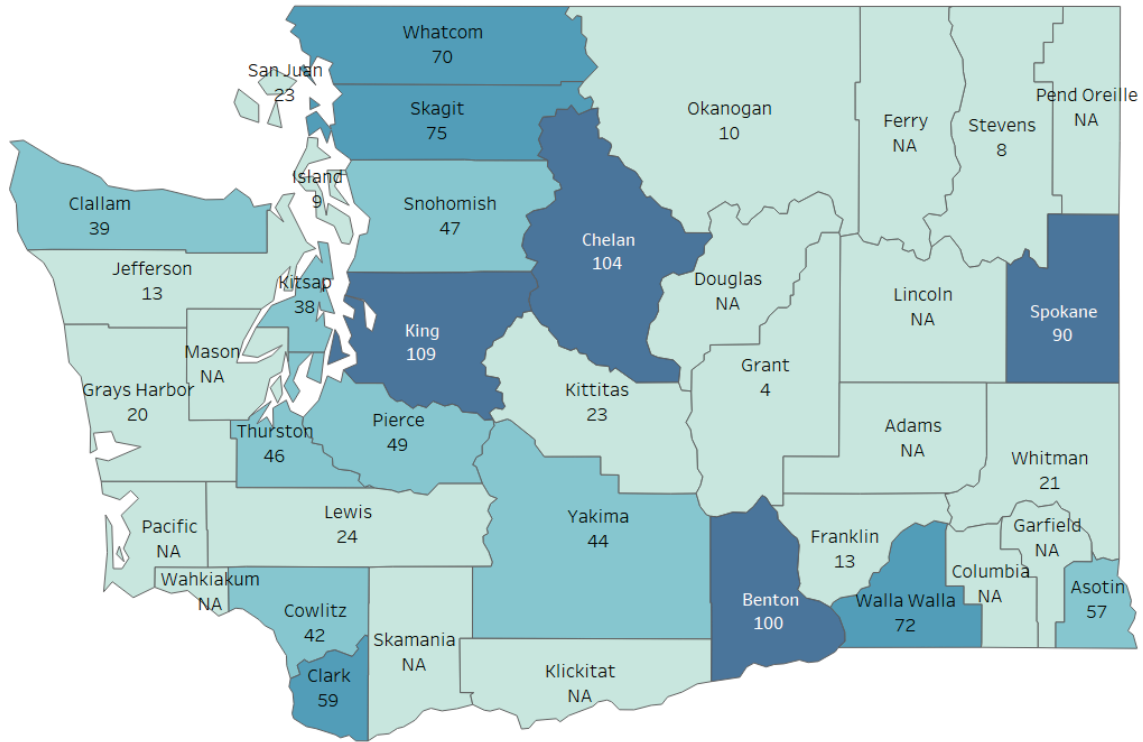
County – Other Specialty Physicians

The other specialty group includes specialties not covered in the county physician rates shown above, such as audiology, gastroenterology, pain medicine, urology and plastic surgery. Although other specialty had the highest statewide physician rate, at 68 per 100,000 population, in both 2017 and 2018, there were still 11 counties in 2018 that had too few other specialty physicians for rate calculation. Of the 28 counties in 2018 with reported rates for other specialty physicians, only five had rates above the statewide rate (for both 2017 and 2018). King had the highest rate in both years, at 109 physicians in other specialty per 100,000 population in 2017 and 114 in 2018. Benton, Chelan, Spokane and Walla Walla were the other four counties with rates above the statewide rate. Of the 23 counties with rates for 2018 below statewide rate, most (13) had a rate that was less than half of the statewide rate.

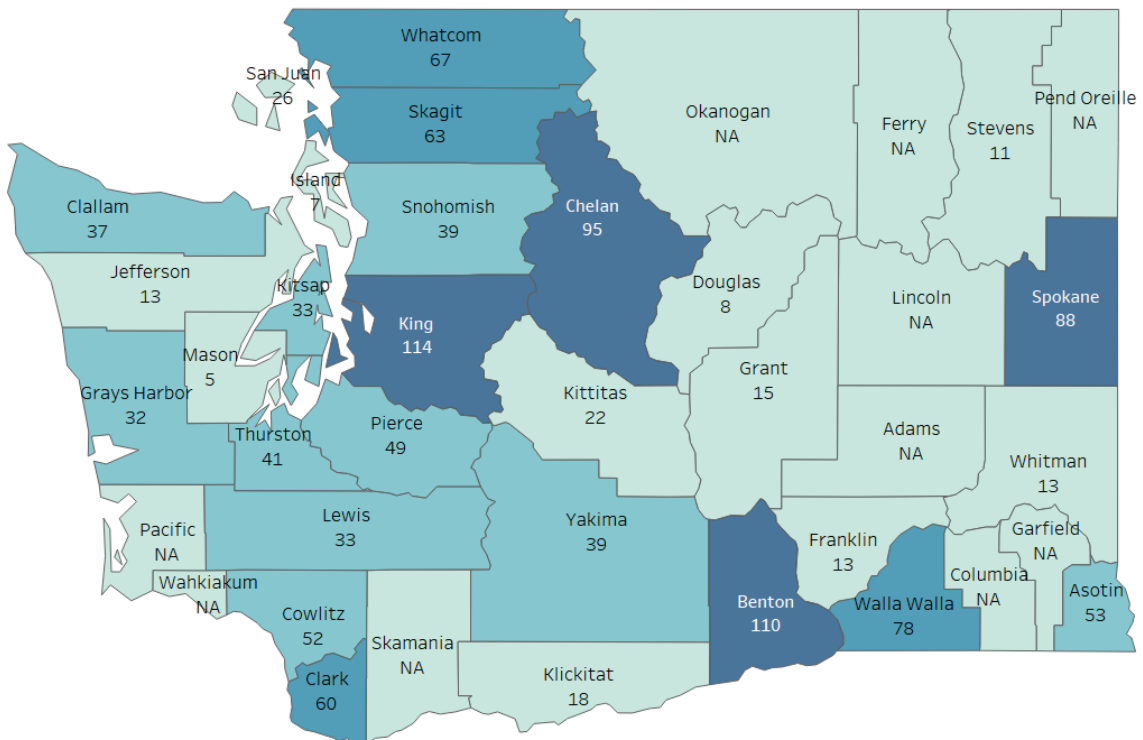
Figure 28. Other Specialty Physician Rates (per 100,000) by County, 2017 and 2018



Map 39. Other Specialty Physicians per 100,000 Population, Counties, 2017



Map 40. Other Specialty Physicians per 100,000 Population, Counties, 2018



Section 3. ACH Physician Supply

Key Findings

- *Overall physician supply.* The disparity of overall physician supply at the ACH level is not as large as at the county level. Still, the high and low rates in 2018 ranged from 367 physicians per 100,000 population in HealthierHere (the only ACH rate above the statewide rate) to 160 physicians in the Olympic Community of Health. This means, for every 100,000 population, HealthierHere had 207 more physicians than the Olympic Community of Health.
- *Median age.* All ACHs had a physician median age that was within four years of the statewide physician median age of 49 years. However, the difference between the highest median age and the lowest median was five years in 2017 and six years in 2018, between the Olympic Community of Health (52 years in 2017 and 53 years in 2018) and SWACH (47 years in both years).
- *Percentage of female physicians.* The share of female physicians in the physician supply in most ACHs increased from 2017 to 2018. The Olympic Community of Health was the only ACH with a decreased share of female physicians. HealthierHere's share of female physicians, the highest in both years (approximately 43%), was more than 10 percentage points higher than the lowest share, also in both years, in the Greater Columbia ACH (27.8% in 2017 and 29.3% in 2018).
- *PCPs.* HealthierHere and Elevate Health, though adjacent and both populous, had the highest rate and lowest rate of PCPs in both 2017 and 2018. The gap between these two ACHs widened in 2018 over the previous year. HealthierHere's rate of 116 physicians in 2017 and 121 physicians in 2018 per 100,000 population was also the only ACH rate that was significantly above the statewide rate (91 in 2017 and 90 in 2018).
- *Specialists.* Again, HealthierHere's rate of specialists was in a category of its own, far higher than the statewide rate and certainly far higher than the lowest rate in the Olympic Community of Health, in both 2017 and 2018. In 2017, HealthierHere's rate was 236 specialists per 100,000, compared to 165 specialists statewide. In 2018, the corresponding numbers were 247 specialists in HealthierHere and 168 specialists statewide. HealthierHere's rates were more than twice as high as the lowest rates in Olympic Community of Health in both 2017 and 2018.
- *Physician supply by specialty.* In both 2017 and 2018, HealthierHere was the only ACH that had had an overall physician rate above the statewide rate. It also led the other ACHs in the seven of the 13 specialist rates in 2017 and eight in 2018. No ACH, however, led in all specialist rates in either 2017 or 2018. The ACHs that led in physician-to-population rates in each of the 13 specialty groups are (see table on the following page):

Specialty Group	Top Rate ACH in 2017	Top Rate in 2017	Top Rate ACH in 2018	Top Rate in 2018
Anesthesiology	HealthierHere	23	HealthierHere	24
Cardiology	Greater Columbia	10	Greater Columbia	11
Emergency Medicine	North Central	29	North Central	36
Family Medicine/General Practice	North Central and SWACH	52	HealthierHere	54
Hospitalist	Greater Columbia	8	North Sound	10
Internal Medicine (General)	HealthierHere	47	HealthierHere	47
OB/GYN	HealthierHere	19	SWACH	21
Orthopedic Surgery	HealthierHere	11	HealthierHere	12
Pediatrics (General)	HealthierHere	19	HealthierHere	18
Psychiatry	HealthierHere	16	HealthierHere	17
Radiology	North Central	35	North Central	35
Surgery (General)	North Central	9	HealthierHere	9
Other Specialties	HealthierHere	109	HealthierHere	114

Tables 4 and 5 below provide a quick look at how each ACH compares to the state, in 2017 and 2018, respectively, in its physician characteristics and supply. Detailed ACH physician data follow.

Table 4. At-A-Glance: ACH Physician Characteristics and Supplies in Comparison to Statewide Average, 2017

	Accountable Community of Health	State Average	Better Health Together	Cascade Pacific Action Alliance	Elevate Health	Greater Columbia ACH	HealthierHere	North Central ACH	North Sound ACH	Olympic Community of Health	SWACH
Physician Characteristics	Median Age	49	+	+	■	+	-	+	-	+	-
	% Female	37.4	-	-	-	-	+	-	-	-	+
Physicians per 100,000 population	Overall	256	+	-	-	-	+	-	-	-	-
	PCP	91	+	-	-	-	+	-	-	-	+
	Specialist	165	+	-	-	+	+	-	-	-	-
	ANESTHESIOLOGY	15	-	-	+	-	+	-	-	-	-
	CARDIOLOGY	7	+	-	-	+	+	-	-	-	+
	EMERGENCY MEDICINE	16	+	-	-	+	+	+	-	-	-
	FAMILY MEDICINE / GENERAL PRACTICE	44	+	-	-	-	+	+	+	-	+
	HOSPITALIST	6	+	-	-	+	+	-	+	-	-
	INTERNAL MEDICINE (GENERAL)	32	+	-	-	-	+	-	+	-	-
	OB/GYN	13	-	-	-	+	+	-	-	-	+
	ORTHOPAEDIC SURGERY	9	+	-	-	-	+	-	-	-	-
	PEDIATRICS (GENERAL)	14	-	-	-	+	+	-	-	-	-
	PSYCHIATRY	9	+	-	-	-	+	-	-	-	-
	RADIOLOGY	14	-	-	-	+	+	+	-	-	-
	SURGERY (GENERAL)	7	-	-	+	+	+	+	-	-	-
Other Specialty	68	+	-	-	-	+	+	-	-	-	

Symbols:

- + Above state average
- Below state average
- Same as state average

Table 5. At-A-Glance: ACH Physician Characteristics and Supplies in Comparison to Statewide Average, 2018

	Accountable Community of Health	State Average	Better Health Together	Cascade Pacific Action Alliance	Elevate Health	Greater Columbia ACH	HealthierHere	North Central ACH	North Sound ACH	Olympic Community of	SWACH
Physician Characteristics	Median Age	49	+		+	+	-	+		+	-
	% Female	38.1	-	-	-	-	+	-	-	-	+
Physicians per 100,000 population	Overall	258	-	-	-	-	+	-	-	-	-
	PCP	90	-	-	-	-	+	-	-	-	-
	Specialist	168	-	-	-	+	+	-	-	-	-
	ANESTHESIOLOGY	16	-	-	+	+	+	-	-	-	-
	CARDIOLOGY	7	+	-	-	+	+	-	-	-	+
	EMERGENCY MEDICINE	17	+	+	-	+	+	+	-	-	-
	FAMILY MEDICINE / GENERAL PRACTICE	45	+	-	-	-	+	+	+	-	-
	HOSPITALIST	7	-	-	-	+	+	-	+	-	-
	INTERNAL MEDICINE (GENERAL)	32	-	-	-	-	+	-	-	-	-
	OB/GYN	13	-	-	-	+	+	-	-	-	+
	ORTHOPAEDIC SURGERY	9	+	-	-	-	+	-	-	-	-
	PEDIATRICS (GENERAL)	13	-	-	-	+	+	-	-	-	-
	PSYCHIATRY	9	-	-	-	-	+	-	-	-	-
	RADIOLOGY	14	-	-	-	+	+	+	-	-	-
	SURGERY (GENERAL)	7	-	-	-	+	+	+	-	-	-
Other Specialty	68	+	-	-	-	+	+	-	-	-	

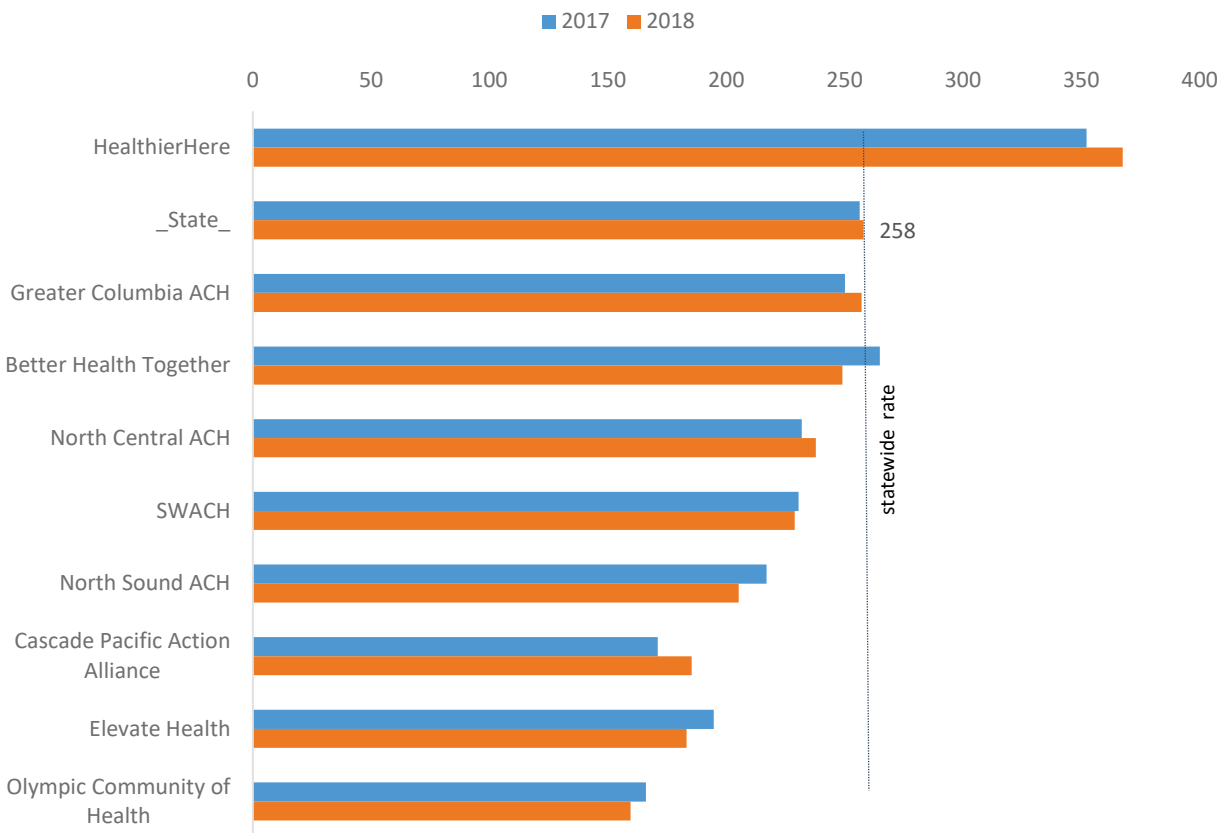
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- Above state average
Below state average
Same as state average

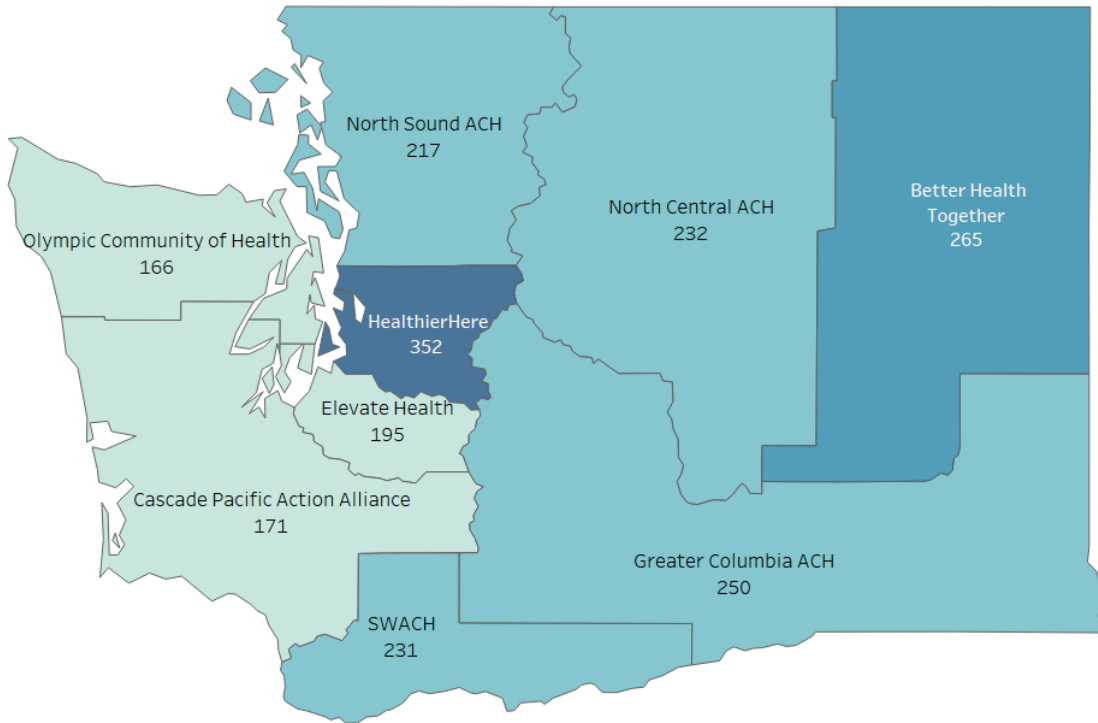
ACH – Overall Physicians

HealthierHere’s overall physician rate was far above the statewide rate and other ACH rates in both 2017 and 2018. In 2017, its rate was 352 physicians per 100,000 population and in 2018, it was even higher, at 367 physicians per 100,000. HealthierHere’s rate was the only ACH rate above the statewide rate in 2017 and 2018 (256 and 258 physicians, respectively, per 100,000 population). The Cascade Pacific Action Alliance, Elevate Health and Olympic Community of Health remained the bottom three ACHs in their overall physician rates, in both 2017 and 2018. In particular, the Olympic Community of Health’s rate, the lowest of all ACHs, was about 200 physicians fewer per 100,000 population than that of HealthierHere.

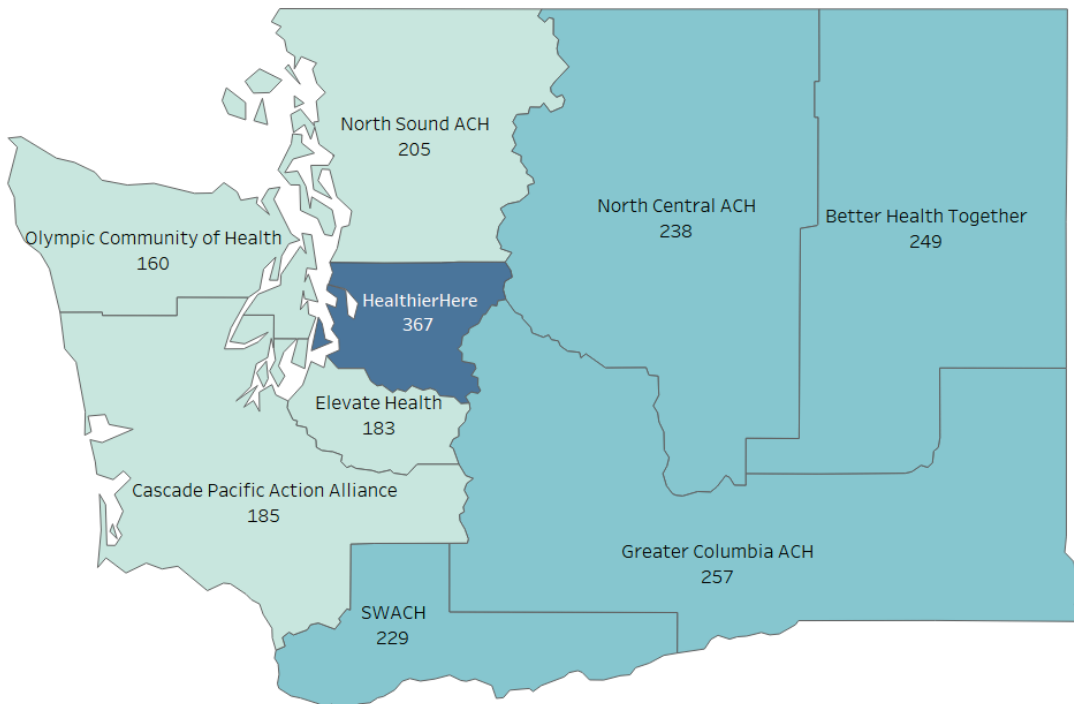
Figure 29. Overall Physician Rates (Per 100,000) by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 41. Overall Physicians per 100,000 Population, ACHs, 2017



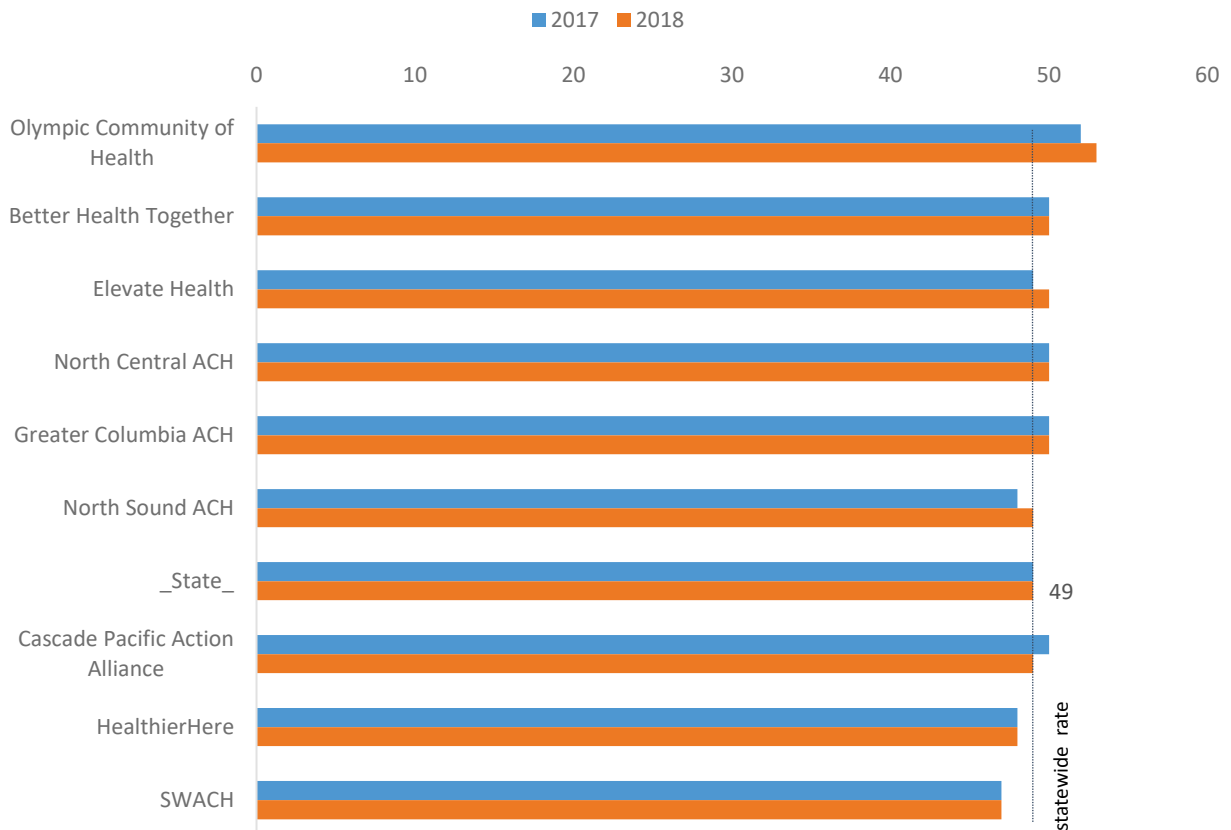
Map 42. Overall Physicians per 100,000 Population, ACHs, 2018



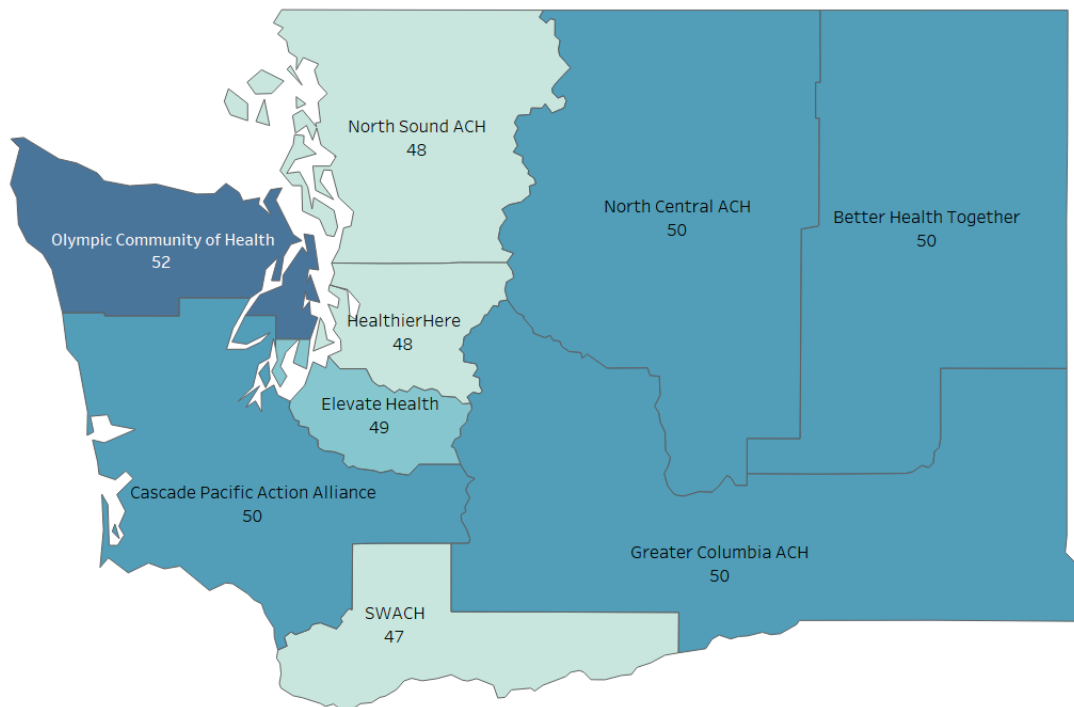
ACH – Age of Physicians

The median ages of physicians in the nine ACHs did not differ a lot from the statewide physician median age of 49 years. However, there was still a difference of five years between highest median age of 52 years in the Olympic Community of Health and the lowest of 47 years in SWACH in 2017. The difference between the same two ACHs increased to six years with the SWACH physicians' median age remaining at 47 years but the physician median age of the Olympic Community of Health increased to 53 years.

