2021–23 Physician Assistant Supply in Provider Networks:

Estimates for Washington

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Executive summary

Physician assistants (PAs) play a vital role in Washington's growing healthcare workforce. Under physician supervision, PAs provide a wide range of medical services, including patient examinations, diagnoses, treatments, and prescriptions. They practice in diverse settings such as clinics and hospitals.

Previous reports documented a significant increase in Washington's PA workforce between 2017 and 2021, with the number of PAs rising from 36 to 46 per 100,000 population.[1] This report examines the continued growth of the PA workforce between 2021 and 2023, revealing a further increase from 46 to 50 PAs per 100,000 population.

Here is what we found

- **Overall PA supply growth:** The total number of PAs in provider networks increased from 4,795 in 2021 to 5,289 in 2023, equating to a rise from 46 to 50 PAs per 100,000 population. These PAs represented approximately 75% of PA license holders in Washington.
- **Expansion of primary and specialist care PAs:**
    - Primary care PAs grew from 716 in 2021 to 920 in 2023.
    - Specialist care PAs increased from 2,858 to 3,087, comprising over 75% of the total PA workforce.
    - Primary care PA rates rose from 9 to 12 per 100,000 population, while specialist care PA rates climbed from 37 to 39 per 100,000.
- **Gender Distribution:** Women made up approximately 60% of the PA workforce in categories of overall, primary care, and specialist care.
- **Age trend:**
    - The median age of PAs remained stable at 41 across all three years, except for primary care PAs in 2023, who had a median age of 42.
    - Female PAs tended to be younger than their male counterparts, with a median age of 39 compared to 44. This gender gap in median age was more pronounced among specialist care PAs than primary care PAs.
- **County variations:**
    - King County accounted for over one-third of the state's PA workforce, with Pierce County contributing an additional 11%. Three other urban counties—Clark, Snohomish, and Spokane—each held between about 7% and 8% of the total supply. The remaining counties each had less than 5%, with most of the counties having less than 1% each.

[1] See our previous reports on physician assistant supply at https://ofm.wa.gov/washington-data-research/health-care/health-care-workforce.

- Chelan County had the highest overall PA rates, with over 130 PAs per 100,000 population, consistently surpassing statewide rates.
- Female representation in PAs varied widely by county, ranging from a three-year average of 23% in Pend Oreille to 98% in San Juan.
- The three-year average median age of PAs was relatively consistent across most counties, but nine rural counties had the highest median ages (45–56).

- **Accountable Communities of Health differences:**
  - Of the state's nine Accountable Communities of Health (ACH, each consisting of one or more counties as a coalition in providing health care services), HealthierHere (King County) had over one-third of the state's total PA workforce. The remaining ACHs each accounted for a share between 3% and 13%.
  - The Thriving Together NCW led the ACHs in overall PA rates (more than 60 PAs per 100,000 population) and the primary care PA rates (over 19 per 100,000).
  - The three-year average percentage of female PAs ranged from 49% (Better Health Together) to 67% (HealthierHere). The ACHs situated along Puget Sound had the highest percentages.
  - The three-year average median age varied slightly among the ACHs, ranging from 40 (Elevate Health, HealthierHere, and SWACH) to 44 (Better Health Together).

Data sources and methodology

Our analysis is based primarily on the **Network Adequacy Reports (NARs)**, which health insurance carriers are required to submit monthly to the Washington State Office of the Insurance Commissioner. These reports provide detailed individual provider information, including affiliation with one or more private provider networks delivering direct care across Washington.

We matched PA records from the NARs with data from two additional sources:

- **The Washington State Health Provider License Database**, which allows us to verify PA licensure status.
- **The National Plan & Provider Enumeration System**, which provides unique national provider identifiers (NPIs).

For PAs with multiple practice locations, we implemented a record weighting system that accounts for their distribution across different sites while preventing overcounting.[2]

[2] For detailed information on the data sources and method, see the "Data sources and method" section.

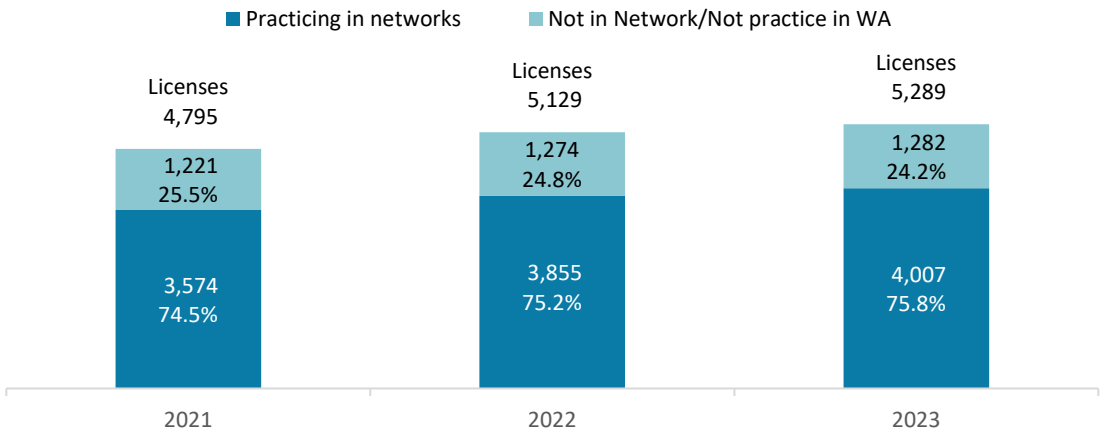
State's supply of physician assistants in provider networks

Overall supply

The number of physician assistant (PA) license holders in Washington steadily increased from 2021 to 2023. The largest growth occurred in 2022, with an increase of 334 PAs (from 4,795 in 2021 to 5,129). This was followed by a smaller rise of 160 in 2023, bringing the total to 5,289.

Each year, approximately three in four licensed PAs actively practiced within provider networks, with this share showing a slight upward trend—from 74.5% in 2021 to 75.8% in 2023. This translates to 3,574 PAs in provider networks in 2021, 3,855 in 2022, and 4,007 in 2023 (see Figure 1).

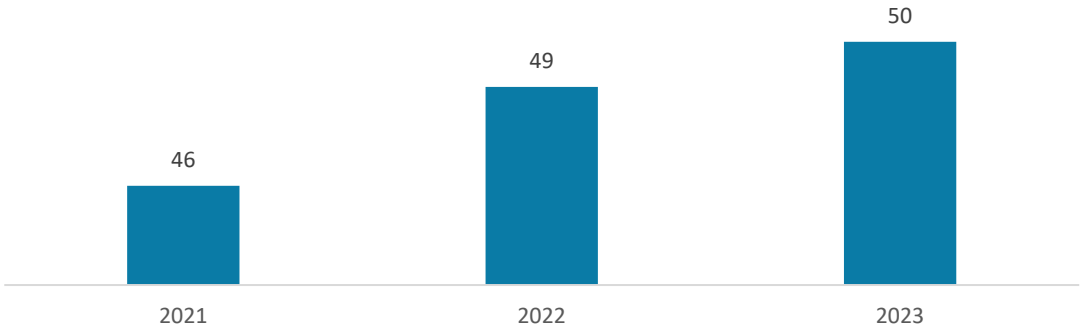
Figure 1. PAs with Washington licenses, number, and percentage practicing in provider networks: 2021–23



We use the term PA in the rest of this report to refer to physician assistants practicing in Washington's provider networks.

The number of PAs per 100,000 population in Washington experienced steady growth, increasing from 46 in 2021 to 49 in 2022, and reaching 50 in 2023 (see Figure 2). This trend indicates that the expansion of the PA workforce outpaced the state's overall population growth. The 2023 rate of 50 PAs per 100,000 population marks the highest level since our PA supply reporting began in 2017.

Figure 2. Total practicing PAs in provider networks per 100,000 population: Washington, 2021–23



Supplies in primary care and specialist care

Using health carrier-provided designations for primary care and specialist care, we estimated that specialist care PAs consistently outnumbered primary care PAs by approximately three to one each year. The proportion of primary care PAs grew slightly, rising from 20% in 2021 to 22.9% in 2023, with its highest share at 24.8% in 2022.

Specialist vs. primary care PA growth:

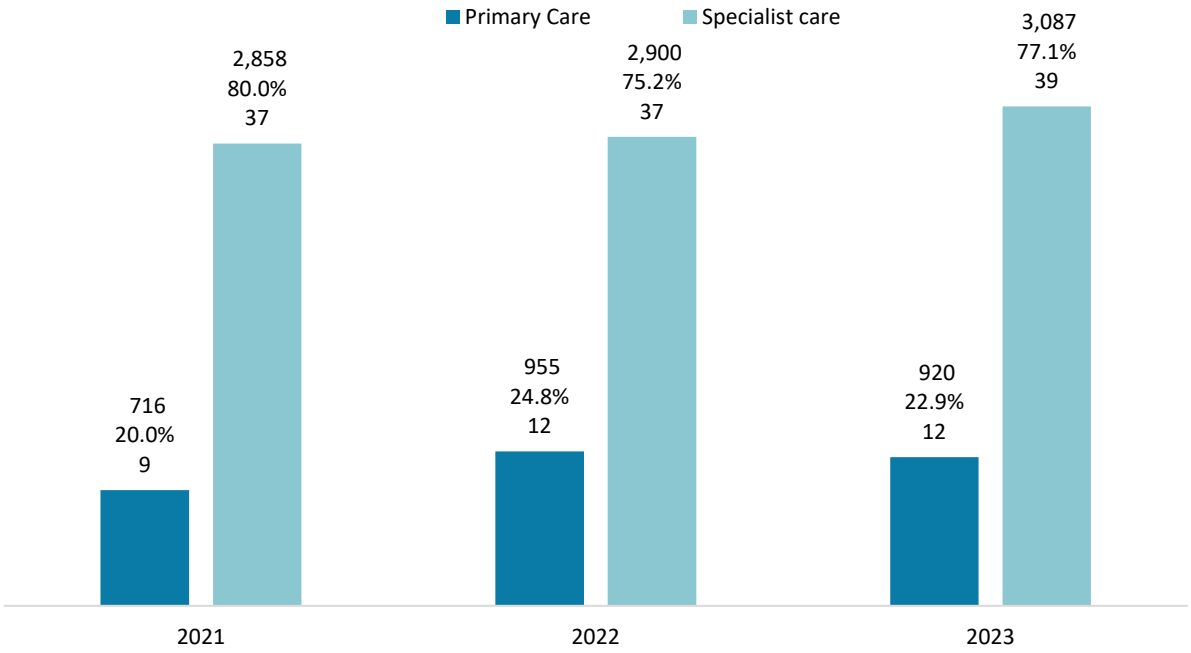
- Specialist care PAs experienced steady growth, increasing from 2,858 in 2021 to 2,900 in 2022, and further to 3,087 in 2023.
- Primary care PA supply saw a significant jump from 716 in 2021 to 955 in 2022 but declined slightly to 920 in 2023.

PAs per 100,000 population:

- Primary care PA rate grew from 9 to 12 PAs per 100,000 population between 2021 and 2022. However, from 2022 to 2023, the rate remained stable at 12 per 100,000.
- Specialist care PA rate followed a different pattern. Despite an increase in total specialist care PAs, the rate held steady at 37 per 100,000 population from 2021 to 2022. By 2023, it rose to 39 per 100,000.

(see Figure 3)

Figure 3. Number, percentage, and rate (per 100,000) of primary care and specialist care PAs in provider networks: Washington, 2021–23



(Numbers about each bar, from top to bottom, refer to: number of PAs, percentage of PAs, and number of PAs per 100,000 population)

Gender

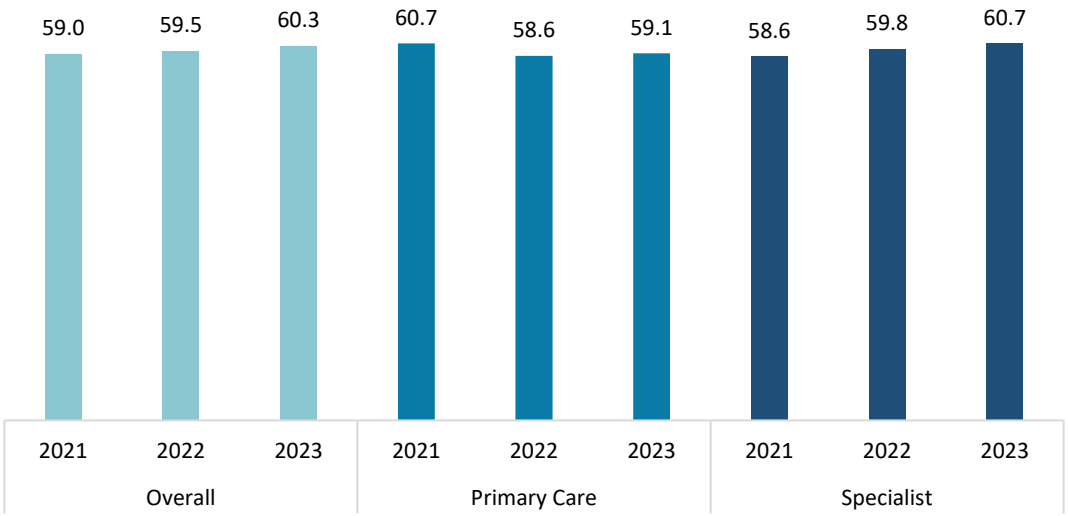
Women consistently represented the majority of Washington's PA workforce, accounting for approximately 60% of total PAs each year. This trend also held true across both primary care and specialist care PA roles.

While overall female representation in PA workforce increased slightly over time, primary care and specialist care PAs showed opposite shifts in gender distribution:

- Primary care PAs: The share of women declined slightly from 60.7% in 2021 to 59.1% in 2023, although its lowest point was at 58.6% in 2022.
- Specialist care PAs: In contrast, female representation steadily increased, rising from 58.6% in 2021 to 59.8% in 2022, and reaching 60.7% in 2023.

Because specialist care PAs make up a significantly larger share of the total workforce, the proportion of women in the total PA workforce largely mirrored trends among specialist care PAs. The female share of total PAs gradually grew, from 59% in 2021 to 59.5% in 2022, and finally to 60.3% in 2023 (see Figure 4).

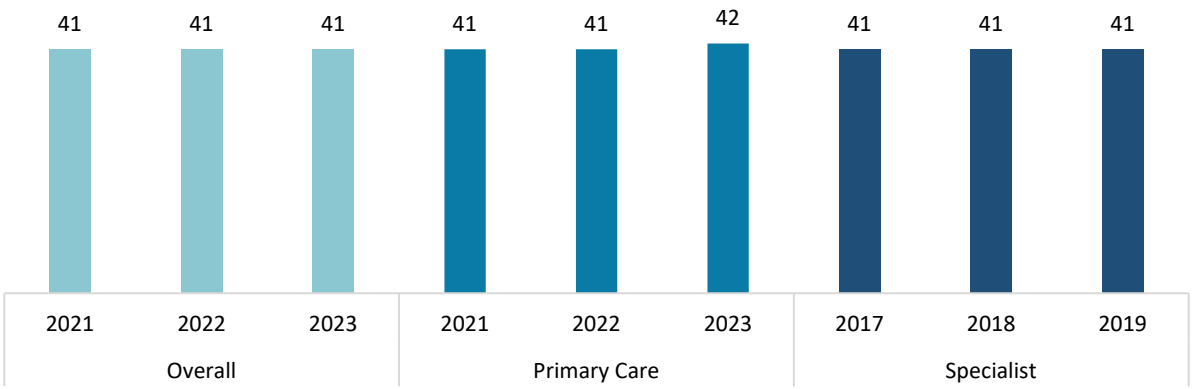
Figure 4. Percentage of females in overall, primary care, and specialist care PAs in provider networks: Washington, 2021–23



Median age

The median age of PAs remained largely unchanged across 2021, 2022, and 2023. For total PAs, primary care PAs, and specialist care PAs, the median age consistently stood at 41, with only one exception—primary care PAs had a slightly higher median age of 42 in 2023 (see Figure 5).

