

# PMP indicators for the Washington Tracking Network

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This describes and computes indicators from the Prescription Monitoring Program (PMP) to display in the Washington Tracking Network (WTN) online data portal.

The indicators are:

- 1. Patients with any opioid prescription** We computed the number of people, per 1,000 population, with at least one opioid prescription submitted to the Prescription Monitoring Program in a calendar quarter, excluding buprenorphine prescriptions. We computed the age and sex-adjusted prevalence, and the prevalence for each of the age groups 0–9, 10–17, 18–24, 25–34, 35–44, 45–54, 55–64, 65–74, and 75+.
- 2. Patients with chronic opioid prescriptions** We computed the age and sex-adjusted prevalence of people with at least 60 days' supply of opioids prescribed in the current quarter, excluding buprenorphine prescriptions.
- 3. Patients with high-dose chronic opioid prescriptions** A high-dose chronic opioid user is a person who has filled prescriptions for at least 60 days' supply of opioids during the quarter, and whose prescriptions provided a dose of 50 morphine milligram equivalents (MME)/day or more, or 90 MME/day or more, or 120 MME/day or more, averaged over the quarter.
- 4. Patients with concurrent opioid and sedative prescriptions** A person has overlapping prescriptions if there is at least one day during the quarter when an opioid prescription and a sedative prescription overlap, according to the dates the prescriptions were filled and the days' supply recorded in the PMP records. We exclude buprenorphine prescriptions.
- 5. Patients with new opioid prescriptions by days' supply** Among patients who are new opioid users in the current quarter, we computed the percent with an opioid prescription among these categories: 3 days' supply or less, 4–7 days' supply, 8–13 days' supply, and 14 days' supply or more. A new opioid user is a person who filled an opioid prescription in the current quarter, but did not fill an opioid prescription in the prior quarter. All authorized refills are included in the days' supply, even if they were not filled. Buprenorphine prescriptions and opioid prescriptions prescribed for more than 59 days' supply are excluded.
- 6. Patients with new chronic opioid prescriptions** This is the age- and sex-adjusted proportion of the population who were new opioid users in the past quarter, and are chronic opioid users (with 60 or more days' supply) in the present quarter. Buprenorphine prescriptions are excluded.

## WTN indicator 1: Patients with any opioid prescription

For this indicator, we computed the proportion of the population with at least one opioid prescription submitted to the Prescription Monitoring Program in a calendar quarter, excluding buprenorphine prescriptions. We computed the age-sex-adjusted proportion, and the proportion for each of the age groups 0–9, 10–17, 18–24, 25–34, 35–44, 45–54, 55–64, 65–74, and 75+.

If a person filled prescriptions while living in 2 different counties during a quarter, we counted them only once, in the county where they lived when they filled their first prescription of the quarter.

There was a small deficit in the number of patients reported with opioid prescriptions in the first quarter of 2015, due to a reporting issue with some identified prescribers. This error is more evident in some counties. We are working with them to correct this.

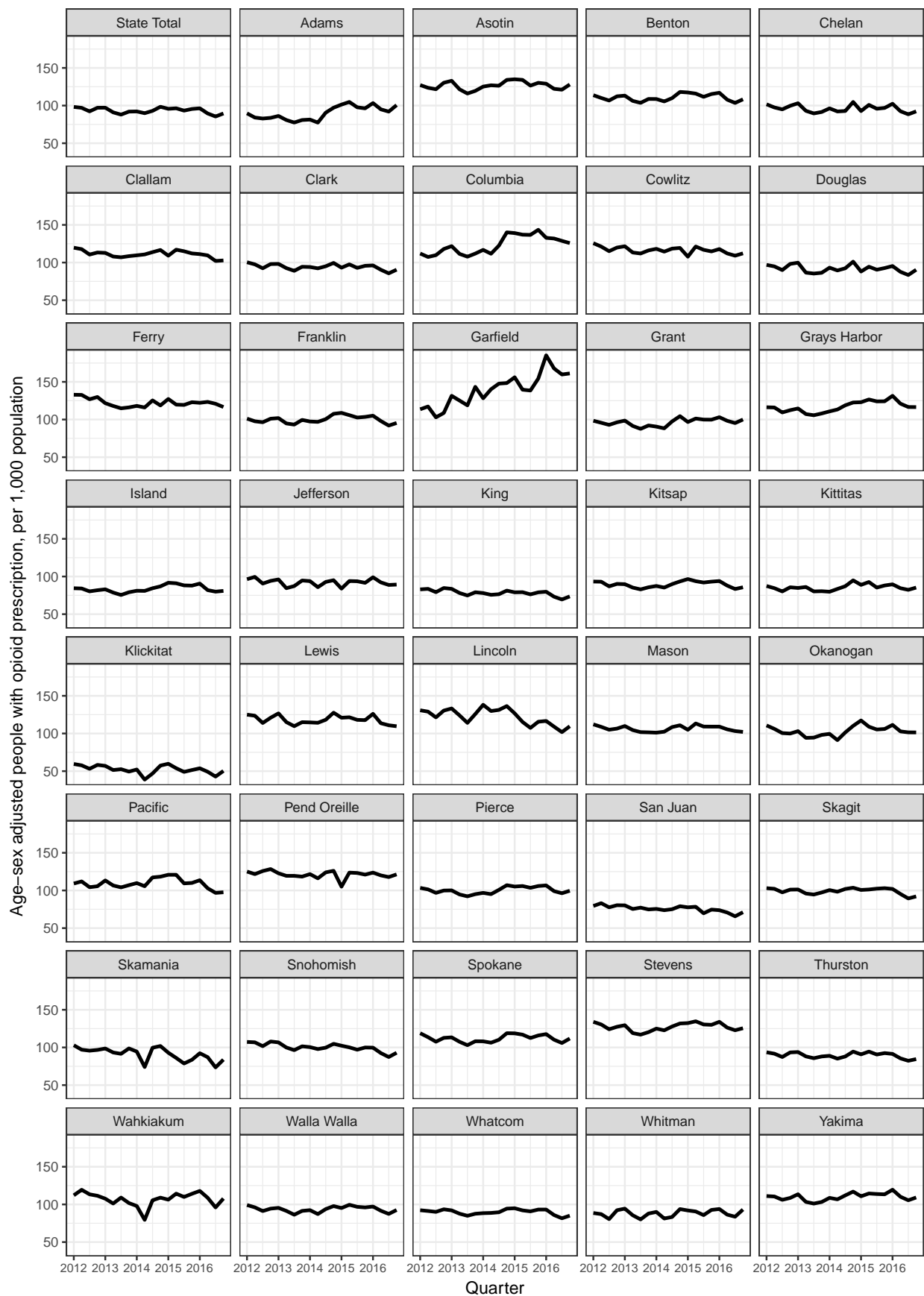


Figure 1: Age and sex adjusted prevalence of patients with any opioid prescription, by county and quarter, 2012–2016, per 1,000 population.

