

Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties
2019: Quarter 2

24/7 Communicable Disease reporting lines:

Crook County: 541-447-5165

Deschutes County: 541-322-7418

Jefferson County: 541-475-4456

Overview of 2018-2019 Central Oregon Flu Season

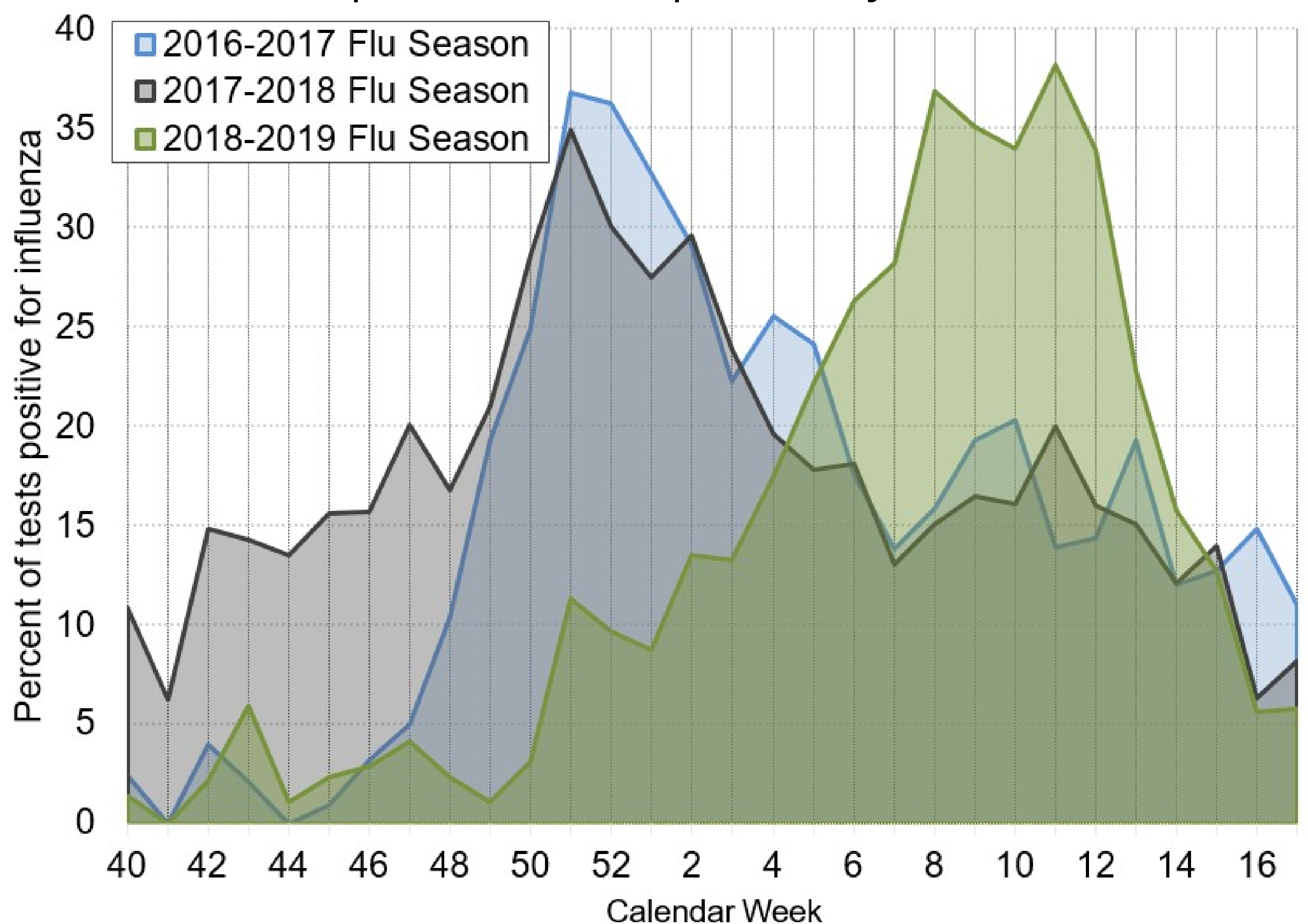
Flu in Central Oregon peaked late this season.

According to data collected from local Central Oregon labs, 2018-2019 flu season activity (shown in green) peaked during calendar week 11 (March 10 through March 16), followed by a rapid decline in flu activity.