Figure 5. Median age of total, primary care, and specialist care PAs in provider networks: Washington, 2021–23



Median age differences between female and male PAs

While the overall median age of PAs remained constant at 41 across 2021, 2022, and 2023, distinct differences emerged when examining gender-specific trends.

Overall PA workforce

A persistent five-year age gap existed between male and female PAs. Throughout all three years, male PAs had a median age of 44, while female PAs were consistently younger, with a median age of 39.

Primary care PAs

The gender age gap was smaller among primary care PAs, ranging between two to three years:

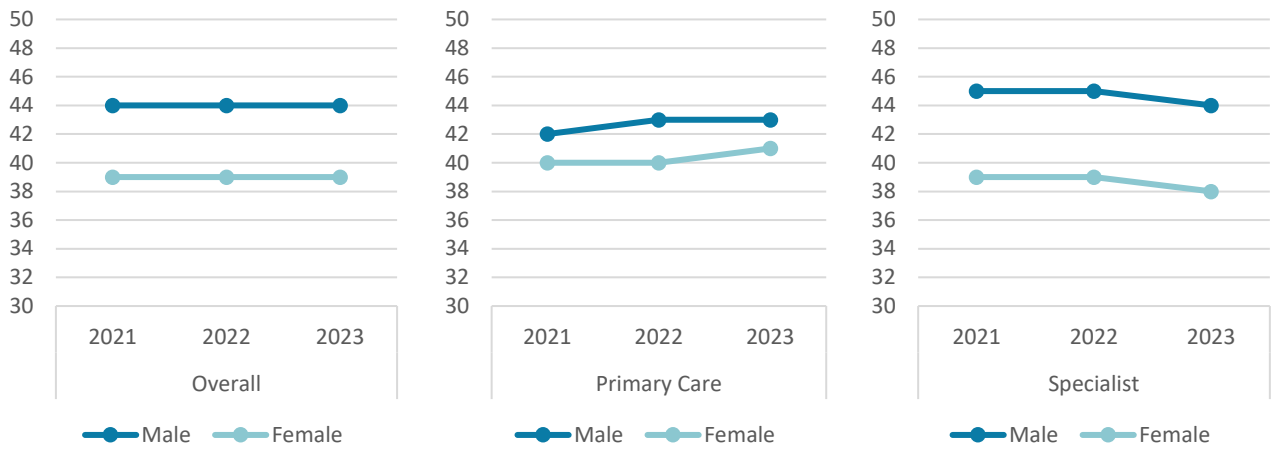
- Male primary care PAs had a median age of 42–43.
- Female primary care PAs had a median age of 41–42.

Specialist care PAs

The greatest gender age disparity was observed among specialist care PAs:

- In 2021 and 2022, male specialist care PAs had a median age of 45, while female specialist care PAs had a median age of 39, marking a six-year difference.
- In 2023, the median age dropped by one for both sexes and the six-year difference remained. (see Figure 6).

Figure 6. Median age of overall, primary care, and specialist care PAs in provider networks by gender: Washington, 2021–23



County supplies of PAs in provider networks

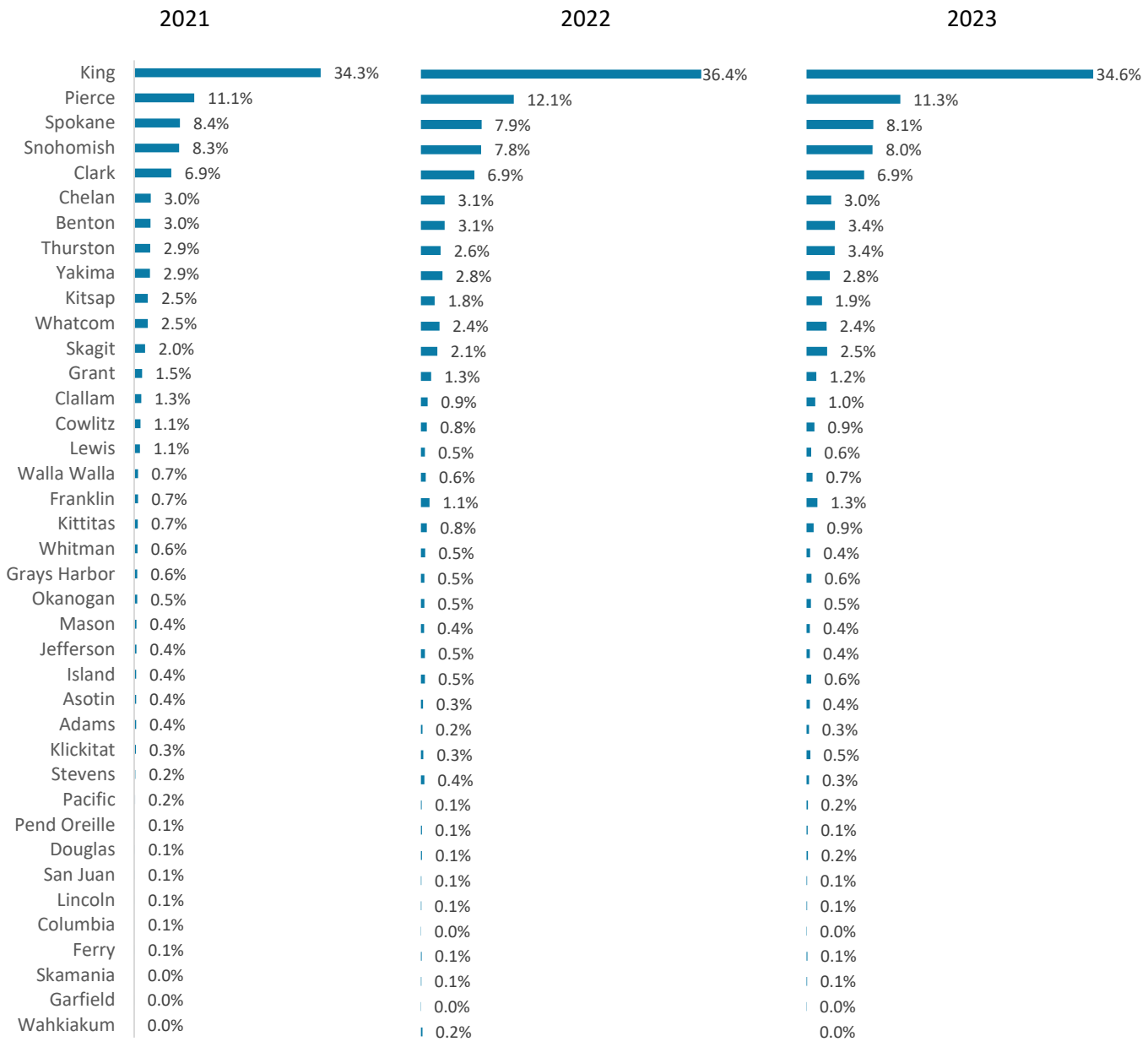
Counties: Overall supply

Washington's counties can be grouped into four tiers based on their shares of the state's total PA workforce:

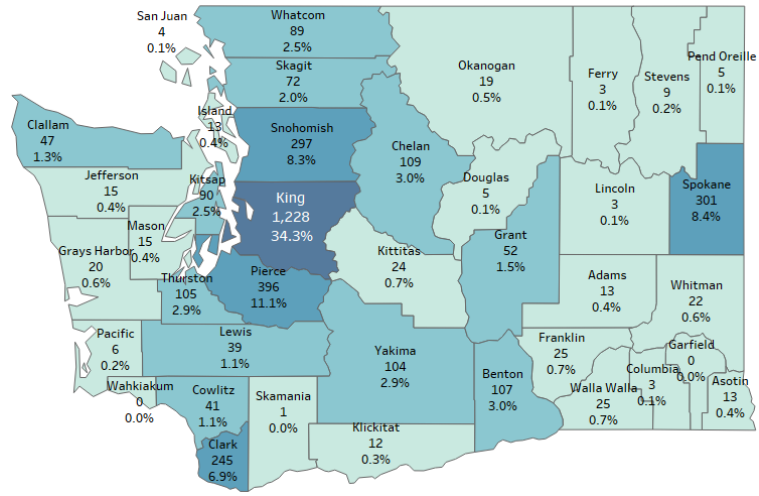
- Tier 1: King County, the largest contributor, consistently accounted for one-third of the total PA supply.
- Tier 2: Another four large urban counties—Clark, Pierce, Snohomish, and Spokane—each held between 7% and 12% of the state's total PAs.
- Tier 3: This tier fluctuated slightly by year, encompassing eight to eleven counties, each with a 1% to 3% share of the total PA workforce. Counties in this group included Chelan, Kitsap, and Lewis.
- Tier 4: The remaining two dozen counties each accounted for less than 1% of the total PA supply. Counties in this tier included Asotin, Island, and Wahkiakum.

While Tier 1 and Tier 2 rankings remained stable, minor shifts occurred among Tier 3 and Tier 4 counties over time (see Figure 7).

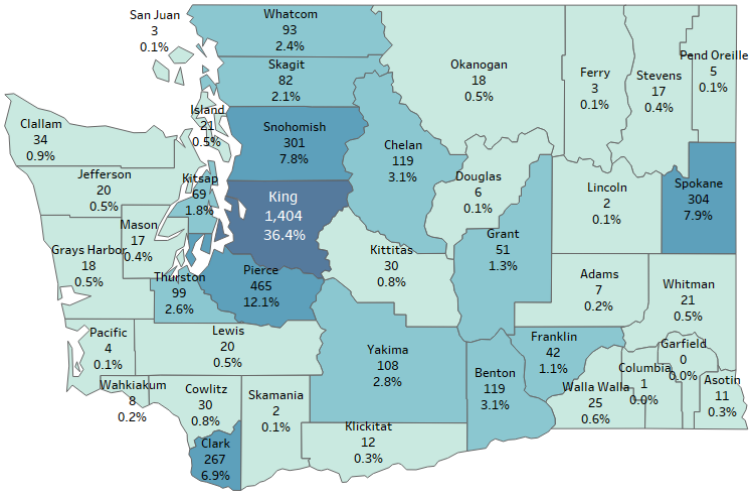
Figure 7. Percentage of state total PAs in provider networks: counties, 2021–23
(sorted by 2021 distribution); See Table 2 in the appendix for an accessible version of this data.



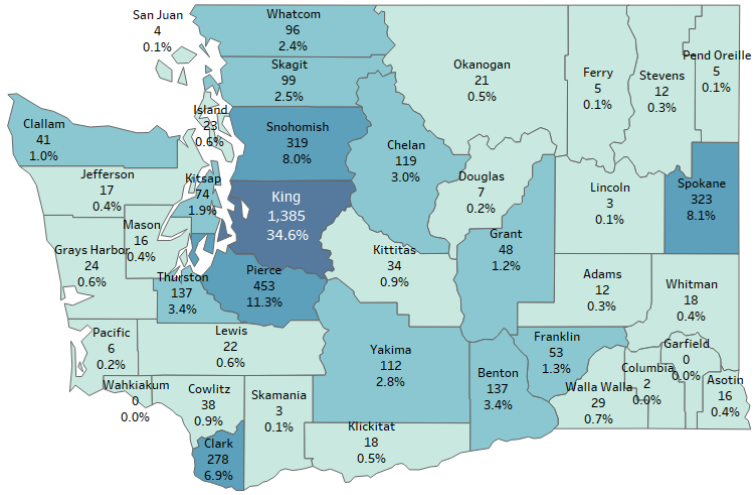
Map 1. Number and percent of PAs in provider networks: counties, 2021–23
See Table 2 in the appendix for an accessible version of this data.



2021



2022



2023

Counties: Number of overall PAs per 100,000 population

PA rates varied widely across Washington's counties:

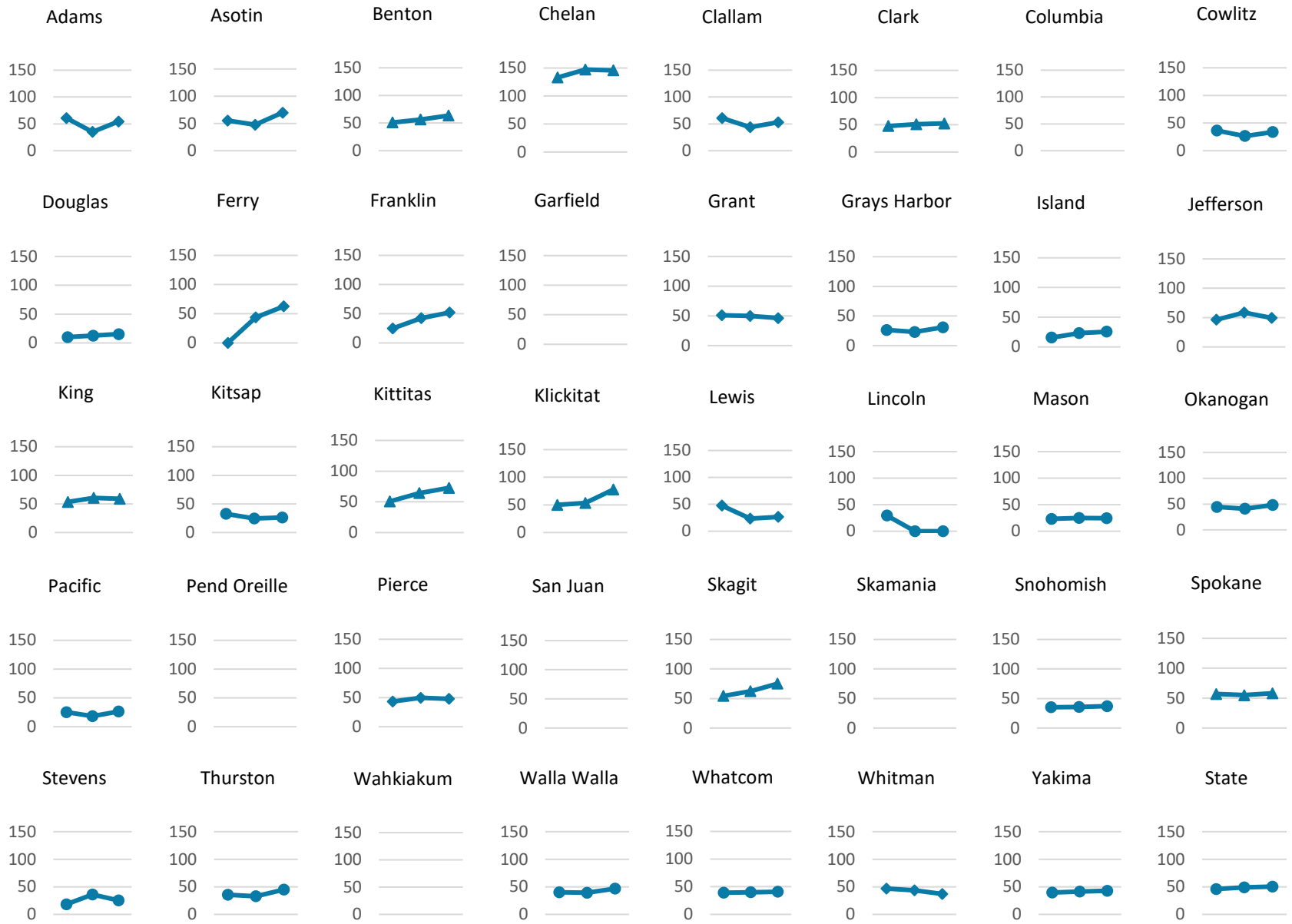
- Counties without sufficient data**:** Some counties lacked adequate PA numbers for overall rate calculations in one or more years. If there is no sufficient data, the overall PA rate is not reported for that year.
- Highest PA rate: Chelan County consistently had the highest overall PA rate, with 133 per 100,000 population in 2021, 147 in 2022, and 146 in 2023—about two to three times higher than the next highest county.
- Above-state average counties**:** Besides Chelan, another seven counties consistently exceeded the statewide PA rate (46 in 2021, 49 in 2022, and 50 in 2023):
    - Benton, Clark, King, Kittitas, Klickitat, Skagit, and Spokane.
- Below-state average counties: More than half (17) of the counties with sufficient PA data for rate calculation remained below the statewide PA rate each year, spanning diverse regions and population sizes:
    - Cowlitz, Douglas, Grays Harbor, Island, Kitsap, Lewis, Lincoln, Mason, Okanagan, Pacific, Snohomish, Stevens, Thurston, Walla Walla, Whatcom, Whitman, and Yakima.
- Fluctuating PA rates: Ten counties had PA rates above the state average in one year, but below it in another:
    - Adams, Asotin, Clallam, Ferry, Franklin, Grant, Jefferson, Lewis, Pierce, and Whitman.