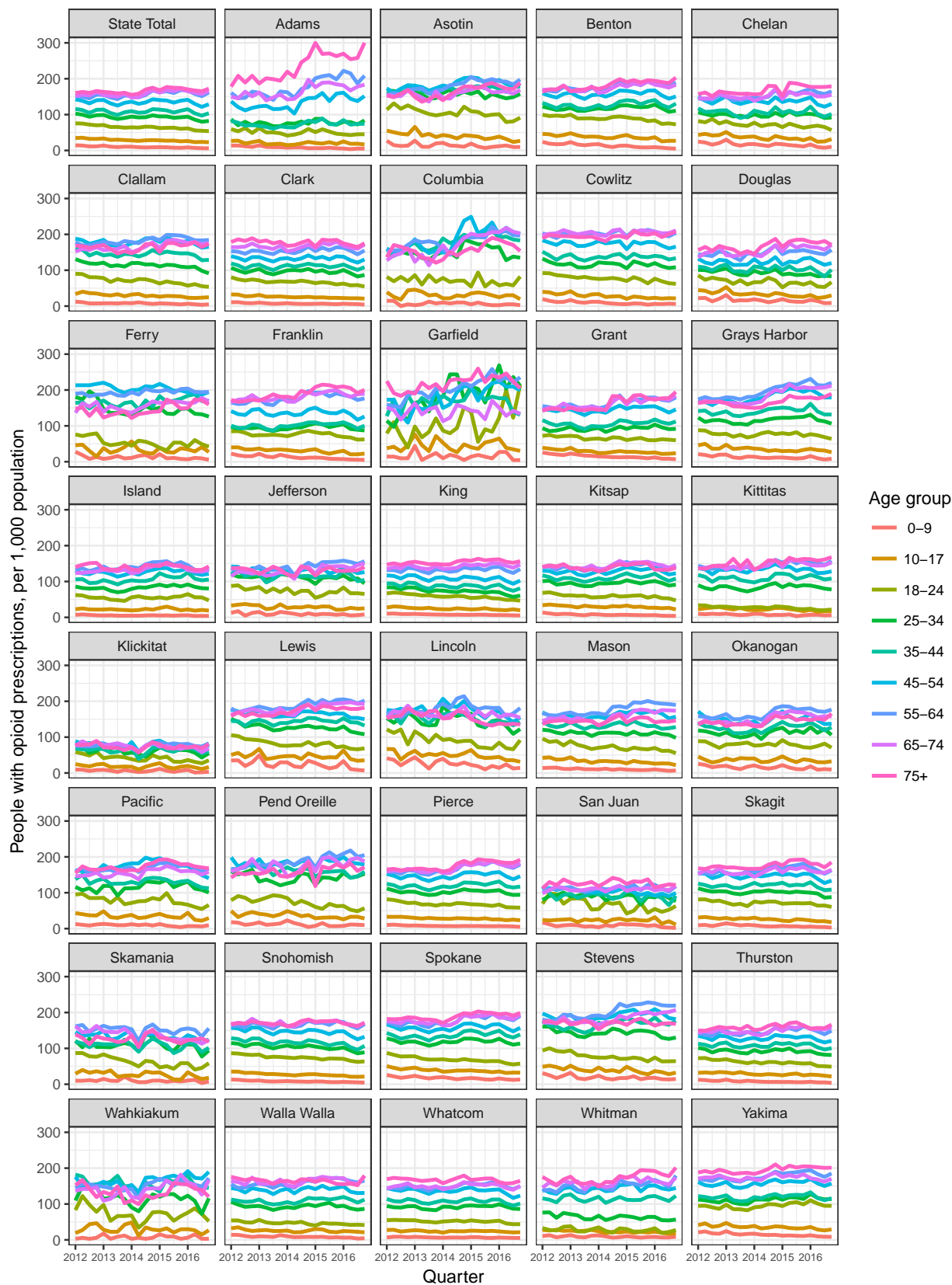


Figure 2: Prevalence of patients with any opioid prescription, by age group, county, and quarter, 2012–2016, per 1,000 population.

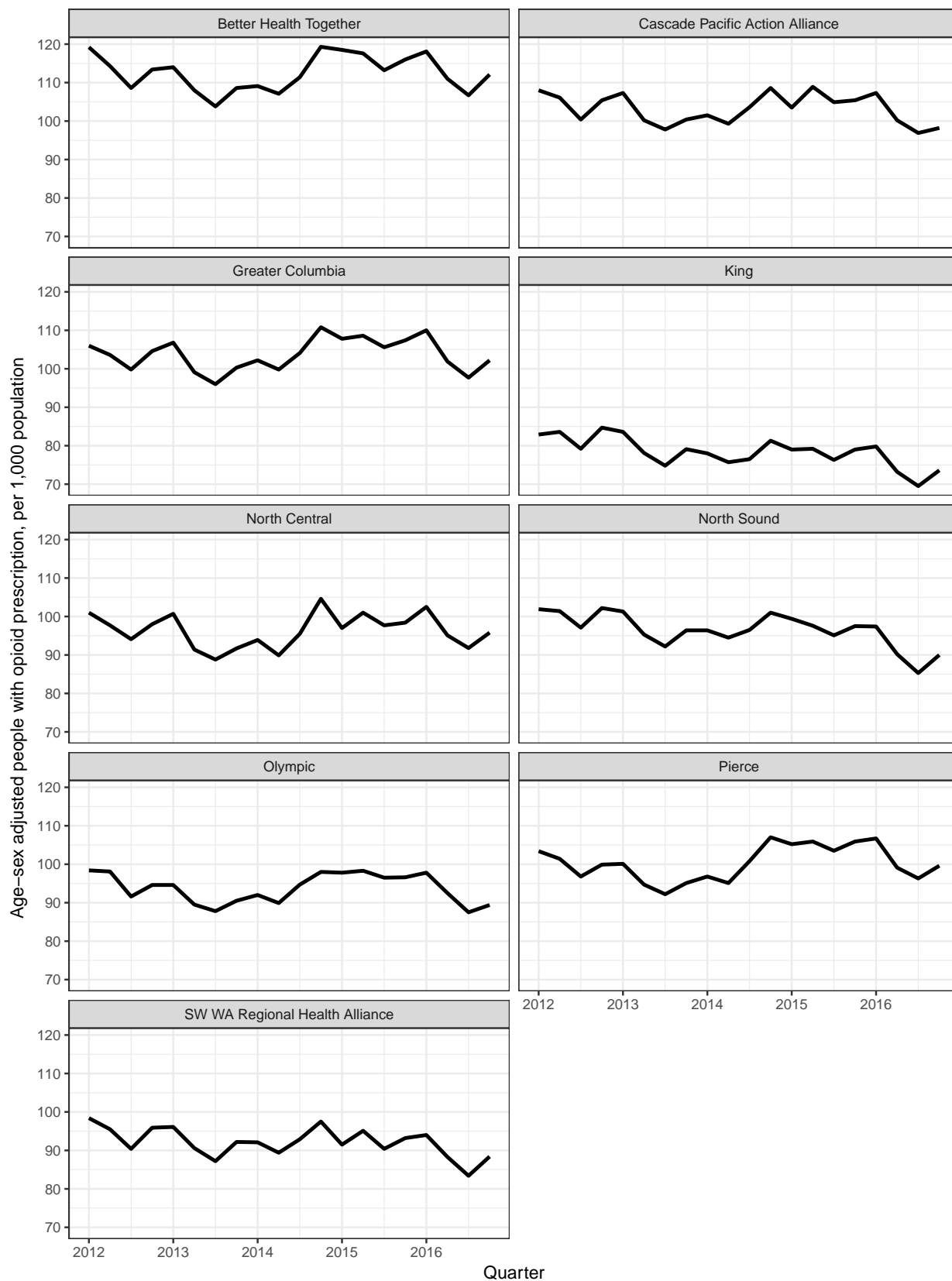


Figure 3: Age and sex adjusted prevalence of people with an opioid prescription, by ACH and quarter, 2012–2016, per 1,000 population.