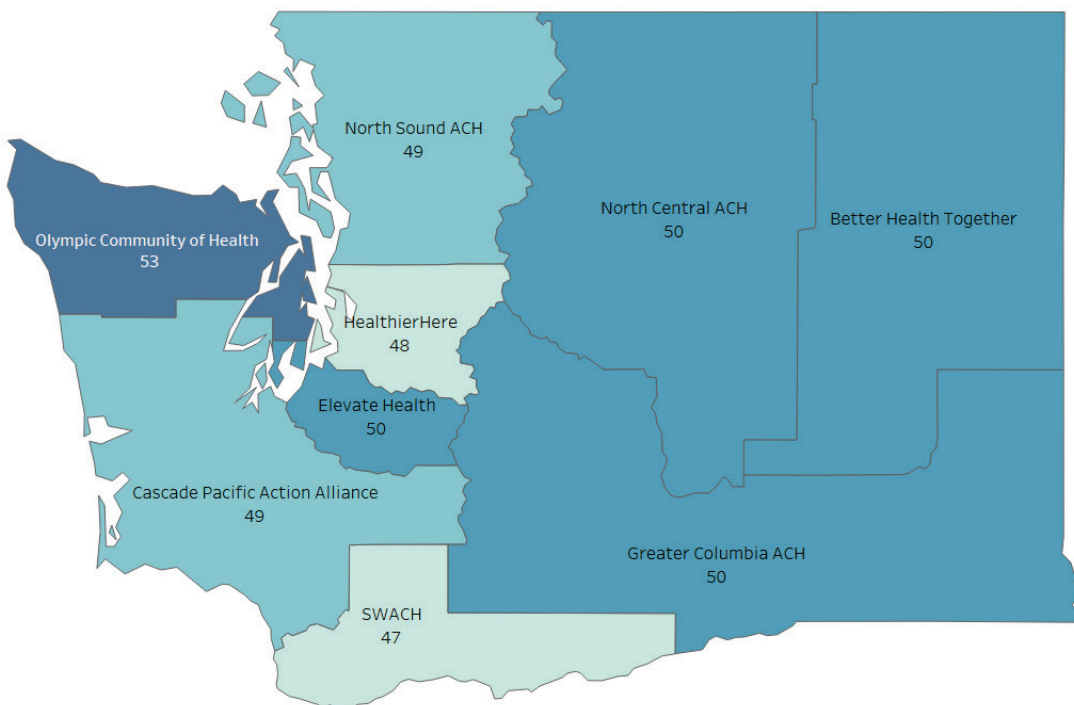
Figure 30. Physician Median Age by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 43. Median Age of Physicians, ACHs, 2017



Map 44. Median Age of Physicians, ACHs, 2018

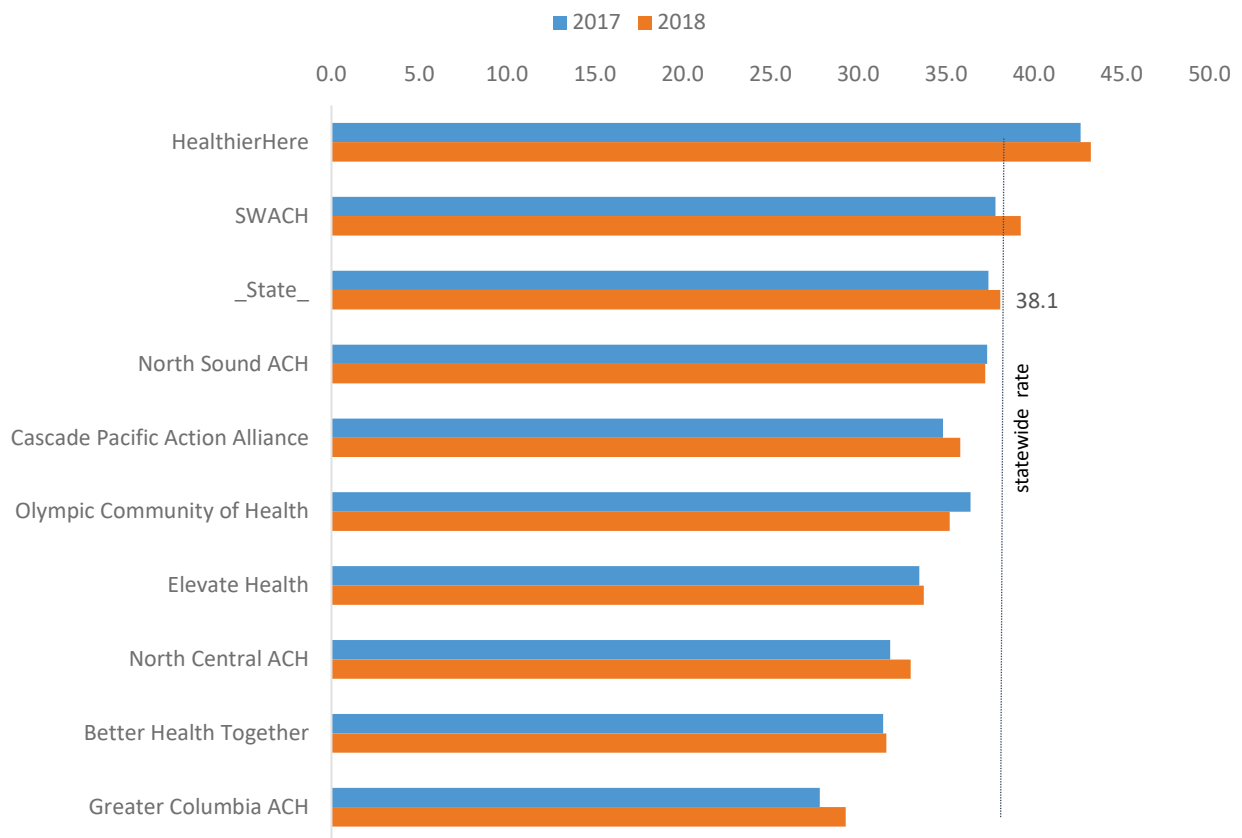


ACH – Percentage of Female Physicians

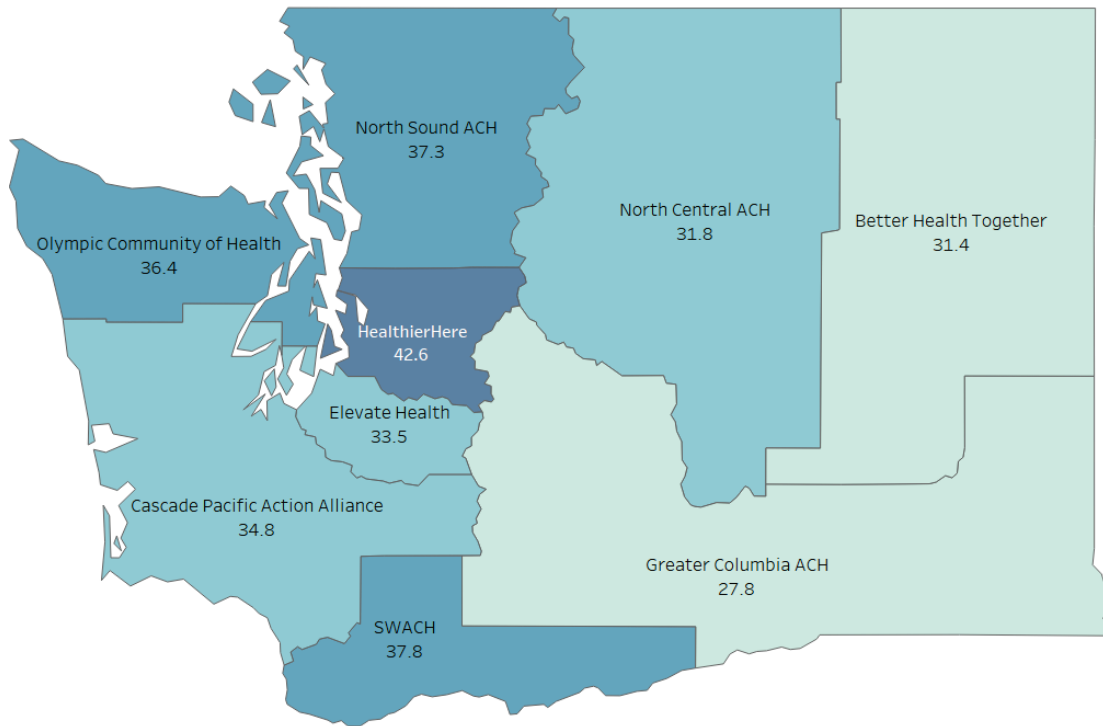
In 2017, HealthierHere was the only ACH that had a share of female physicians (42.6%) above the statewide share (37.4%). There were only two ACHs in 2018 where the share of female physicians exceeded the statewide share of 38.1%: HealthierHere at 43.2% and SWACH at 39.2%. In both ACHs, the share of female physicians increased in 2018 by more than a half percentage point over the previous year. The shares of female physicians also increased in three other ACHs and statewide. The Olympic Community of Health was the only ACH that had a decline in its share of female physicians, from 36.4% in 2017 to 35.2% in 2018. Greater Columbia ACH's share of female physicians (27.8% in 2017 and 29.3% in 2018) was the lowest of all ACHs and more than 10 percentage points below HealthierHere's, in both years.

Figure 31. Percentage of Female Physicians by ACH, 2017 and 2018

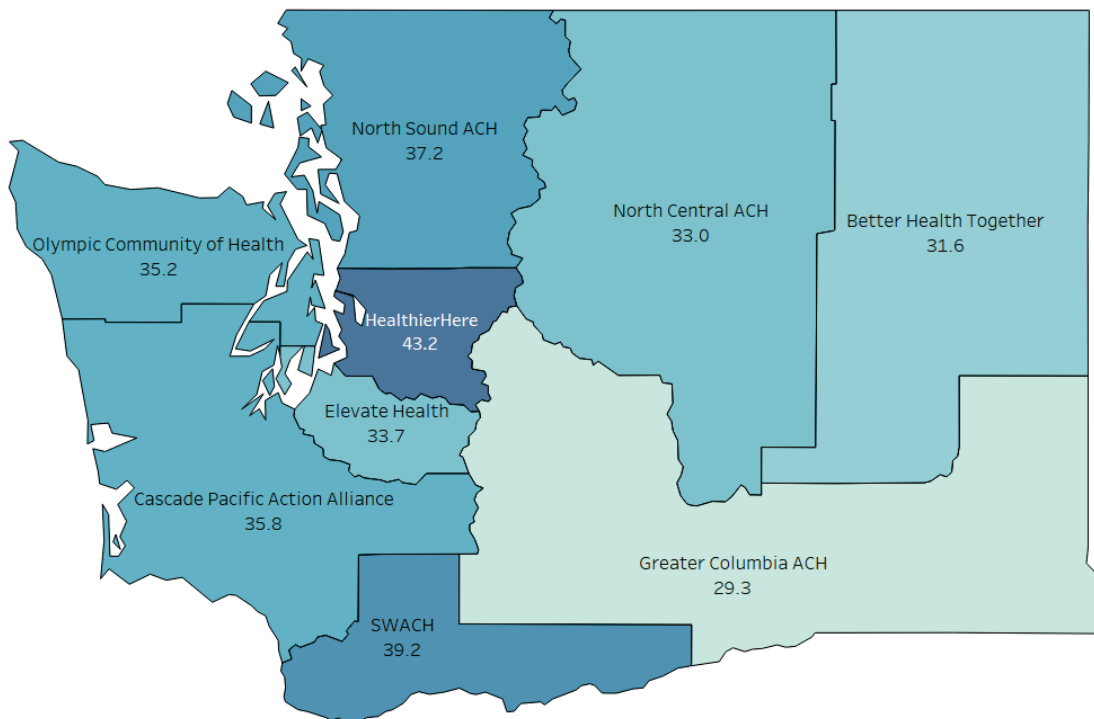
(sorted by 2018 distribution)



Map 45. Percentage of Female Physicians, ACHs, 2017

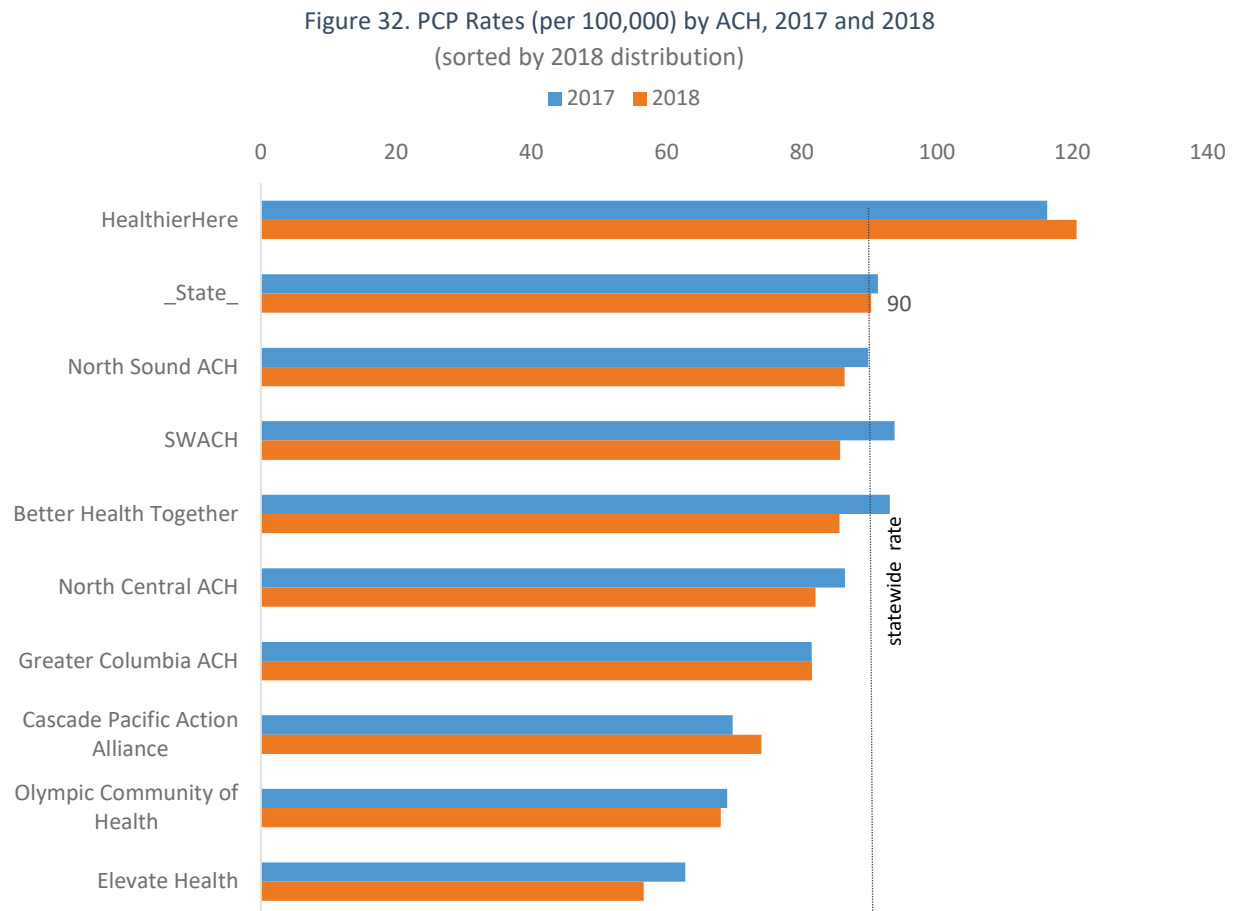


Map 46. Percentage of Female Physicians, ACHs, 2018

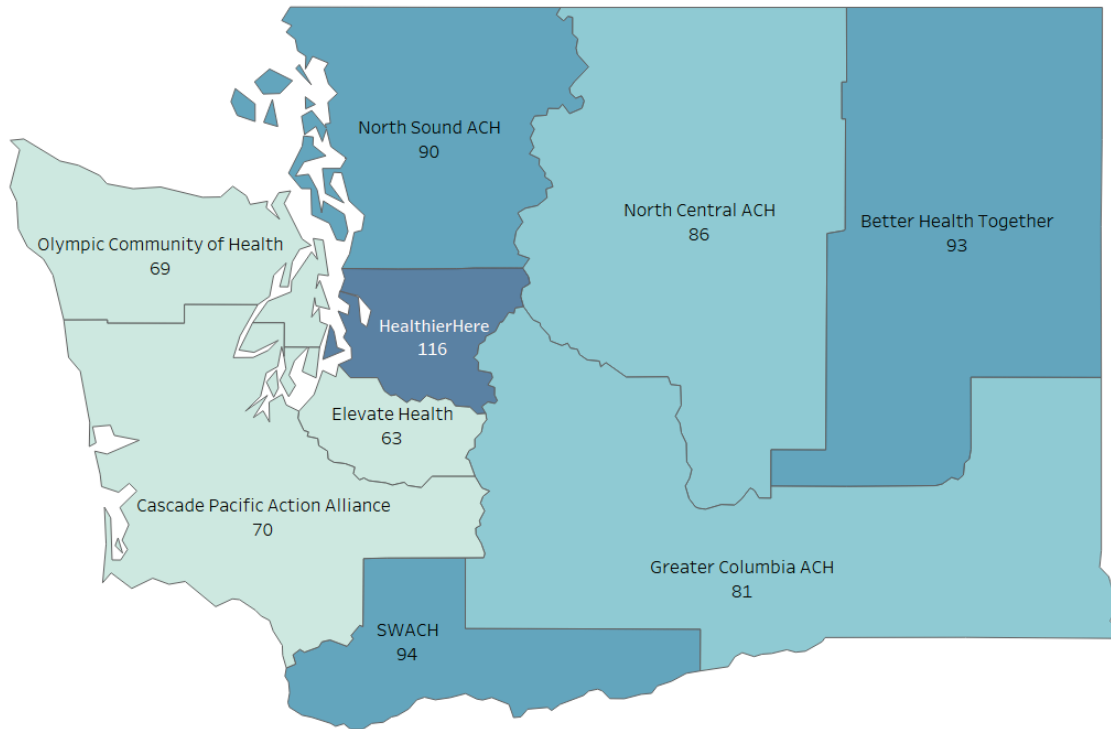


ACH – PCPs

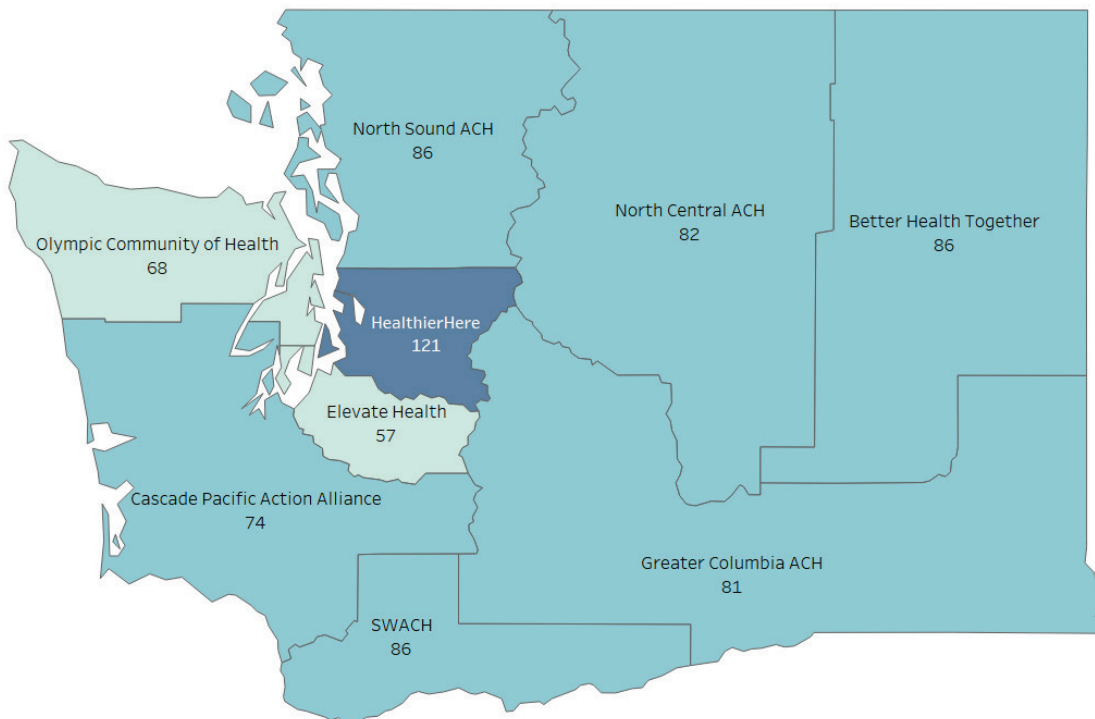
Despite the close proximity between HealthierHere and Elevate Health, these two ACHs had the highest and lowest PCP rates, respectively, in both 2017 and 2018. In addition, the highest rate was even higher and the lowest rate even lower in 2018 than in the previous year. HealthierHere’s PCP rate in 2018 was 121 physicians per 100,000 population, compared to Elevate Health’s rate of 57 physicians. HealthierHere’s PCP rate in 2018 was also the only ACH rate that was above the statewide rate of 90 PCPs per 100,000 population in that year.



Map 47. PCPs per 100,000 Population, ACHs, 2017



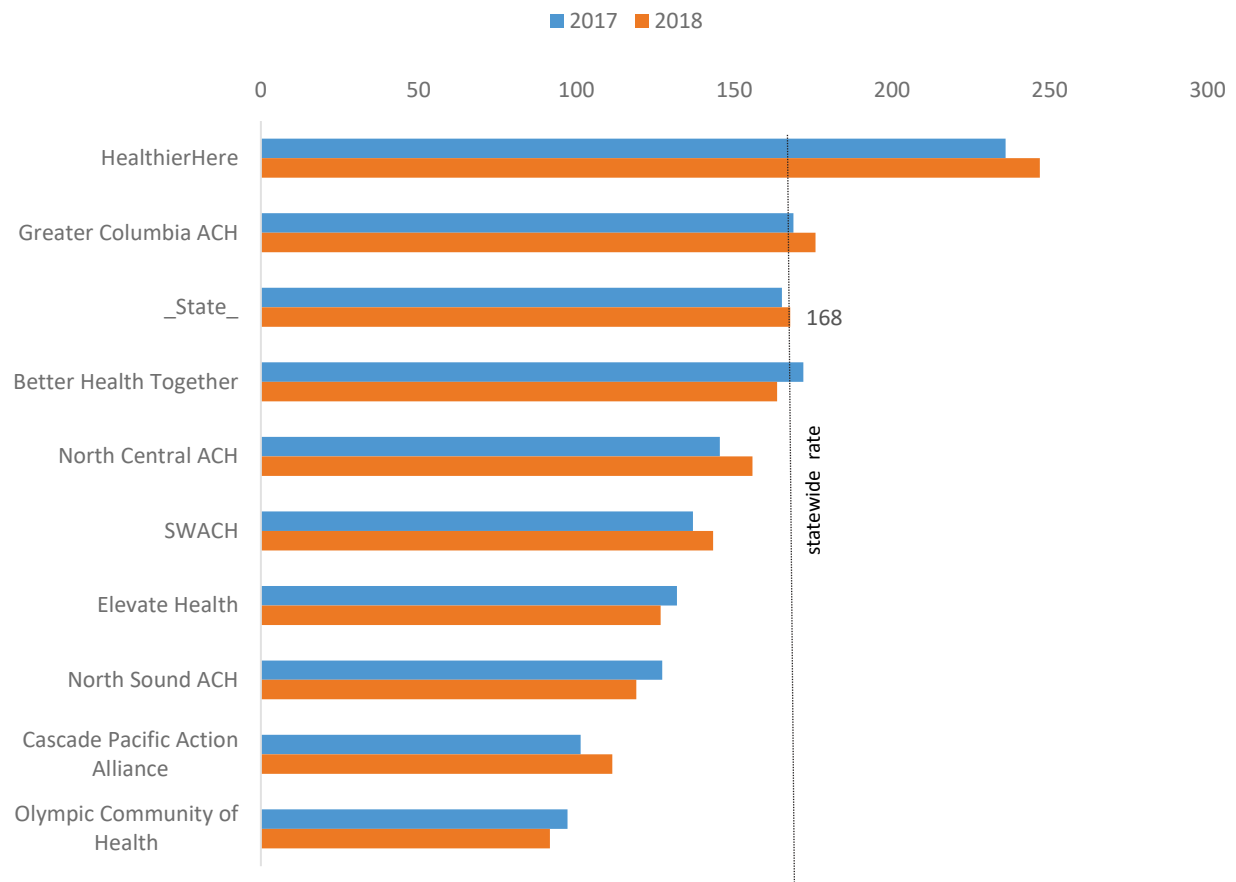
Map 48. PCPs per 100,000 Population, ACHs, 2018



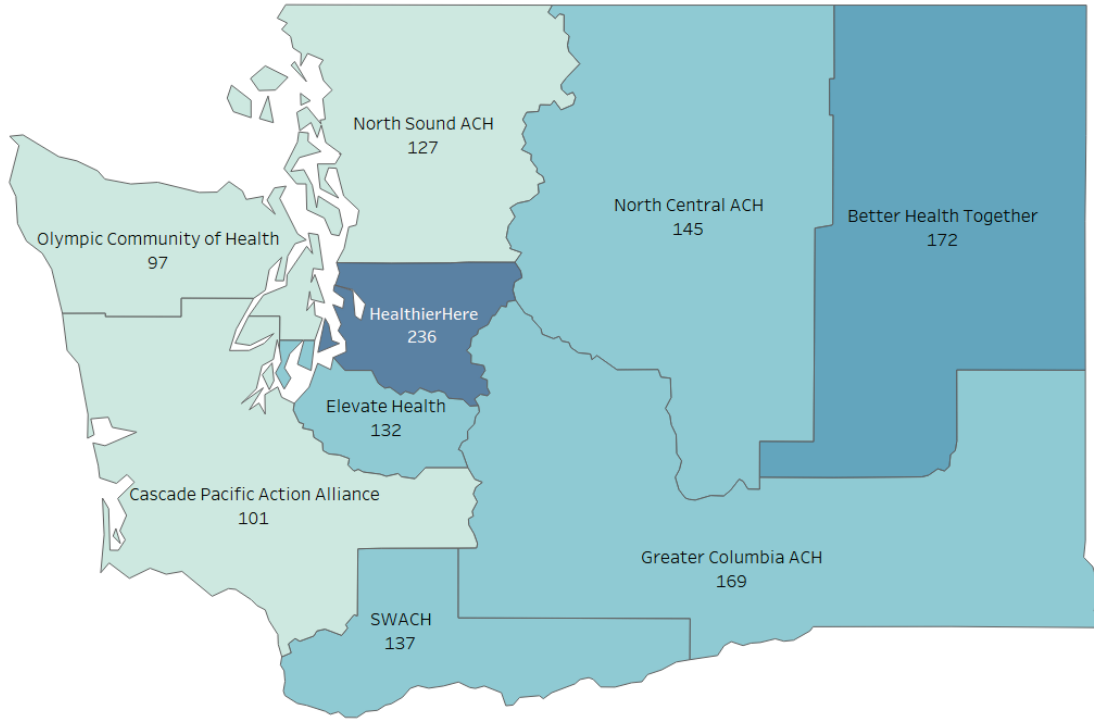
ACH – Specialists

HealthierHere's specialist rates in 2017 and 2018, the highest of all ACH rates, were far above the statewide rates, just as its PCP rates were. While the statewide rates were 165 and 168 specialists per 100,000 population in 2017 and 2018, respectively, the corresponding rates of HealthierHere were 236 and 247. Only one other ACH had a specialist rate higher than the statewide rate: in 2017, it was Better Health Together with a rate of 172 and in 2018, it was Greater Columbia ACH with a rate of 176. HealthierHere's rates were more than twice as high as the lowest rates of 97 specialists per 100,000 population in 2017 and 92 in 2018, both found in the Olympic Community of Health.

