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Outpatient Antibiotic Prescribing Trends in Oregon, 2008-2025

Oregon AWARE (Alliance Working for Antibiotic Resistance Education)

July 2026

Background

This report summarizes outpatient antibiotic prescribing among seven Oregon health plans in 2025. The analysis includes prescriptions for cephalosporins, macrolides, penicillins, quinolones, and tetracyclines and represents an average monthly enrollment of 1.9 million members. Annual participation has varied since the project's inception. (Table 1).

Key Findings

- Outpatient antibiotic prescribing in Oregon has declined substantially over time. In 2025, prescribing rates were approximately 35% lower than in 2008.
- Antibiotic use consistently peaks during the winter months, corresponding with increased respiratory illness activity.
- Prescribing patterns vary by antibiotic class. Quinolone prescribing has continued to decline, while penicillins show the greatest seasonal variation.
- Antibiotic prescribing declined substantially during the COVID-19 pandemic, has partially rebounded, but remains below pre-pandemic levels.

Figure 1. Annual Antibiotic Prescriptions per Member, 2008-2025.

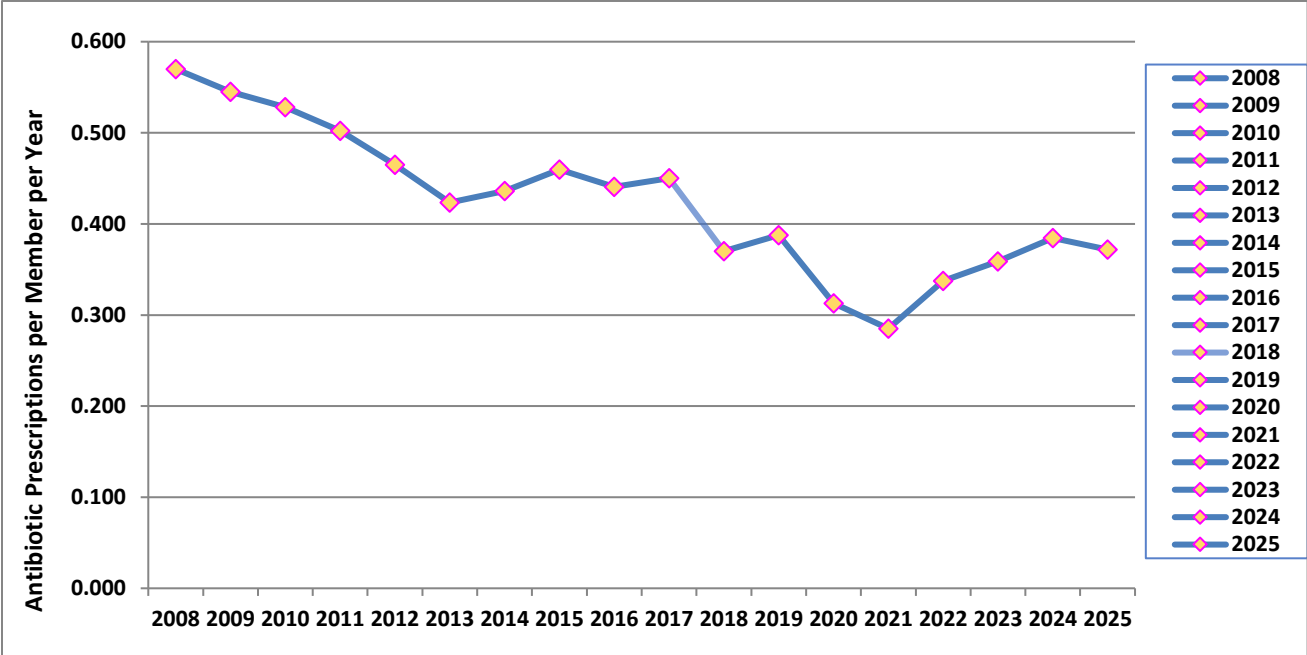


Figure 1 shows the annual number of outpatient antibiotic prescriptions per member from 2008 to 2025. Overall, antibiotic prescribing declined over this time period. Prescribing decreased sharply in 2020 and 2021, coinciding with changes in healthcare utilization during the COVID-19 pandemic. Although prescribing increased after the pandemic, rates in 2025 remained below pre-pandemic levels, consistent with the overall downward trend.

Figure 2. Percent Change in Antibiotic Prescribing since 2008.