(see Figure 8).

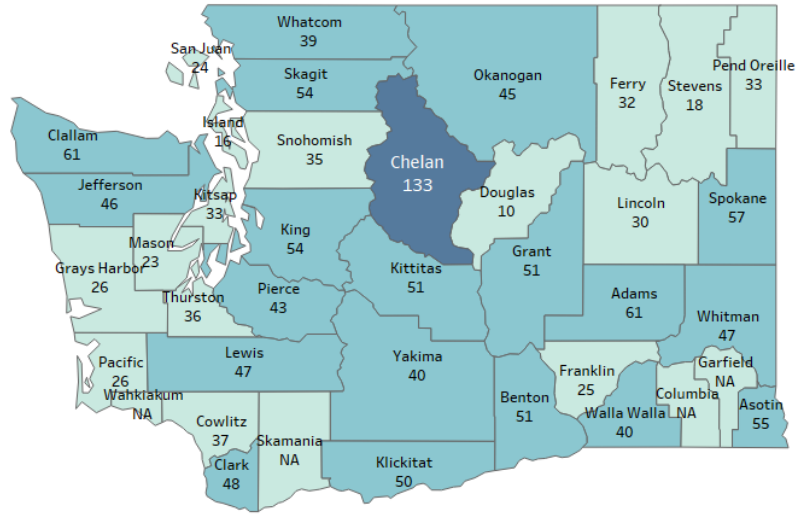
Figure 8. Number of overall PAs in provider networks per 100,000 population: counties, 2021–23

(▲= always above state rates; ●= always below state rates; ◆= fluctuating rates)

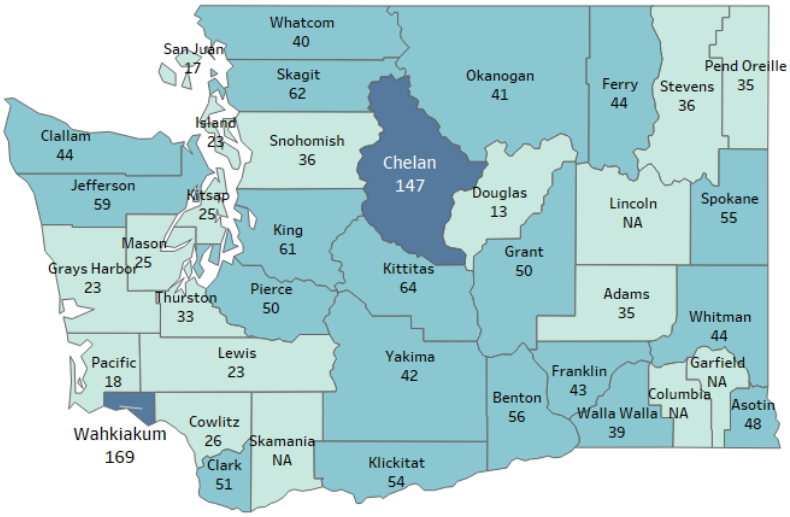
See Table 3 in the appendix for an accessible version of this data. If no data are shown, it means in one or more years, the number of PAs is less than 3.



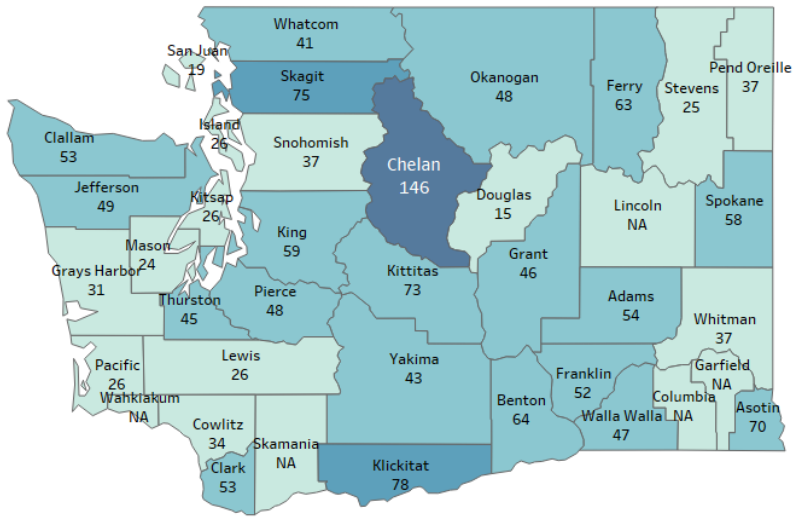
Map 2. Number of overall PAs in provider networks per 100,000 population: counties, 2021–23
See Table 3 in the appendix for an accessible version of this data.



2021



2022



2023

Counties: Number of primary care PAs per 100,000 population

The distribution of primary care PAs per 100,000 population varied significantly across Washington's counties:

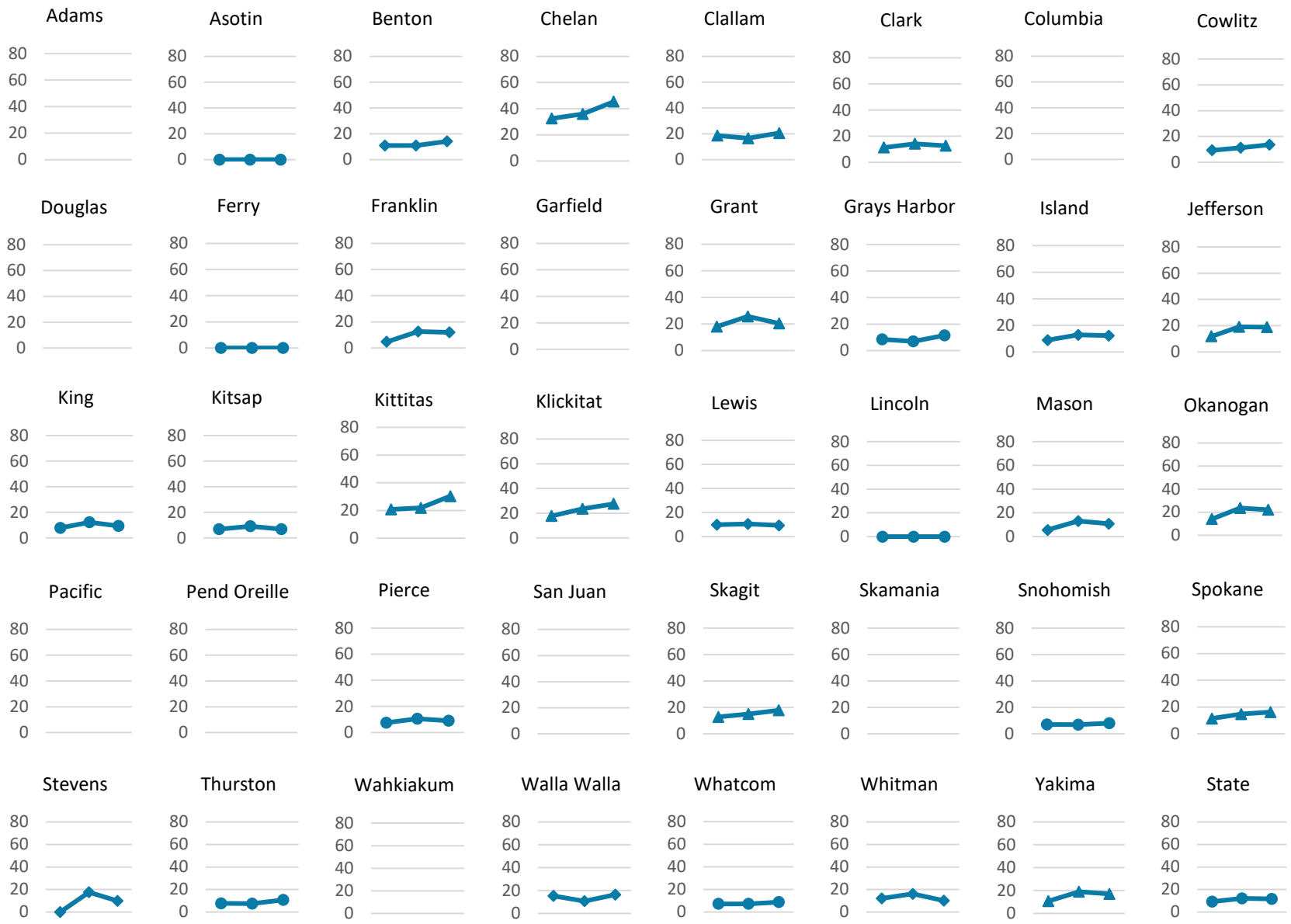
- Counties without sufficient data: Some counties lacked adequate PA numbers for primary care rate calculations in one or more years. If there is no sufficient data, the primary care PA rate is not reported for that year.
- Highest primary care PA rate: Chelan County led all other counties each year, with its rate steadily increasing from 32 per 100,000 in 2021 to 36 in 2022 and reaching 45 in 2023.
- Counties consistently above the statewide rate: Besides Chelan, ten other counties maintained primary care PA rates higher than the statewide average (9 per 100,000 in 2021 and 12 per 100,000 in both 2022 and 2023):
    - Clallam, Clark, Grant, Jefferson, Kittitas, Klickitat, Okanagan, Skagit, Spokane, and Yakima.
- Counties consistently below the statewide rate: Seven counties—including some with large populations—remained below the statewide rate in all three years:
    - Grays Harbor, King, Kitsap, Pierce, Snohomish, Thurston, and Whatcom.
- Counties with fluctuating rates: Nine counties had primary care PA rates that were higher than the state rate in one year but lower in another:
    - Benton, Cowlitz, Franklin, Island, Lewis, Mason, Stevens, Walla Walla, and Whitman.

(see Figure 9).

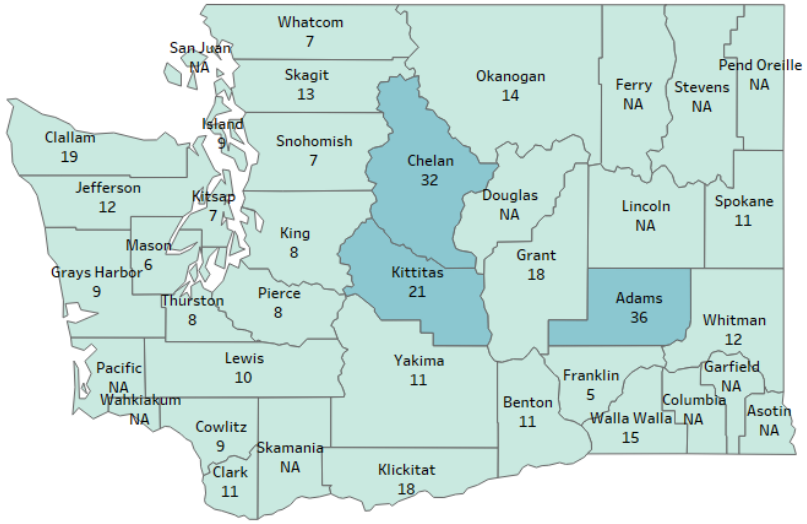
Figure 9. Number of primary care PAs in provider networks per 100,000 population: counties, 2021–23

(▲= always above state rates; ●= always below state rates; ◆= fluctuating rates)

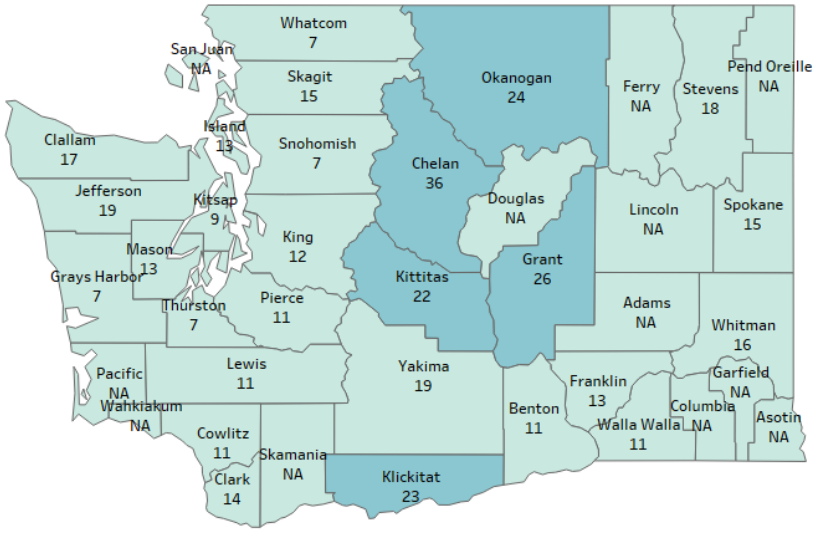
See Table 3 in the appendix for an accessible version of this data. If no data are shown, it means in one or more years, the number of PAs is less than 3.



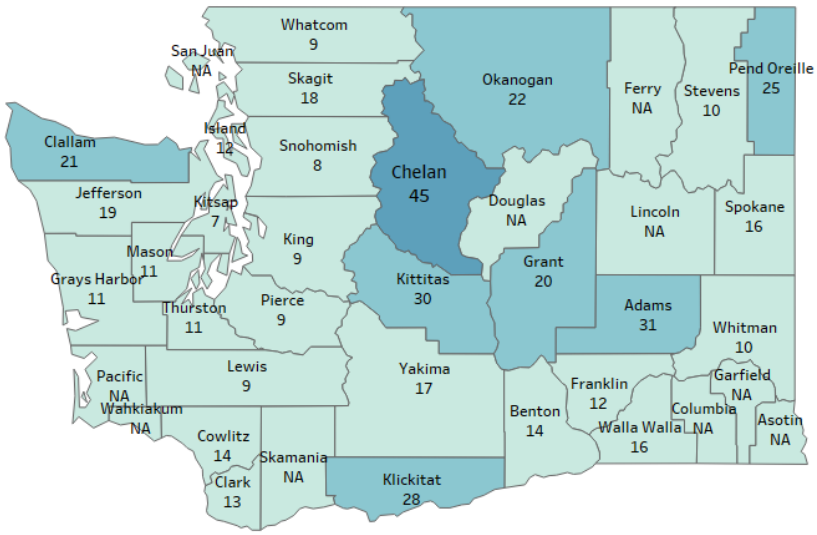
Map 3. Number of primary care PAs in provider networks per 100,000 population: counties, 2021–23
See Table 3 in the appendix for an accessible version of this data.



2021



2022



2023

Counties: Number of specialist care PAs per 100,000 population

Specialist care PA rates varied significantly across Washington counties, with the highest rates exceeding the lowest by more than tenfold.