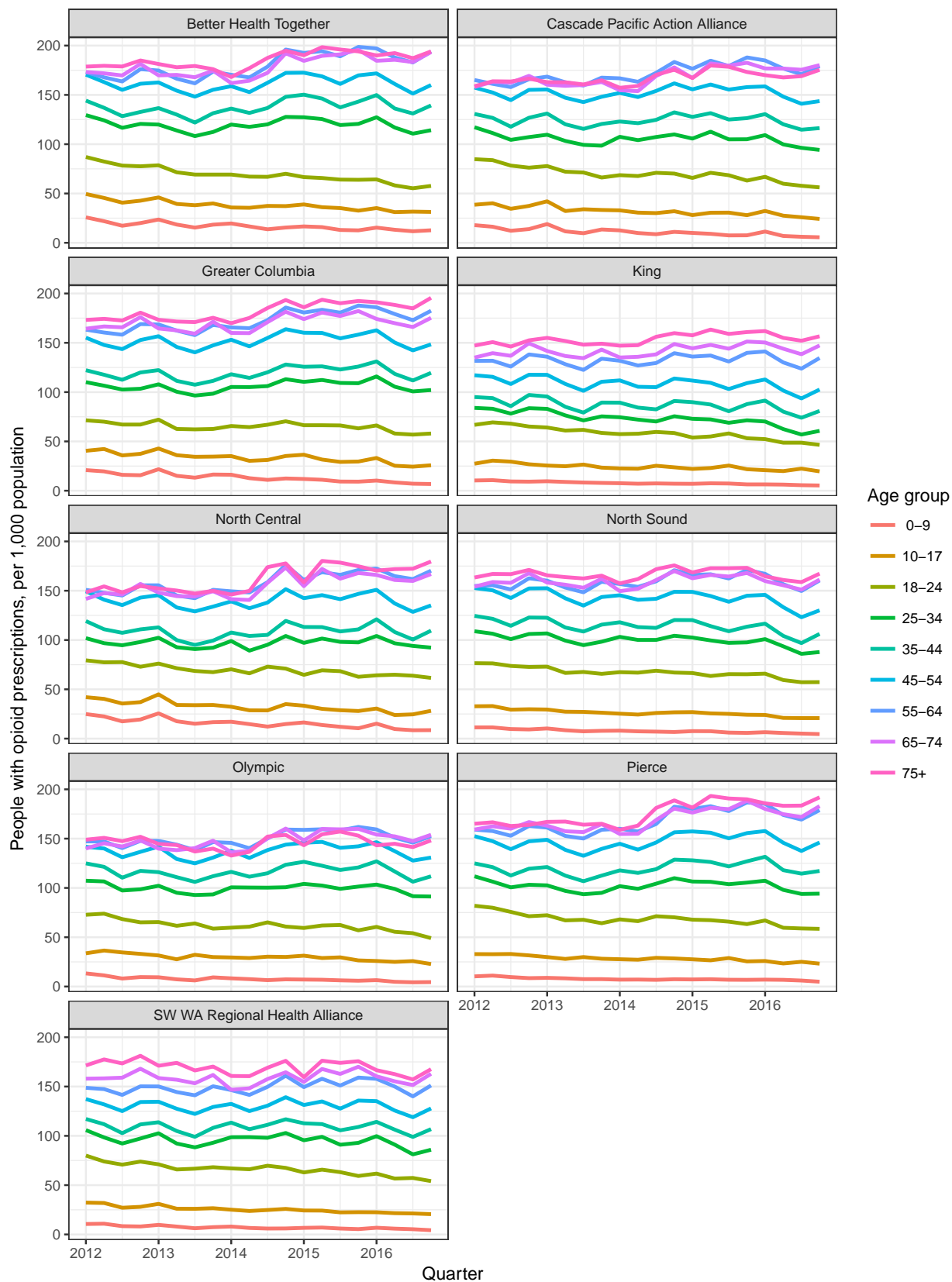


Figure 4: Prevalence of patients with any opioid prescription, by age group, ACH, and quarter, 2012–2016, per 1,000 population.

**WTN indicator 2: Patients with chronic opioid prescriptions**

This metric assesses chronic opioid use. We computed the age and sex-adjusted proportion of the population with at least 60 days' supply of opioids prescribed in the current quarter, excluding buprenorphine prescriptions. The estimates were made as a proportion per 1,000 Washington residents per calendar quarter.

There was a deficit in the number of patients reported with chronic opioid prescriptions in the first quarter of 2015, due to a reporting issue with some identified prescribers. This error is more evident in some counties. We are working with them to correct this.

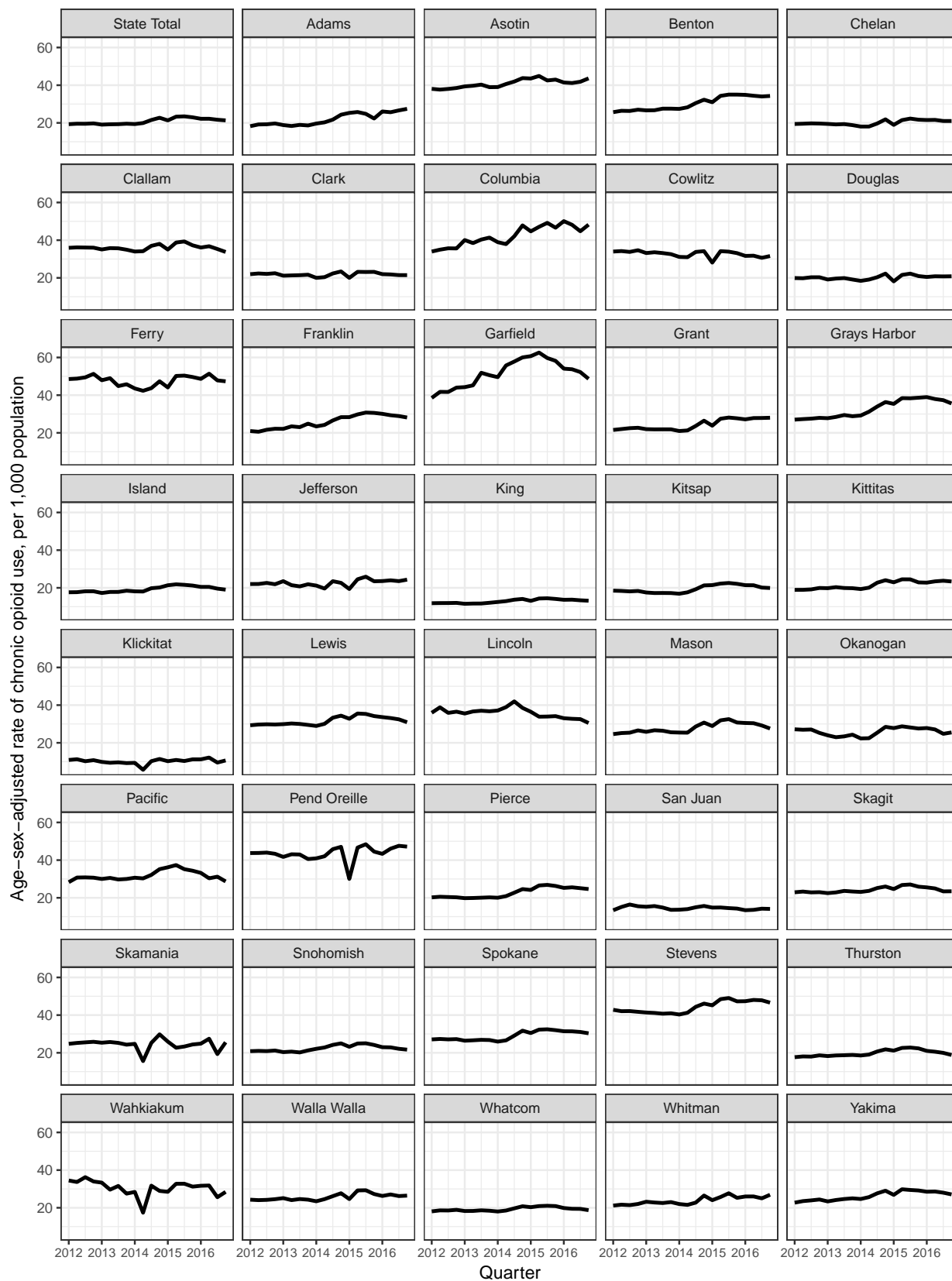


Figure 5: Age-sex adjusted prevalence of patients with chronic opioid prescriptions, per 1,000 population, by county and quarter, 2012–2016.