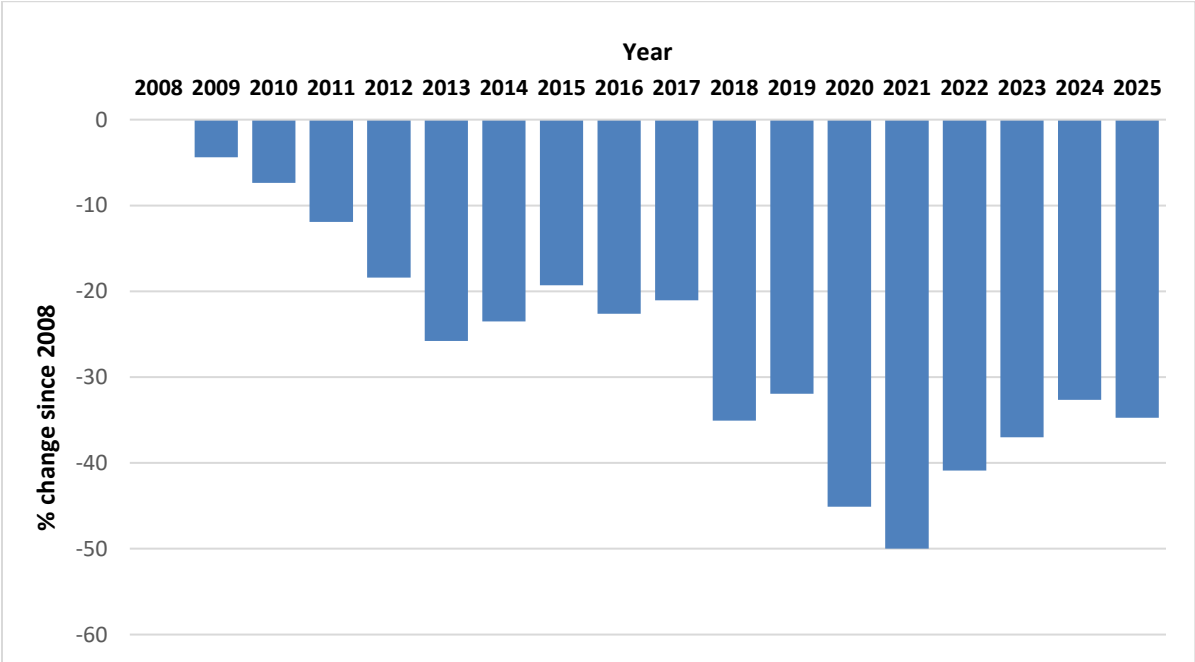


Figure 2 shows the cumulative change in outpatient antibiotic prescribing relative to the 2008 baseline. Prescribing declined steadily over time despite temporary fluctuations. In 2025, the prescribing rate was approximately **35% lower** than in 2008, demonstrating sustained long-term reductions in antibiotic prescribing.

Figure 3. Monthly Antibiotic Prescriptions per Member by Year, 2016–2025.