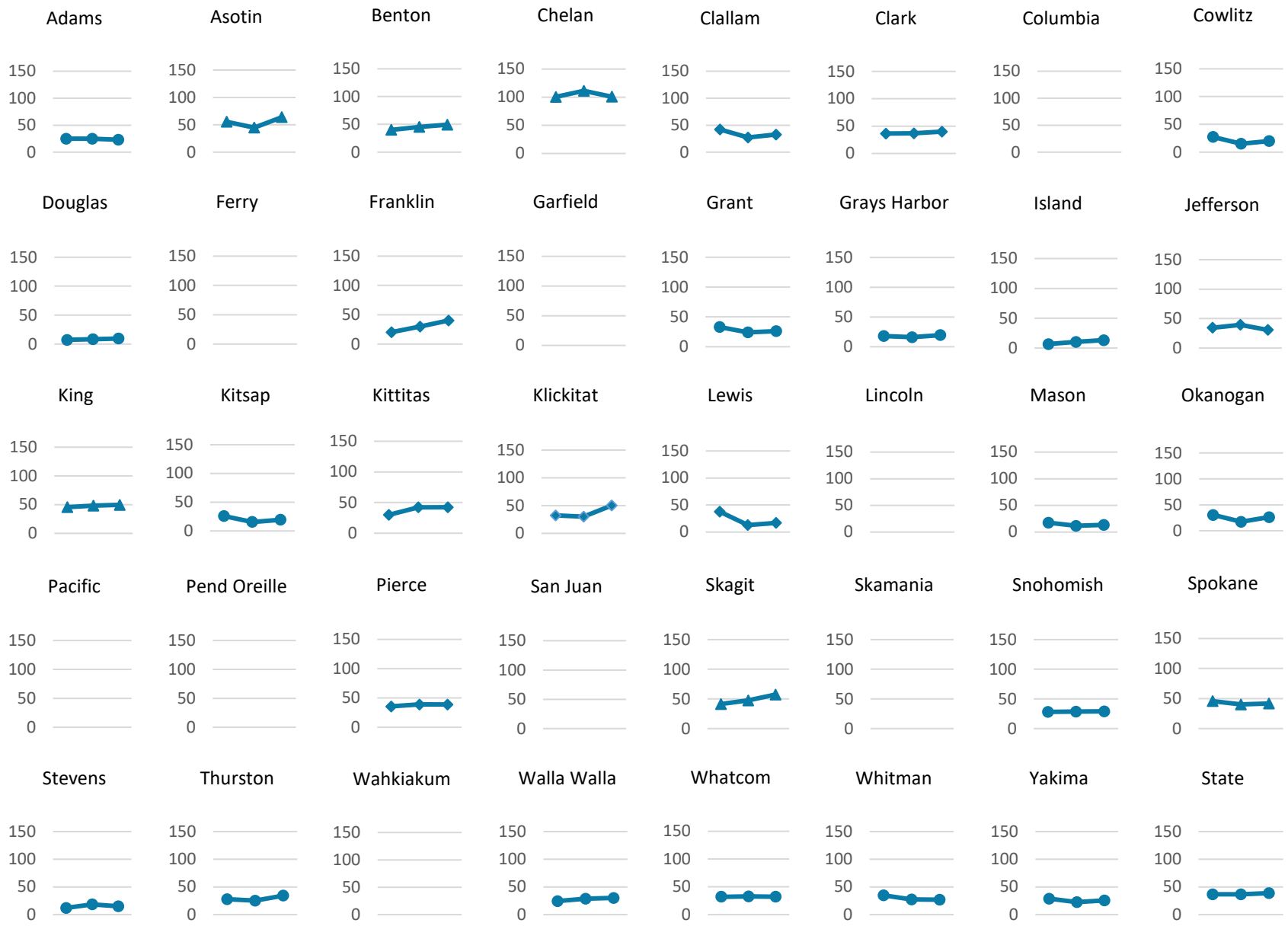
- Counties without sufficient data: Some counties lacked adequate PA numbers for specialist care rate calculations in one or more years. If there is no sufficient data, the specialist care PA rate is not reported for that year.
- Highest specialist care PA rates: Chelan County consistently had the highest specialist care PA rates, with 101 per 100,000 population in 2021 and 2023, peaking at 111 per 100,000 in 2022—approximately 2.5 times higher than the statewide rate.
- Counties consistently above the statewide rate: Five counties in addition to Chelan maintained higher-than-state-average specialist care PA rates across all three years (37 per 100,000 in 2021 and 2022, and 39 per 100,000 in 2023):
    - Asotin, Benton, King, Skagit, and Spokane.
- Counties consistently below the statewide rate: Sixteen counties (or more than half of the counties with sufficient data for this rate calculation) consistently had lower-than-state-average specialist care PA rates across all years with the lowest rate at 7 per 100,000:
    - Adams, Cowlitz, Douglas, Grant, Grays Harbor, Island, Kitsap, Mason, Okanagan, Snohomish, Stevens, Thurston, Walla Walla, Whatcom, Whitman, and Yakima.
- Counties with fluctuating rates: Seven counties saw specialist care PA rates above the statewide average in one year but below it in another:
    - Clallam, Clark, Franklin, Jefferson, Kittitas, Lewis, and Pierce.

(see Figure 10)

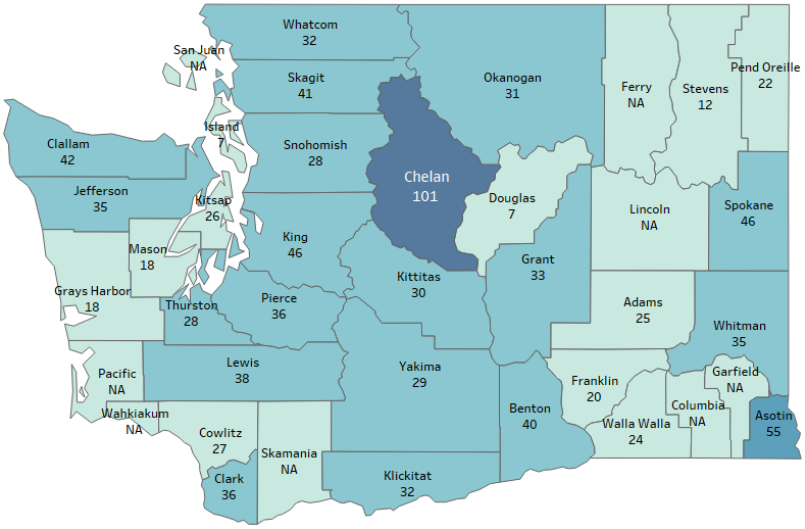
Figure 10. Number of specialist care PAs in provider networks per 100,000 population: counties, 2021–23

(▲= always above state rates; ●= always below state rates; ◆= fluctuating rates)

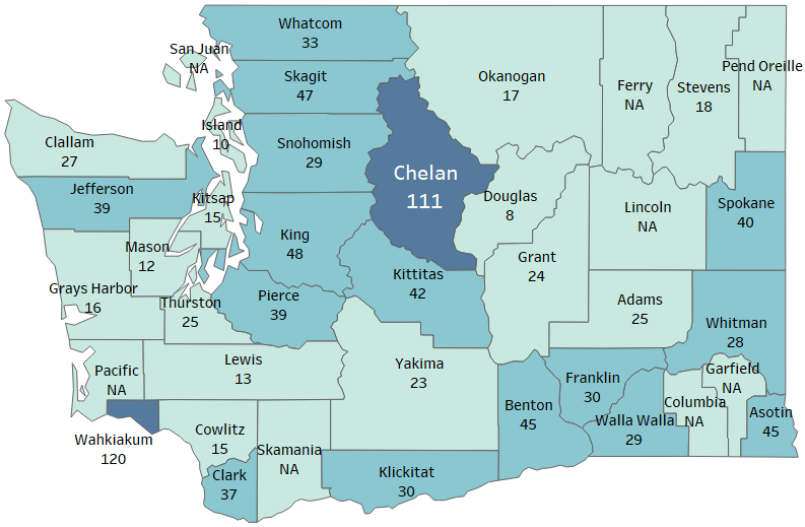
See Table 3 in the appendix for an accessible version of this data. If no data are shown, it means in one or more years, the number of PAs is less than 3.



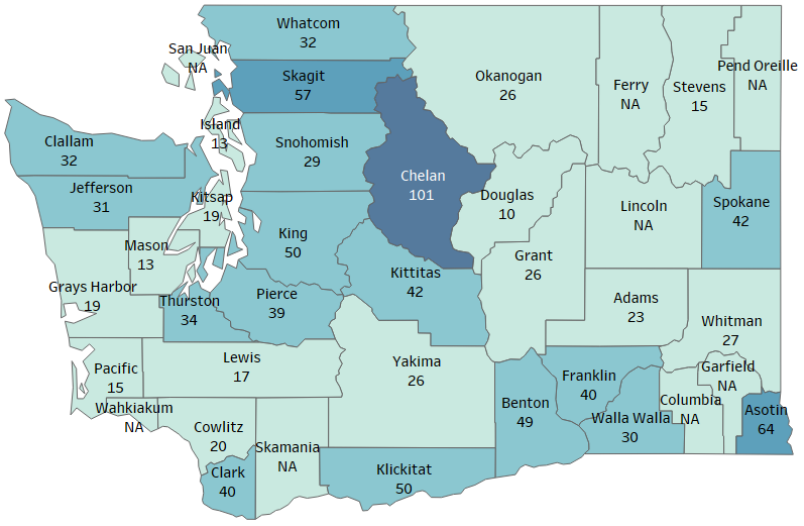
Map 4. Number of specialist care PAs in provider networks per 100,000 population: counties, 2021–23
See Table 3 in the appendix for an accessible version of this data.



2021



2022



2023

Counties: Percentage of female PAs

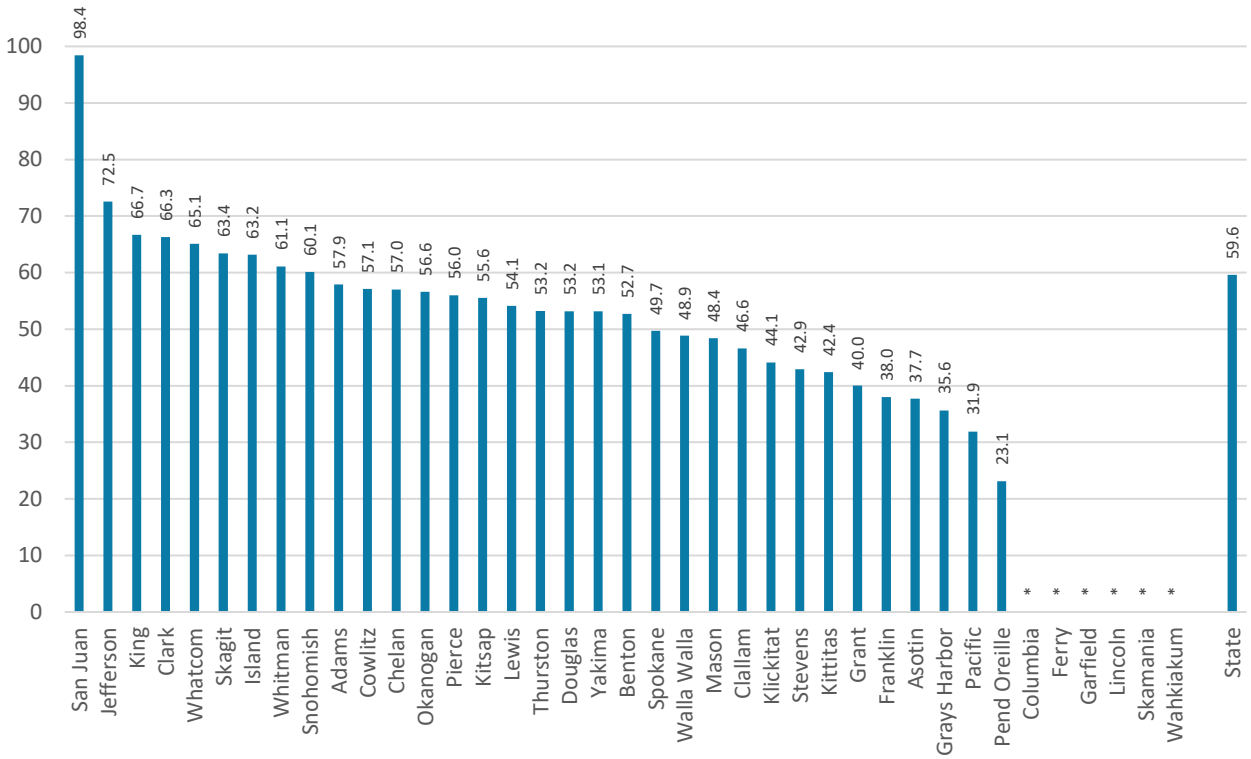
While the statewide three-year average share of female PAs stood at 59.6%, county-level data revealed substantial variation in gender representation.

- Counties without sufficient data: Six counties lacked enough PAs for accurate calculations in at least one year, so their three-year averages are not included in this report:
    - Columbia, Ferry, Garfield, Lincoln, Skamania, and Wahkiakum.
- Counties with the widest gender range: Among the 33 counties with reportable data, female PA shares ranged from a low of 23.1% in Pend Oreille County to a high of 98.4% in San Juan County.
- Counties above the statewide average: In addition to San Juan, eight other counties had higher shares of female PAs than the statewide average:
    - Clark, Jefferson, Island, King, Skagit, Snohomish, Whatcom, and Whitman.

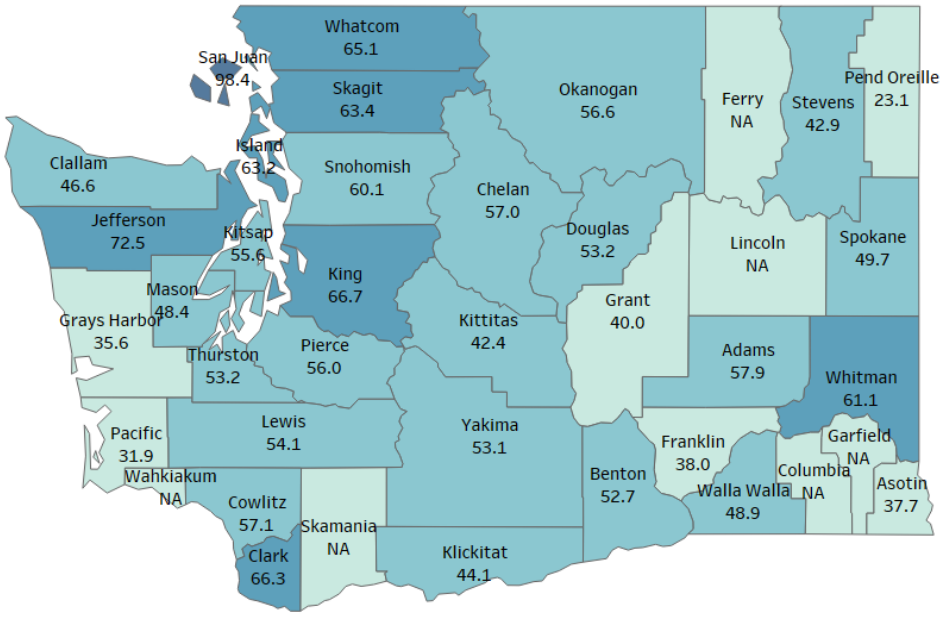
(see Figure 11)

Figure 11. Three-year average percentage of female PAs in provider networks: counties, 2021–23

(* denotes fewer than three PAs in the county in one or more years)



Map 5. Three-year average share of female PAs in provider networks: counties, 2021–23
See Table 4 in the appendix for an accessible version of this data.



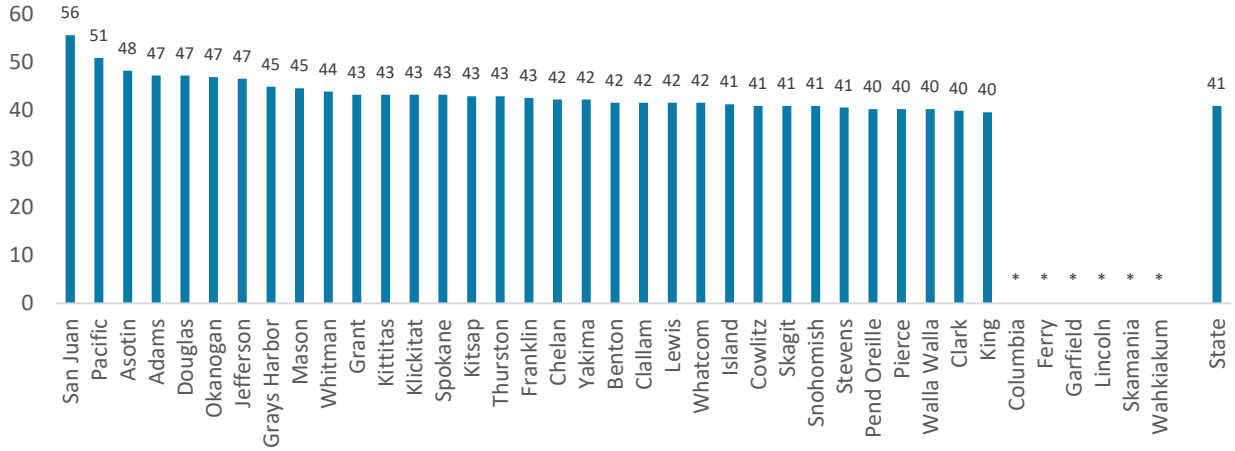
Counties: Median age of PAs

Across most Washington counties, the three-year average median age of PAs remained close to the statewide median age of 41 years.