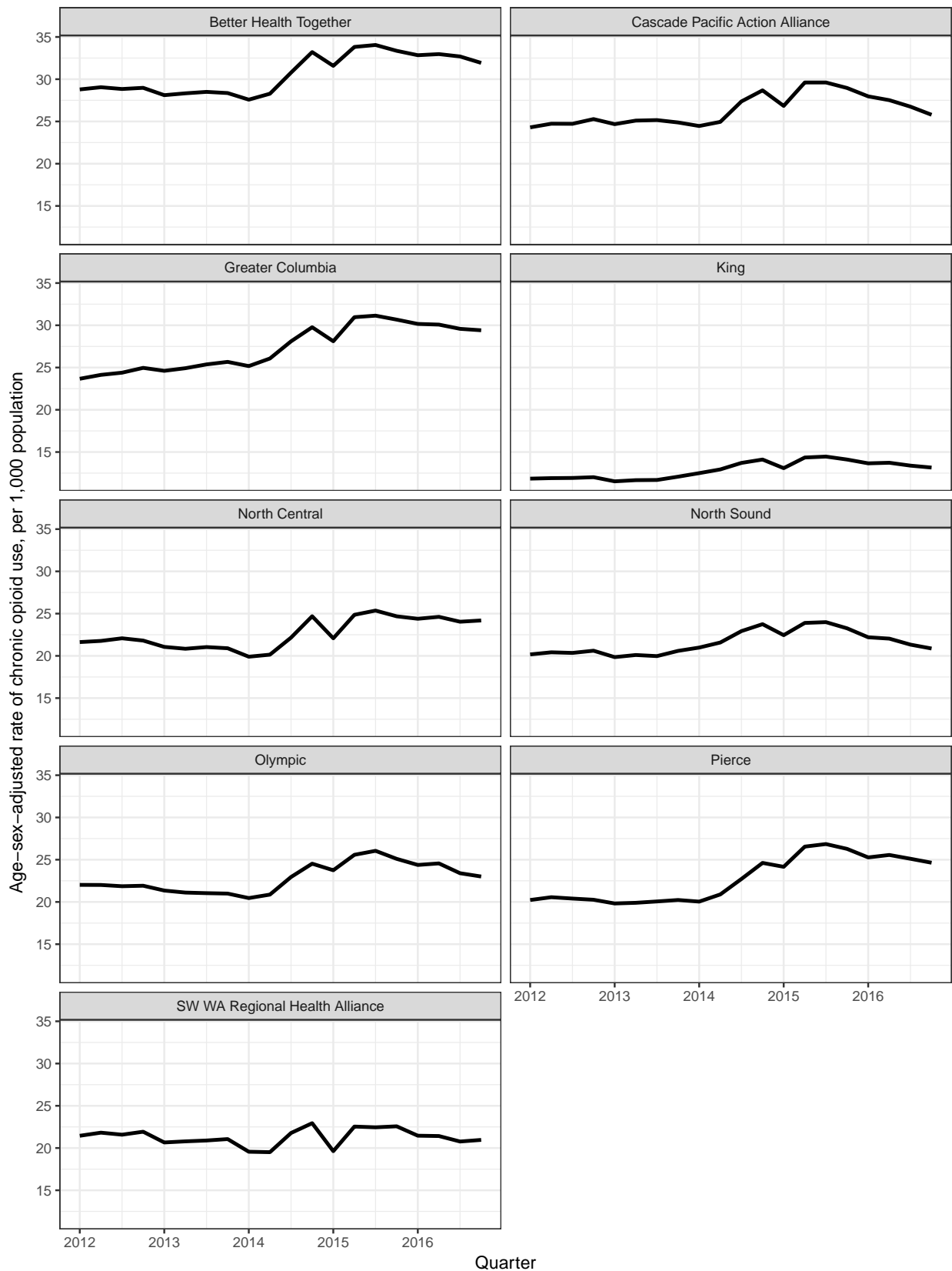


Figure 6: Age-sex adjusted prevalence of patients with chronic opioid prescriptions, per 1,000 population, by ACH and quarter, 2012–2016.

**WTN indicator 3: Patients with high-dose chronic opioid prescriptions**

This metric assesses high-dose chronic opioid use. A high-dose chronic opioid user is a person who has filled prescriptions for at least 60 days' supply of opioids during the quarter, and whose prescriptions provided a dose of 50 morphine milligram equivalents (MME)/day or more, or 90 MME/day or more, or 120 MME/day or more, averaged over the quarter. We compute MME/day by dividing the total MME dispensed during the quarter by the number of days in the quarter.

There was a deficit in the number of patients reported with high-dose chronic opioid prescriptions in the first quarter of 2015, due to a reporting issue with some identified prescribers. This error is more evident in some counties. We are working with them to correct this.

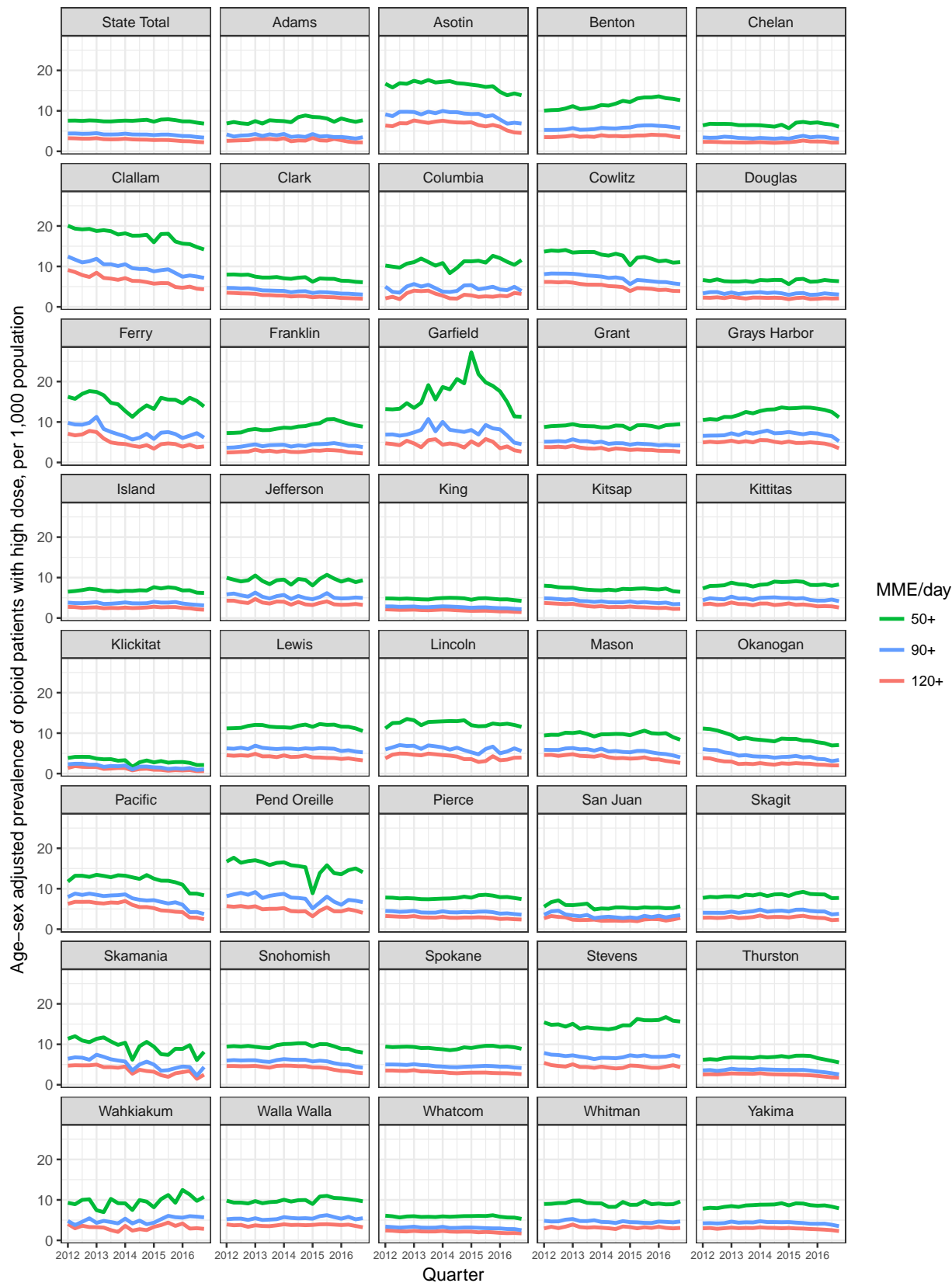


Figure 7: Age-sex adjusted prevalence of patients with high-dose chronic opioid prescriptions of at least 50 MME/day, 90 MME/day, or 120 MME/day, per 1,000 population, by county and quarter, 2012–2016.