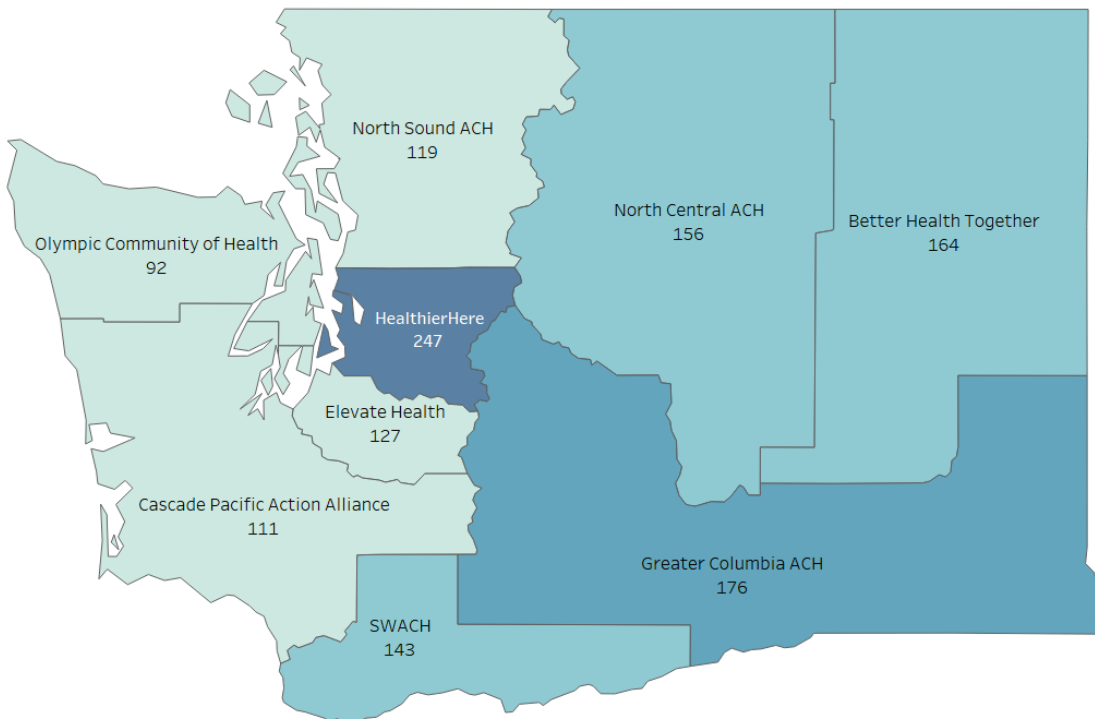
Figure 33. Specialist Rates (per 100,000) by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 49. Specialists per 100,000 Population, ACHs, 2017



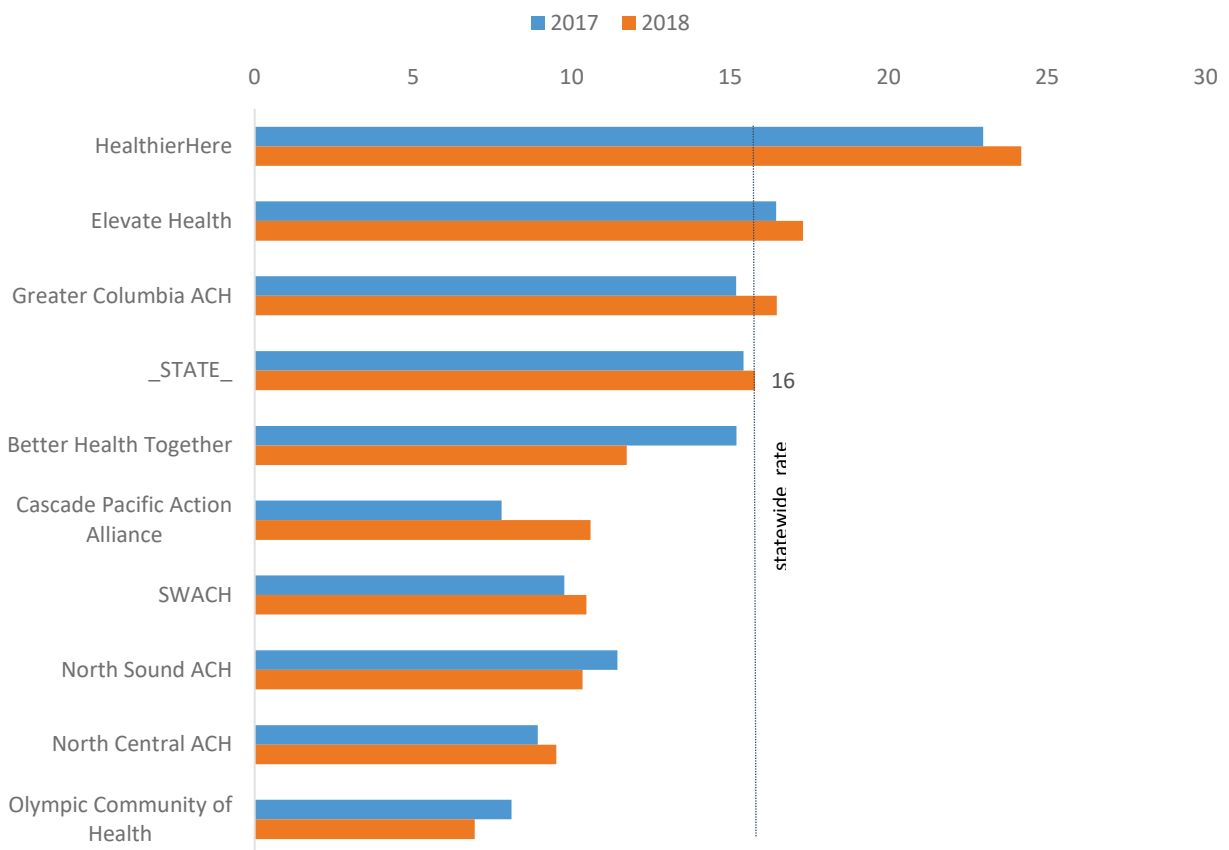
Map 50. Specialists per 100,000 Population, ACHs, 2018



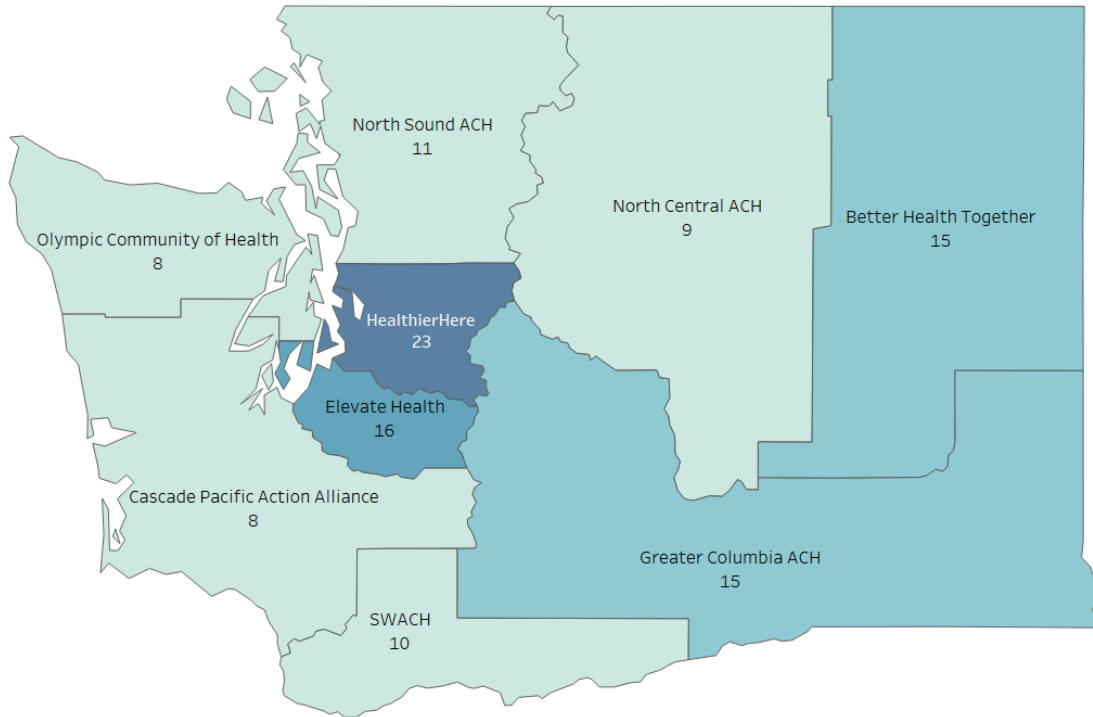
ACH – Anesthesiologists

HealthierHere had the highest rates of anesthesiologists in both 2017 and 2018, at 23 and 24 anesthesiologists, respectively, per 100,000 population. In comparison, the statewide rates were 15 in 2017 and 16 in 2018. The lowest rates of all ACHs were eight anesthesiologists per 100,000 population in 2017 and seven in 2018, both found in the Olympic Community of Health. Better Health Together's rate had the largest decline from 15 to 12 anesthesiologists per 100,000 population, but its fourth-place ranking did not change. Cascade Pacific Action Alliance's increase in anesthesiologist rate from eight to 11 per 100,000 population was the largest. The increase changed its ranking from lowest rate in 2017 to the fifth highest rate in 2018.

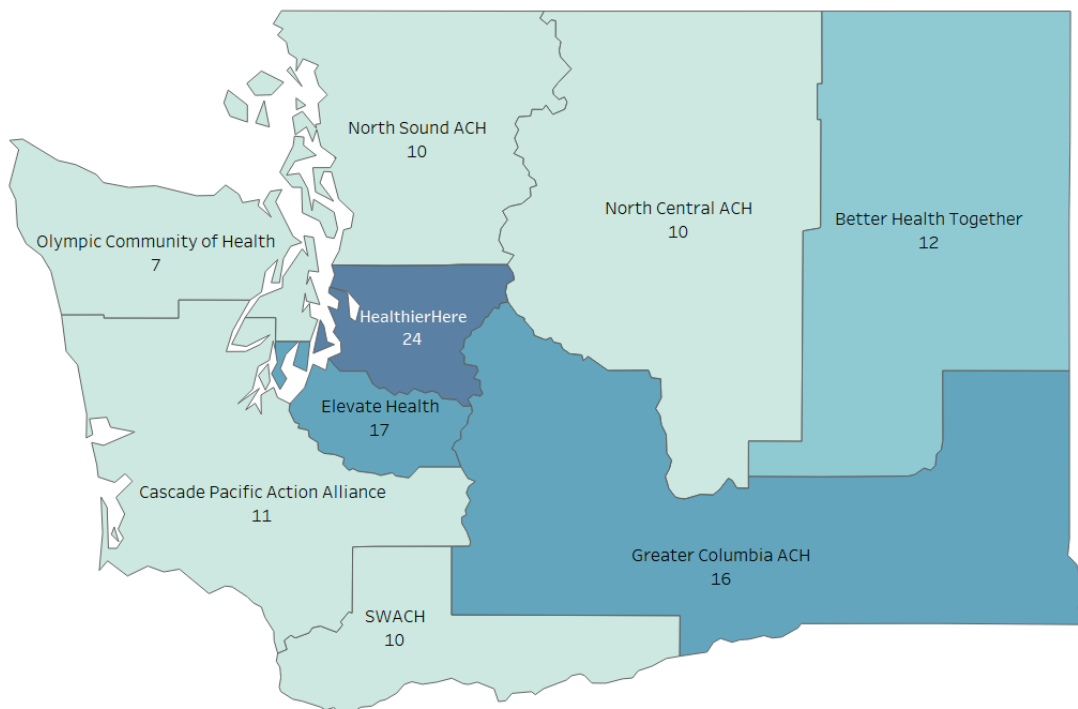
Figure 34. Anesthesiologist Rates (per 100,000) by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 51. Anesthesiologists per 100,000 Population, ACHs, 2017



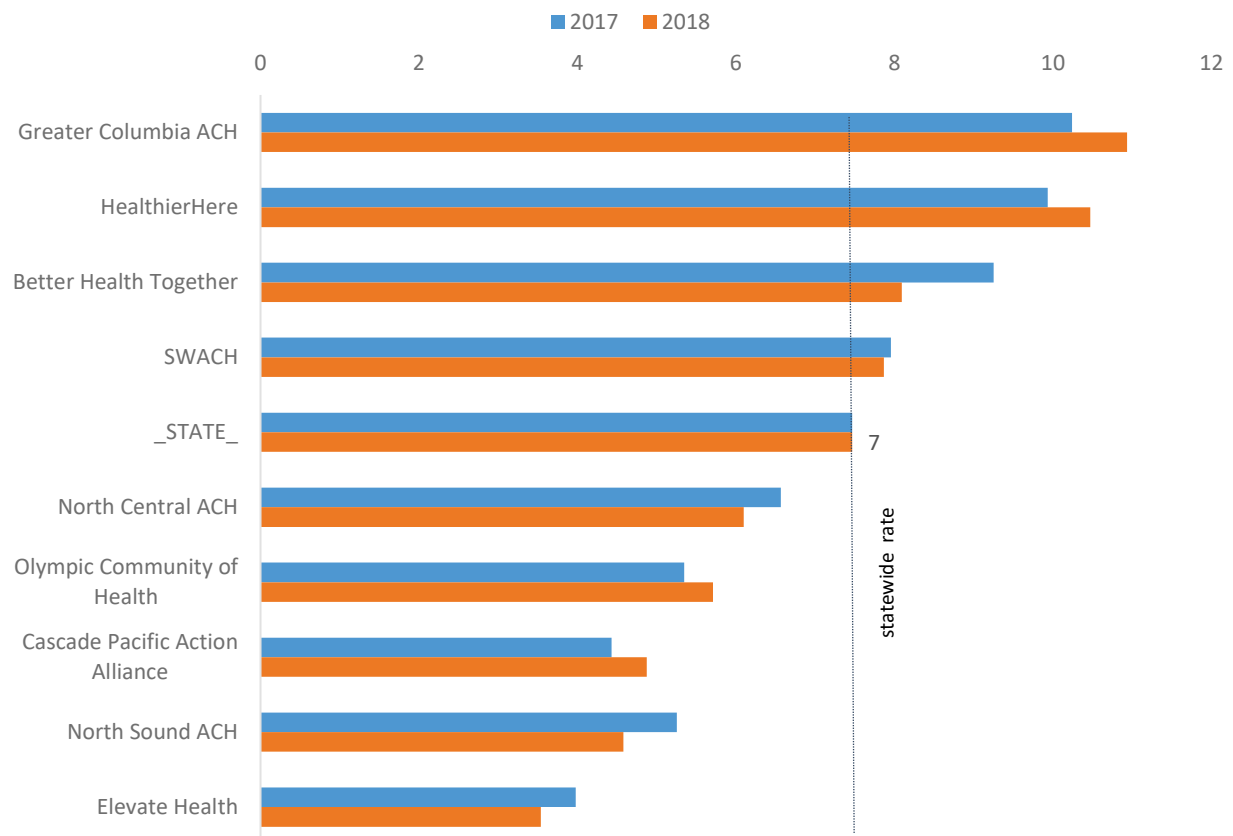
Map 52. Anesthesiologists per 100,000 Population, ACHs, 2018



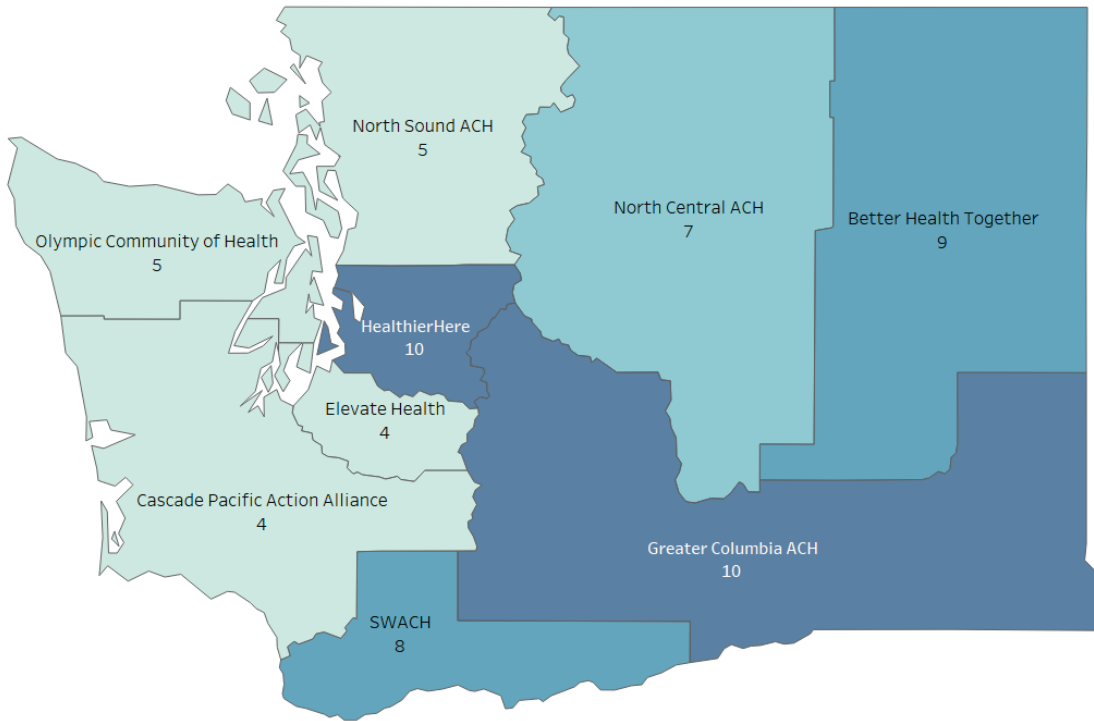
ACH – Cardiologists

Four ACHs, led by Greater Columbia ACH, had cardiologist rates above the statewide rate of seven cardiologists per 100,000 population in both 2017 and 2018. Greater Columbia ACH's rate was 10 in 2017 and 11 in 2018. Elevate Health had the lowest rates in both years, with about four cardiologists per 100,000 population. Elevate Health's rate was about 60% lower than the Greater Columbia ACH rate.

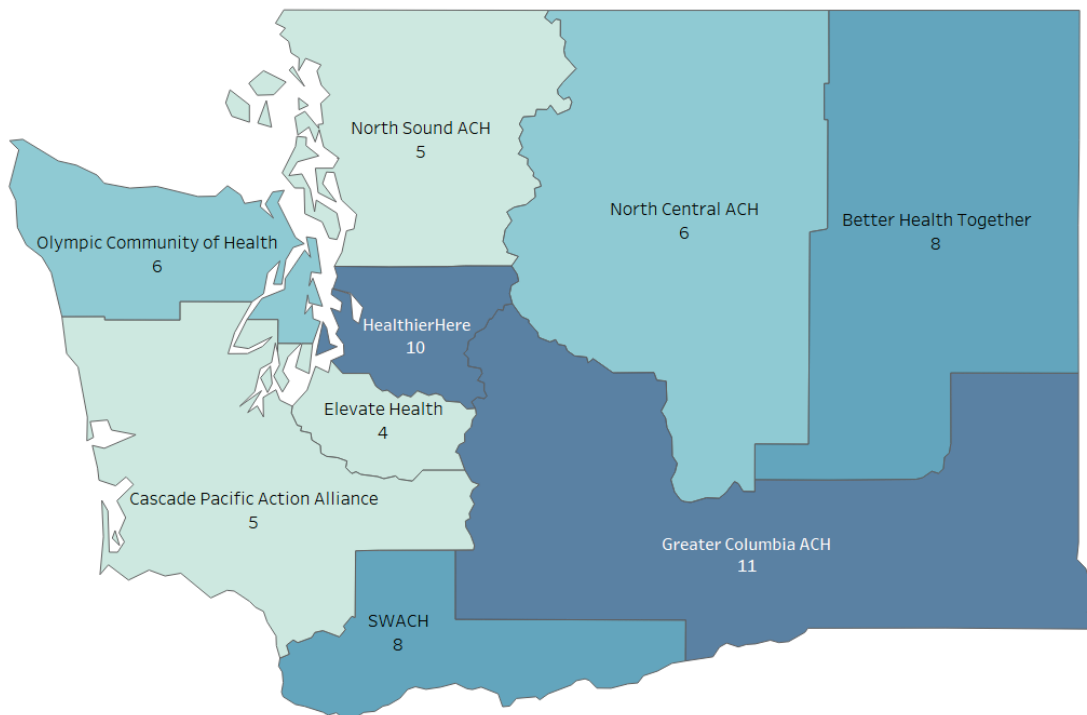
Figure 35. Ranking of Cardiologist Rates by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 53. Cardiologists per 100,000 Population, ACHs, 2017



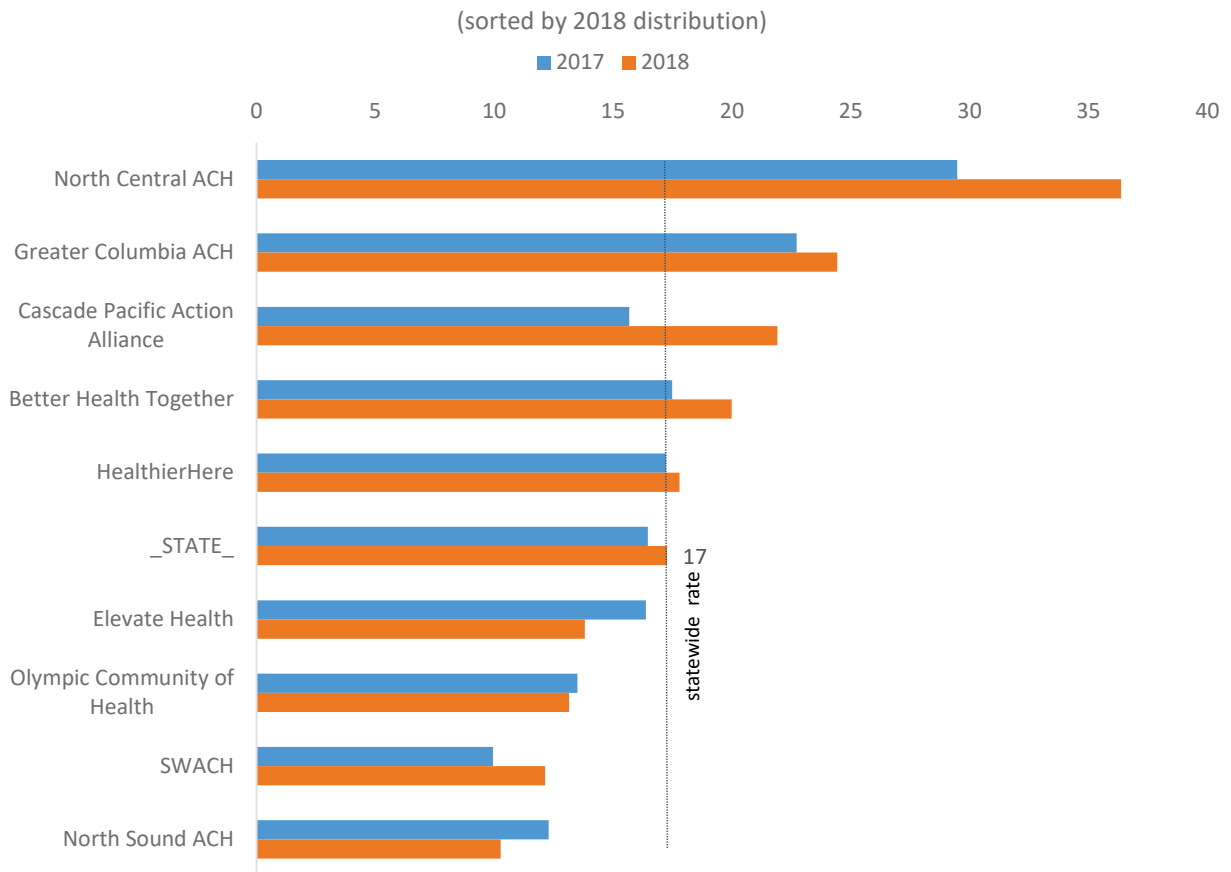
Map 54. Cardiologists per 100,000 Population, ACHs, 2018



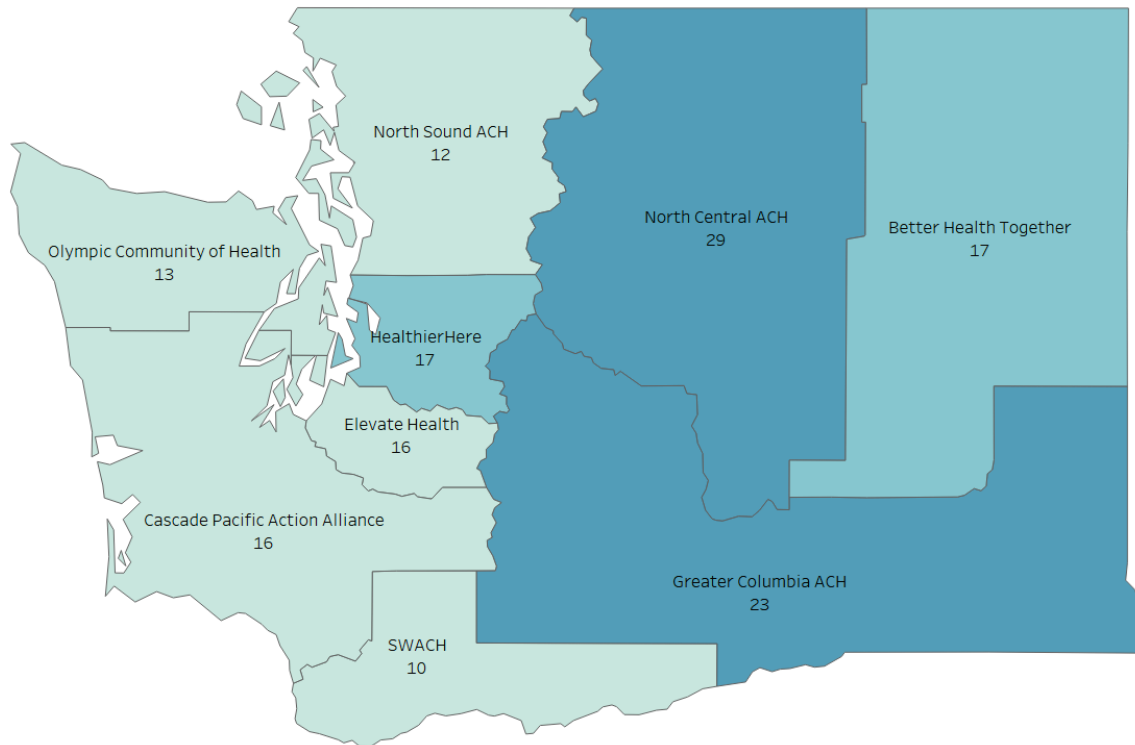
ACH – Emergency Medicine Physicians

In 2018, five ACHs had emergency physician rates above the statewide rate of 17 EM physicians per 100,000 population and all five ACHs' rates increased from the previous year. The increases in North Central ACH, which had the highest rate, and in the Cascade Pacific Action Alliance, which had the third highest rate were notable. The North Central ACH rate increased from 29 to 36 EM physicians per 100,000 population and the Cascade Pacific Action Alliance rate increased from 16 to 22. The four ACHs with EM physician rates lower than the statewide rate in 2018 were all in the western part of the state. The North Sound ACH rate in 2018 was the lowest of all ACHs, at 10 EM physicians per 100,000 population.