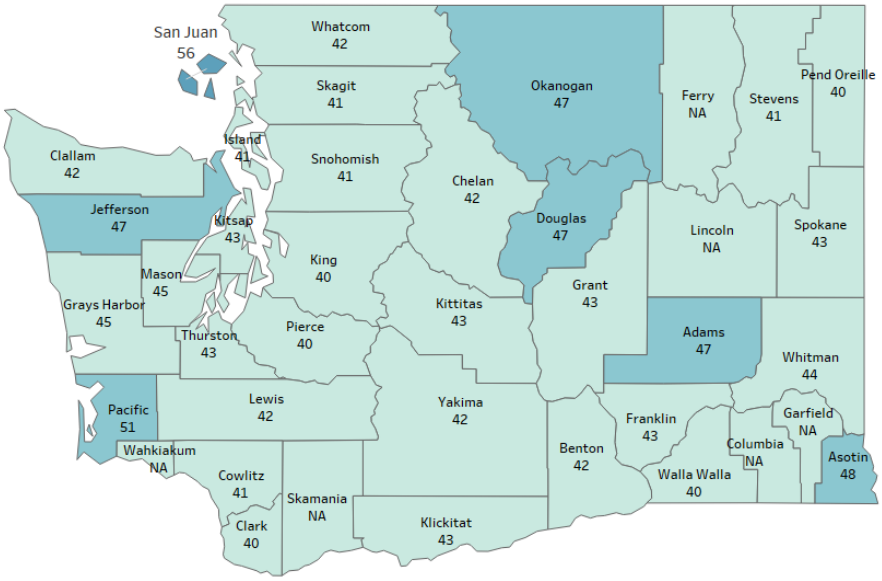
- Counties without sufficient data: Six counties lacked enough PAs to calculate a reliable three-year average. Their median ages are not included in this report:
    - Columbia, Ferry, Garfield, Lincoln, Skamania, and Wahkiakum.
- Median age range: Among the 33 counties with available data, the three-year PA median age ranged between 40 and 56 years.
- Counties with the highest PA median ages: two counties had median PA ages above 50:
    - Pacific County (51 years).
    - San Juan County (56 years).
- Counties with the lowest PA median ages: five counties had the same lowest PA median age of 40, including King County, which had the largest number of PAs. The other four counties are:
    - Clark, Pend Oreille, Pierce, and Walla Walla.

(see Figure 12)

Figure 12. Three-year average median age of PAs in provider networks: counties, 2021–23
(* denotes fewer than three PAs in the county in one or more years)



Map 6. Three-year average median age of PAs in provider networks: counties, 2021–23



See Table 4 in the appendix for an accessible version of this data.

ACH supplies of PAs in provider networks

An Accountable Community of Health, or ACH, is a regional coalition made up of representatives from a variety of sectors who work together to improve population health. Each ACH represents a county or a group of adjacent counties. The nine ACHs (and the counties and/or Tribes in each) are:[3]

1. Better Health Together: (Adams, Ferry, Lincoln, Pend Oreille, Spokane and Stevens counties, and the Reservations of the Kalispel Tribe of Indians, Spokane Tribe of Indians, and the Confederated Tribes of the Colville Reservation)
2. CHOICE (Cowlitz, Grays Harbor, Lewis, Mason, Pacific, Thurston and Wahkiakum counties, and the sovereign nations of Chehalis, Cowlitz, Nisqually, Quinault, Shoalwater Bay, Skokomish, and Squaxin Island Tribes)
3. Elevate Health (Pierce)
4. Greater Health Now (Asotin, Benton, Columbia, Garfield, Franklin, Kittitas, Walla Walla, Whitman, and Yakima counties, and the Yakama Nation)
5. HealthierHere (King)
6. North Sound ACH (Island, San Juan, Skagit, Snohomish and Whatcom counties and the Lummi Nation, Nooksack Tribe, Upper Skagit Tribe, Samish Indian Nation, Swinomish Indian Tribal Community, Stillaguamish Tribe of Indians, Tulalip Tribes, and Sauk-Suiattle Indian Tribe)
7. Olympic Community Health (Clallam, Jefferson and Kitsap counties and the Sovereign Nations of Hoh, Jamestown S'Klallam, Lower Elwha Klallam, Makah, Port Gamble S'Klallam, Quileute, and Suquamish)
8. SWACH (Southwest Washington ACH) (Clark, Klickitat, and Skamania counties)
9. Thriving Together NCW (Chelan, Douglas, Grant, and Okanogan counties, and the Confederated Tribes of the Colville Reservation)

[3] See https://www.hca.wa.gov/assets/program/achfactsheet.pdf.

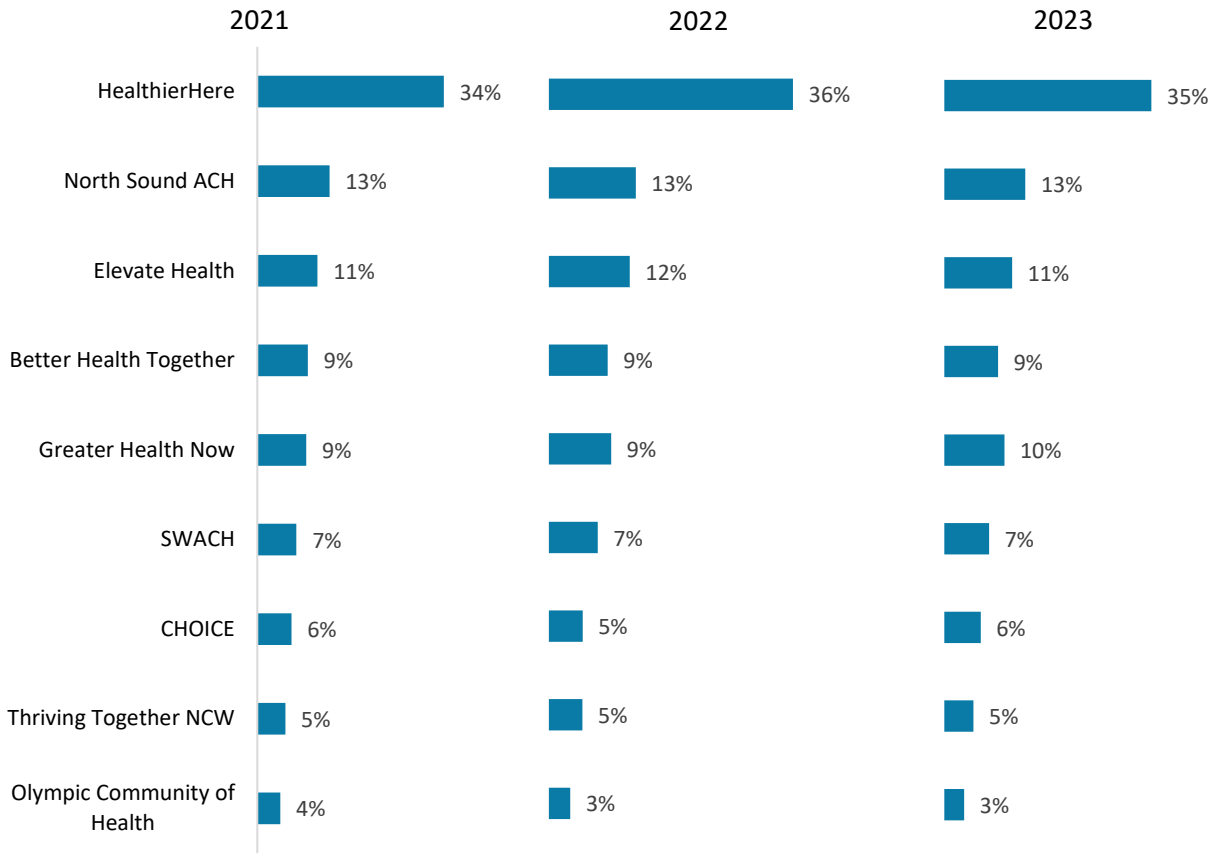
ACHs: Overall supply

The overall distribution of PAs across Washington's Accountable Communities of Health (ACHs) remained relatively stable from 2021 to 2023, with one minor shift in rankings.

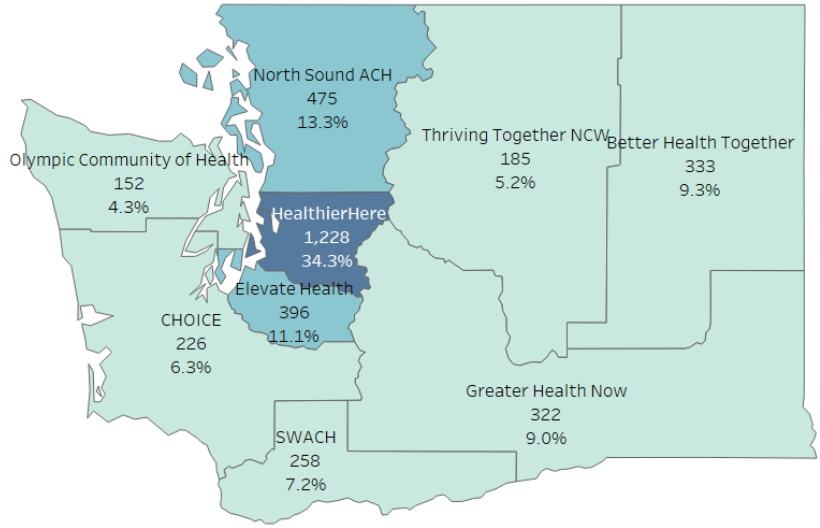
- HealthierHere ACH consistently maintained the largest share, accounting for approximately 35% of the total PA workforce—about 2.5 times the share of the second-largest ACH, North Sound ACH.
- North Sound ACH and Elevate Health each held slightly over 10% of the state's total PAs.
- The remaining ACHs each held between 3% and 9% of the workforce.
- The only ranking shift occurred between Better Health Together and Greater Health Now:
    - In 2021, Better Health Together ranked 4th, while Greater Health Now ranked 5th.
    - In 2022 and 2023, their positions reversed, with Greater Health Now moving up to 4th place, while Better Health Together dropped to 5th.

(see Figure 13)

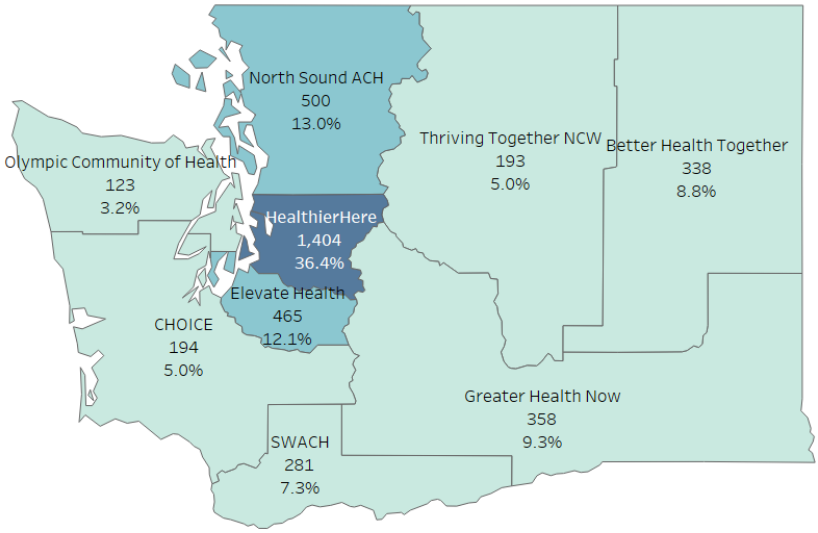
Figure 13. Percentage of state total PA supply in provider networks: ACHs, 2021–23
(sorted by 2021 distribution)
See Table 5 in the appendix for an accessible version of this data.



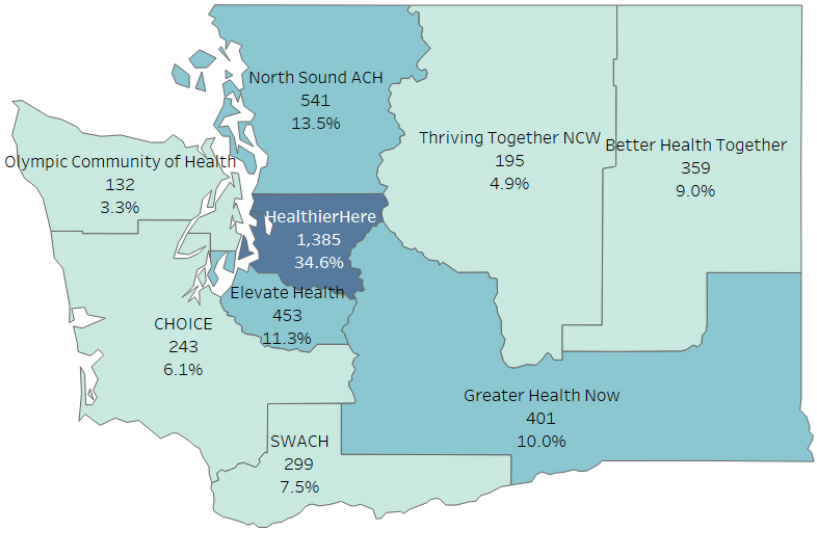
Map 7. Number and percent of PAs in provider networks: ACHs, 2021–23
See Table 5 in the appendix for an accessible version of this data.