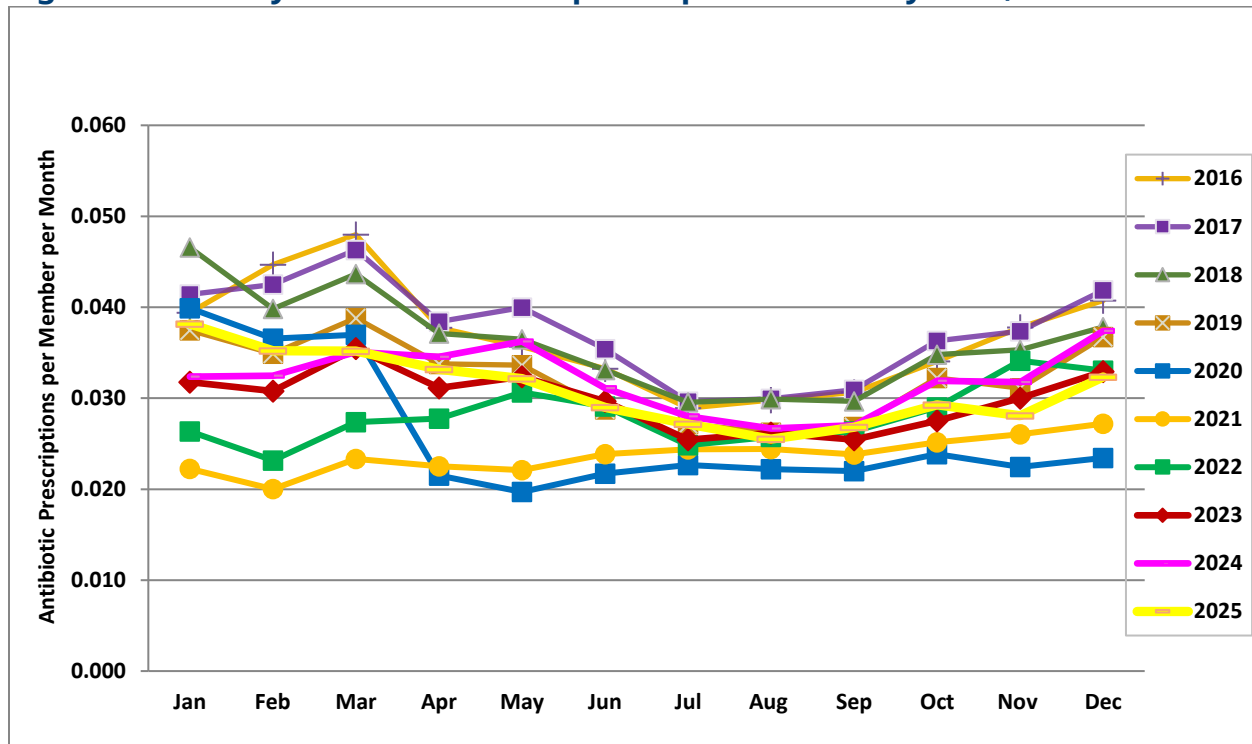


Figure 3 displays antibiotic prescriptions filled per member per month among participating health plans over a ten-year period, illustrating seasonal variation in prescribing. Antibiotic prescribing consistently peaks during the winter months, corresponding with increased respiratory illness activity. Similar seasonal patterns across years suggest that respiratory illness patterns influence outpatient antibiotic prescribing trends. Although some seasonal increase is expected, many respiratory illnesses are caused by viruses, for which antibiotics are not effective. Monitoring seasonal prescribing patterns helps identify opportunities to improve appropriate antibiotic use.

Figure 4. Annual Antibiotic Prescriptions Filled per Member by Antibiotic Class, 2008-2025

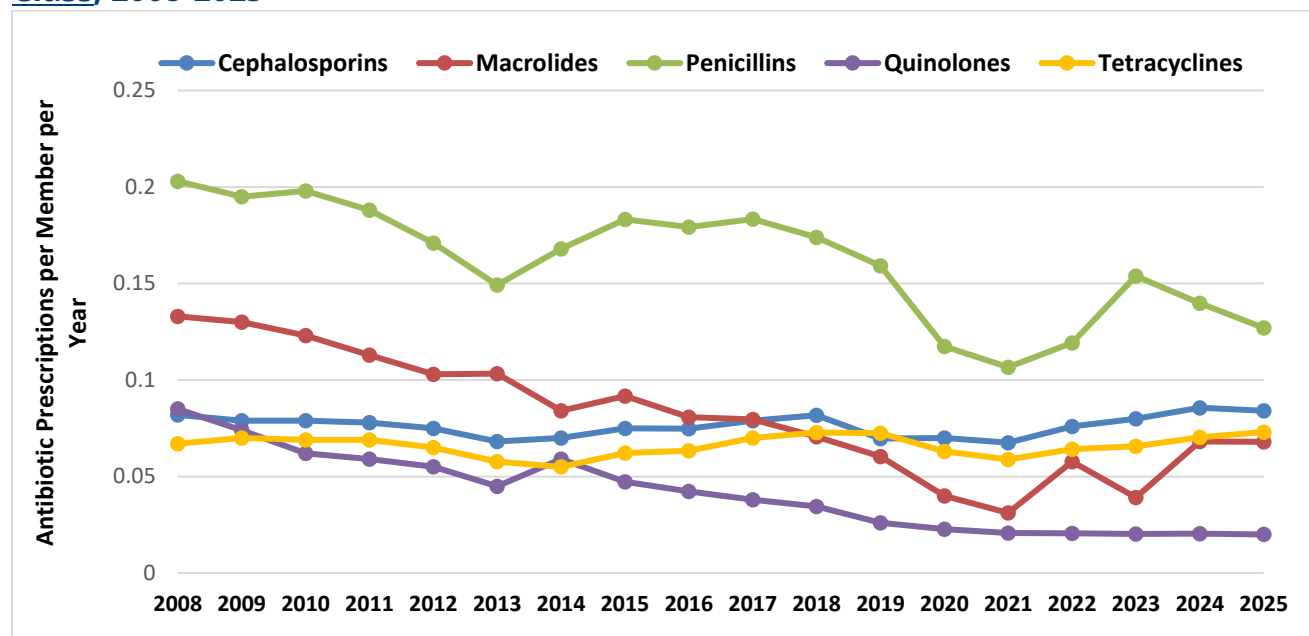


Figure 4 displays trends in antibiotic prescriptions filled per member per year by antibiotic class among participating health plans from 2008 to 2025. Data is shown as **trends over time** to reflect the changes in prescribing patterns by drug class.

Antibiotic classes differ in their clinical indications, spectrum of activity, and potential risks. Changes in prescribing patterns may reflect evolving clinical guidelines, antibiotic stewardship efforts, and concerns related to antibiotic resistance and adverse effects. Quinolone prescribing has declined over time, consistent with efforts to reserve these antibiotics for situations in which they provide the greatest clinical benefit due to concerns about resistance and adverse effects. Penicillins continue to account for a large proportion of outpatient antibiotic prescribing, which aligns with their role as generally narrow-spectrum antibiotics and recommended first-line therapies for many common bacterial infections.