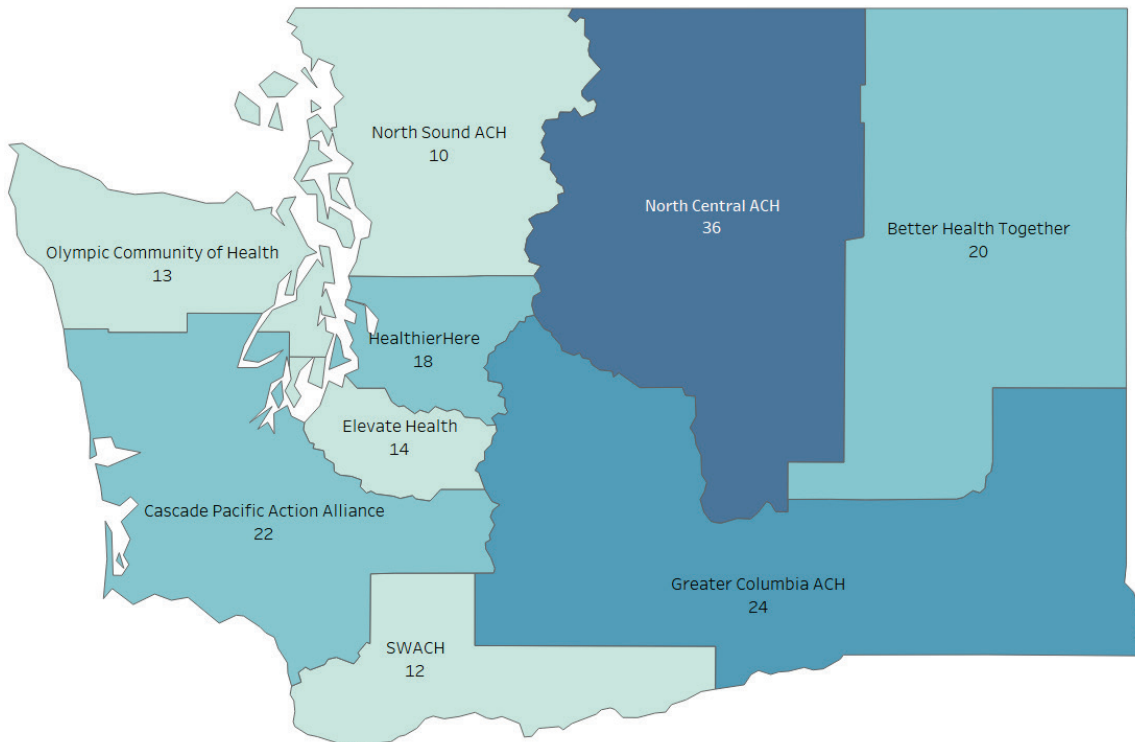
Figure 36. Emergency Medicine Physician Rates (per 100,000) by ACH, 2017 and 2018



Map 55. Emergency Medicine Physicians per 100,000 Population, ACHs, 2017



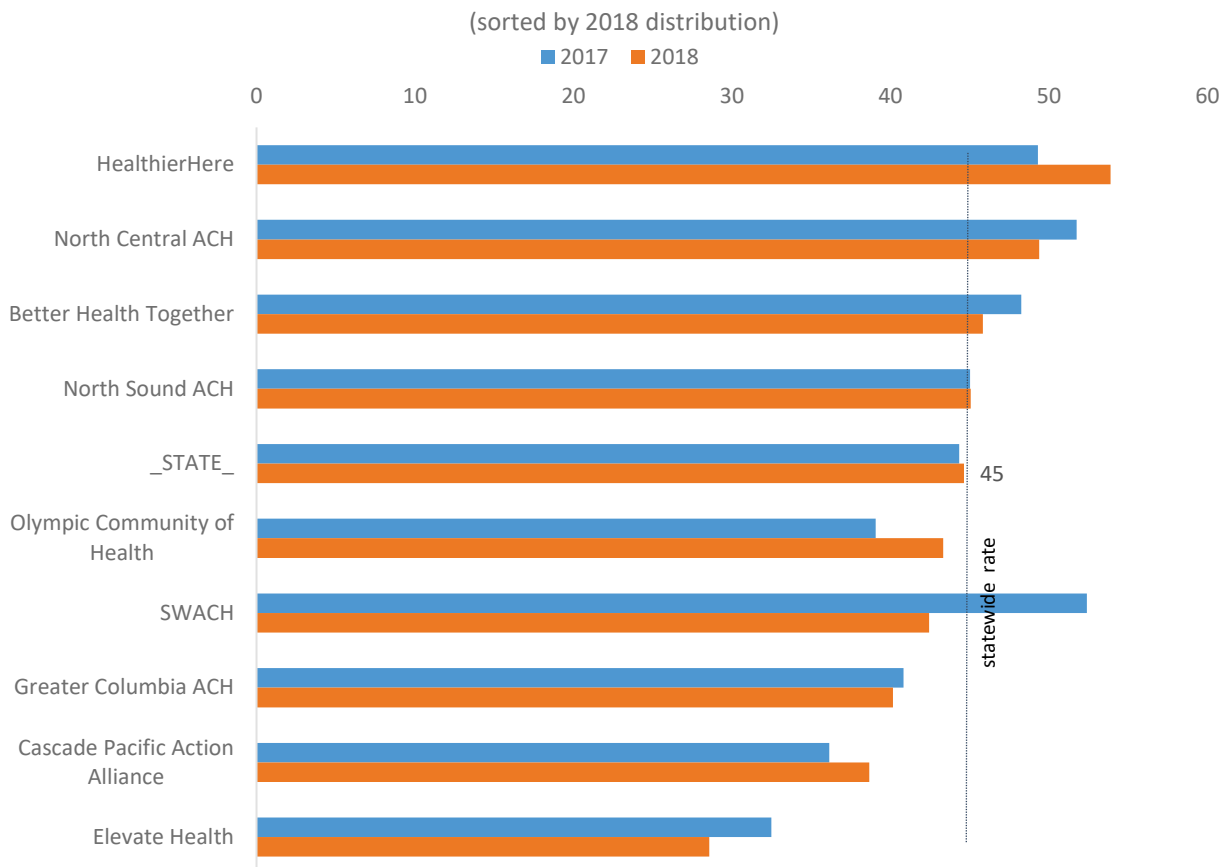
Map 56. Emergency Medicine Physicians per 100,000 Population, ACHs, 2018



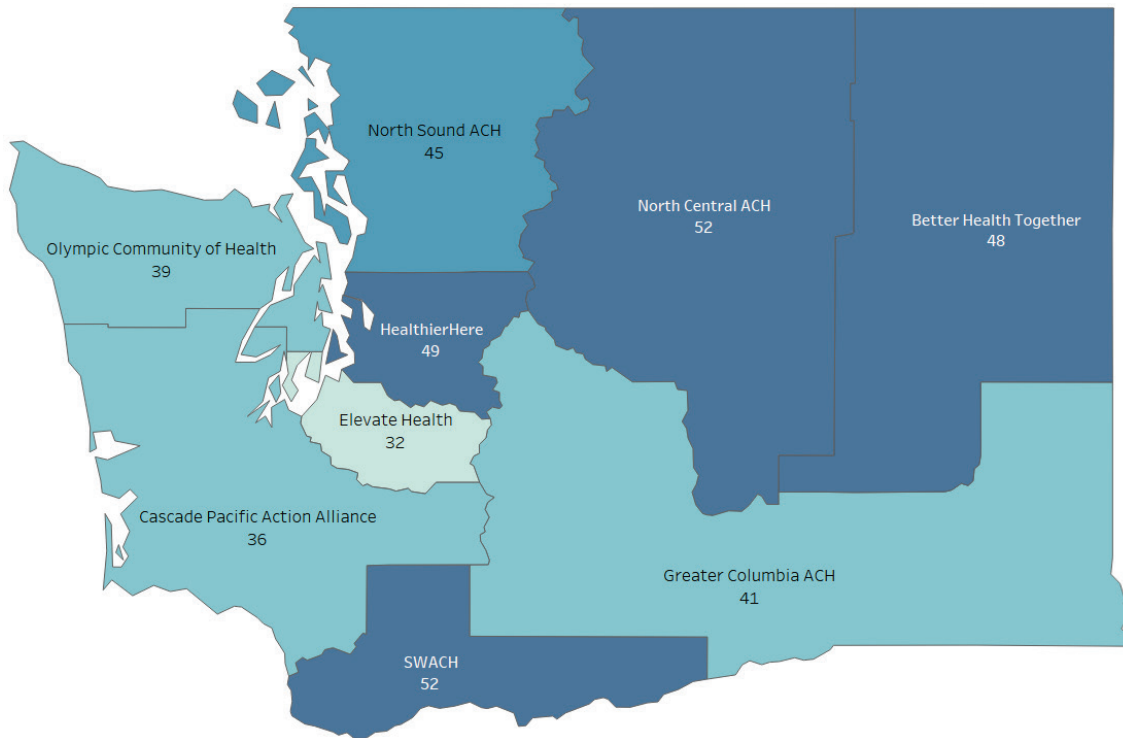
ACH – Family Medicine/General Practice Physicians

Although HealthierHere and Elevate Health are adjacent and both are populous, they had the highest and lowest, respectively, rates of family medicine/general practice physicians in 2018. HealthierHere's rate of 54 FM/GP physicians per 100,000 was nearly twice as high as Elevate Health's rate of 29. In addition, HealthierHere's rate had an increase from its rate of 49 FM/GP physicians in 2017 while Elevate Health's rate decreased from its rate of 32 FM/GP physicians in 2017. SWACH had the largest reduction in its rate from 2017 to 2018. It had the highest FM/GP physician rate in 2017, at 52. Its rate dropped to the sixth highest among the ACHs in 2018 at 42 physicians and was below the statewide rate of 45 FM/GP physicians per 100,000 population.

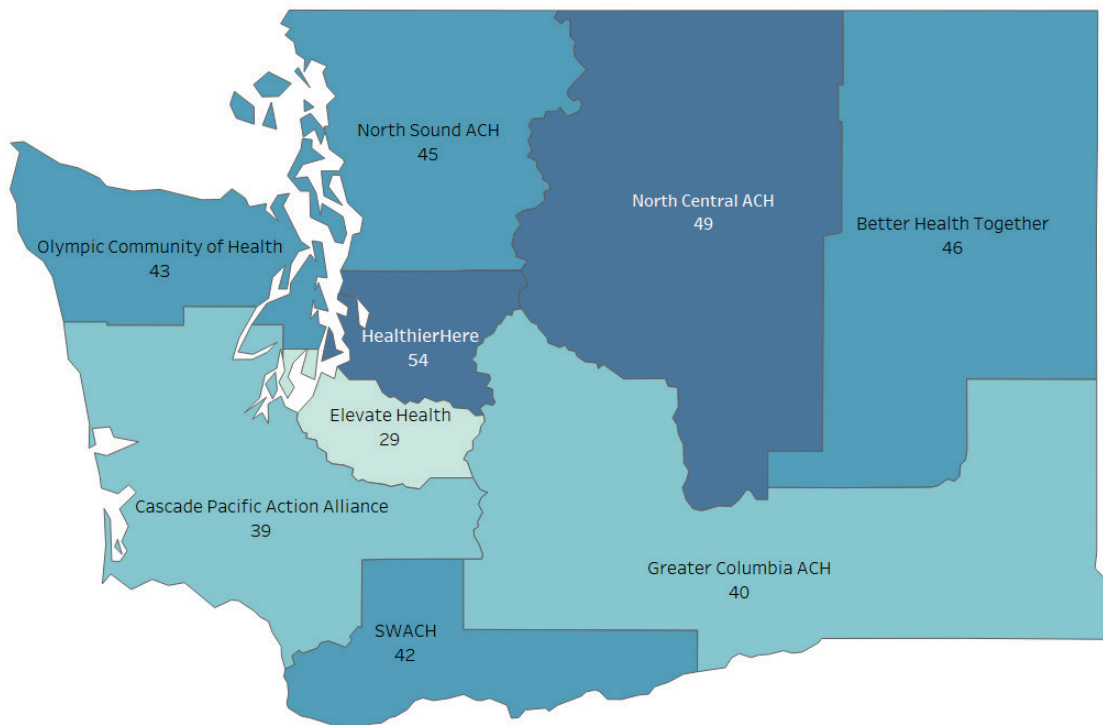
Figure 37. Family Medicine/General Practice Physician Rates (per 100,000) by ACH, 2017 and 2018



Map 57. Family Medicine/General Practice Physicians per 100,000 Population, ACHs, 2017



Map 58. Family Medicine/General Practice Physicians per 100,000 Population, ACHs, 2018



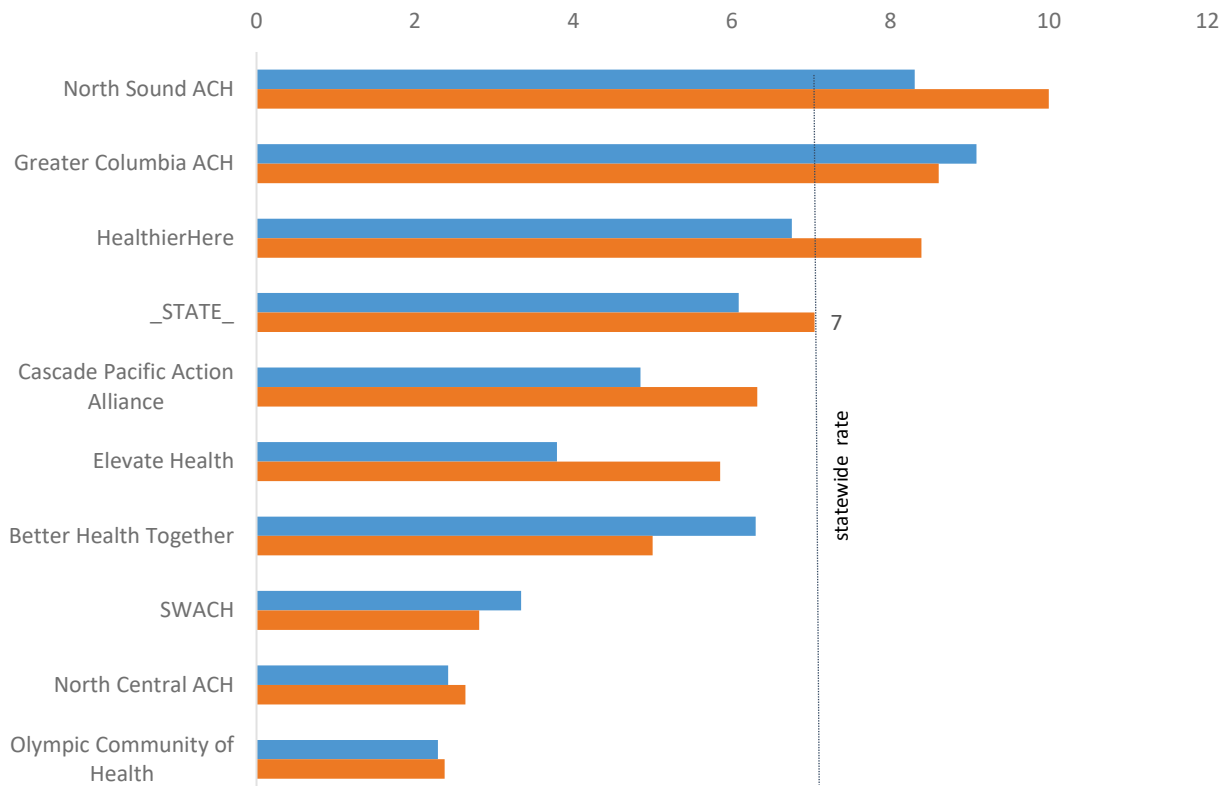
ACH – Hospitalists

Statewide, the rate of hospitalists increased from six per 100,000 population in 2017 to seven in 2018. The increase mainly came from four ACHs: North Sound ACH (from 8 to 10 hospitalists per 100,000 population), HealthierHere (from 7 to 8), Cascade Pacific Action Alliance (from 5 to 6) and Elevate Health (from 4 to 6). North Sound ACH's rate of 10 hospitalists per 100,000 population in 2018 was five times as high as the lowest rate of two in the Olympic Community of Health.

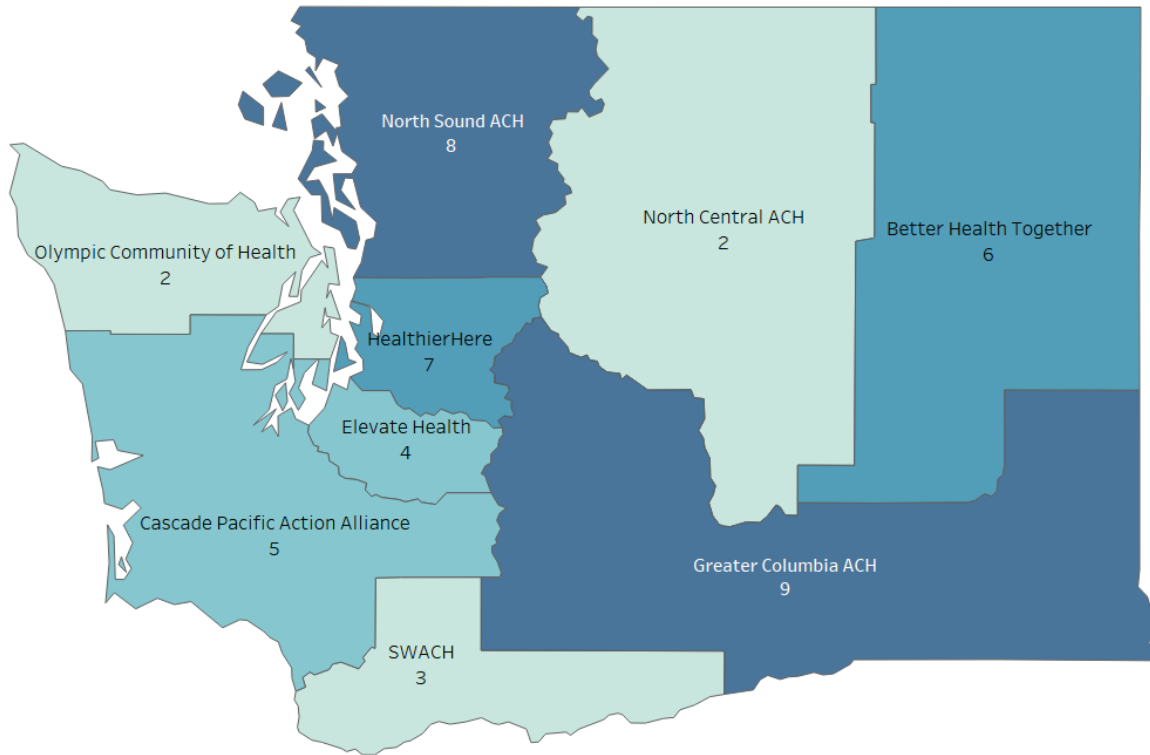
Figure 38. Hospitalist Rates (per 100,000) by ACH, 2017 and 2018

(sorted by 2018 distribution)

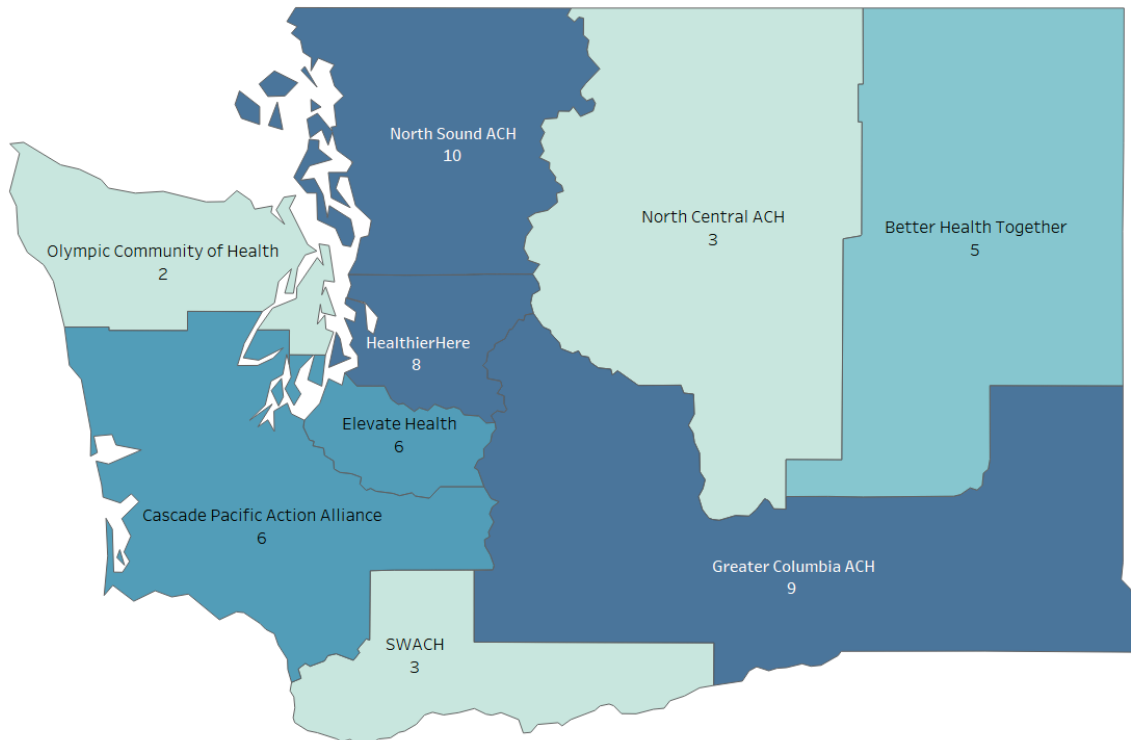
■ 2017 ■ 2018



Map 59. Hospitalists per 100,000 Population, ACHs, 2017



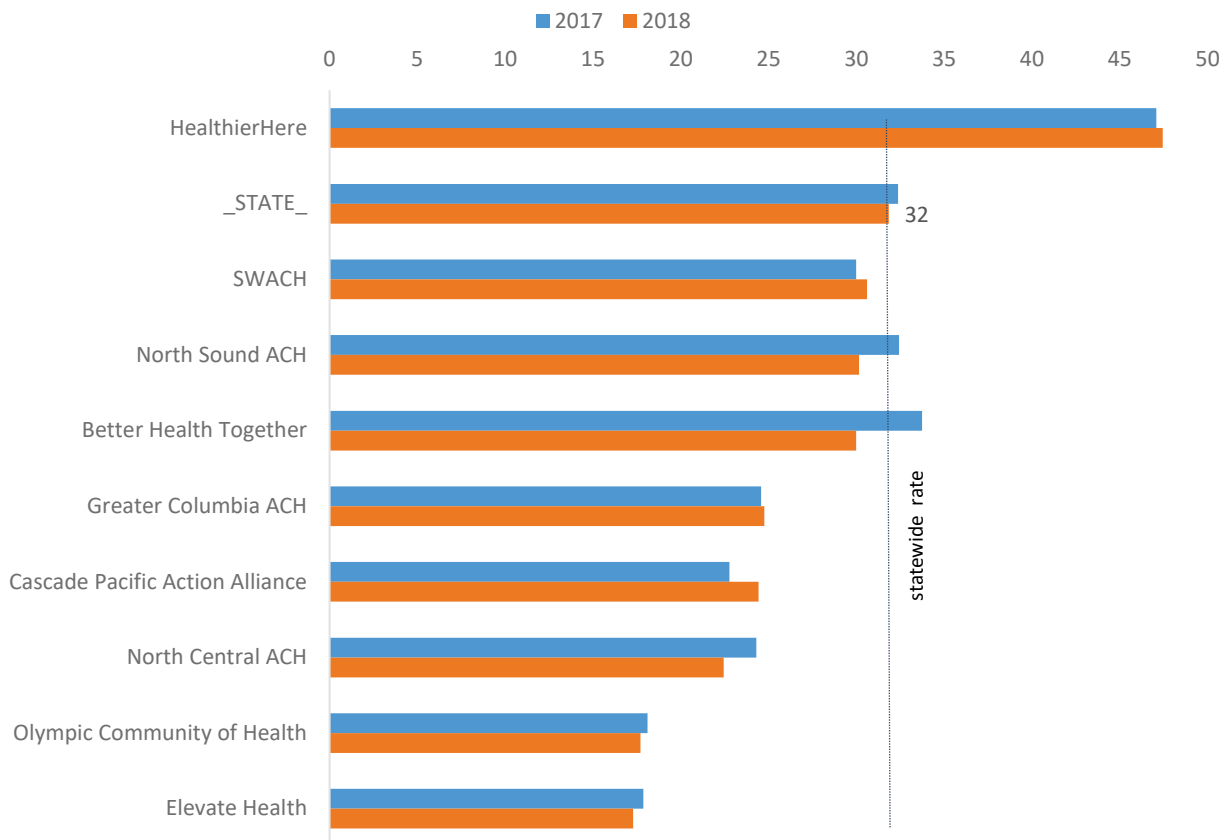
Map 60. Hospitalists per 100,000 Population, ACHs, 2018



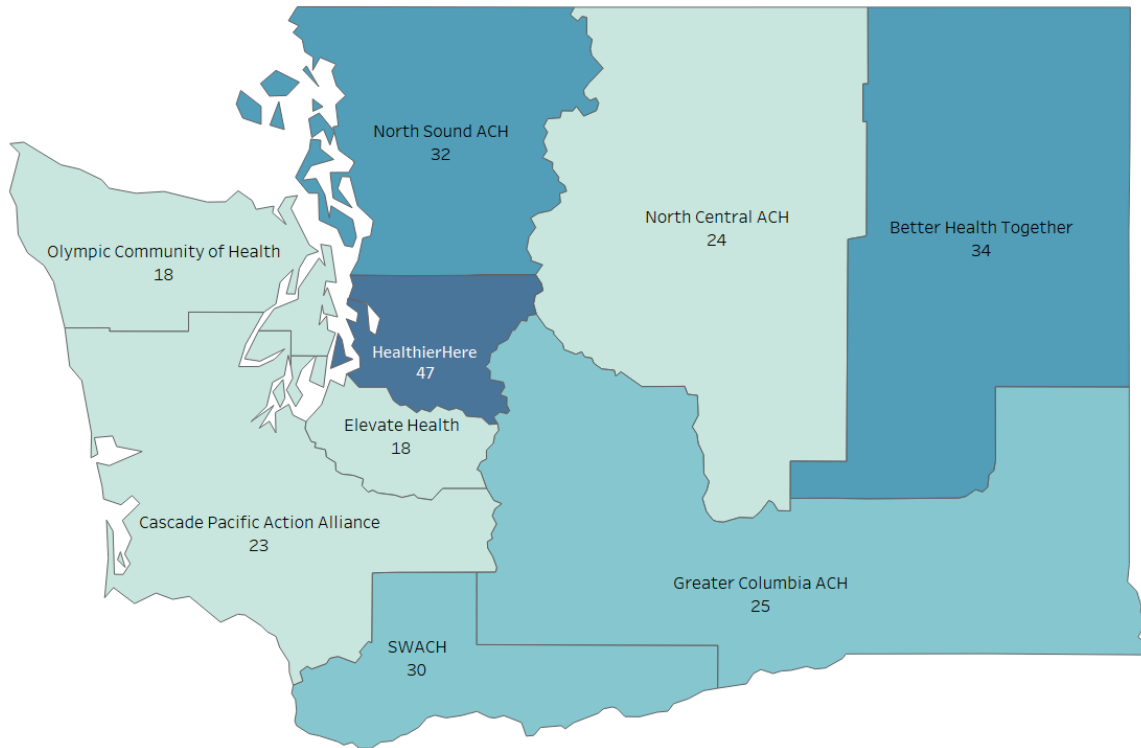
ACH – Internal Medicine (General) Physicians

In both 2017 and 2018, HealthierHere’s rate of internal medicine (general) physicians was in a category of its own. HealthierHere had 47 IM physicians per 100,000 population in both years. In 2018, its IM physician rate was the only ACH rate above the statewide rate of 32. The bordering Elevate Health had the lowest rate, also in both years, at 18 IM physicians per 100,000 population in 2017 and 17 in 2018. The largest rate decline from 2017 to 2018 was in Better Health Together, from 34 to 30 IM physicians per 100,000 population.