2021



2022



2023

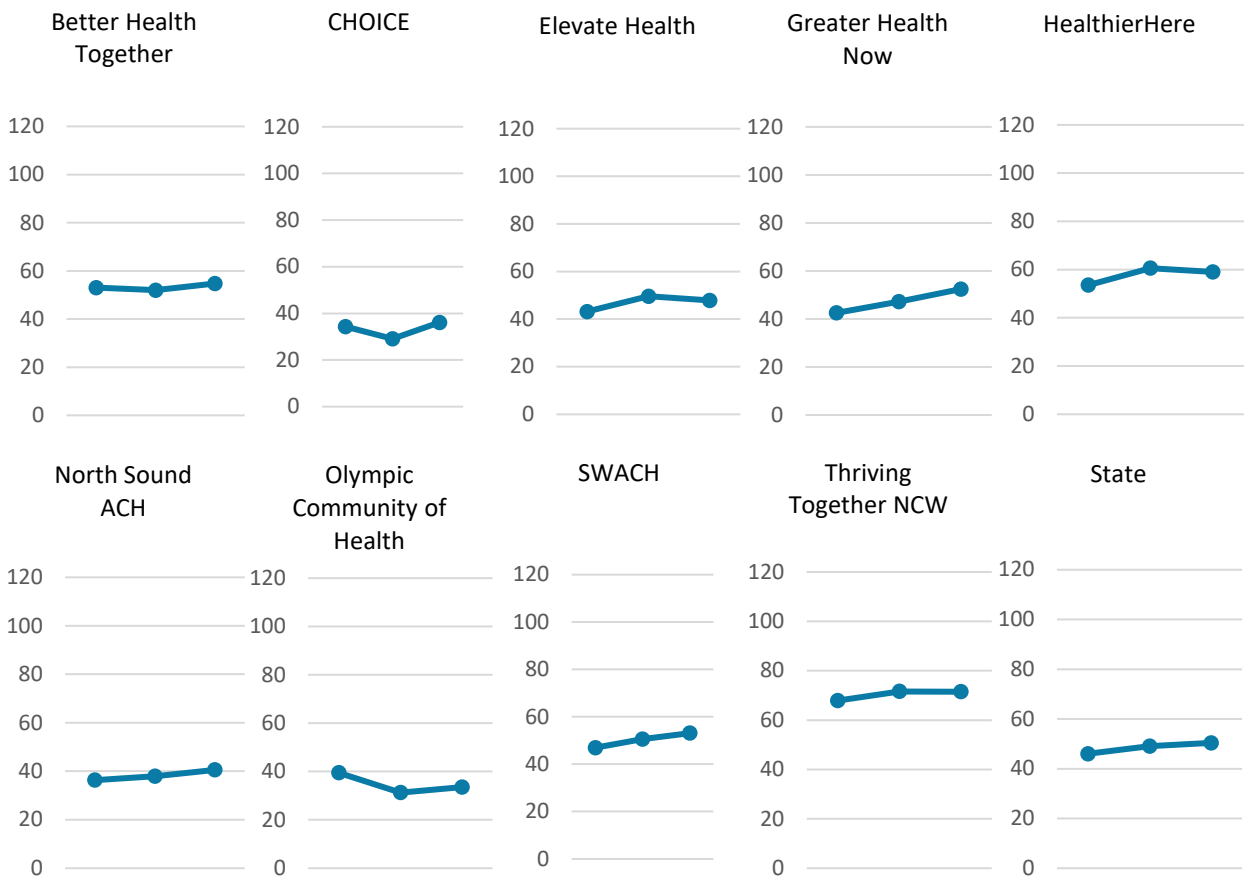
ACHs: Number of overall PAs per 100,000 population

The nine ACHs displayed considerable variation in overall PA rates per 100,000 population, with distinct trends over time:

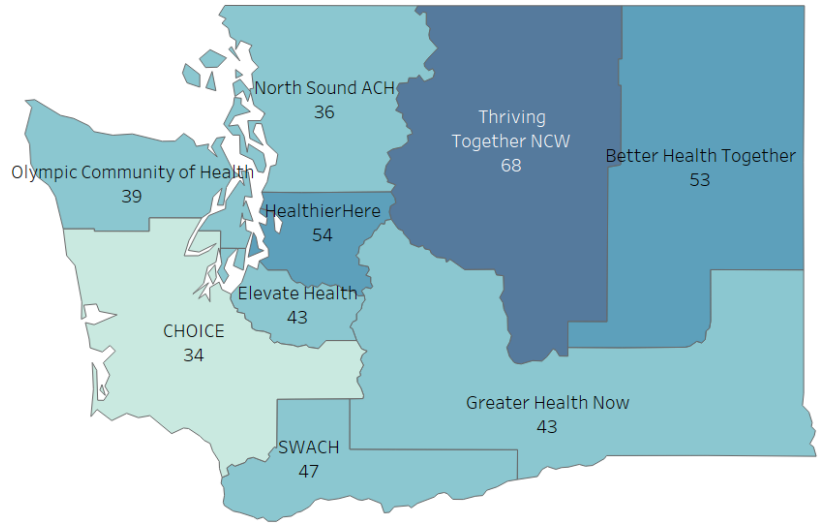
- Highest overall PA rate: Thriving Together NCW maintained the highest overall PA rates, exceeding 60 PAs per 100,000 population. This was largely due to Chelan County's remarkably high rates, as Chelan is one of four counties in this ACH.
- ACHs consistently above statewide rates: Alongside Thriving Together NCW, three other ACHs maintained overall PA rates higher than the statewide average across all three years:
    - Better Health Together, HealthierHere, and SWACH.
- ACH trends:
    - Three ACHs showed a consistent upward trend from 2021 to 2023:
        - Greater Health Now North Sound ACH, and SWACH.
    - Three ACHs experienced an increase followed by a decline in overall PA rates:
        - Elevate Health, HealthierHere, and Thriving Together NCW.
    - Three ACHs displayed a decrease in PA rates at first, followed by an increase later in the period:
        - Better Health Together, CHOICE, and Olympic Community of Health

(See Figure 14)

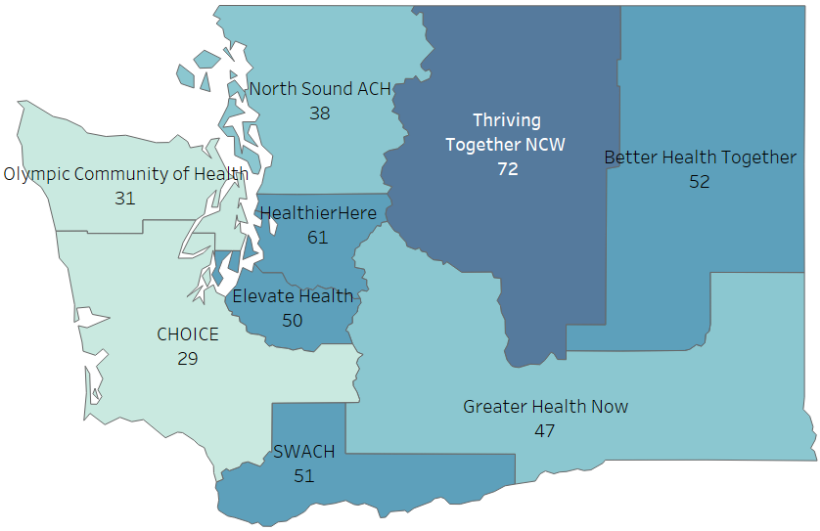
Figure 14. Number of overall PAs in provider networks per 100,000 population: ACHs, 2021–23
See Table 6 in the appendix for an accessible version of this data.



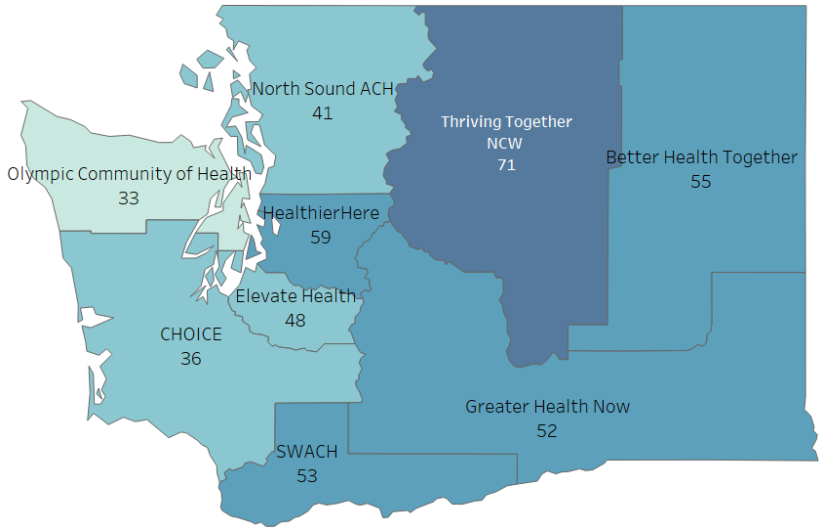
Map 8. Number of overall PAs in provider networks per 100,000 population: ACHs, 2021–23
See Table 6 in the appendix for an accessible version of this data



2021



2022



2023

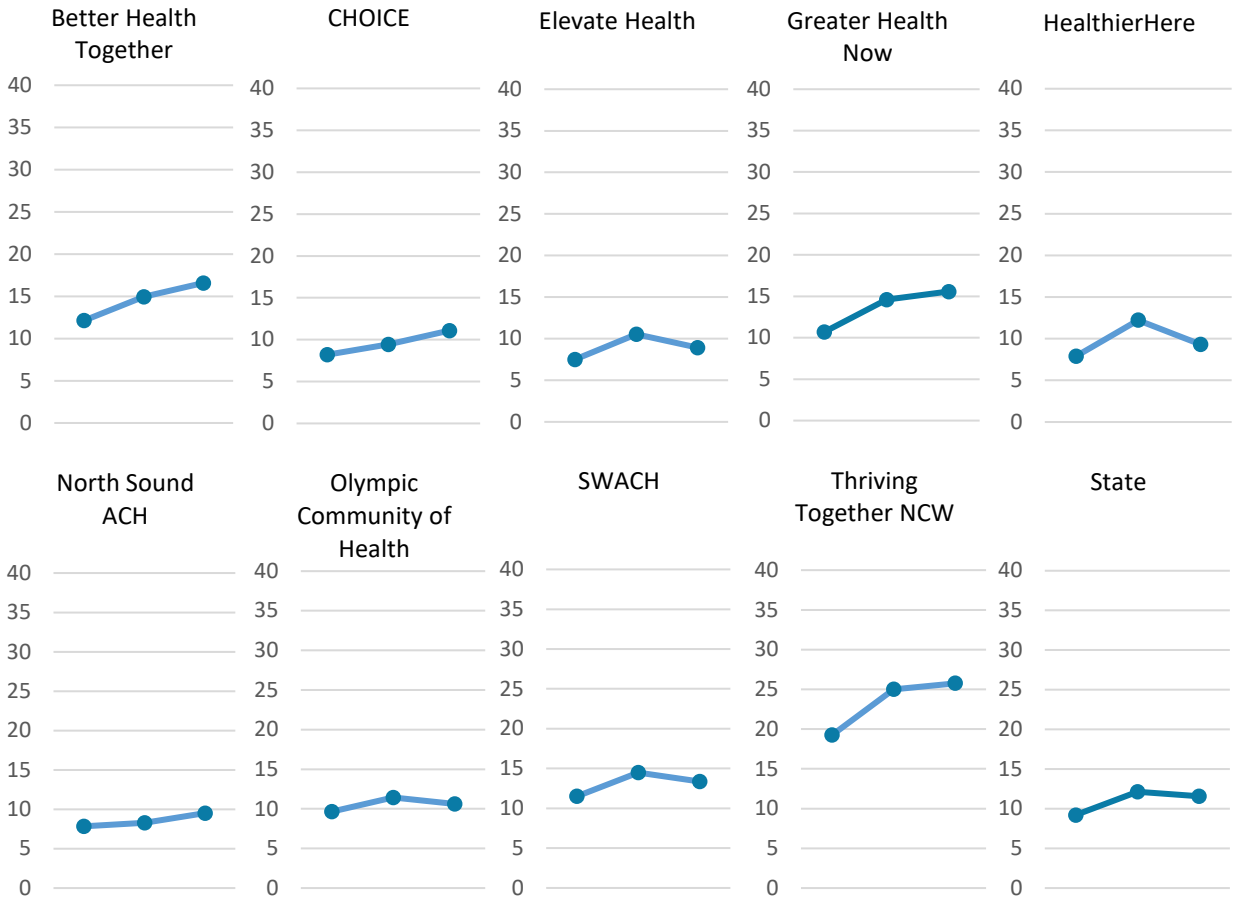
ACHs: Number of primary care PAs per 100,000 population

Across most ACHs, primary care PA rates remained within a narrow range (8–26 per 100,000), with the majority of ACHs experiencing steady growth from 2021 to 2023.

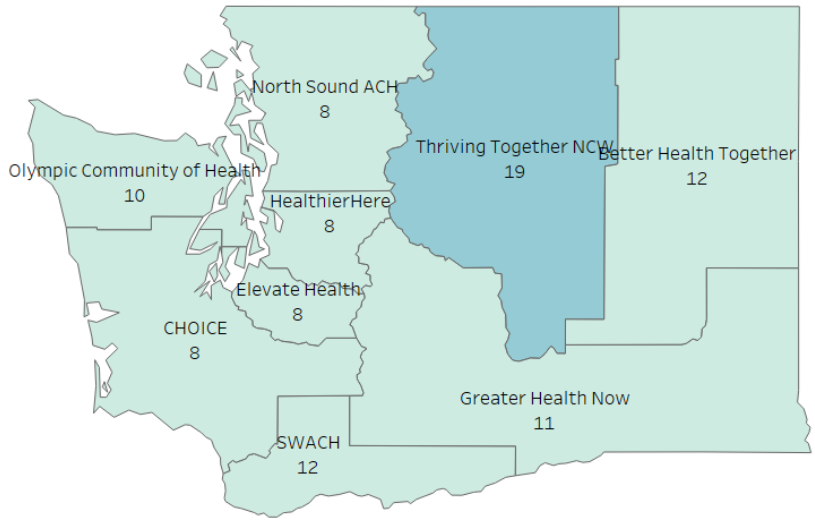
- Rate variation:
    - ACH with the highest primary care PA rate:
        - Thriving Together NCW showed the highest primary care PA rates in all three years, ranging from 19 to 26 PAs per 100,000 population.
        - This highest rate was largely driven by Chelan County, which consistently had high PA rates and is a key part of this ACH.
    - The remaining ACHs had primary care PA rates between 8 and 17 per 100,000 population, closely aligning with the statewide range of 9 to 12 per 100,000.
- Rate trends:
    - Five ACHs showed steady increases in primary care PA rates across all three years:
        - Better Health Together, CHOICE, Greater Health Now, North Sound ACH, and Thriving Together NCW.
    - The remaining four ACHs experienced an increase in primary care PA rates followed by a decline, mirroring the statewide trend for primary care PA rates over the same period.

(see Figure 15)

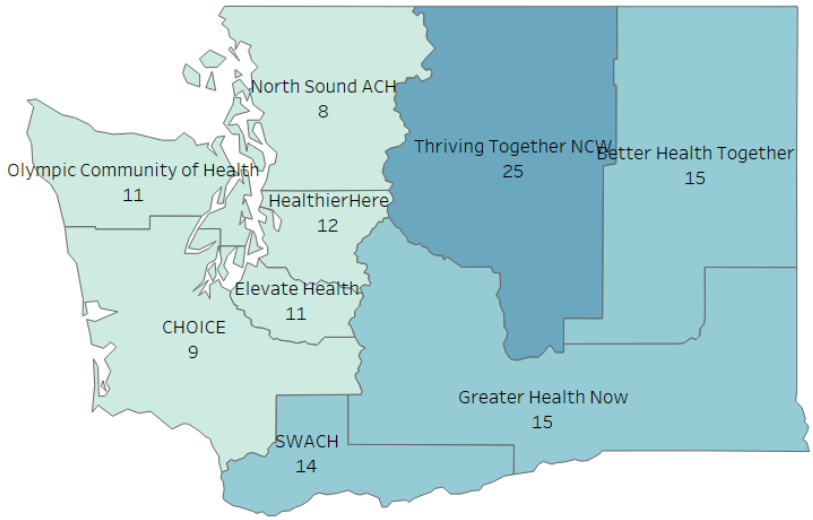
Figure 15. Number of primary care PAs in provider networks per 100,000 population: ACHs, 2021–23
See Table 6 in the appendix for an accessible version of this data



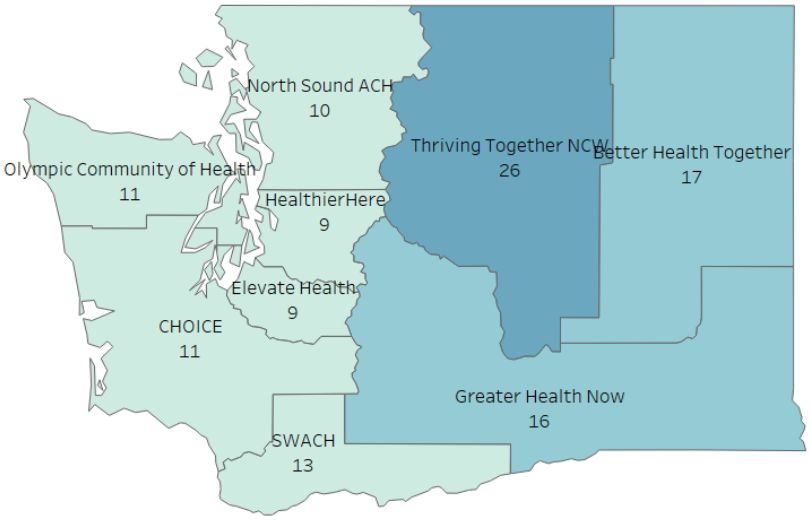
Map 9. Number of primary care PAs in provider networks per 100,000 population: ACHs, 2021–23
See Table 6 in the appendix for an accessible version of this data.