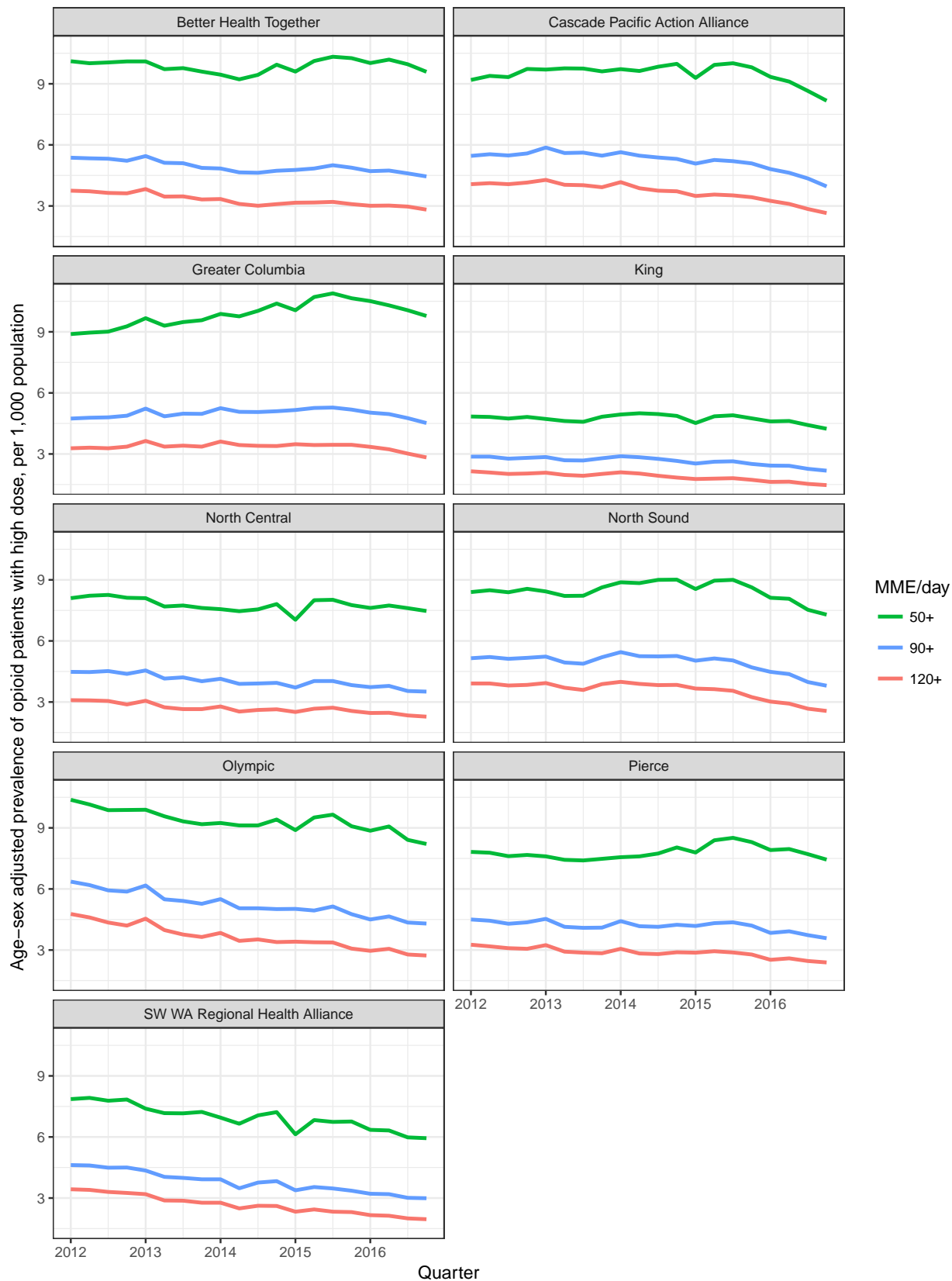


Figure 8: Age-sex adjusted prevalence of patients with high-dose chronic opioid prescriptions of at least 50 MME/day, 90 MME/day, or 120 MME/day, per 1,000 population, by ACH and quarter, 2012–2016.

#### **WTN indicator 4: patients with concurrent opioid and sedative prescriptions**

Age and sex-adjusted proportion of the population who receive one or more days of overlapping opioid and sedative prescriptions. Buprenorphine prescriptions are excluded. The estimates were made as a proportion per 1,000 Washington residents per calendar quarter.

A prescription is considered to overlap with another prescription if it is filled on or after the date the other prescription was filled, and on or before the date that prescription would have run out, according to the days' supply on the PMP record.

This list of drugs is considered sedatives for the purpose of computing this indicator:

Alprazolam  
Chlordiazepoxide  
Clonazepam  
Clorazepate  
Diazepam  
Estazolam  
Flumazenil  
Flurazepam  
Lorazepam  
Midazolam  
Oxazepam  
Quazepam  
Temazepam  
Triazolam  
Butabarbital  
Butalbital  
Mephobarbital  
Phenobarbital  
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Chloral Hydrate  
Eszopiclone  
Meprobamate  
Suvorexant  
Zaleplon  
Zolpidem