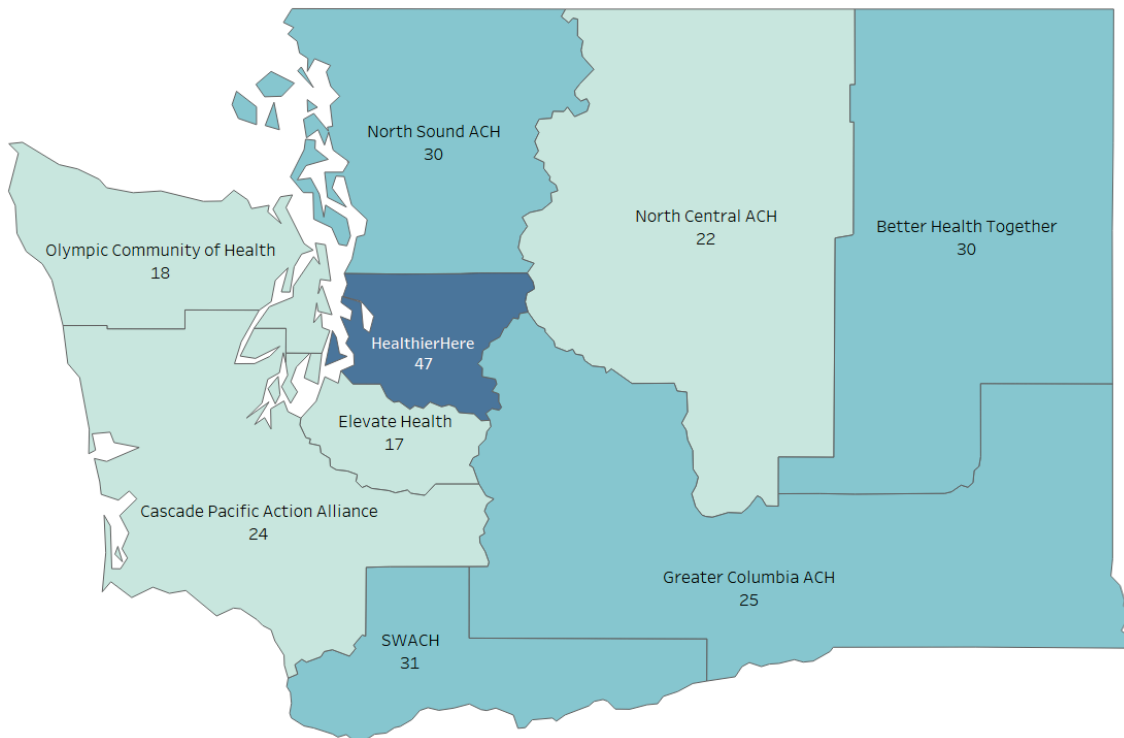
Figure 39. Internal Medicine (General) Physician Rates (per 100,000) by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 61. Internal Medicine (General) Physicians per 100,000 Population, ACHs, 2017



Map 62. Internal Medicine (General) Physicians per 100,000 Population, ACHs, 2018

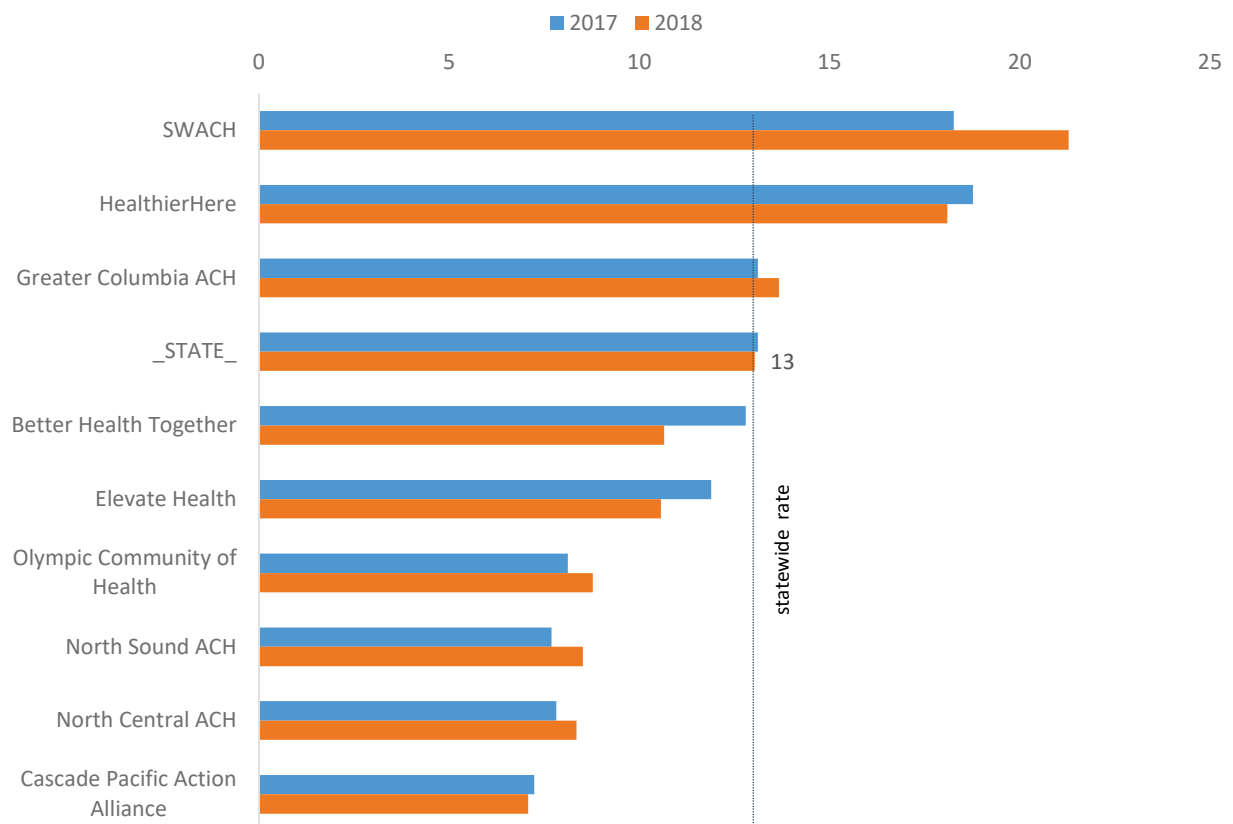


ACH – OB/GYNs

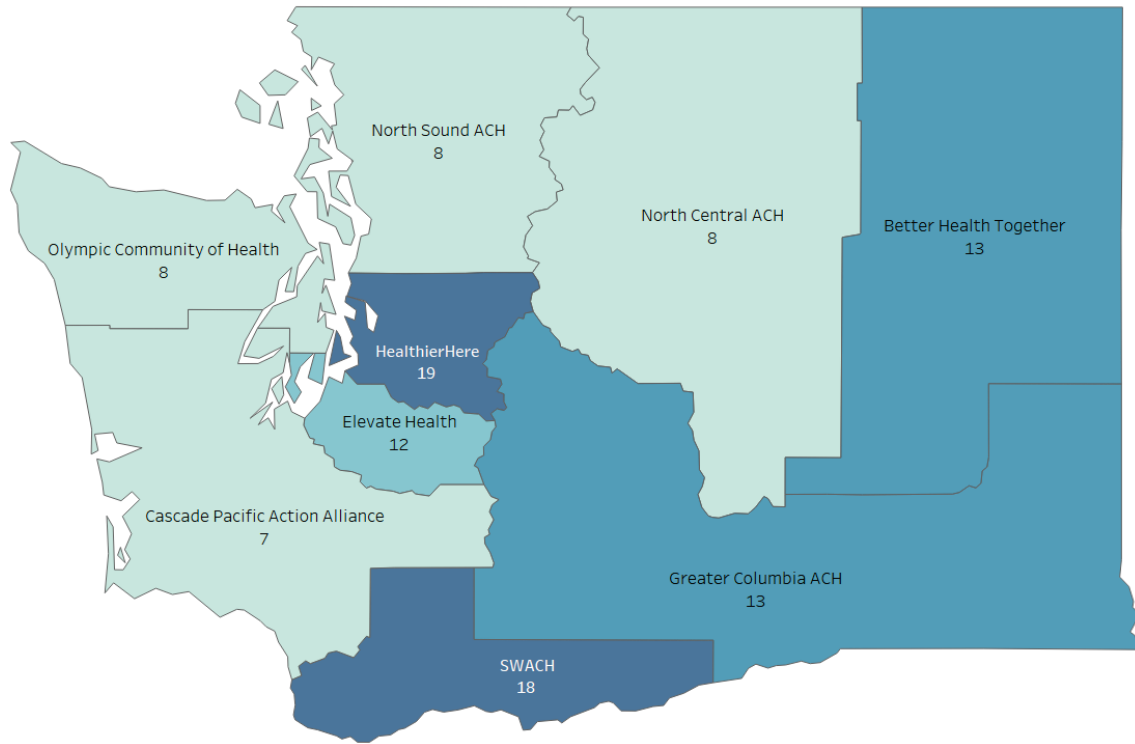
SWACH surpassed HealthierHere in 2018 in the highest rate of OB/GYNs, with 21 OB/GYNs per 100,000 population (compared to 18 in HealthierHere), after an increase from its rate of 18 and a decrease in HealthierHere from 19 in 2017. The OB/GYN rates of these two ACHs were far above rates of the other ACHs and the statewide rate of 13 OB/GYNs in both 2017 and 2018. The rates of four ACHs did not exceed 10 OB/GYNs per 100,000 population in either year: Olympic Community of Health, North Sound ACH, North Central ACH and Cascade Pacific Action Alliance.

Figure 40. OB/GYN Rates (100,000) by ACH, 2017 and 2018

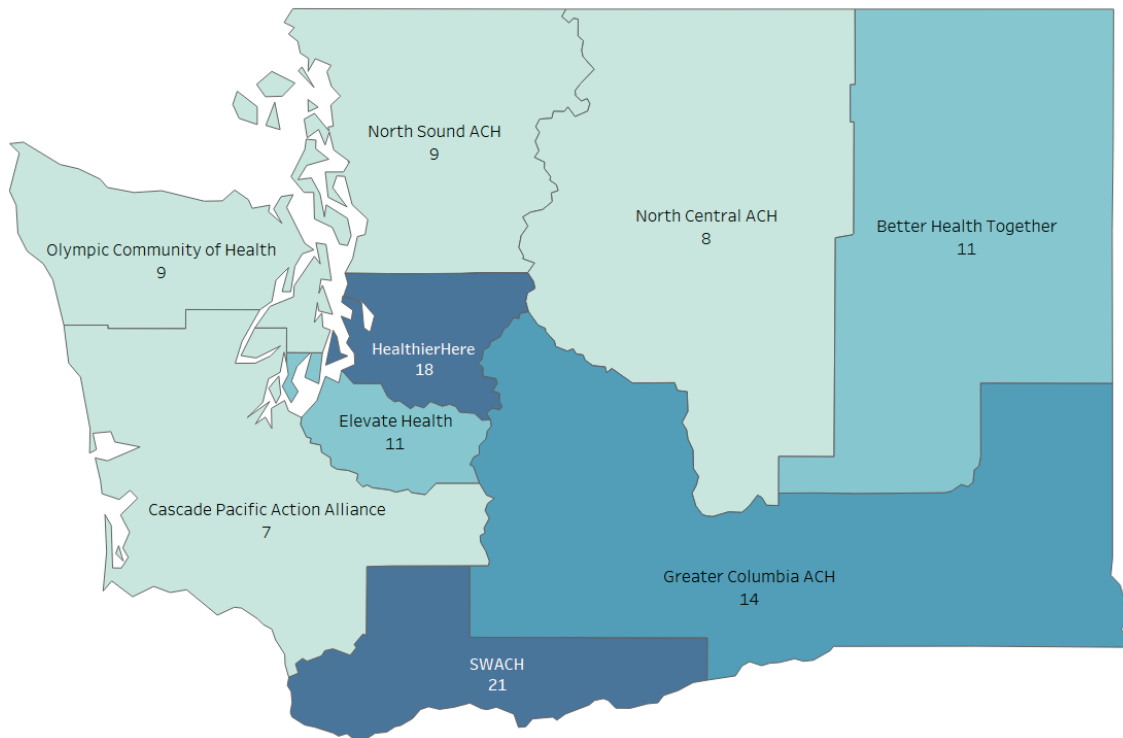
(sorted by 2018 distribution)



Map 63. OB/GYNs per 100,000 Population, ACHs, 2017



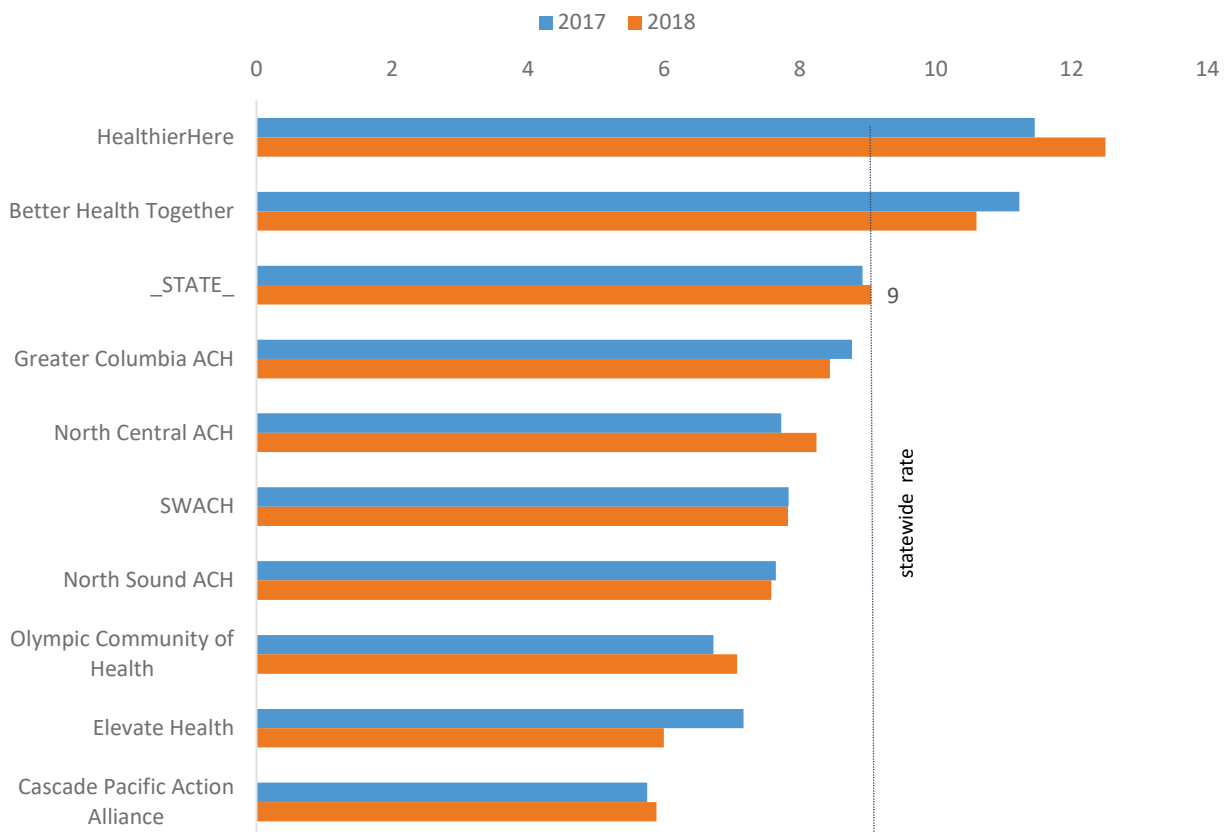
Map 64. OB/GYNs per 100,000 Population, ACHs, 2018



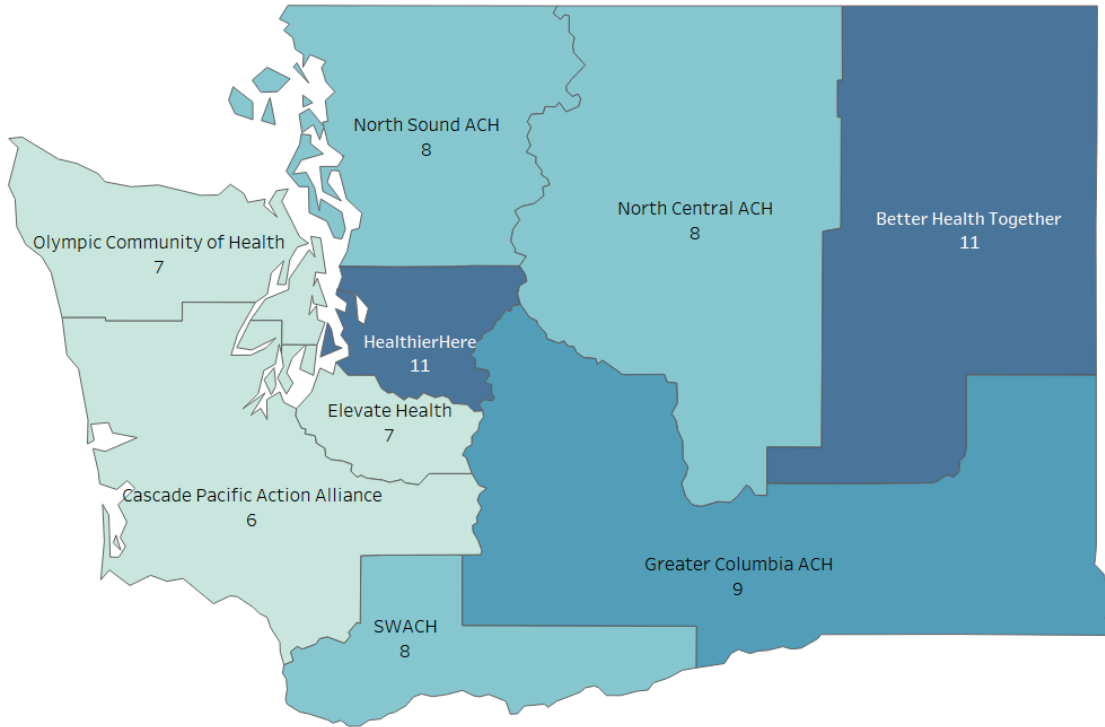
ACH – Orthopedic Surgeons

HealthierHere and Better Health Together were the only two ACHs with orthopedic surgeon rates above the statewide rate of nine per 100,000 population in both 2017 and 2018. Cascade Pacific Action Alliance and Elevate Health tied for the lowest rate of six in 2018. Cascade Pacific Action Alliance's rate of six orthopedic surgeons in 2017 was also the lowest in that year.

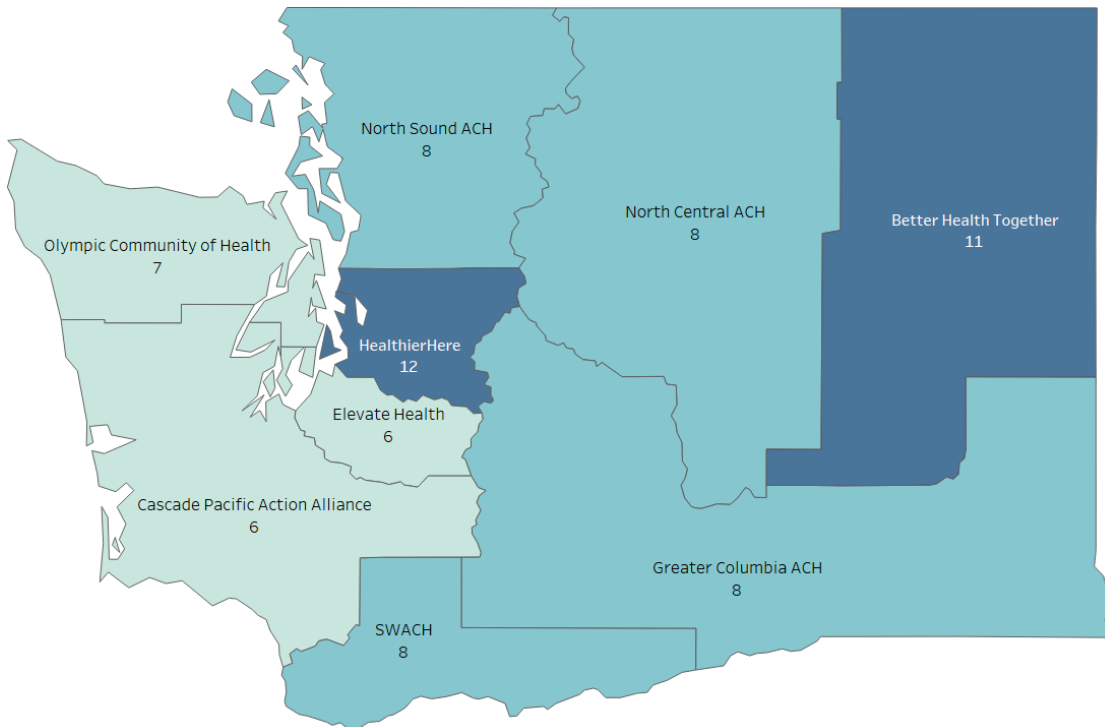
Figure 41. Orthopedic Surgeon Rates (per 100,000) by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 65. Orthopedic Surgeons per 100,000 Population, ACHs, 2017



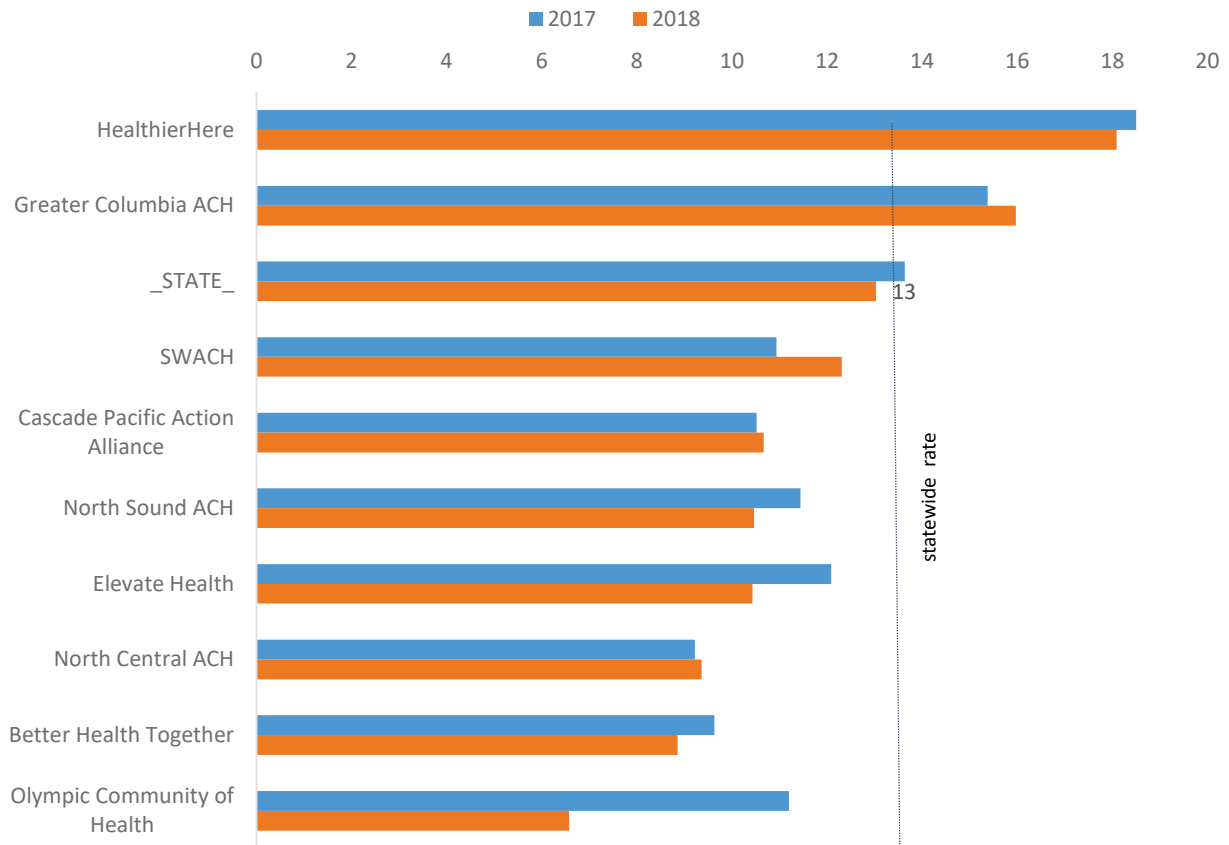
Map 66. Orthopedic Surgeons per 100,000 Population, ACHs, 2018



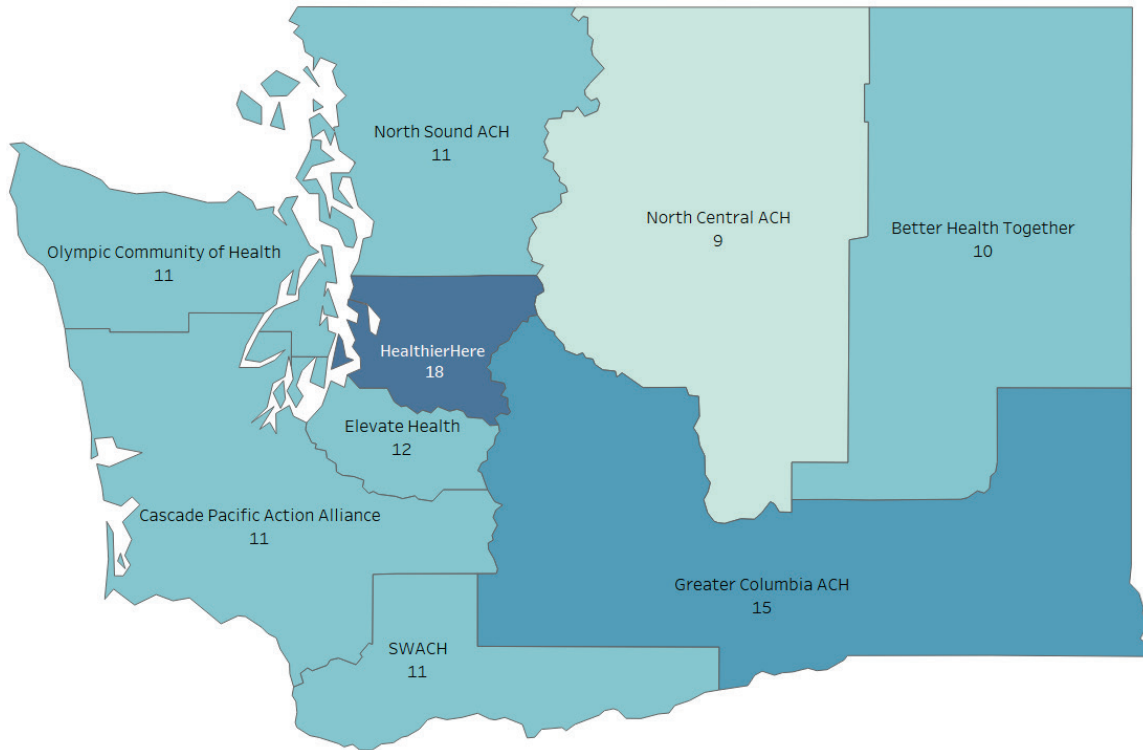
ACH – Pediatricians (General)

The statewide rate of general pediatricians declined slightly from 14 pediatricians per 100,000 population in 2017 to 13 in 2018. HealthierHere and the Greater Columbia ACH were the only two ACHs with pediatrician rates above the statewide rate in both 2017 and 2018. The lowest ACH rate of seven pediatricians per 100,000 population in 2018 belonged to the Olympic Community of Health after its decline from the fifth highest rate of 11 in 2017.