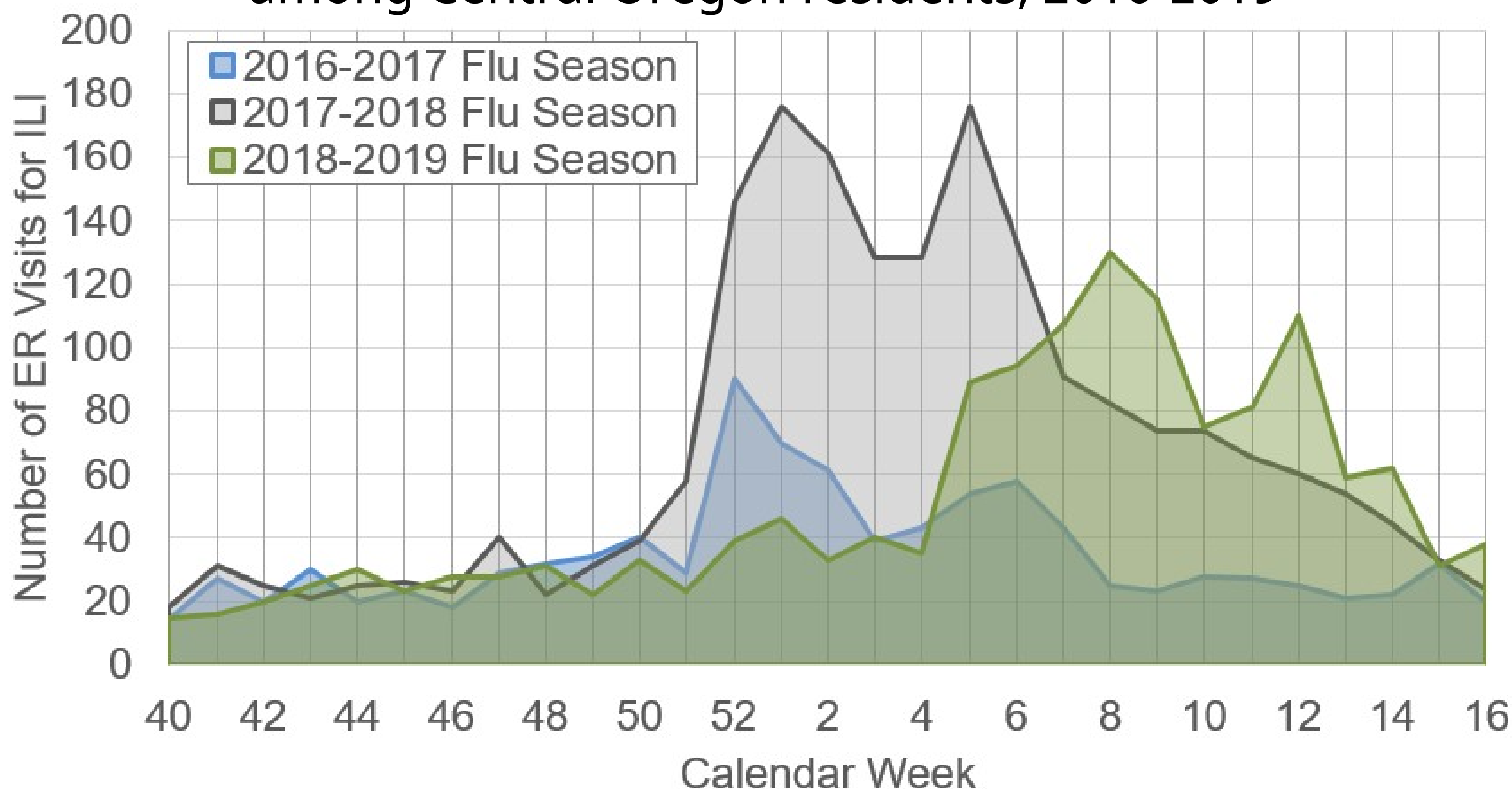
Flu season peaked around 12 weeks later than the 2016-2017 and 2017-2018 seasons. The previous two seasons both peaked during calendar week 51 in late December.

This variability across flu seasons highlights the importance of regular local surveillance to identify when flu activity is increasing in our area.

Percent of reported flu tests positive by week, 2016-2019



Weekly Number of ER visits for influenza-like illness among Central Oregon residents, 2016-2019



This flu season appears to have been less severe than last season.

According to CDC, the 2018-2019 flu season was of "moderate" severity nationwide*, compared to "high" severity last season.**

Among Central Oregon residents, there were around 1,500 total emergency room (ER) visits for influenza-like illness (ILI) this season, compared to around 2,000 total visits for ILI last season. The number of weekly ILI visits peaked at 130 during calendar week 8 (February 17 through February 23). Last season's peak occurred during calendar week 1 (176 visits), and the 2016-2017 season's peak occurred during week 52 (90 visits).