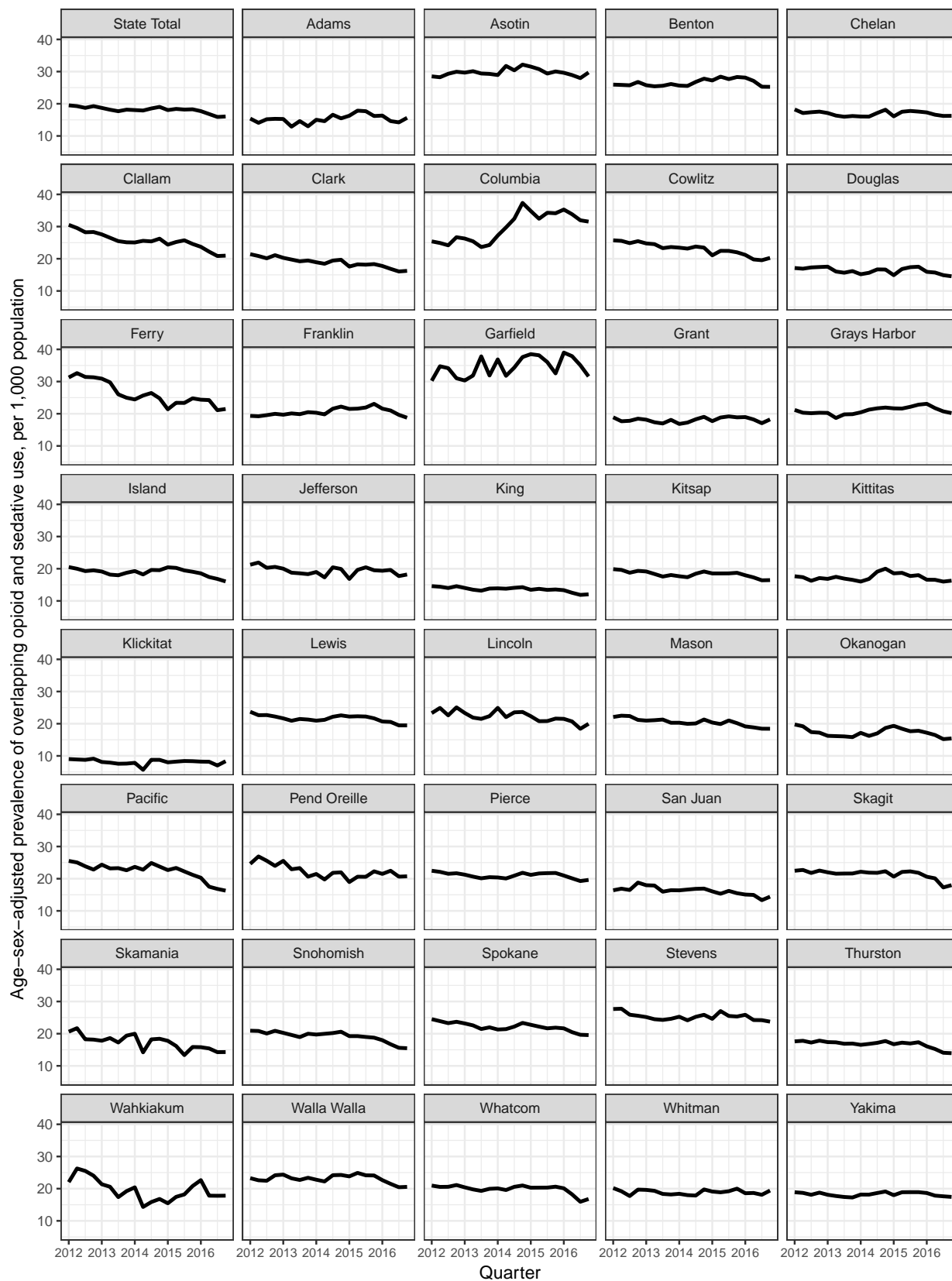


Figure 9: Age-sex adjusted prevalence of patients with concurrent opioid and sedative prescriptions, per 1,000 population, by county and quarter, 2012–2016.

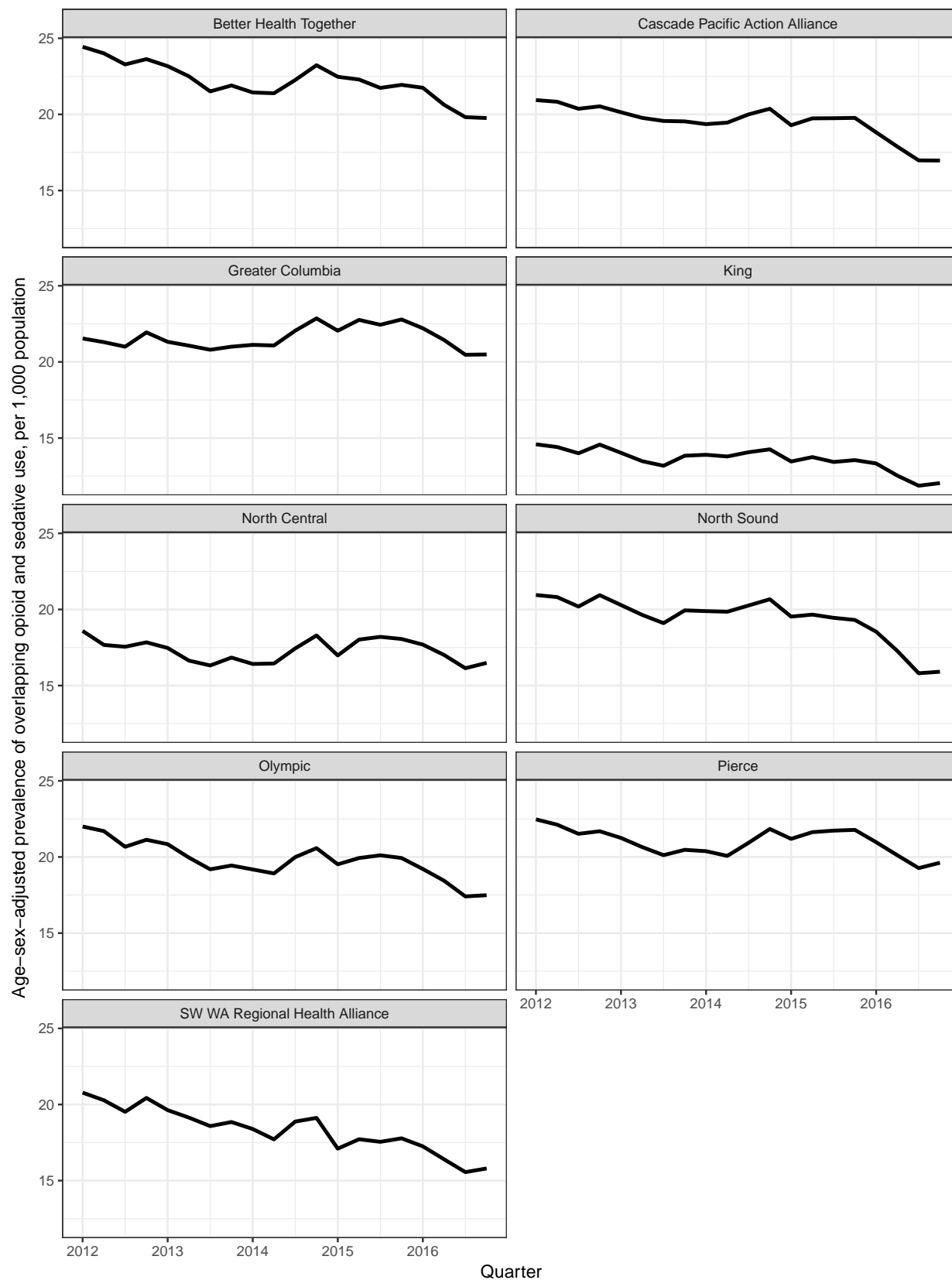


Figure 10: Age-sex adjusted prevalence of patients with concurrent opioid and sedative prescriptions, per 1,000 population, by ACH and quarter, 2012–2016.

**WTN indicator 5: Patients with new opioid prescriptions by days' supply**

This metric assesses the distribution of days' supply for new opioid users. Among patients who are new opioid users in the current quarter, the percent with at least one opioid prescription among these categories: 3 days' supply or less, 4–7 days' supply, 8–13 days' supply, and 14 days' supply or more. A new opioid user is a person who fills an opioid in the current quarter, but did not fill an opioid prescription in the prior quarter. All authorized refills are included in the days' supply. Buprenorphine prescriptions and opioid prescriptions prescribed for more than 59 days' supply are excluded.