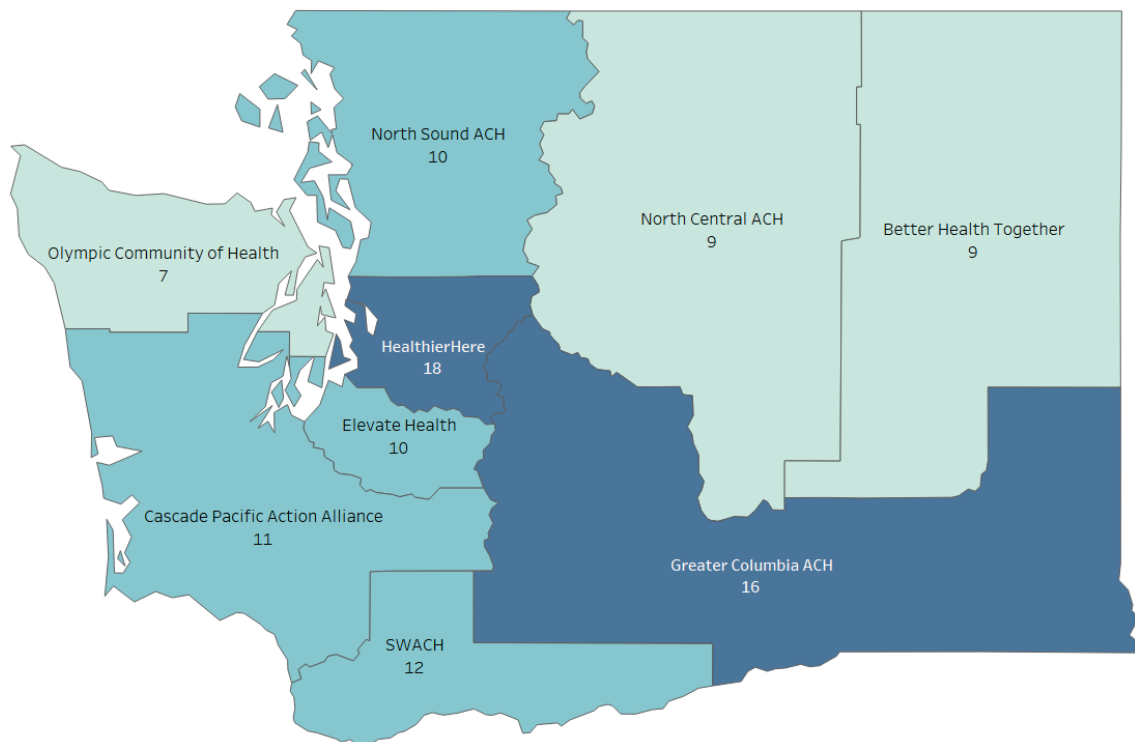
Figure 42. Pediatrician (General) Rates (per 100,000) by ACH, 2017 and 2018
(sorted by 2018 distribution)



Map 67. Pediatricians (General) per 100,000 Population, ACHs, 2017



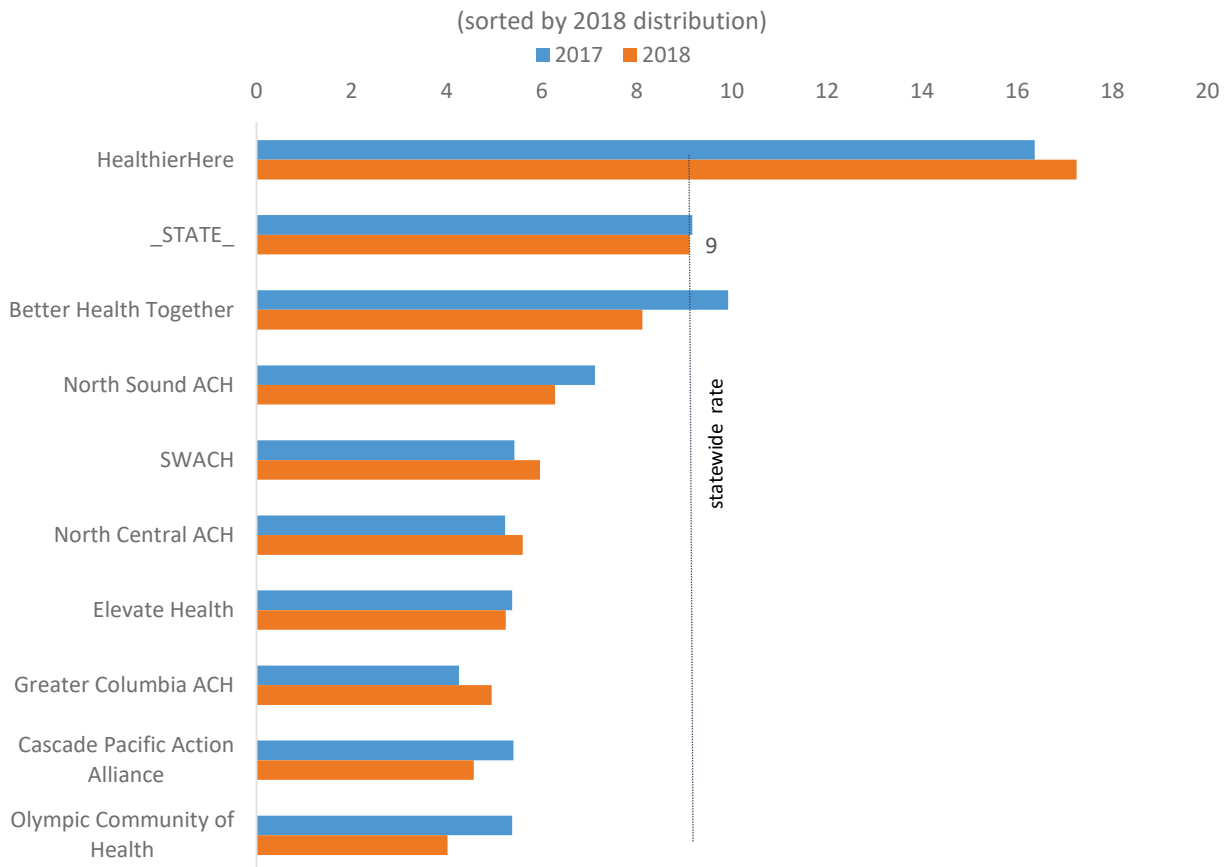
Map 68. Pediatricians (General) per 100,000 Population, ACHs, 2018



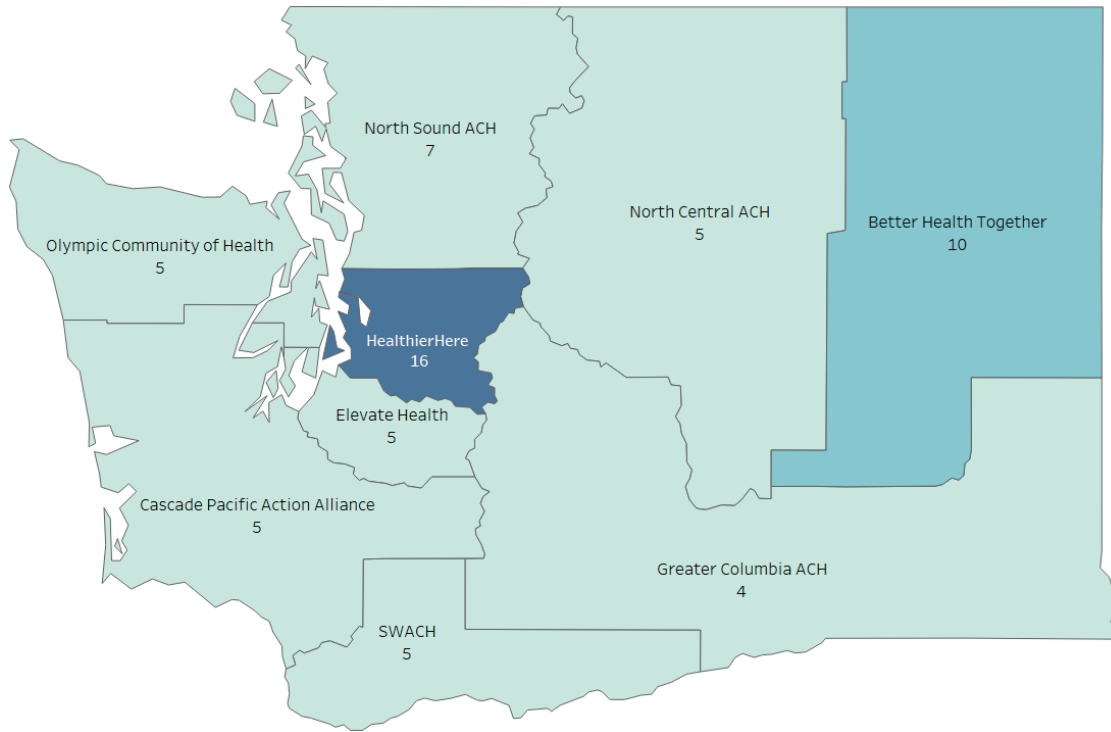
ACH – Psychiatrists

The statewide rate of psychiatrists was nine per 100,000 population in both 2017 and 2018. HealthierHere’s rate of 17 psychiatrists in 2018 was the only ACH rate above and nearly twice as high as the statewide rate. HealthierHere’s rate of 16 psychiatrists in 2017 was also the highest ACH rate in that year. Better Health Together was the second of two ACHs in 2017 with a rate (10) above the statewide rate, but in 2018, its rate decreased to eight, below the statewide rate. In the remaining ACHs, the rates were below eight in 2017 and below seven in 2018. The lowest rate of all ACHs in both years was the Olympic Community of Health, which in 2018 was four, a rate that was less than one-fourth of the highest rate in that year at 17 psychiatrists per 100,000 population in HealthierHere.

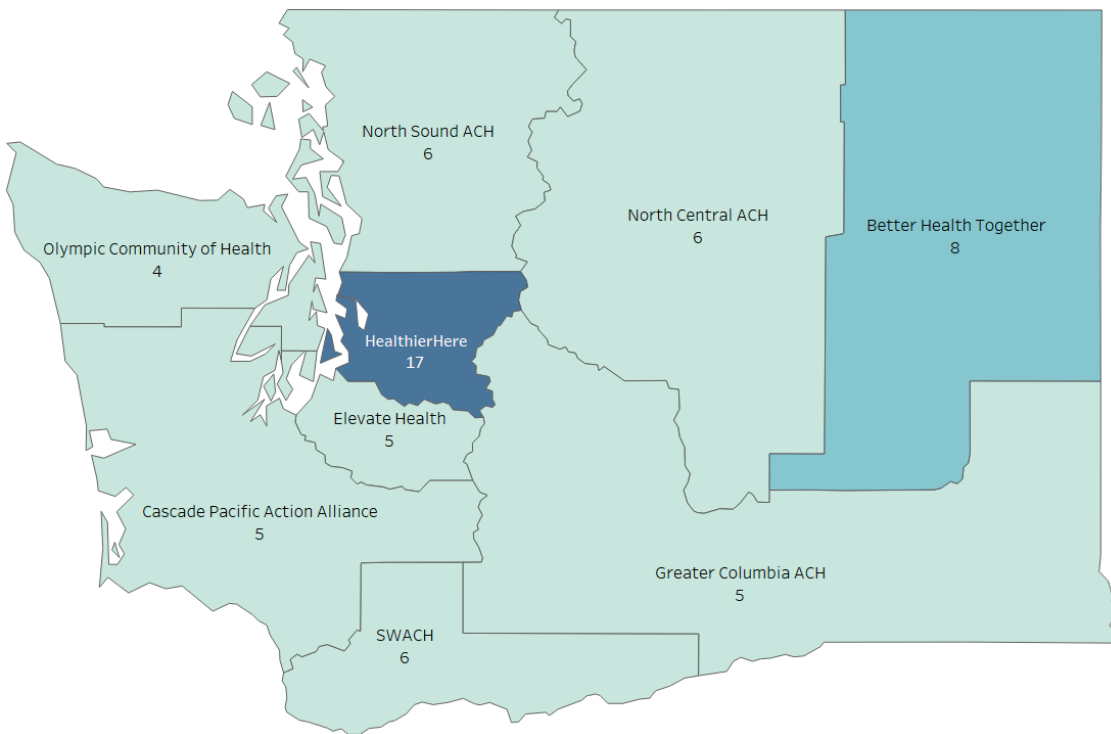
Figure 43. Psychiatry Physician Rates (per 100,000) by ACH, 2017 and 2018



Map 69. Psychiatrists per 100,000 Population, ACHs, 2017



Map 70. Psychiatrists per 100,000 Population, ACHs, 2018

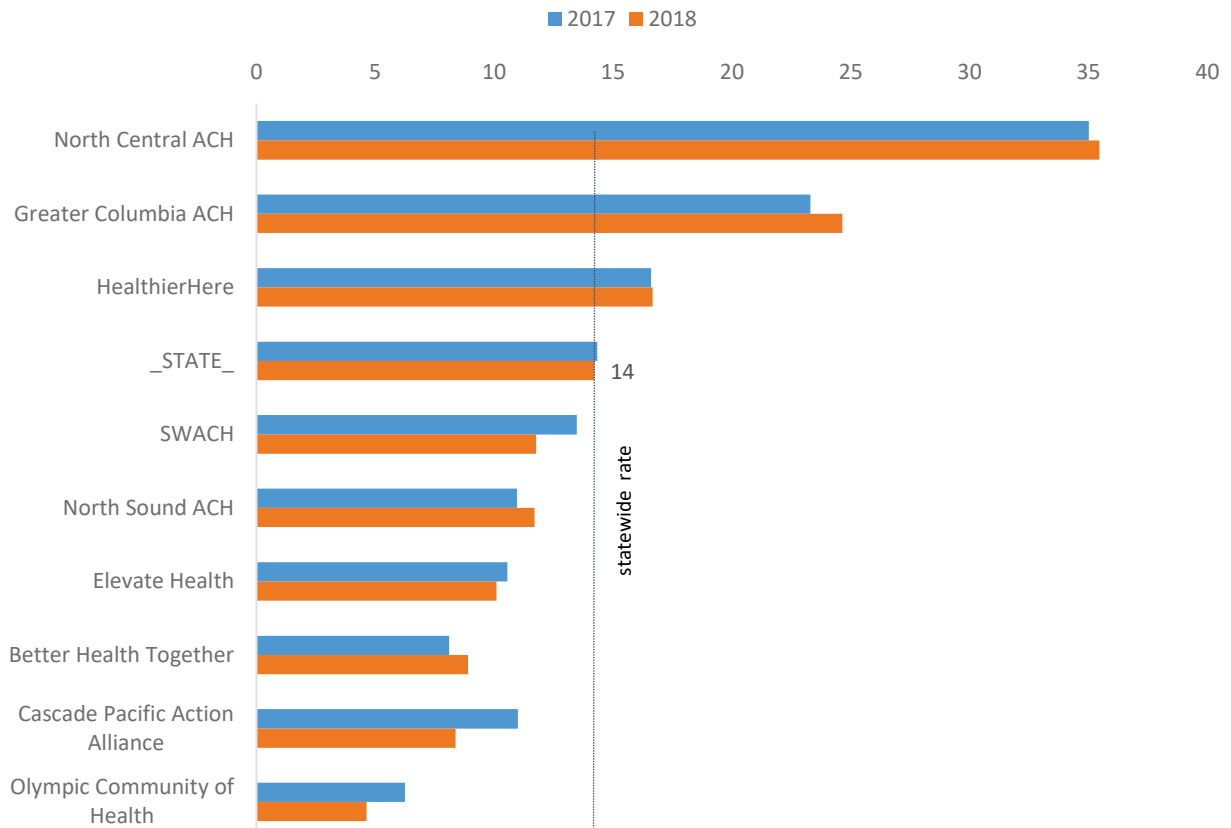


ACH – Radiologists

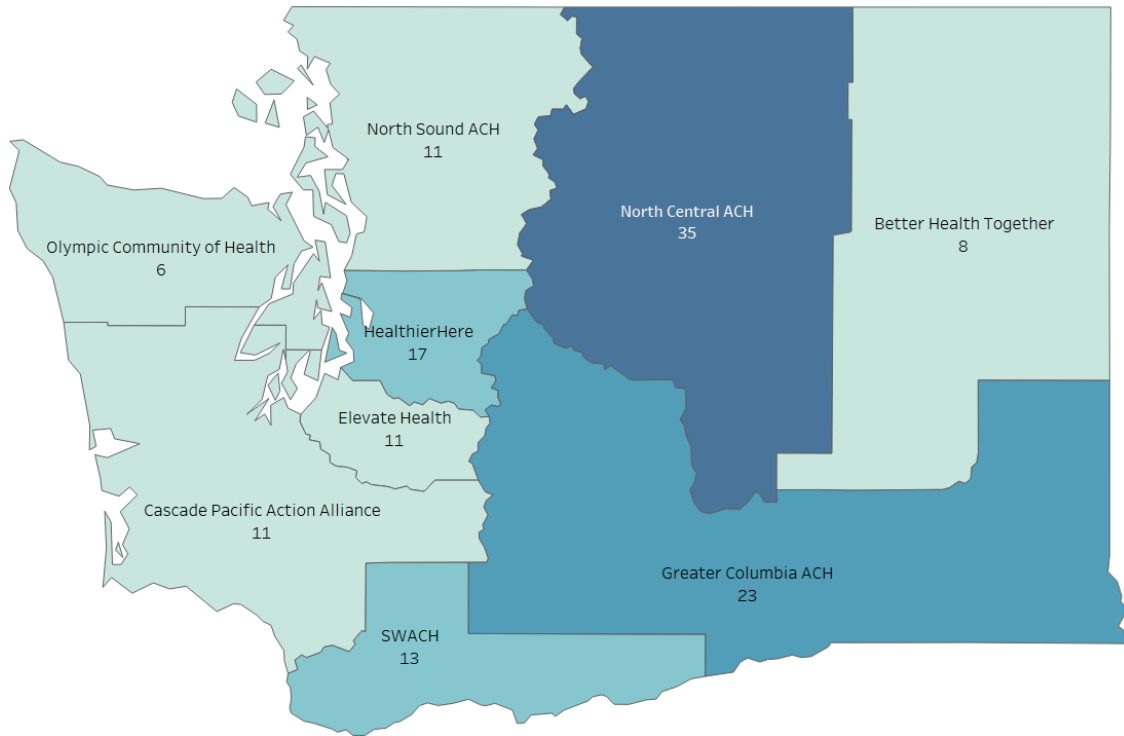
There was a large disparity in the radiologist rates among the ACHs. While the statewide rate was 14 radiologists per 100,000 population in both 2017 and 2018, the highest rate of 35 radiologists in 2017 and 36 in 2018, both in North Central ACH, was about six times as high in 2017 and about seven times as high in 2018 as the lowest rates in both years in the Olympic Community of Health. Two other ACHs also had rates above the state rate in both years: Greater Columbia ACH and HealthierHere.

Figure 44. Radiologist Rates (per 100,000) by ACH, 2017 and 2018

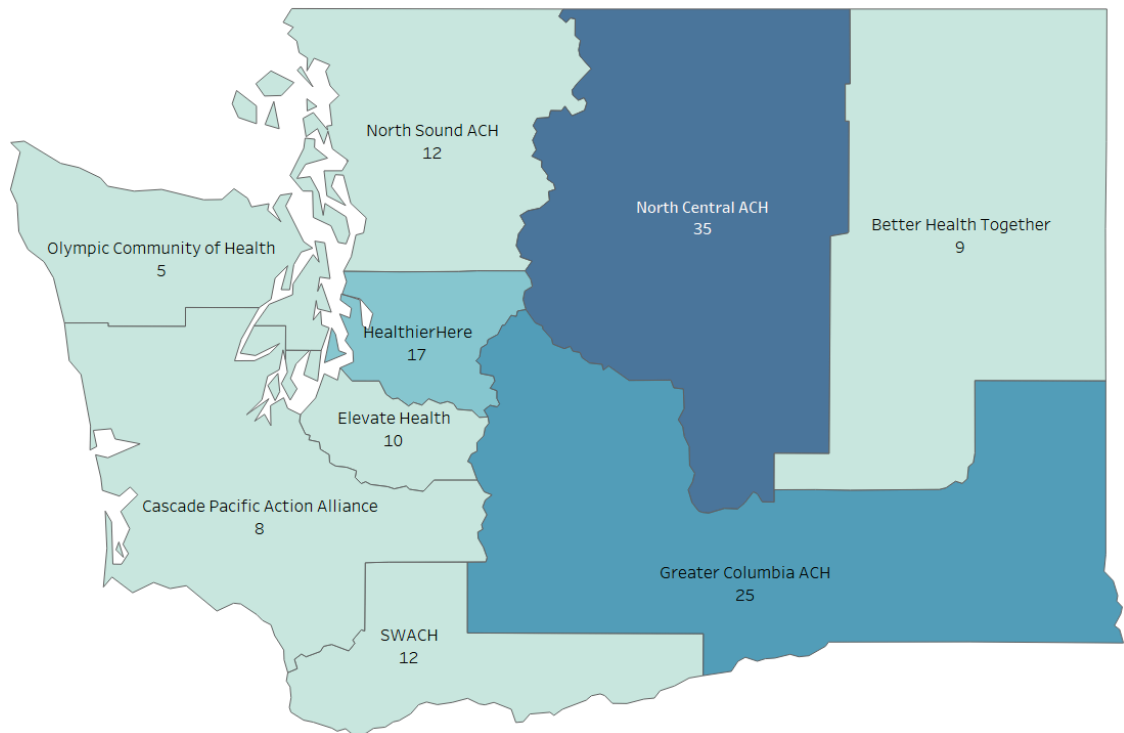
(sorted by 2018 distribution)



Map 71. Radiologists per 100,000 Population, ACHs, 2017



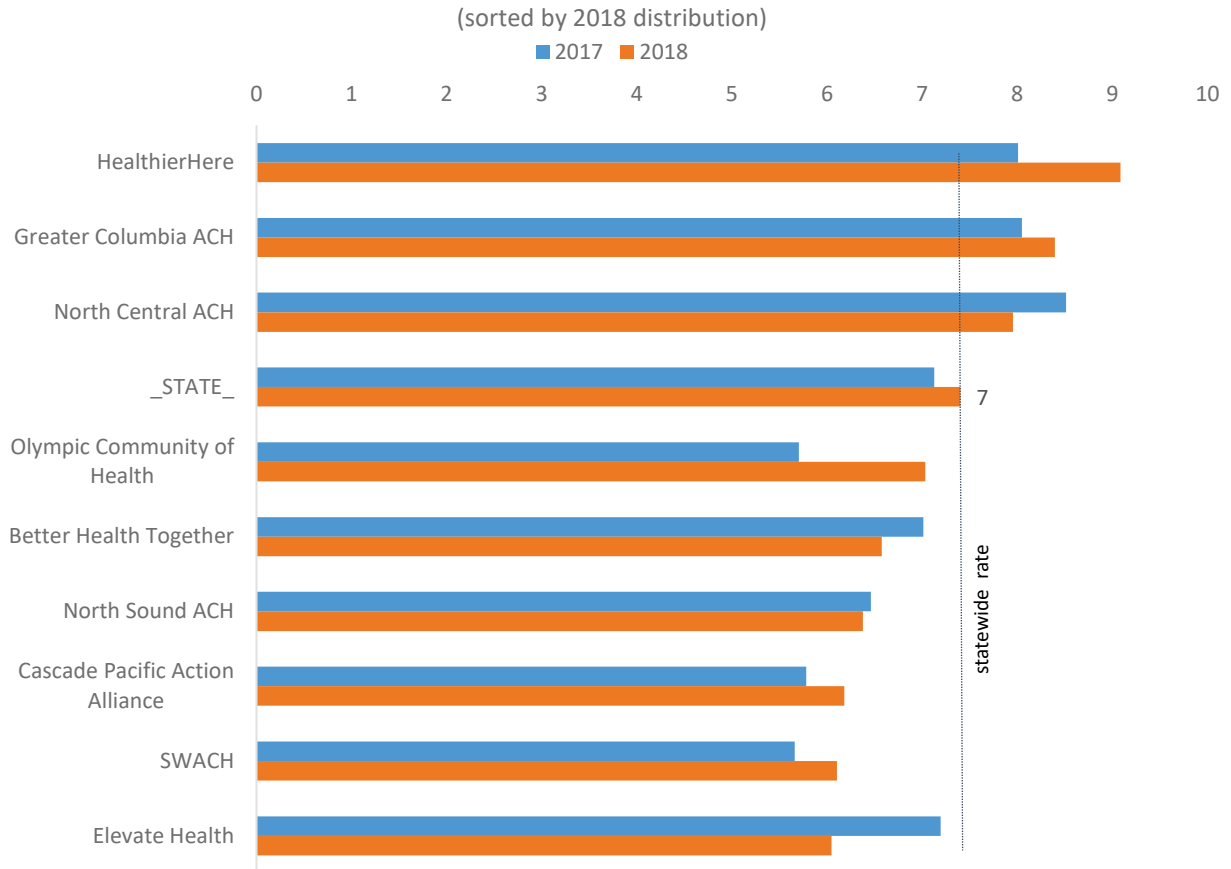
Map 72. Radiologists per 100,000 Population, ACHs, 2018



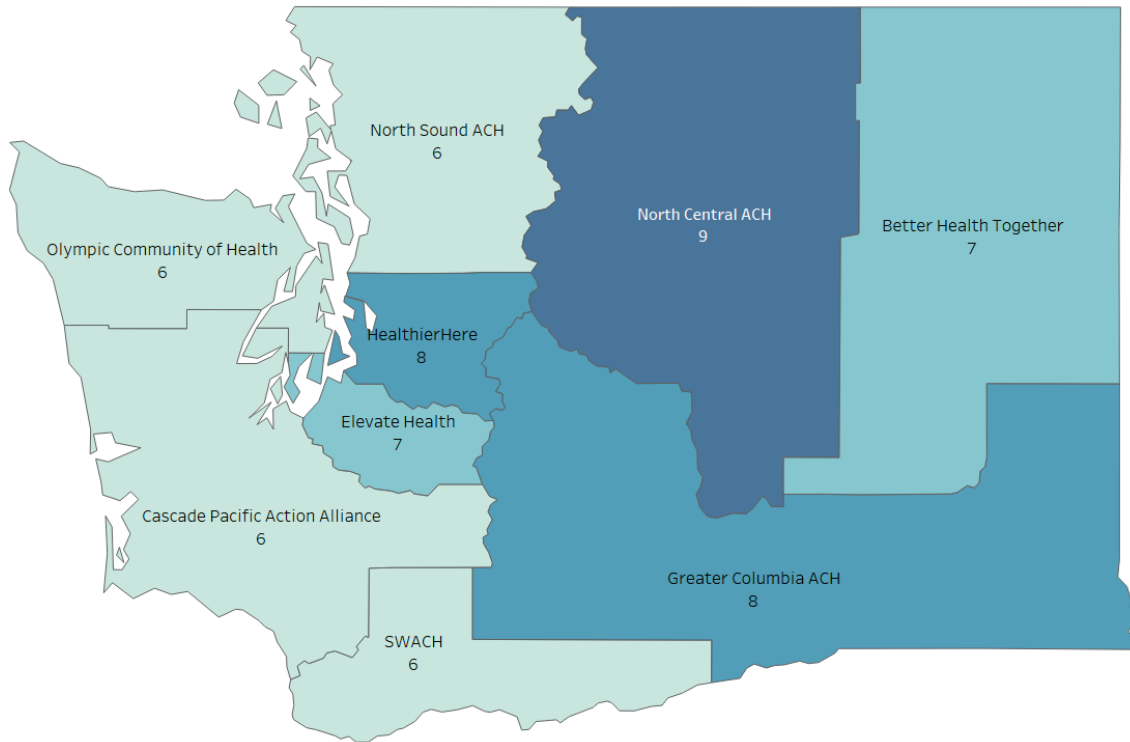
ACH – Surgeons (General)

The availability of general surgeons among the ACHs exhibited perhaps the smallest disparities, compared with the availability of physicians in other specialty groups. Statewide, the general surgeon rate was seven per 100,000 population in both 2017 and 2018. There were three ACHs with higher rates in both years: HealthierHere, Greater Columbia ACH and North Central ACH. However, the highest rate of all ACHs in both years was HealthierHere’s 2018 rate, at nine general surgeons per 100,000 population. The lowest rate of all ACHs in both years was six surgeons per 100,000 population found in several ACHs.