Figure 5. Monthly Antibiotic Prescriptions Filled per Member by Antibiotic Class, 2025

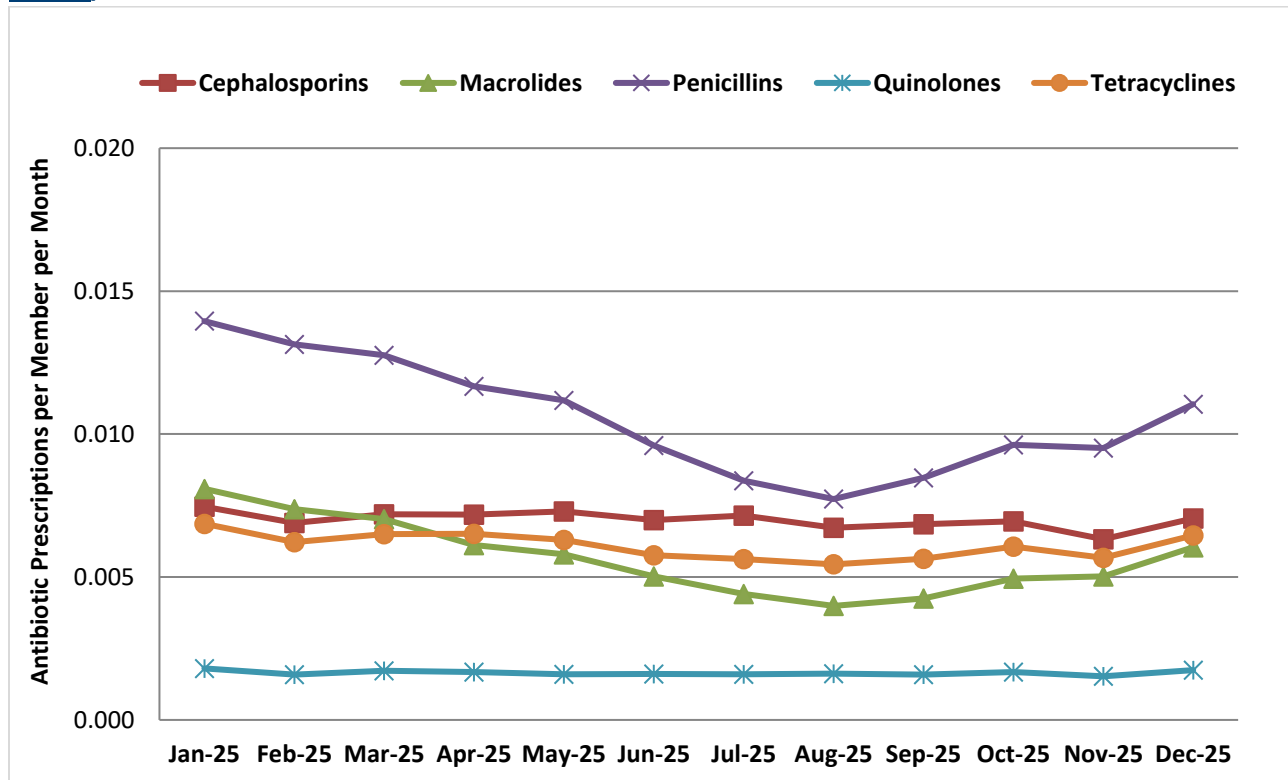


Figure 5 displays antibiotic prescriptions filled per member per month by antibiotic class among participating health plans in 2025, illustrating seasonal variation in prescribing throughout the year.

Penicillins, and to a lesser extent cephalosporins and macrolides, demonstrate winter peaks consistent with seasonal respiratory illness patterns. Quinolone prescribing shows less seasonal variation, reflecting their use for a broader range of infection indications.

Table 1. Number of Participating Health Plans and Members by Year

Year	Number of Health Plans	Number of Members
2008	8	1.2 million
2009	8	1.2 million
2010	10	1.2 million
2011	11	1.8 million
2012	11	1.8 million
2013	10	1.7 million
2014	10	1.9 million
2015	10	2.1 million
2016	10	2.1 million
2017	10	2 million
2018	9	1.9 million
2019	9	1.7 million
2020	8	1.7 million
2021	8	1.7 million
2022	8	1.8 million
2023	8	1.9 million
2024	7	1.9 million
2025	7	1.9 million

Table 1 summarizes the health plans contributing data each year. The number of health plans participating has varied over time. Because enrollment varies by year, prescribing rates are reported as prescriptions per member per year rather than total prescription counts to allow comparisons across years.

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