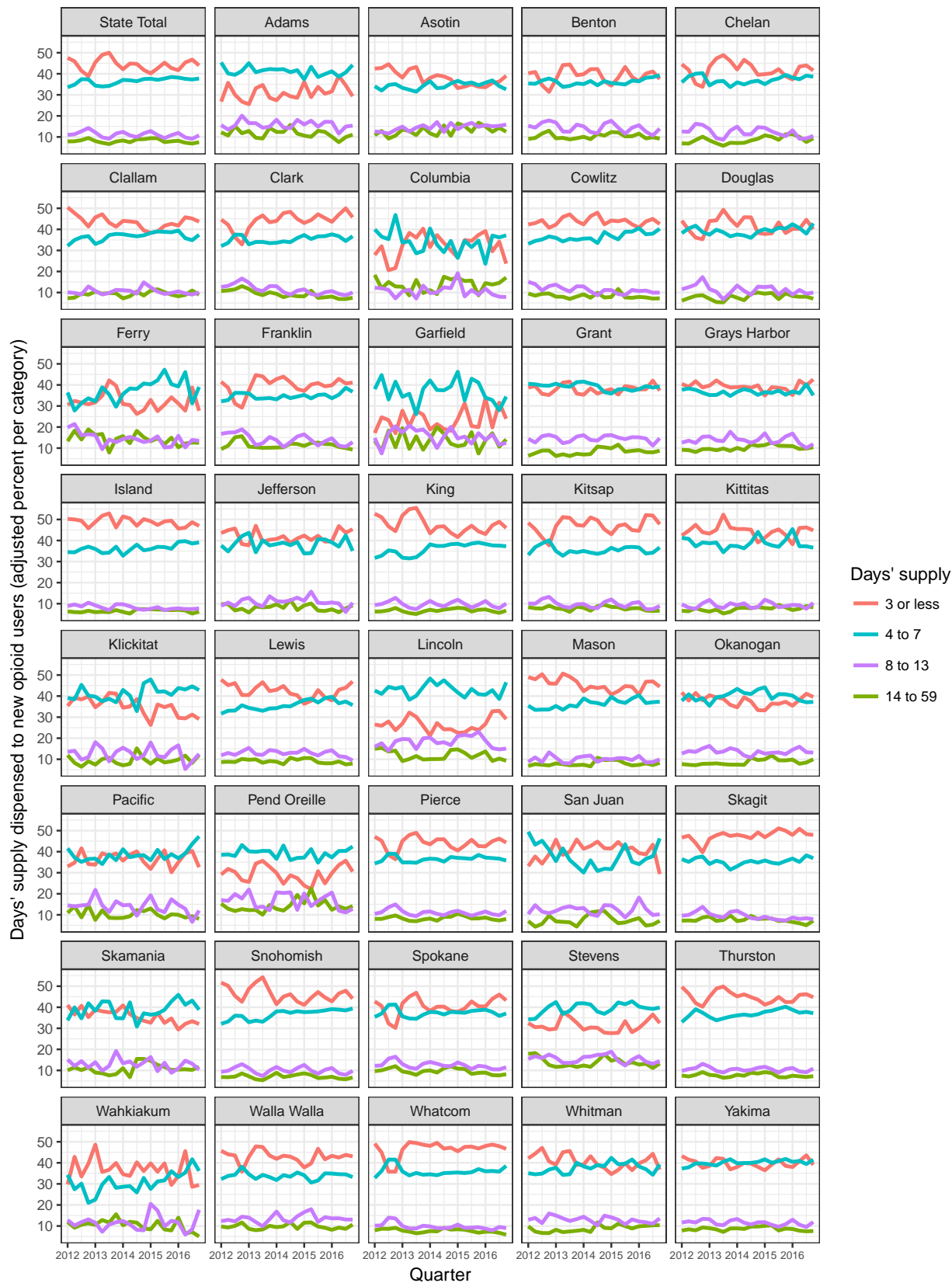


Figure 11: Percent of patients with new opioid prescriptions who were dispensed 3 days' supply of opioids or less, 4–7 days' supply, 8–13 days' supply, or 14–59 days' supply, by county and quarter, 2012–2016.

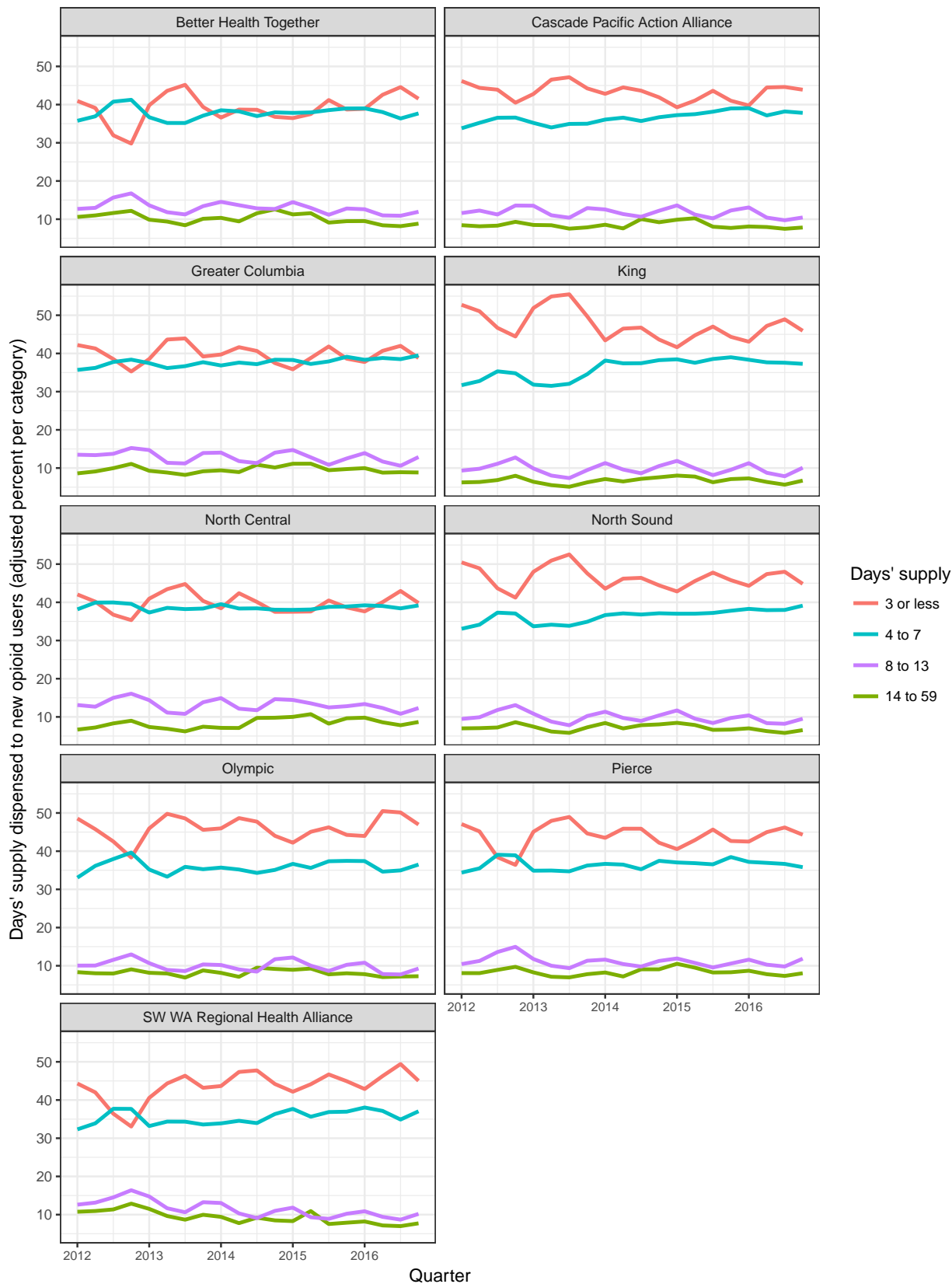


Figure 12: Percent of patients with new opioid prescriptions who were dispensed 3 days' supply of opioids or less, 4–7 days' supply, 8–13 days' supply, or 14–59 days' supply, by county and quarter, 2012–2016.

## **WTN indicator 6: Patients with new chronic opioid prescriptions**

Age and sex-adjusted incidence rate of chronic opioid use. This is the proportion of the population who were new opioid users in the past quarter, and are chronic opioid users (with 60 or more days' supply) in the present quarter. Exclusions include those with no opioid prescription in the quarter prior to the previous quarter, and buprenorphine prescriptions.

We tabulated county of residence at the time a person became a chronic user, even if they became a new user in a different county.

The increase in patients with new chronic opioid prescriptions in the third quarter of 2015 is due to a reporting issue with some identified dispensers during the first quarter of 2015. This error is more evident in some counties. We are working with them to correct this.

Tramadol prescriptions were not reported to the PMP until the third quarter of 2014. There are many chronic tramadol users. A naive tabulation of the data would count the chronic tramadol users as new opioid users in the third quarter of 2014, and as transitioning to chronic opioid use in the fourth quarter of 2014. Although tramadol reporting began in August 2014, we found there were almost twice as many tramadol prescriptions in the PMP in the fourth quarter of 2014 as there were in the third quarter, implying that reporting in the third quarter was incomplete, and that some of the tramadol users who newly appeared in the PMP in the fourth quarter of 2014 were also previous tramadol users. To fix this, we defined a new user in the third and fourth quarters of 2014 as a person who had a prescription for an opioid other than tramadol in that quarter after not having any opioid prescriptions in the prior quarter. Therefore, people with tramadol prescriptions in the third and fourth quarters of 2014 were not counted as new users, even if they were never in the PMP prior to those quarters. People with tramadol prescriptions in 2015 or later were counted as new users if they had no opioid prescriptions in the prior quarter.