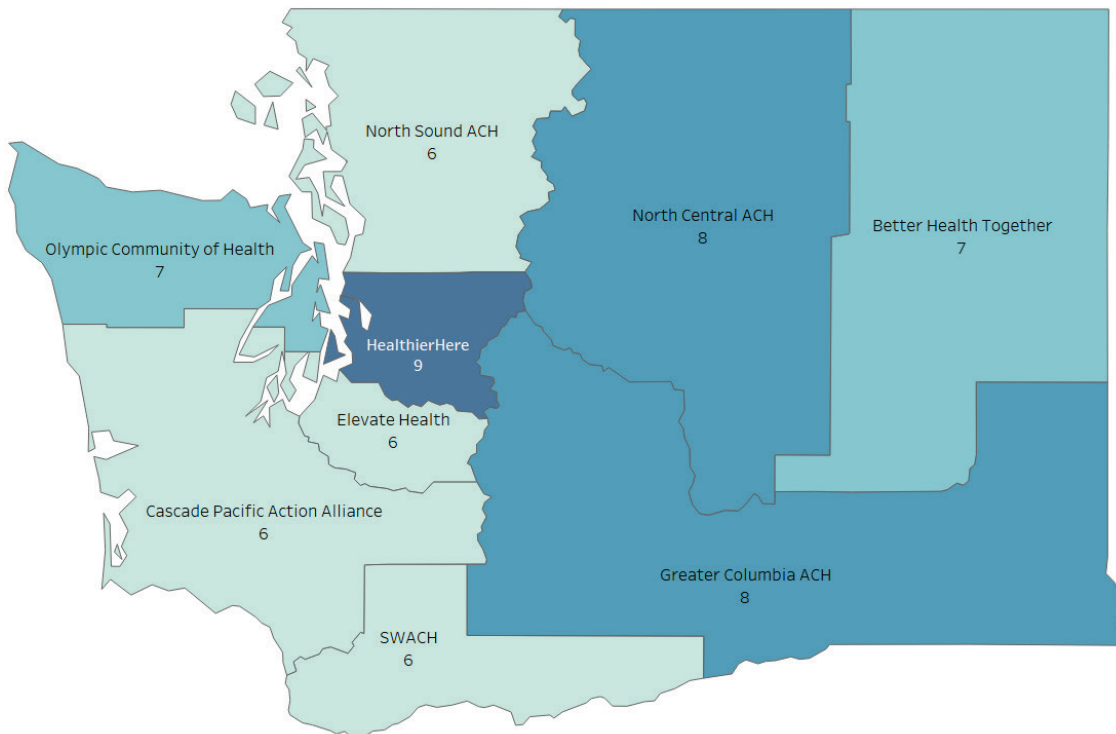
Figure 45. Surgeon (General) Rates (per 100,000) by ACH, 2017 and 2018



Map 73. Surgeons (General) per 100,000 Population, ACHs, 2017



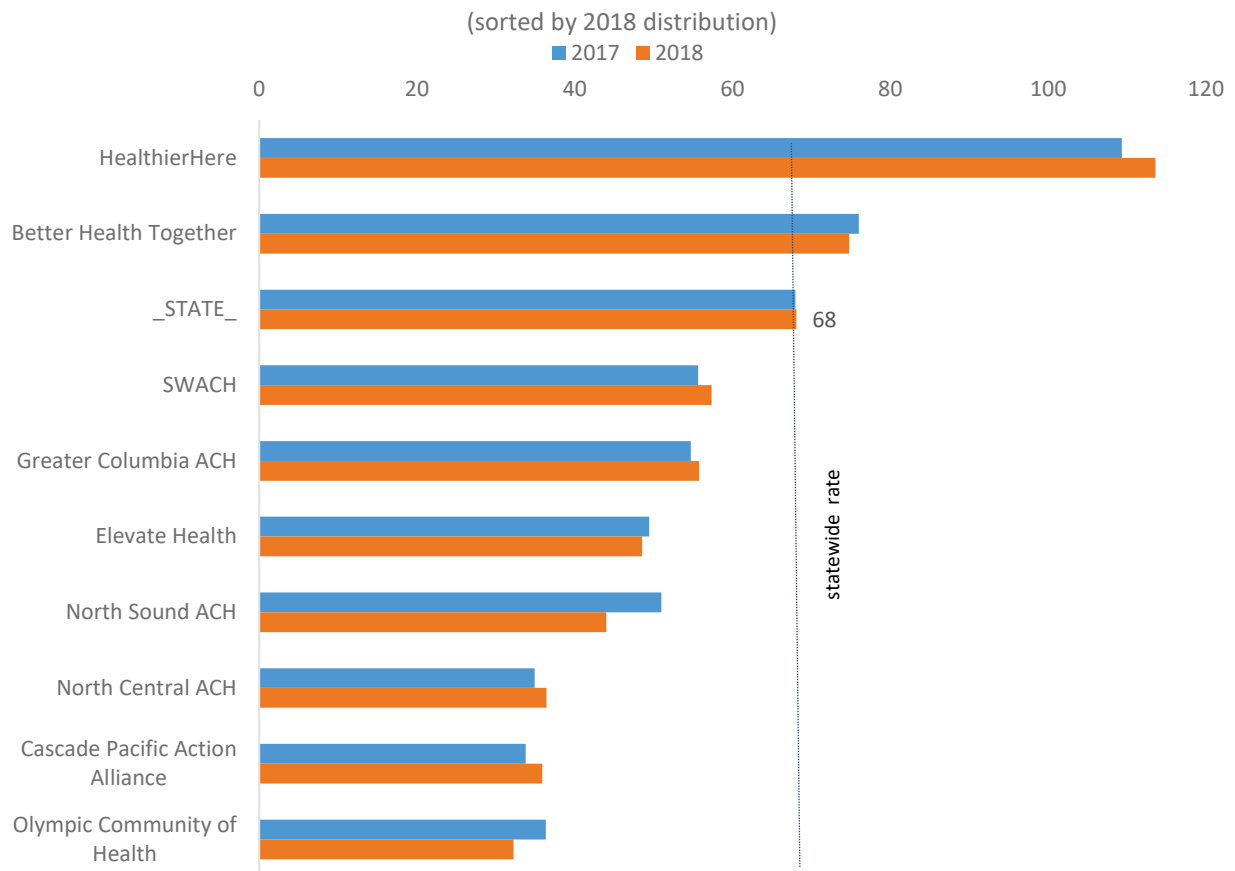
Map 74. Surgeons (General) per 100,000 Population, ACHs, 2018



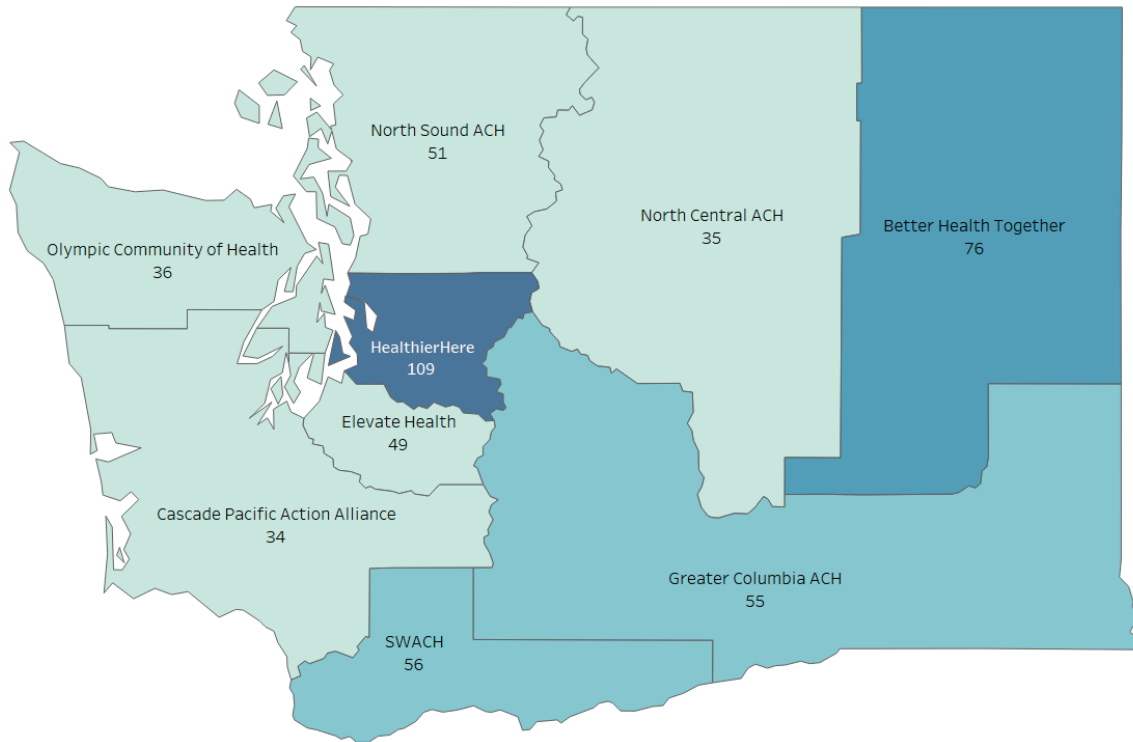
ACH – Other Specialty Physicians

The other specialty group includes specialties not covered in the ACH physician rates shown above, such as audiology, gastroenterology, pain medicine, urology or plastic surgery. Compared to the statewide rate of 68 other specialty physicians per 100,000 population in both 2017 and 2018, the highest rate found in HealthierHere, in both years, was 109 physicians and 114 physicians, respectively. Better Health Together also had a rate higher than the statewide rate, in both years, at 76 physicians and 75 physicians, respectively. Olympic Community of Health, Cascade Pacific Action Alliance and North Central ACH were the three ACHs with the lowest rates of other specialty physicians in both years. The 2018 rate of 32 physicians in Olympic Community of Health was the lowest of all ACHs in either year.

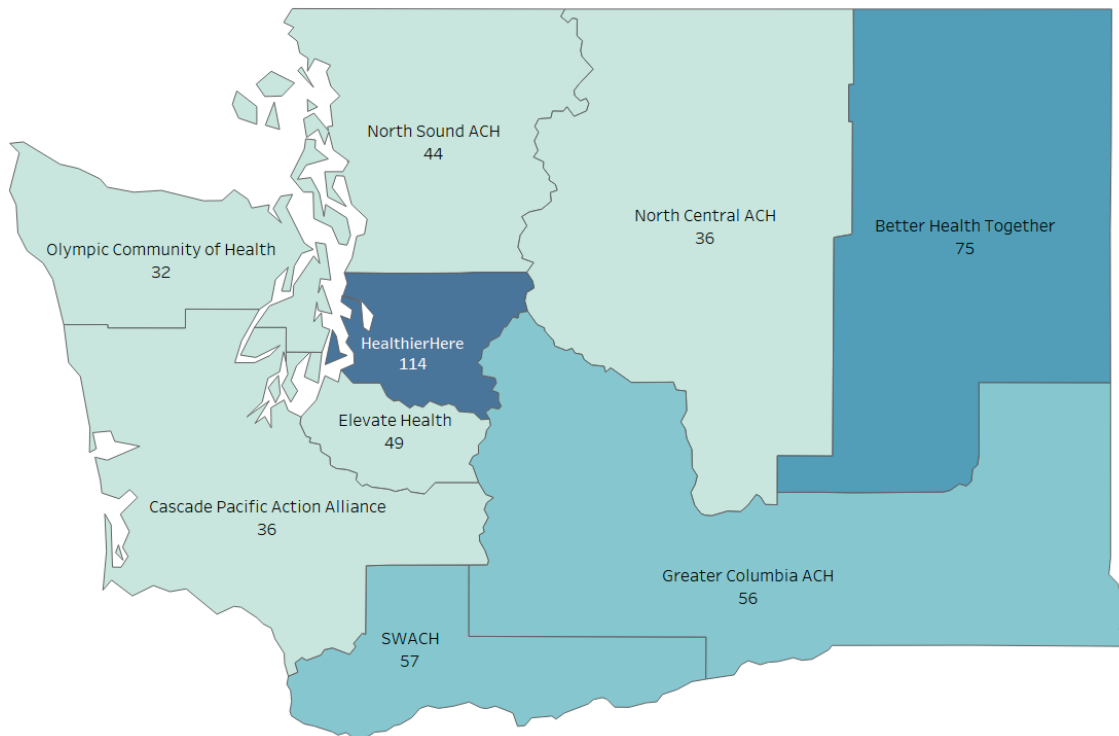
Figure 46. Other Specialty Physician Rates (per 100,000) by ACH, 2017 and 2018



Map 75. Other Specialty Physicians per 100,000 Population, ACHs, 2017



Map 76. Other Specialty Physicians per 100,000 Population, ACHs, 2018



Summary

In 2018, the physician supply in Washington increased by 418 physicians over the previous year to 19,159, reaching an overall rate of 258 per 100,000 population. Most of this increase occurred in the supply of specialists. Therefore, despite the modest increase in primary care physicians, their share dropped by one percentage point to 35% in 2018. In the 13 specialty groups, the hospitalist group had the largest increase at 17.6%, compared to the overall increase of 2.2%. Family medicine/general practice specialty continued to be the largest specialty group, aside from the “other specialty” group, with over 3,300 physicians. The increase in female physicians outpaced that of male physicians, resulting an increase in the percentage of female physicians from 37.4% to 38.1% and a corresponding decrease in the share of male physicians. The increase in overall physician supply did not alter the physicians’ median age, which remained at 49 years.

Physician workforce at the county level reveals vast differences. While the statewide overall physician rate in 2018 was 258 physicians per 100,000 population, only nine of the 39 counties had higher rates, with the highest rate in Chelan County surpassing 450 physicians per 100,000 population. Even fewer counties, only six, had shares of female physicians above the statewide share of 38% in 2018. County-level physician median age had a wide range from low 40s to above 60. Chelan County also stood out with its primary care physician rate and specialist rate far above the statewide rates while the corresponding rates of the majority of the counties were below the statewide rates. In the supply of family medicine/general practice physicians, although 17 counties had rates above the statewide rate of 45 physicians per 100,000 population in 2018, seven counties experienced sizeable declines in their PCP rates. Growth in hospitalist supply was the fastest overall and in some relatively small counties in particular, including Whatcom, Walla Walla, Whitman and Grays Harbor.

Despite a smaller scale, when compared with differences at the county level, differences at the ACH level in the physician workforce were still large. In physician characteristics, the highest median age of 53 years in Olympic Community of Health and lowest median age of 47 years in SWACH in 2018 were still six years apart. Only one ACH had a share of female physicians above the statewide share and it was HealthierHere (42.6% in 2017 and 43.2% in 2018). HealthierHere led the physician rates in overall, primary care, specialty care and most of the 13 specialty groups (seven in 2017 and eight in 2018).

Variations observed in physician supply in this report at the state level (among demographic groups), among counties and among the ACHs warrant further research to determine if the variation reflects a reasonable (though uneven) distribution of physician supply or a shortage that may be due to maldistribution or due to a system-wide shortage.

This report used the redesigned Network Access Reports submitted by the health insurance carriers to the Washington State Office of the Insurance Commissioner. The redesigned NARs have a new classification of health care provider specialty implemented in 2017. As a result, estimates from this report involving physician specialty are not comparable to estimates in the 2016 report based on a different classification system. The update of the general population data used as the denominators in calculating physician rates in this report may cause minor differences in overall physician rates between this report and the 2016 report.

Appendixes

Data Sources and Method

Data Sources

Network Access Report. Health insurance companies conducting business in Washington are required by the state's Office of the Insurance Commissioner (OIC) to file a monthly Network Access Report (NAR). The purpose of these reports is for an insurance company to demonstrate that it has an adequate supply of health care providers in its network(s) for the intended services. The report contains records of health care providers in contract with an insurance company's provider network. The information on individual providers includes name, credential, specialty, and practice location(s). Starting in 2017, Washington state's NARs discontinued the previous provider specialty categories and replaced it with Health Care Provider Taxonomy Codes Set issued by the National Uniform Claim Committee. The NARs are publicly available on OIC's website. This study used the public NARs.

National Provider Identifier Registry. The National Provider Identifier (NPI) registry is a database in the National Plan & Provider Enumeration System (NPPES) created by the federal Centers for Medicare and Medicaid Services (CMS). The NPI is a 10-digit unique number assigned only once to an individual or organizational provider in the U.S. Part of the NPI database is publicly available. The public information of individual NPIs includes a provider's name, NPI number, taxonomy and practice location. The public NPI data were used for this study.

Provider License Database. Health care providers are required to obtain a provider license with the Washington State Department of Health (DOH) in order to practice in the state. After initial license approval, providers are required to obtain renewal at certain intervals depending on the professions. For physicians, the license renewal is every two years. The provider license database includes information on the provider's name, age, sex, credential type, license start date, most recent renewal date and expiration date. A subset of the provider license information can be searched as public information on the department's website. However, for this study, we used an extract file from the license database.

Method

a. Processing the June Network Access Reports for 2017 and 2018

The NARs for June 2017 and June 2018 were downloaded from OIC's website. Once all insurance companies' reports were collected, the reports were combined by year and each year's data were processed separately. The NARs are structured in such a way that there are five blocks of rows of data and depending on the block the column name and purpose may be different. For example, a column in the block for individual provider information may be the individual NPI number, but in the block for organization contract information it may be the organization NPI number. Therefore, the next step was to "rectangularize" the data records by transforming the blocks of data rows into blocks of data columns so that each row is a record for an individual provider. The final step was to remove non-physician records and retain only physician records.

b. Matching physicians records from the Network Access Reports with records in the National Provider Identifier registry and the DOH provider license database

Processed physician records from the Network Access Reports were then matched with the National Provider Identifier registry on the NPI numbers. The NPI is a unique identifier issued to health care providers. It is required for Medicare services, but is also used by health insurance carriers. Only records that matched on NPI between the two files were retained.

Next, the matched NAR-NPI records were matched with the DOH license database on the physician credential number. In this step, only matched records with non-expired licenses as of June of the selected year were retained.

c. Recode of provider taxonomies and assignment of primary specialty

The number of provider taxonomies in the NARs was too large for meaningful analyses. To reduce the number of provider taxonomies for reporting, a crosswalk file was constructed that converts provider taxonomy into 13 provider specialty groups. The crosswalk was then applied to the NAR file to create the primary specialty field. A physician's primary specialty was determined by the first taxonomy code linked to that physician at a practice location. If different insurance companies had different first taxonomy codes for this physician at that particular location, the physician was assigned multiple primary specialties. The physician was also assigned multiple primary specialties if the physician had multiple practice locations and had different first taxonomies associated with those locations. The 13 specialty groups adopted for this report are as follows:

1. Anesthesiology
2. Cardiology
3. Emergency Medicine
4. Family Medicine/General Practice
5. Hospitalist
6. Internal Medicine (General)
7. OB/GYN
8. Orthopedic Surgery
9. Pediatrics (General)
10. Psychiatry
11. Radiology
12. Surgery (General)
13. Other Specialty

d. Final record selection

Because the NAR files contain physician records reported by all insurance carriers and each carrier's report may contain physician records for multiple plans, there are numerous duplicate physician records due to cross-carrier reporting and/or cross-plan reporting within a carrier's report. In the final record selection process, only one record was retained from the data field combination of NPI, primary specialty, practice geo-coordinates and practice name. In addition, a small number of records that had missing data on the state of the practice location, physician's last name or NPI were excluded from the final selection.

d. Constructing physician record weights

The processed NAR data included multiple records for some physicians who had multiple practice locations and/or more than one primary specialty. Physician supply analyses of this study required counting each physician as no more than one person. To meet this requirement while accounting for the fact that a physician may have multiple primary specialties and/or practice at multiple locations, we constructed data weights and applied the weights to the physician records. Below is a description of the weight construction.

Initial weight. Each physician was assigned the weight of 1 initially. If a physician was associated with more than one primary specialty, then the initial weight would be redistributed equally among the primary

specialties. For example, if a physician had two primary specialties, each primary specialty would receive an initial weight of 0.5.

ZIP Code level weight. After the construction of initial weights, the next step was to redistribute initial weights to a physician's records for different ZIP Codes associated with a primary specialty. To construct the ZIP Code level weight, we first counted the number of ZIP Codes associated with a physician's primary specialty. We then summed up the populations of the associated ZIP Codes.⁶ Then each ZIP Code's fraction of the total population from all associated ZIP Codes was calculated. These fractions were used in distributing the initial weight into ZIP Codes associated with a physician's primary specialty.

For example, suppose the initial weight for one of a physician's two primary specialties, say internal medicine (general), was 0.5. Further, suppose this specialty of the physician was associated with three ZIP Codes that accounted for 70%, 20% and 10% of the total population of the three ZIP Codes combined. The ZIP Code with 70% of the population would receive 70% of the initial weight for the primary specialty, thus, 0.35 (i.e., $0.5 \times 70\%$), the 20% ZIP Code would receive a weight of 0.1 and the 10-percent Zip would receive a weight of 0.05.

In some cases, a physician's primary specialty was associated with multiple locations within a ZIP Code area. In that case, each location would receive an even share of the ZIP Code-level weight assigned previously. Extending the physician example above, suppose the physician's internal medicine (general) specialty was associated with three locations in the 70% ZIP Code area. Then the final weight for each location record for this ZIP Code associated with this physician's internal medicine (general) specialty would be 0.1167 ($0.35/3$).

From this process, the sum of weights of all records associated with a physician should equal 1 and the sum of weights of all physicians should equal the unique count of physicians without the weights. The ZIP Code level weights can be used for analyses involving a single ZIP Code, clusters of ZIP codes and the state.

County level weight. For county-level analyses, an additional step was necessary to further distribute the physician record weight at the ZIP Code-level for ZIP Codes that cross county boundaries. Similar to the approach used in constructing ZIP Code-level weight, a county's fraction of such a ZIP Code's weight was determined by the county's fraction of the population for that ZIP Code in relation to the total population of the ZIP Code. Using the same physician example from above, suppose the 20% ZIP Code is associated with two counties and County A's population fraction of the ZIP Code's total population is 70% and County B's fraction is 30%. Then the ZIP Code-level physician record weight of 0.1 is redistributed into 0.07 (0.1×0.7) to County A and 0.03 (0.1×0.3) to County B. For ZIP Codes whose areas are within the boundary of a single county, the ZIP Code-level weights were then copied over to the county-level weight.

⁶ Some ZIP Codes in the original Network Access Reports do not have associated population data. These are either institution ZIP Codes (e.g., campus ZIP Code for universities) or mailbox ZIP Codes. Online ZIP Code maps were used to choose a substitute ZIP Code. The substitute ZIP Code is one that either encircles or shares the longest borderline with the ZIP Code in question.

From this process, the sum of weights of all records associated with a physician should be summed to 1 and the sum of weights of all physicians should equal the unique count of physicians without weights. The county-level weights can be used for analyses for counties, regions consisting of counties and the state.

e. Definition of terms

Physician count: The weighting of physician records takes into consideration that a physician can have more than primary specialty and may practice at multiple locations. This weighting essentially assumes each physician identified in the NARs as working 100% full time equivalency (FTE). The physician's "FTE" is then distributed into primary specialties and then to practice locations in different ZIP Code areas and into different counties when a ZIP Code area crosses county boundaries. Therefore, one physician FTE at a specific area can sometimes mean several physicians each contributing a fraction to the FTE. The physician count then is a sum of the total fractions.

Primary specialty: A primary specialty is the first provider taxonomy code of a physician listed under a health insurance carrier's plan for a practice location in the NAR.

PCP/Specialist physicians: A PCP is a physician who provides primary care. Primary care, in general, refers to "the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community."⁷ Physicians whose practice is not mainly in primary care are specialists. Although what a physician does in his/her practice should be used to describe the physician as a PCP or specialist, in reality it is quite difficult to collect such information. Instead, analysts generally classify physicians practicing with certain specialties as PCPs, although not all analysts agree on the set of specialties. For this study, primary care specialties include the following: family medicine/general practice, geriatric medicine, internal medicine (general) and pediatrics (general).

Physician rate: A physician rate is calculated as the number of physicians for a given population size of a specific geographic area. The usual population size used is 100,000. Although physicians in certain specialties treat only specific groups of the population, such as physicians in pediatrics and OB/GYN, the physician rate calculation is still based on the overall population, not the population groups for whom those physicians provide care generally. For this study, the physician rate is calculated as number of physicians per 100,000 population for the state, counties and Accountable Communities of Health (each consisting of one or more counties).

Urban/Rural areas: There are many ways urban and rural areas are assigned. For this study, we adopted the system used by the Missouri Census Data Center (MCDC). The MCDC's method in turn is based on the U.S. Census Bureau's method, which defines an urban area as "a core census block or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile."⁸ MCDC converted census blocks to ZIP Code areas. A ZIP Code area is then given urban and rural population proportions. Most ZIP Codes are either 100% urban or 100% rural. We used the MCDC's ZIP Code to Urban/Rural Area crosswalk file to designate a

⁷ Donaldson MS, Yordy KD, Lohr KN, Vanselow NA, Editors. Primary Care: America's Health in a New Era. Committee on the Future of Primary Care, Division of Health Care Services. Institute of Medicine. National Academy Press. Washington, D.C. 1996: p. 31.