2021



2022



2023

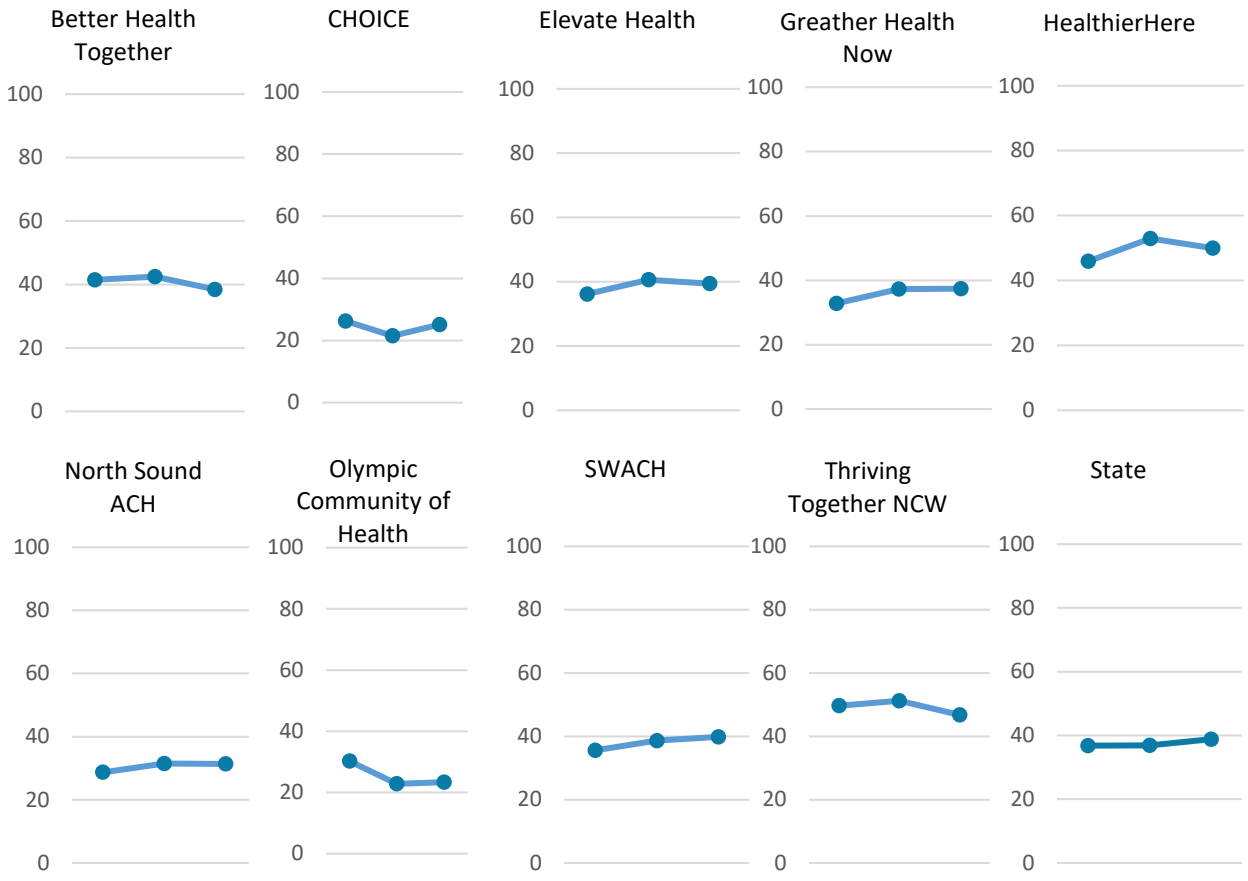
ACHs: Number of specialist care PAs per 100,000 population

Specialist care PA rates varied across ACHs, with most falling within a narrow range of 20 to 40 PAs per 100,000 population.

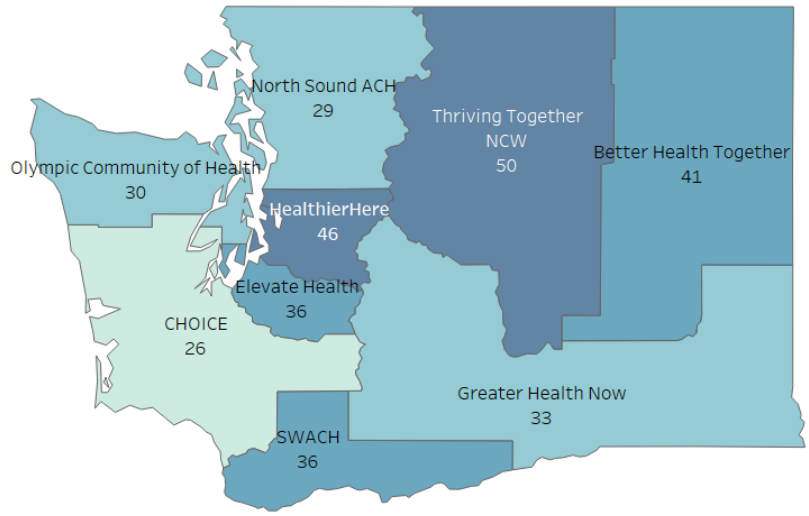
- ACHs with the highest specialist care PA rates:
    - HealthierHere and Thriving Together NCW consistently had the highest specialist care PA rates, ranging from 46 to 53 per 100,000 population.
    - Both ACHs experienced an increase in 2022, followed by a decrease in 2023.
    - Thriving Together NCW had the highest rate in 2021 (50 per 100,000) but was overtaken by HealthierHere in 2022 (53 per 100,000) and 2023 (50 per 100,000).
- ACH specialist care PA rate trends:
    - Four ACHs experienced a decline in 2023 compared to 2021:
        - Better Health Together, CHOICE, Olympic Community of Health, and Thriving Together NCW.
    - The remaining five ACHs saw higher rates in 2023 compared to 2021.

(see Figure 16)

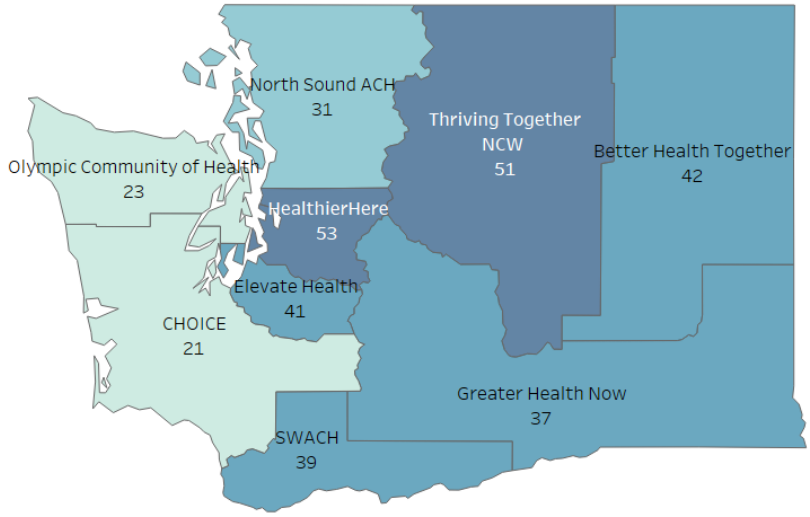
Figure 16. Number of specialist care PAs in provider networks per 100,000 population: ACHs, 2021–23
See Table 6 in the appendix for an accessible version of this data



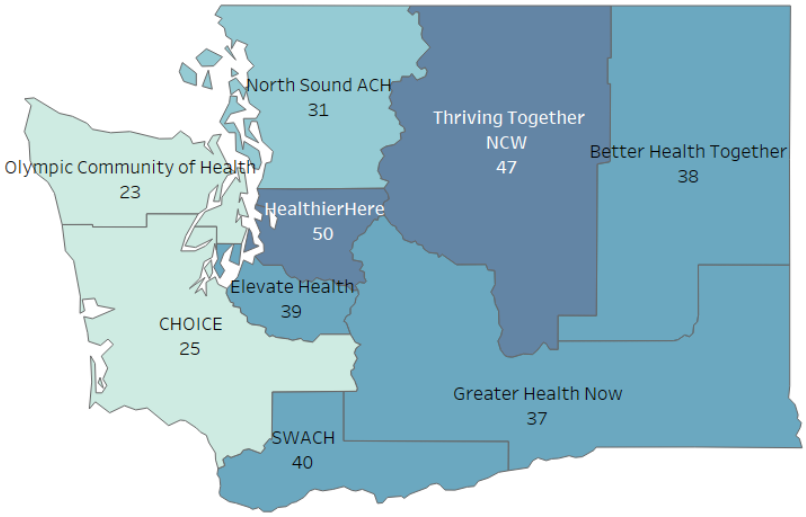
Map 10. Number of specialist care PAs in provider networks per 100,000 population: ACHs, 2021–23
See Table 6 in the appendix for an accessible version of this data



2021



2022



2023

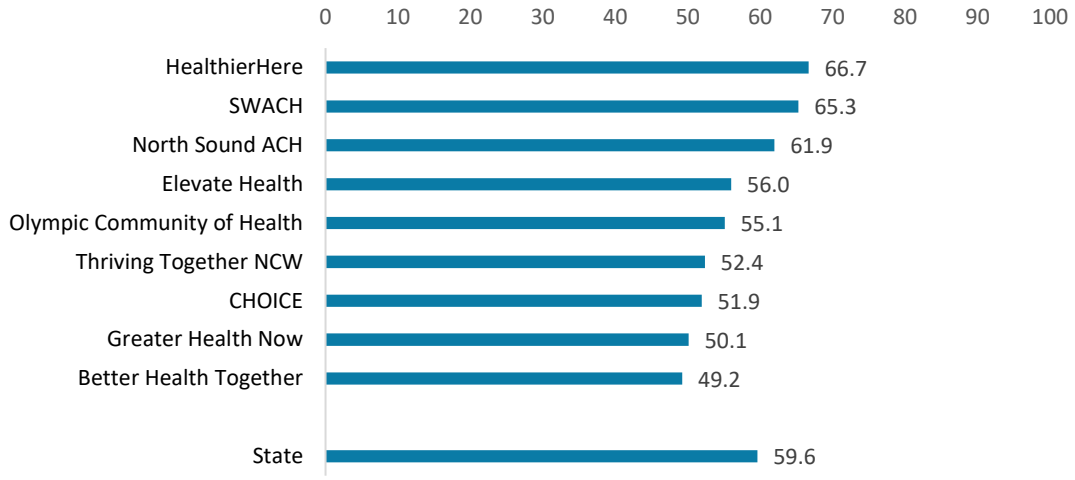
ACHs: Percentage of female PAs

The three-year average percentage of female PAs varied across ACHs, revealing regional differences in PA gender distribution.

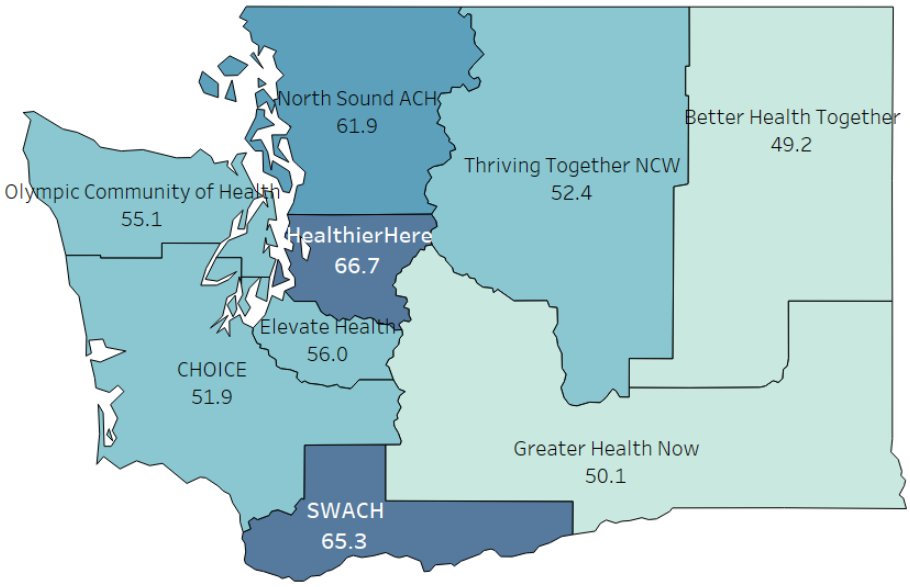
- Four ACHs with highest female PA representation:
    - The four ACHs along the I-5 corridor (from the north to the south) displayed the highest percentages of female PAs, with all but one exceeding the statewide average of 59.6%:
        - North Sound ACH: 61.9%
        - HealthierHere: 66.7% (highest statewide)
        - Elevate Health: 56%
        - SWACH: 65.3%
- ACHs below the statewide average:
    - (see Figure 17)

Table 7 in the appendix contains single year estimates for shares of female PAs for the nine ACHs.

Figure 17. Three-year average percentage of female PAs in provider networks: ACHs, 2021–23



Map 11. Three-year average percentage of female PAs in provider networks: ACHs, 2021–23
See Table 7 in the appendix for an accessible version of this data



ACHs: Median age of PAs

The three-year average median age of PAs across the ACHs remained fairly consistent, with only slight variations among regions.

- Median age range: Across ACHs, the three-year average PA median age ranged from 40 to 44 years, closely aligning with the statewide three-year average of 41 years.
- ACHs with the oldest and youngest PAs**:**
    - Better Health Together had the highest median age of 44 years.
    - The lowest median age (40 years) was found in three ACHs—Elevate Health, HealthierHere, and SWACH.
- Age trends along the I-5 corridor:
    - The four ACHs along the I-5 corridor had slightly younger PAs compared to the other five ACHs:
        - Elevate Health, HealthierHere, and SWACH (median age of 40).
        - North Sound ACH (median age of 41).

    (see Figure 18)

Table 7 in the appendix contains single year estimates for median age of PAs each year for the nine ACHs.

Figure 18. Three-year average median age of PAs in provider network: ACHs, 2021–23

Map 12. Three-year average median age of PAs in provider network: ACHs, 2021–23
See Table 7 in the appendix for an accessible version of this data

Data sources and method

Data Sources

Network Access Report. Health insurance companies conducting business in Washington must file a monthly Network Access Report (NAR) to the Office of the Insurance Commissioner. The purpose of these reports is for an insurer 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 under 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 them with a Health Care Provider Taxonomy code 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 to an individual or organizational provider in the U.S. Part of the NPI database is publicly available. The public information for individual NPIs includes a provider's name, NPI number, taxonomy, and practice location. We used the public NPI data for this study.

Provider License Database. Health care providers must obtain a provider license with the Washington State Department of Health (DOH) to practice in the state. After initial licensing, providers must renew their licenses at certain intervals depending on the professions. For physician assistants (PAs), 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 2021–23

The NARs for June 2021–23 were downloaded from OIC's website. Once all insurance companies' reports were collected, the reports were combined by year, with each year's data processed separately. The NARs are structured in such a way that there are five blocks of rows of data. 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. That's why 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-PA records and retain only PA records.

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

We then matched processed PA records from the Network Access Reports 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 health insurance carriers also use it for all health services they provide. We only retained records that matched NPIs between the two files.