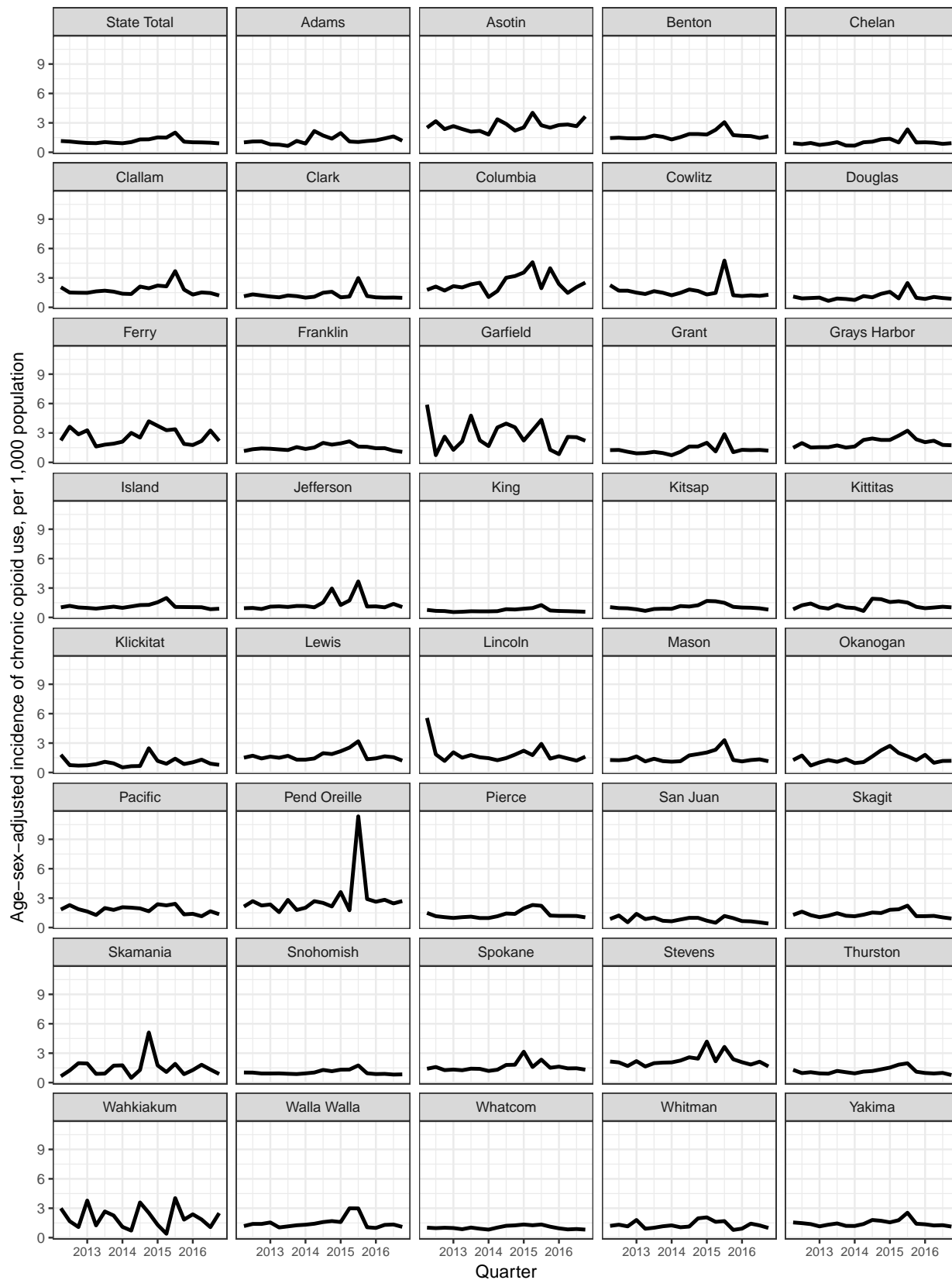


Figure 13: Age-sex-adjusted incidence of patients with new chronic opioid prescriptions, per 1,000 population, by county and quarter, 2012 (quarter 2)–2016.

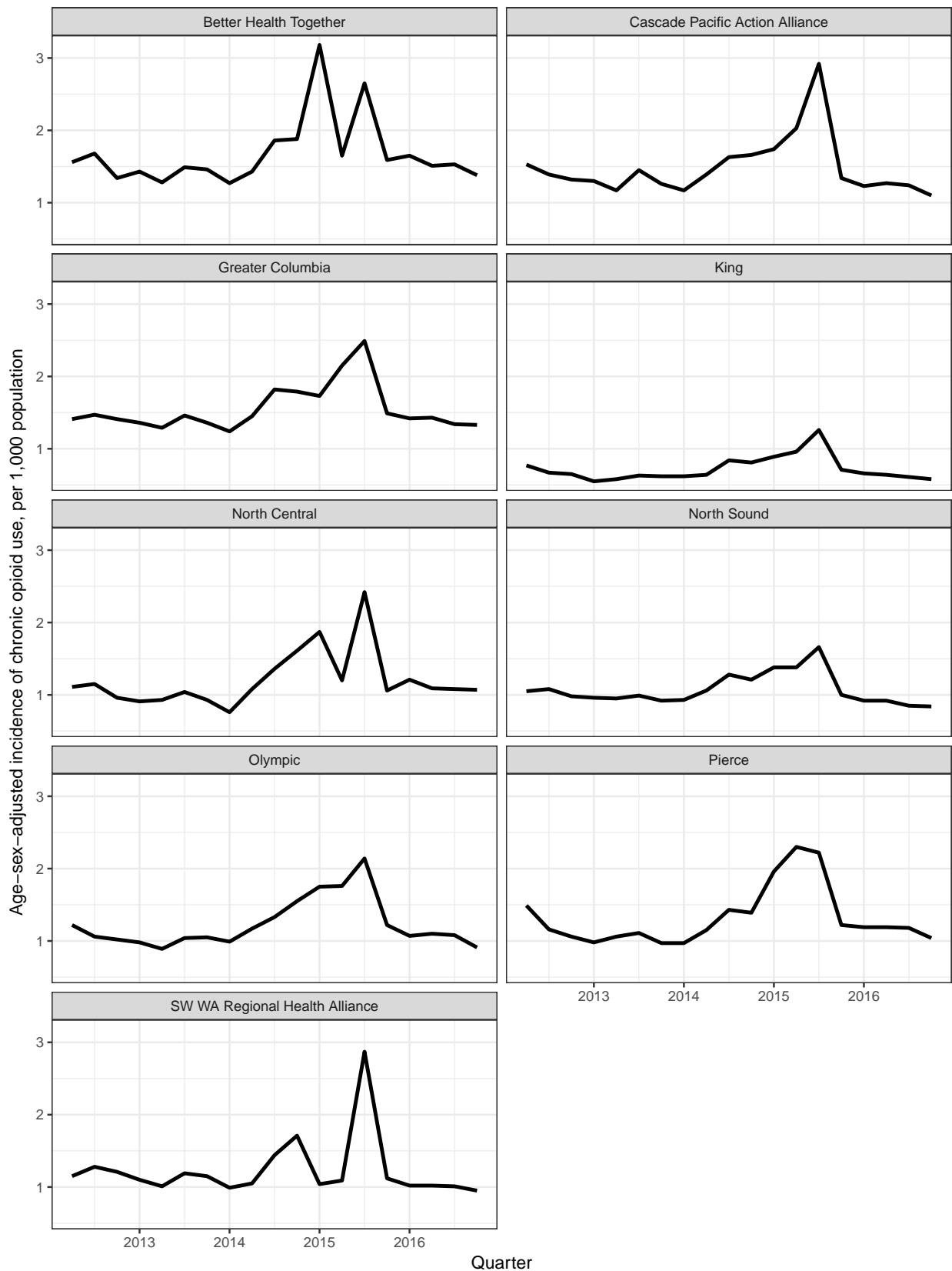


Figure 14: Age-sex-adjusted incidence of patients with new chronic opioid prescriptions, per 1,000 population, by ACH and quarter, 2012 (quarter 2)–2016.