⁸ See <http://mcdc.missouri.edu/TenThings/urbanrural.shtml>.

physician's location as urban or rural. In cases of a ZIP Code split between urban and rural, the urban/rural population proportions in the MCDC's file was used to proportionately randomize the physician's practice location as urban or rural.

f. Limitations

The Network Access Report is the main data source for physician supply estimates in this study. As such, data accuracy in NARs would affect the quality of the estimates. There are two possible sources of errors that may affect data accuracy in NARs and consequently estimates in this study, although neither type of error is expected to be large. One source is the omission of providers who are not affiliated with any insurance networks. Often these providers include some solo practitioners, some in small practice groups and those who work for the federal or state institutions exclusively (e.g., VA hospitals, military hospitals and state hospitals). This error would result in under-counting the physician supply. The other source of error would do the opposite – over-counting the physician supply. This type of error occurs when insurance companies failed to promptly remove records from NARs for providers who no longer practice in Washington (due to retirement or moving to another state, for example), although still keeping a Washington state license.

These two errors, because of their opposite effect, may have worked to reduce each other's impact, to a certain degree. Without a perfect census of the providers practicing in Washington, though, it is impossible to quantify these two errors precisely and their overall effect on physician supply estimates.

In addition to potential errors associated with the source data, another potential error may exist due to the weighting method used. Recall that when a physician has multiple primary specialties, the initial weight of 1 is distributed evenly to each primary specialty. With no weighting or splitting a physician's FTE, the analyst would have to choose a primary specialty arbitrarily to represent such a physician. While the weighting method used in this analysis improves the distribution of physician practice time across their primary specialties, it still lacks precision. Physicians may spend disproportionately more time in one primary specialty. Similarly, in the case of a physician who practiced in a specialty in more than one ZIP Code area, the initial weight was redistributed based on each ZIP Code area's population fraction to the combined population of all ZIP Code areas in question; or, in constructing county-level weight involving a ZIP Code area that crosses county boundaries, the ZIP Code-level weight was redistributed based on each county's population fraction to the ZIP Code area's total population. These ZIP Code-level and county-level weighting techniques no doubt improve the estimation of the physician distribution when compared with the situation in which the analyst has to arbitrarily choose which ZIP Code area and county to assign the physician. However, the precision resulting from these weighting schemes remains unknown.

Yet another issue, though not necessarily a source of error, is that this study's method does not take into consideration physicians in bordering states providing services to Washington residents. For example, Clark County sits across the Columbia River from the greater Portland area in Oregon. Some Clark residents use physician services in the Portland area. Therefore, the actual physician supply would be larger than estimated in this report if physicians in neighboring states serving Washington residents had been included.

Data Tables

Table A1. Physician Count, Characteristics and Rates: Washington, 2017 and 2018

	2017			2018		
	Total	Male	Female	Total	Male	Female
Overall Count						
All Physicians	18,741	11,731	7,009	19,159	11,865	7,293
Characteristics						
% Female	37.4%			38.1%		
Median Age	49	52	45	49	51	45
% Rural	5.8%	6.4%	4.8%	6%	7%	5%
% PCP	35.6%	30.1%	44.7%	35.0%	29.7%	43.6%
Rates Per 100,000 Population						
Other Specialty	68			68		
Family Medicine/General Practice	44			45		
Internal Medicine (General)	32			32		
Emergency Medicine	16			17		
Anesthesiology	15			16		
Radiology	14			14		
OB/GYN	13			13		
Pediatrics (General)	14			13		
Psychiatry	9			9		
Orthopedic Surgery	9			9		
Cardiology	7			7		
Surgery (General)	7			7		
Hospitalist	6			7		

Table A2. Total Physicians, Physician Characteristics and Rates of PCPs and Specialists: Counties, 2017

County	Count	Physician Characteristics			Physicians Per 100,000 Population		
		Median Age	% Female	% PCP	Overall	PCP	Specialist
State	18,741	50	37.4	35.6	256	91	165
Adams	18	58	14.9	48.3	93	45	48
Asotin	72	54	30.2	43.2	321	139	182
Benton	669	50	29.9	28.1	346	97	249
Chelan	394	50	32.0	39.3	512	201	311
Clallam	181	54	35.0	52.0	244	127	117
Clark	1,091	49	39.0	40.6	232	94	137
Columbia	6	59	31.9	83.5	143	120	*
Cowlitz	182	49	37.3	44.4	172	76	95
Douglas	10	50	38.8	62.9	25	16	9
Ferry	8	51	22.1	70.7	99	70	*
Franklin	95	53	26.8	42.2	105	44	61
Garfield	1	*	*	*	*	*	*
Grant	115	50	32.2	30.6	120	37	83
Grays Harbor	107	51	28.0	30.9	147	45	101
Island	69	55	24.5	40.1	84	33	50
Jefferson	46	53	44.7	48.4	146	71	75
King	7,586	49	42.6	33.0	352	116	236
Kitsap	387	51	36.1	35.8	147	52	94
Kittitas	89	54	25.4	32.5	199	65	135
Klickitat	65	51	18.7	37.4	301	113	188
Lewis	152	52	33.9	46.4	197	91	105
Lincoln	9	52	35.2	78.7	84	66	*
Mason	69	50	31.2	34.0	109	37	72
Okanogan	75	54	29.0	33.3	177	59	118
Pacific	25	60	14.9	34.5	120	41	78
Pend Oreille	22	51	22.6	32.5	161	53	109
Pierce	1,673	50	33.5	32.2	195	63	132
San Juan	14	58	15.3	40.9	82	34	49
Skagit	349	52	32.6	38.5	282	108	173
Skamania	7	52	35.5	70.6	62	44	*
Snohomish	1,497	49	40.4	39.8	190	75	114
Spokane	1,486	50	31.8	34.1	297	101	196
Stevens	36	53	31.8	54.6	81	44	37
Thurston	528	50	37.0	41.1	191	78	112
Wahkiakum	0	*	*	*	*	*	*
Walla Walla	235	52	20.6	34.2	383	131	252
Whatcom	738	49	34.9	46.1	341	157	184
Whitman	87	50	29.1	41.1	179	74	106
Yakima	548	51	28.3	32.4	217	70	147

PCP includes physicians in the following specialties: family medicine, general practice, geriatrics, internal medicine and pediatrics.

* The underlying count of physicians is less than three.

Table A3. Total Physicians, Physician Characteristics and Rates of PCPs and Specialists: Counties, 2018

County	Count	Physician Characteristics			Physicians Per 100,000 Population		
		Median Age	% Female	% PCP	Overall	PCP	Specialist
State	19,159	50	38.1	35.0	258	90	168
Adams	23	58	11.6	48.4	113	55	59
Asotin	68	55	30.7	45.9	304	140	165
Benton	724	50	30.7	26.3	367	96	270
Chelan	362	50	34.7	37.9	465	176	289
Clallam	176	54	36.1	54.2	235	127	108
Clark	1,094	49	40.1	37.6	228	86	142
Columbia	6	59	26.2	71.4	136	97	*
Cowlitz	212	50	37.9	39.6	197	78	119
Douglas	19	45	36.4	42.7	46	20	26
Ferry	9	48	17.7	69.9	110	77	*
Franklin	90	53	25.6	43.5	98	43	55
Garfield	2	*	*	*	*	*	*
Grant	159	51	30.9	32.6	164	53	110
Grays Harbor	157	49	32.5	33.1	214	71	143
Island	71	56	24.5	42.1	85	36	49
Jefferson	54	54	41.3	46.3	171	79	92
King	8,047	49	43.2	32.8	367	121	247
Kitsap	366	52	33.9	36.5	137	50	87
Kittitas	89	52	26.4	31.3	196	61	135
Klickitat	73	51	25.3	32.6	334	109	225
Lewis	212	49	35.5	38.3	270	103	167
Lincoln	9	54	44.3	75.7	82	62	*
Mason	58	50	27.1	44.8	91	41	50
Okanogan	77	56	28.1	20.4	181	37	144
Pacific	24	56	16.8	41.8	112	47	65
Pend Oreille	31	48	21.1	34.9	228	79	148
Pierce	1,598	51	33.7	30.9	183	57	127
San Juan	13	58	17.2	28.0	80	22	57
Skagit	341	52	35.3	43.3	270	117	153
Skamania	7	52	47.3	59.2	62	37	25
Snohomish	1,394	50	39.6	39.6	173	69	105
Spokane	1,398	50	32.1	33.3	275	92	184
Stevens	38	52	34.8	47.9	85	41	44
Thurston	506	50	38.0	42.1	180	76	104
Wahkiakum	0	*	*	*	*	*	*
Walla Walla	255	52	24.2	31.7	412	130	282
Whatcom	752	49	35.1	46.2	341	158	184
Whitman	99	49	33.3	33.2	200	67	134
Yakima	544	51	30.1	34.4	214	73	140

PCP includes physicians in the following specialties: family medicine, general practice, geriatrics, internal medicine and pediatrics.

* The underlining count of physicians is less than three.

Table A4. Number of Physicians by Specialty: Counties, 2017

County	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>STATE</u>	1,127	546	1,203	3,241	445	2,365	959	652	997	670	1,048	521	4,967
Adams	0	0	6	8	0	0	2	0	1	1	0	1	0
Asotin	4	1	5	18	4	8	3	0	5	0	3	8	13
Benton	34	28	45	76	30	57	30	30	53	11	68	15	193
Chelan	22	13	20	79	5	52	12	15	21	11	50	13	80
Clallam	4	8	15	64	5	24	4	9	5	4	4	7	29
Clark	48	39	47	235	17	151	92	37	55	26	45	23	277
Columbia	0	0	0	4	0	0	0	0	1	1	0	0	0
Cowlitz	7	5	7	46	5	21	5	7	14	13	2	6	44
Douglas	0	0	1	4	0	2	1	0	1	0	0	0	1
Ferry	0	0	0	5	1	0	0	0	0	0	0	0	0
Franklin	9	1	7	17	2	15	9	2	7	1	11	4	12
Garfield	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant	0	2	39	29	1	4	4	1	2	1	25	4	3
Grays Harbor	7	2	29	17	4	11	2	3	5	0	7	3	15
Island	4	0	11	17	0	8	5	3	3	3	0	7	8
Jefferson	0	0	5	12	1	10	0	3	0	2	1	7	4
King	495	214	371	1,062	145	1,014	404	247	398	352	357	172	2,355
Kitsap	26	11	30	68	3	33	26	13	36	14	18	8	101
Kittitas	0	0	31	19	2	6	5	5	4	1	0	5	10
Klickitat	1	1	3	24	0	0	0	3	0	0	23	6	2
Lewis	11	3	9	34	8	26	3	5	11	4	18	4	18
Lincoln	0	0	0	4	1	3	0	0	0	0	0	1	0
Mason	0	1	12	14	2	7	5	3	3	3	13	4	3
Okanogan	0	2	15	21	1	4	3	4	0	2	15	5	4
Pacific	0	0	7	7	0	2	1	0	0	1	4	3	2
Pend Oreille	1	0	6	7	0	1	0	1	0	0	4	2	1
Pierce	141	34	141	279	33	153	102	62	104	46	91	62	425
San Juan	0	1	1	5	0	0	0	0	0	2	1	0	4
Skagit	11	12	15	73	6	42	19	16	19	15	14	14	93
Skamania	0	0	0	5	0	0	0	0	0	1	0	0	1
Snohomish	76	36	90	319	43	179	53	60	93	46	91	42	370
Spokane	90	54	90	249	31	192	73	65	57	57	43	38	448
Stevens	0	1	3	14	5	5	1	1	0	1	0	1	4
Thurston	23	17	34	107	11	75	27	17	33	13	25	17	128
Wahkiakum	0	0	0	0	0	0	0	0	0	0	0	0	0
Walla Walla	39	10	22	42	2	30	9	7	9	1	14	7	44
Whatcom	50	16	35	140	53	169	18	15	25	21	29	15	152
Whitman	0	4	9	21	2	8	3	6	6	3	11	4	10
Yakima	23	30	45	97	23	54	36	14	27	13	61	14	111

Table A5. Number of Physicians by Specialty: Counties, 2018

County	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>State</u>	1,173	555	1,282	3,316	523	2,365	968	672	968	676	1,055	550	5,058
Adams	0	0	6	9	1	1	2	0	1	1	1	1	0
Asotin	4	1	4	15	4	12	3	0	5	1	1	8	12
Benton	46	33	54	70	31	55	30	30	61	14	65	15	217
Chelan	20	11	24	72	5	41	11	15	21	10	44	11	74
Clallam	1	10	11	67	5	23	6	8	5	3	2	9	28
Clark	53	38	55	190	14	157	109	38	63	30	31	28	288
Columbia	0	0	1	3	0	0	0	0	1	1	0	0	0
Cowlitz	11	7	11	46	7	26	8	6	12	9	4	8	56
Douglas	2	1	1	4	0	3	1	0	1	1	1	1	3
Ferry	0	0	0	5	2	0	0	0	0	0	0	0	0
Franklin	2	2	6	16	1	16	9	1	6	1	14	4	12
Garfield	0	0	0	1	0	0	0	0	0	0	0	0	0
Grant	2	4	46	38	1	11	6	3	2	2	25	4	14
Grays Harbor	6	3	34	27	9	20	4	3	5	2	16	6	23
Island	4	1	11	18	0	9	5	3	3	5	0	7	6
Jefferson	0	0	7	13	1	12	2	4	0	2	1	7	4
King	530	229	390	1,180	184	1,039	396	274	396	378	365	199	2,488
Kitsap	25	11	31	81	4	31	25	15	20	10	15	10	89
Kittitas	0	1	34	21	1	6	5	4	1	0	0	5	10
Klickitat	0	3	7	24	0	0	0	3	0	0	30	4	4
Lewis	22	4	42	42	8	23	4	5	16	4	13	4	26
Lincoln	0	0	0	5	1	2	0	0	0	0	0	1	0
Mason	0	0	12	15	2	8	5	3	3	0	3	4	3
Okanogan	0	1	23	14	1	2	4	3	0	1	22	5	3
Pacific	0	0	7	8	0	2	1	0	0	0	2	1	2
Pend Oreille	1	0	8	11	0	0	1	1	0	0	4	4	1
Pierce	151	31	120	249	51	151	92	52	91	46	88	53	423
San Juan	0	1	0	2	0	1	0	0	0	3	1	0	4
Skagit	8	15	8	91	8	31	17	17	26	12	13	16	80
Skamania	0	0	0	4	0	0	0	0	0	1	0	0	2
Snohomish	67	30	90	315	35	156	65	61	78	39	104	42	312
Spokane	70	47	100	234	23	173	60	62	53	48	48	34	446
Stevens	0	2	6	13	4	5	2	1	0	0	0	0	5
Thurston	29	16	33	107	15	74	22	20	31	14	14	16	116
Wahkiakum	0	0	0	0	0	0	0	0	0	0	0	0	0
Walla Walla	47	10	22	42	7	30	8	5	9	2	15	10	48
Whatcom	52	12	19	139	81	180	20	14	24	20	28	15	148
Whitman	0	3	14	22	3	5	4	6	6	5	19	6	6
Yakima	21	30	43	102	16	57	41	15	28	12	65	14	100

Table A6. Physicians per 100,000 Population by Specialty: Counties, 2017

County	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>STATE</u>	15	7	16	44	6	32	13	9	14	9	14	7	68
Adams	*	*	28	41	*	*	*	*	*	*	*	*	*
Asotin	18	*	22	79	20	38	13	*	22	*	*	37	57
Benton	18	14	23	39	16	29	15	15	27	6	35	8	100
Chelan	29	17	26	103	6	68	16	20	27	14	65	18	104
Clallam	5	11	20	87	7	33	5	12	7	5	5	9	39
Clark	10	8	10	50	4	32	20	8	12	6	9	5	59
Columbia	*	*	*	101	*	*	*	*	*	*	*	*	*
Cowlitz	7	5	7	44	4	20	5	6	13	12	*	6	42
Douglas	*	*	*	10	*	*	*	*	*	*	*	*	*
Ferry	*	*	*	68	*	*	*	*	*	*	*	*	*
Franklin	10	*	7	19	*	16	10	*	7	*	12	4	13
Garfield	*	*	*	*	*	*	*	*	*	*	*	*	*
Grant	*	*	41	30	*	4	4	*	*	*	26	4	4
Grays Harbor	10	*	40	23	6	16	*	5	7	*	9	5	20
Island	5	*	13	20	*	10	6	4	4	4	*	9	9
Jefferson	*	*	16	38	*	33	*	11	*	*	*	22	13
King	23	10	17	49	7	47	19	11	18	16	17	8	109
Kitsap	10	4	11	26	*	12	10	5	14	5	7	3	38
Kittitas	*	*	70	44	*	13	10	12	8	*	*	12	23
Klickitat	*	*	16	112	*	*	*	14	*	*	108	28	*
Lewis	15	*	11	43	10	34	4	7	14	5	23	5	24
Lincoln	*	*	*	40	*	*	*	*	*	*	*	*	*
Mason	*	*	19	22	*	10	8	5	*	*	21	6	*
Okanogan	*	*	37	49	*	10	8	9	*	*	35	11	10
Pacific	*	*	31	32	*	*	*	*	*	*	17	*	*
Pend Oreille	*	*	42	49	*	*	*	*	*	*	33	*	*
Pierce	16	4	16	32	4	18	12	7	12	5	11	7	49
San Juan	*	*	*	31	*	*	*	*	*	*	*	*	23
Skagit	9	10	12	59	5	34	16	13	15	12	11	11	75
Skamania	*	*	*	44	*	*	*	*	*	*	*	*	*
Snohomish	10	5	11	40	5	23	7	8	12	6	12	5	47
Spokane	18	11	18	50	6	38	15	13	11	11	9	8	90
Stevens	*	*	*	32	11	12	*	*	*	*	*	*	8
Thurston	8	6	12	39	4	27	10	6	12	5	9	6	46
Wahkiakum	*	*	*	*	*	*	*	*	*	*	*	*	*
Walla Walla	63	16	35	68	*	48	15	11	14	*	22	12	72
Whatcom	23	7	16	65	25	78	8	7	12	10	13	7	70
Whitman	*	8	19	43	*	16	6	12	13	6	23	8	21
Yakima	9	12	18	38	9	21	14	5	11	5	24	6	44

* The underlining count of physicians is less than three.

Table A7. Physicians per 100,000 Population by Specialty: Counties, 2018

County	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>_State_</u>	16	7	17	45	7	32	13	9	13	9	14	7	68
Adams	*	*	29	46	*	*	*	*	*	*	*	*	*
Asotin	17	*	18	65	16	52	13	*	22	*	*	35	53
Benton	23	17	28	36	15	28	15	15	31	7	33	8	110
Chelan	26	14	31	93	6	53	15	20	27	13	57	14	95
Clallam	*	13	15	90	6	31	8	10	6	*	*	11	37
Clark	11	8	12	40	3	33	23	8	13	6	6	6	60
Columbia	*	*	*	81	*	*	*	*	*	*	*	*	*
Cowlitz	10	7	10	42	6	24	7	6	11	8	4	8	52
Douglas	*	*	*	10	*	8	*	*	*	*	*	*	8
Ferry	*	*	*	70	*	*	*	*	*	*	*	*	*
Franklin	*	*	7	18	*	17	9	*	7	*	15	5	13
Garfield	*	*	*	*	*	*	*	*	*	*	*	*	*
Grant	*	4	48	39	*	12	6	*	*	*	26	4	15
Grays Harbor	8	4	46	36	12	27	6	*	7	*	21	8	32
Island	4	*	14	21	*	11	6	4	4	5	*	8	7
Jefferson	*	*	23	42	*	37	*	13	*	*	*	23	13
King	24	10	18	54	8	47	18	12	18	17	17	9	114
Kitsap	9	4	11	30	1	12	9	6	7	4	6	4	33
Kittitas	*	*	75	46	*	13	12	8	*	*	*	11	22
Klickitat	*	*	31	108	*	*	*	*	*	*	135	16	18
Lewis	28	6	53	53	10	30	5	6	20	5	17	5	33
Lincoln	*	*	*	47	*	*	*	*	*	*	*	*	*
Mason	*	*	19	23	*	13	8	*	5	*	5	6	5
Okanogan	*	*	54	32	*	*	9	*	*	*	51	11	*
Pacific	*	*	31	37	*	*	*	*	*	*	*	*	*
Pend Oreille	*	*	60	79	*	*	*	*	*	*	32	30	*
Pierce	17	4	14	29	6	17	11	6	10	5	10	6	49
San Juan	*	*	*	*	*	*	*	*	*	*	*	*	26
Skagit	6	11	6	72	6	25	14	13	21	9	10	13	63
Skamania	*	*	*	37	*	*	*	*	*	*	*	*	*
Snohomish	8	4	11	39	4	19	8	8	10	5	13	5	39
Spokane	14	9	20	46	5	34	12	12	10	9	9	7	88
Stevens	*	*	13	29	9	11	*	*	*	*	*	*	11
Thurston	10	6	12	38	5	26	8	7	11	5	5	6	41
Wahkiakum	*	*	*	*	*	*	*	*	*	*	*	*	*
Walla Walla	76	17	35	68	11	49	13	8	14	*	25	16	78
Whatcom	23	5	9	63	37	82	9	6	11	9	13	7	67
Whitman	*	*	29	46	6	9	8	12	12	10	39	11	13
Yakima	8	12	17	40	6	22	16	6	11	5	26	5	39

* The underlining count of physicians is less than three.

Table A8. Total Physicians, Physician Characteristics and Rates of PCPs and Specialists: ACHs, 2017

ACH	Physician Characteristics				Physicians Per 100,000 Population		
	Count	Median Age	% Female	% PCP	Overall	PCP	Specialist
State	18,741	50	37.4	35.6	256	91	165
Better Health Together	1,579	50	31.4	35.1	265	93	172
Cascade Pacific Action Alliance	1,064	50	34.8	40.8	171	70	101
Elevate Health	1,673	49	33.5	32.2	195	63	132
Greater Columbia ACH	1,802	50	27.8	32.6	250	81	169
HealthierHere	7,586	48	42.6	33.0	352	116	236
North Central ACH	593	50	31.8	37.3	232	86	145
North Sound ACH	2,667	48	37.3	41.4	217	90	127
Olympic Community of Health	614	52	36.4	41.5	166	69	97
SWACH	1,163	47	37.8	40.6	231	94	137

PCP includes physicians in the following specialties: family medicine, general practice, geriatrics, internal medicine and

* The underlining count of physicians is less than three.

Table A9. Total Physicians, Physician Characteristics and Rates of PCPs and Specialists: ACHs, 2018

ACH	Physician Characteristics				Physicians Per 100,000 Population		
	Count	Median Age	% Female	% PCP	Overall	PCP	Specialist
State	19,159	50	38.1	35.0	258	90	168
Better Health Together	1,507	50	31.6	34.3	249	86	164
Cascade Pacific Action Alliance	1,169	49	35.8	39.9	185	74	111
Elevate Health	1,598	50	33.7	30.9	183	57	127
Greater Columbia ACH	1,877	50	29.3	31.7	257	81	176
HealthierHere	8,047	48	43.2	32.8	367	121	247
North Central ACH	618	50	33.0	34.5	238	82	156
North Sound ACH	2,572	49	37.2	42.0	205	86	119
Olympic Community of Health	596	53	35.2	42.6	160	68	92
SWACH	1,175	47	39.2	37.4	229	86	143

PCP includes physicians in the following specialties: family medicine, general practice, geriatrics, internal medicine and

* The underlining count of physicians is less than three.

Table A10. Number of Physicians by Specialty: ACHs, 2017

ACH	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>State</u>	1,127	546	1,203	3,241	445	2,365	959	652	997	670	1,048	521	4,967
Better Health Together	91	55	104	287	38	201	76	67	57	59	48	42	453
Cascade Pacific Action Alliance	48	28	98	225	30	142	45	36	65	34	68	36	210
Elevate Health	141	34	141	279	33	153	102	62	104	46	91	62	425
Greater Columbia ACH	109	74	164	294	65	177	94	63	111	31	168	58	394
HealthierHere	495	214	371	1,062	145	1,014	404	247	398	352	357	172	2,355
North Central ACH	23	17	75	132	6	62	20	20	24	13	90	22	89
North Sound ACH	141	65	151	553	102	398	95	94	141	88	135	79	626
Olympic Community of Health	30	20	50	144	8	67	30	25	41	20	23	21	134
SWACH	49	40	50	264	17	151	92	40	55	27	68	29	281

Table A11. Number of Physicians by Specialty: ACHs, 2018

ACH	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>State</u>	1,173	555	1,282	3,316	523	2,365	968	672	968	676	1,055	550	5,058
Better Health Together	71	49	121	277	30	181	64	64	54	49	54	40	452
Cascade Pacific Action Alliance	67	31	138	244	40	154	45	37	67	29	53	39	226
Elevate Health	151	31	120	249	51	151	92	52	91	46	88	53	423
Greater Columbia ACH	120	80	178	293	63	181	100	62	117	36	180	61	407
HealthierHere	530	229	390	1,180	184	1,039	396	274	396	378	365	199	2,488
North Central ACH	25	16	94	128	7	58	22	21	24	15	92	21	95
North Sound ACH	130	57	129	565	125	378	107	95	131	79	146	80	551
Olympic Community of Health	26	21	49	162	9	66	33	26	25	15	17	26	121
SWACH	54	40	62	218	14	157	109	40	63	31	60	31	294

Table A12. Physicians per 100,000 Population by Specialty: ACHs, 2017

ACH	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>_State_</u>	15	7	16	44	6	32	13	9	14	9	14	7	68
Better Health Together	15	9	17	48	6	34	13	11	10	10	8	7	76
Cascade Pacific Action Alliance	8	4	16	36	5	23	7	6	11	5	11	6	34
Elevate Health	16	4	16	32	4	18	12	7	12	5	11	7	49
Greater Columbia ACH	15	10	23	41	9	25	13	9	15	4	23	8	55
HealthierHere	23	10	17	49	7	47	19	11	18	16	17	8	109
North Central ACH	9	7	29	52	2	24	8	8	9	5	35	9	35
North Sound ACH	11	5	12	45	8	32	8	8	11	7	11	6	51
Olympic Community of Health	8	5	13	39	2	18	8	7	11	5	6	6	36
SWACH	10	8	10	52	3	30	18	8	11	5	13	6	56

Table A13. Physicians per 100,000 Population by Specialty: ACHs, 2018

ACH	Anesthesiology	Cardiology	Emergency Medicine	Family Medicine/General Practice	Hospitalist	Internal Medicine (General)	OB/GYN	Orthopaedic Surgery	Pediatrics (General)	Psychiatry	Radiology	Surgery (General)	Other Specialty
<u>_STATE_</u>	16	7	17	45	7	32	13	9	13	9	14	7	68
Better Health Together	12	8	20	46	5	30	11	11	9	8	9	7	75
Cascade Pacific Action Alliance	11	5	22	39	6	24	7	6	11	5	8	6	36
Elevate Health	17	4	14	29	6	17	11	6	10	5	10	6	49
Greater Columbia ACH	16	11	24	40	9	25	14	8	16	5	25	8	56
HealthierHere	24	10	18	54	8	47	18	12	18	17	17	9	114
North Central ACH	10	6	36	49	3	22	8	8	9	6	35	8	36
North Sound ACH	10	5	10	45	10	30	9	8	10	6	12	6	44
Olympic Community of Health	7	6	13	43	2	18	9	7	7	4	5	7	32
SWACH	10	8	12	42	3	31	21	8	12	6	12	6	57

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