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

c. Provider specialty (primary care/specialist care)

Unlike the taxonomy used for physicians, the taxonomy for PA in the NARs did not identify the provider's specialty area. Instead, the prevailing taxonomy codes for PAs were 363A00000X ("Physician Assistant"). That's why we did not include "physician assistant specialty" in this report. This report does, however, contain estimates for primary care PAs and specialist care PAs. The primary/specialist care status was assigned by the health insurance carriers in their NARs. The designation of primary/specialist care PAs in this report differs from the designation we used in our report for physician supply, where we used physicians' taxonomy codes to determine primary care and specialist care statuses.

d. Final record selection

There are numerous duplicate 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, practice geo-coordinates and practice name. In addition, a small number of records that had missing data on the state of the practice location, PA's last name, or NPI were excluded from the final selection.

e. Constructing PA record weights

The processed NAR data included multiple records for some PAs who had multiple practice locations. PA supply analyses in this study required counting each PA as no more than one person. To meet this requirement while remembering that an PA may practice at multiple locations, we constructed data weights and applied the weights to the PA records. Below is a description of the weight construction.

Initial weight. Each PA was assigned the weight of 1 initially.

ZIP Code-level weight. After the construction of initial weights, the next step was to redistribute initial weights to a PA's records for different ZIP Codes. To construct the ZIP Code-level weight, we first counted the number of ZIP Codes associated with a PA. We then summed up the populations of the associated ZIP Codes.[4] Then we calculated each ZIP Code's fraction of the total population from all associated ZIP Codes. We used these fractions to distribute the initial weight into ZIP Codes associated with a PA.

For example, suppose a PA was associated with three ZIP Codes that accounted for 70%, 20% and 10% of the total population of the three combined ZIP Codes. The ZIP Code with 70% of the population would receive 0.7 of the initial weight, the 20% ZIP Code would receive a weight of 0.2, and the 10-percent ZIP would receive a weight of 0.1.

[4] 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.

In some cases, a PA 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 that we previously assigned. Extending the PA example above, suppose the PA 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 PA would be 0.2333 (0.7/3).

From this process, the sum of weights of all records associated with a PA should equal 1 and the sum of weights of all PAs should equal the unique count of PAs 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, we needed an additional step to further distribute the PA record weight at the ZIP Code-level for ZIP Codes that cross county boundaries. We decided to use a county's fraction of that ZIP Code's population as the county's fraction of the weight for that ZIP Code.

Using the same PA 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 PA record weight of 0.2 is redistributed into 0.14 (0.2*0.7) to County A and 0.06 (0.2*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.

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

f. Definitions

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

PA rate: For this study, the PA rate is calculated as number of PAs per 100,000 population for the state, counties, or Accountable Communities of Health (each consisting of one or more counties).

g. Limitations

The Network Access Report is the main data source for PA supply estimates in this study, which means by default, the PAs included in this study are those who practice in provider networks. PAs who practice outside the provider networks are therefore not included. Often, those are providers who practice as solo practitioners, in small practice groups, or as public employees in federal or state institutions exclusively (e.g., VA hospitals, military hospitals, and state hospitals).

One possible error in the data may result in an overestimation PA s in provider networks. This error occurs when insurance companies failed to promptly remove records from NARs for providers who no longer practice in the networks (due to retirement, moving to another state, or switching to a practice setting outside the provider networks, for example), although they maintain a Washington state license.

Another potential error is related to the weighting method we used. When constructing the ZIP Code-level weights for the records, if a PA had practice locations in multiple ZIP Code areas, we split the initial record weight based on each ZIP Code area's population fraction of the total population from all ZIP Code areas in question. Or, similarly, in constructing county-level weight, if a PA record had a ZIP Code area that crosses county boundaries, we assigned the county's fraction of the ZIP Code-level weight based on each county's population fraction of the ZIP Code area's total population. We believe these record weighting techniques offered a better geographic representation of the PAs than commonly used techniques of provider supply estimation that do not consider a provider's multiple practice locations. However, the degree of improvement in estimate precision from our weighting schemes remains unknown.

Another limitation, though not necessarily a source of error, is that this study's method does not consider PAs in bordering states who provide services to Washington residents. For example, Clark County sits across the Columbia River from the greater Portland area in Oregon. Some Clark residents use PA services in the Portland area. That means the actual PA supply in Washington's provider networks could have been larger than we estimated in this report if we had included the PAs in neighboring states that serve Washington residents.

Appendices – data tables

Table 1. Provider network physician assistant supply and characteristics: Washington, 2021–23

	2021	2022	2023
Total Licenses	4,795	5,129	5,289
Number and Percent of PAs Providing Direct Care in Washington	3,574 (74.5%)	3,855 (75.2%)	4,007 (75.8%)
Number of PAs per 100,000 Population	46	49	50
Primary Care PAs			
Number	716	955	920
Per 100,000 Population	9	12	12
Percent	20.0%	24.8%	22.9%
Specialist PAs			
Number	2,858	2,900	3,087
Per 100,000 Population	37	37	39
Percent	80%	75%	77%
Percent of Women in			
Total PAs	59.0%	59.5%	60.3%
Primary Care PAs	60.7%	58.6%	59.1%
Specialist Care PAs	58.6%	59.8%	60.7%
Median Age			
Total PAs	41	41	41
Primary Care PAs	41	41	42
Specialist Care PAs	41	41	41
Median Age of Men			
Total PAs	44	44	44
Primary Care PAs	42	43	43
Specialist Care PAs	45	45	44
Median Age of Women			
Total PAs	39	39	39
Primary Care PAs	40	40	41
Specialist Care PAs	39	39	38

Table 2. Number and percentage of physician assistants in provider networks: counties, 2021–23

	Number of PAs			Percent of PAs		
County	2021	2022	2023	2021	2022	2023
Adams	13	7	12	0.4%	0.2%	0.3%
Asotin	13	11	16	0.4%	0.3%	0.4%
Benton	107	119	137	3.0%	3.1%	3.4%
Chelan	109	119	119	3.0%	3.1%	3.0%
Clallam	47	34	41	1.3%	0.9%	1.0%
Clark	245	267	278	6.9%	6.9%	6.9%
Columbia	3	1	2	0.1%	0.0%	0.0%
Cowlitz	41	30	38	1.1%	0.8%	0.9%
Douglas	5	6	7	0.1%	0.1%	0.2%
Ferry	3	3	5	0.1%	0.1%	0.1%
Franklin	25	42	53	0.7%	1.1%	1.3%
Garfield	0	0	0	0.0%	0.0%	0.0%
Grant	52	51	48	1.5%	1.3%	1.2%
Grays Harbor	20	18	24	0.6%	0.5%	0.6%
Island	13	21	23	0.4%	0.5%	0.6%
Jefferson	15	20	17	0.4%	0.5%	0.4%
King	1,228	1,404	1,385	34.3%	36.4%	34.6%
Kitsap	90	69	74	2.5%	1.8%	1.9%
Kittitas	24	30	34	0.7%	0.8%	0.9%
Klickitat	12	12	18	0.3%	0.3%	0.5%
Lewis	39	20	22	1.1%	0.5%	0.6%
Lincoln	3	2	3	0.1%	0.1%	0.1%
Mason	15	17	16	0.4%	0.4%	0.4%
Okanogan	19	18	21	0.5%	0.5%	0.5%
Pacific	6	4	6	0.2%	0.1%	0.2%
Pend Oreille	5	5	5	0.1%	0.1%	0.1%
Pierce	396	465	453	11.1%	12.1%	11.3%
San Juan	4	3	4	0.1%	0.1%	0.1%
Skagit	72	82	99	2.0%	2.1%	2.5%
Skamania	1	2	3	0.0%	0.1%	0.1%
Snohomish	297	301	319	8.3%	7.8%	8.0%
Spokane	301	304	323	8.4%	7.9%	8.1%
Stevens	9	17	12	0.2%	0.4%	0.3%
Thurston	105	99	137	2.9%	2.6%	3.4%
Wahkiakum	0	8	0	0.0%	0.2%	0.0%
Walla Walla	25	25	29	0.7%	0.6%	0.7%
Whatcom	89	93	96	2.5%	2.4%	2.4%
Whitman	22	21	18	0.6%	0.5%	0.4%
Yakima	104	108	112	2.9%	2.8%	2.8%
Total	3,574	3,855	4,007	100%	100%	100%

Table 3. Number of physician assistants per 100,000 population in provider networks – total, primary care, and specialist care: counties, 2021–23

	Total PAs			Primary Care PAs			Specialist PAs		
County	2021	2022	2023	2021	2022	2023	2021	2022	2023
Adams	61	35	54	36	*	31	25	25	23
Asotin	55	48	70	*	*	*	55	45	64
Benton	51	56	64	11	11	14	40	45	49
Chelan	133	147	146	32	36	45	101	111	101
Clallam	61	44	53	19	17	21	42	27	32
Clark	48	51	53	11	14	13	36	37	40
Columbia	*	*	*	*	*	*	*	*	*
Cowlitz	37	26	34	9	11	14	27	15	20
Douglas	10	13	15	*	*	*	7	8	10
Ferry	*	44	63	*	*	*	*	*	*
Franklin	25	43	52	5	13	12	20	30	40
Garfield	*	*	*	*	*	*	*	*	*
Grant	51	50	46	18	26	20	33	24	26
Grays Harbor	26	23	31	9	7	11	18	16	19
Island	16	23	26	9	13	12	7	10	13
Jefferson	46	59	49	12	19	19	35	39	31
King	54	61	59	8	12	9	46	48	50
Kitsap	33	25	26	7	9	7	26	15	19
Kittitas	51	64	73	21	22	30	30	42	42
Klickitat	50	54	78	18	23	28	32	30	50
Lewis	47	23	26	10	11	9	38	13	17
Lincoln	30	*	*	*	*	*	*	*	*
Mason	23	25	24	6	13	11	18	12	13
Okanogan	45	41	48	14	24	22	31	17	26
Pacific	26	18	26	*	*	*	*	*	15
Pend Oreille	33	35	37	*	*	25	22	*	*
Pierce	43	50	48	8	11	9	36	39	39
San Juan	24	17	19	*	*	*	*	*	*
Skagit	54	62	75	13	15	18	41	47	57
Skamania	*	*	*	*	*	*	*	*	*
Snohomish	35	36	37	7	7	8	28	29	29
Spokane	57	55	58	11	15	16	46	40	42
Stevens	18	36	25	*	18	10	12	18	15
Thurston	36	33	45	8	7	11	28	25	34
Wahkiakum	*	169	*	*	*	*	*	120	*
Walla Walla	40	39	47	15	11	16	24	29	30
Whatcom	39	40	41	7	7	9	32	33	32
Whitman	47	44	37	12	16	10	35	28	27
Yakima	40	42	43	11	19	17	29	23	26
State	46	49	50	9	12	12	37	37	39

*The underlying number is too small for this calculation.

Table 4. Percentage of women and median age of physician assistants in provider networks: counties, 2021–23

	Percentage of Female PAs				Median Age			
County	2021	2022	2023	3-year Average	2021	2022	2023	3-year Average
Adams	52.9	61.8	59.0	57.9	47	48	47	47
Asotin	45.1	27.9	40.1	37.7	47	49	49	48
Benton	48.2	53.5	56.4	52.7	42	42	41	42
Chelan	56.5	55.9	58.7	57.0	42	43	42	42
Clallam	49.7	42.2	47.9	46.6	41	43	41	42
Clark	65.1	68.1	65.7	66.3	40	40	40	40
Columbia	*	*	*	*	*	*	*	*
Cowlitz	59.9	51.9	59.5	57.1	42	41	40	41
Douglas	45.7	61.4	52.4	53.2	47	48	47	47
Ferry	*	55.5	49.1	*	*	64	65	*
Franklin	31.3	38.9	43.8	38.0	43	40	45	43
Garfield	*	*	*	*	*	*	*	*
Grant	38.9	42.5	38.7	40.0	43	43	44	43
Grays Harbor	33.9	35.7	37.3	35.6	45	46	44	45
Island	60.7	63.0	65.8	63.2	45	40	39	41
Jefferson	68.8	69.7	79.1	72.5	46	47	47	47
King	66.1	65.9	68.1	66.7	40	40	39	40
Kitsap	54.7	55.1	56.9	55.6	45	42	42	43
Kittitas	43.4	40.7	43.0	42.4	43	42	45	43
Klickitat	41.8	45.3	45.2	44.1	44	42	44	43
Lewis	60.6	56.0	45.7	54.1	35	46	44	42
Lincoln	31.4	*	*	*	49	*	*	*
Mason	48.8	52.4	44.0	48.4	44	47	43	45
Okanogan	54.3	61.6	53.9	56.6	48	46	47	47
Pacific	43.8	17.2	34.7	31.9	50	51	52	51
Pend Oreille	31.4	28.7	9.3	23.1	38	43	40	40
Pierce	57.6	54.0	56.3	56.0	40	40	41	40
San Juan	96.0	100.0	99.2	98.4	61	55	51	56
Skagit	64.5	65.3	60.4	63.4	42	41	40	41
Skamania	*	*	*	*	*	*	*	*
Snohomish	58.8	59.8	61.8	60.1	41	41	41	41
Spokane	49.0	50.5	49.6	49.7	44	43	43	43
Stevens	48.5	48.2	32.1	42.9	41	40	41	41
Thurston	50.9	54.6	54.3	53.2	44	43	42	43
Wahkiakum	*	63.3	*	*	*	44	*	*
Walla Walla	46.9	49.7	49.9	48.9	39	41	41	40
Whatcom	64.0	66.5	64.9	65.1	42	42	41	42
Whitman	65.5	59.9	57.8	61.1	42	43	47	44
Yakima	50.5	53.3	55.6	53.1	43	43	41	42
State	59.0	59.5	60.3	59.6	41	41	41	41

*The underlying number is too small for this calculation.

Table 5. Number and percentage of physician assistants in provider networks: ACHs, 2021–23

	Number of PAs			Percent of PAs		
ACH	2021	2022	2023	2021	2022	2023
HealthierHere	1,228	1,404	1,385	34.3%	36.4%	34.6%
North Sound ACH	475	500	541	13.3%	13.0%	13.5%
Elevate Health	396	465	453	11.1%	12.1%	11.3%
Better Health Together	333	338	359	9.3%	8.8%	9.0%
Greater Health Now	322	358	401	9.0%	9.3%	10.0%
SWACH	258	281	299	7.2%	7.3%	7.5%
CHOICE	226	194	243	6.3%	5.0%	6.1%
Thriving Together NCW	185	193	195	5.2%	5.0%	4.9%
Olympic Community of Health	152	123	132	4.3%	3.2%	3.3%
Total	3,574	3,855	4,007	100%	100%	100%

Table 6. Number of physician assistants per 100,000 population in provider networks – total, primary care, and specialist care: ACHs, 2021–23

	Total PAs			Primary Care PAs			Specialist PAs		
ACH	2021	2022	2023	2021	2022	2023	2021	2022	2023
Better Health Together	53	52	55	12	15	17	41	42	38
CHOICE	34	29	36	8	9	11	26	21	25
Elevate Health	43	50	48	8	11	9	36	41	39
Greater Health Now	43	47	52	11	15	16	33	37	37
HealthierHere	54	61	59	8	12	9	46	53	50
North Sound ACH	36	38	41	8	8	10	29	31	31
Olympic Community of Health	39	31	33	10	11	11	30	23	23
SWACH	47	51	53	12	14	13	36	39	40
Thriving Together NCW	68	72	71	19	25	26	50	51	47
State	46	49	50	9	12	12	37	37	39

Table 7. Percentage of women and median age of physician assistants in provider networks: ACHs, 2021–23

	Percentage of Female PAs				Median Age			
ACH	2021	2022	2023	Avg	2021	2022	2023	Avg
Better Health Together	48.8	50.2	48.7	49.2	45	43	43	44
CHOICE	52.4	51.9	51.5	51.9	42	43	42	42
Elevate Health	57.6	54.0	56.3	56.0	40	40	41	40
Greater Health Now	48.4	49.9	52.2	50.1	42	42	42	42
HealthierHere	66.1	65.9	68.1	66.7	40	40	39	40
North Sound ACH	61.0	62.3	62.5	61.9	42	41	41	41
Olympic Community of Health	54.5	53.8	56.9	55.1	44	43	42	43
SWACH	64.2	67.2	64.5	65.3	40	40	40	40
Thriving Together NCW	51.0	53.1	53.0	52.4	43	43	43	43
State	59.0	59.5	60.3	59.6	41	41	41	41