*Blanton, et al. (2019). Update: influenza activity—United States, September 30, 2018–February 2, 2019. *Morbidity and Mortality Weekly Report* 68(6), 125.

**Garten, et al. (2018). Update: influenza activity in the United States during the 2017–18 season and composition of the 2018–19 influenza vaccine. *Morbidity and Mortality Weekly Report* 67(22), 634.

There were five reported flu outbreaks this season in Central Oregon.

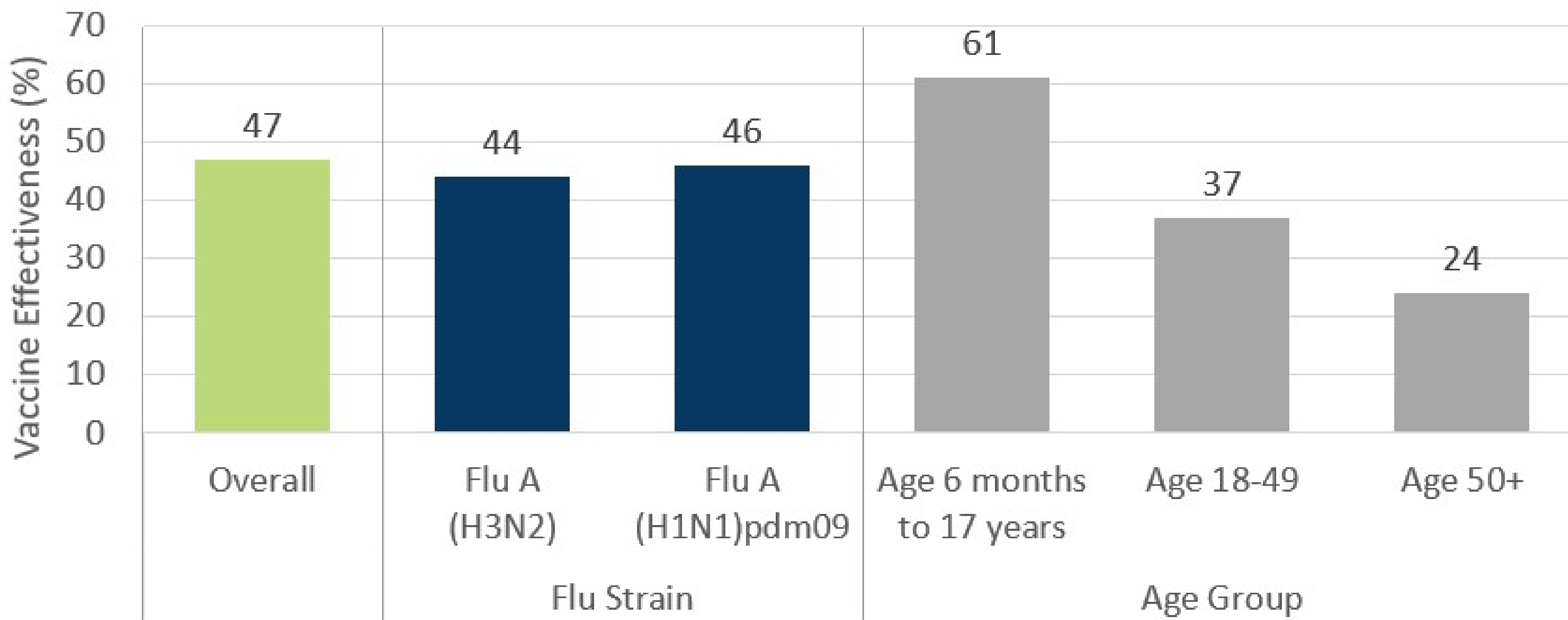
Four out of the five flu outbreaks occurred in long term care facilities, and one was in a school. The number of flu outbreaks reported this season is lower than the number reported last season (7). Statewide, there were 156 flu outbreaks this season as of May 1, around 70% of which occurred in long term care facilities.

Across Oregon as a whole, there were two flu-associated pediatric deaths reported so far this flu season.

Nationwide, there have been 114 flu-associated pediatric deaths reported so far this season, which is lower than the 2017-2018 season (187) and similar to the 2016-2017 season (110).

Data Source: ESSENCE syndromic surveillance system. Includes visits by Crook, Deschutes, and Jefferson County residents to any ER across Oregon.

Flu Vaccine Effectiveness Estimates, 2018-2019 Flu Season



*Interim national estimates of the 2018-2019 seasonal flu vaccine effectiveness were published in the February 15, 2019 issue of Morbidity and Mortality Weekly Report. Vaccine effectiveness (VE) is defined as the percent reduction in the risk of medically attended, laboratory-confirmed influenza virus infection.

Overall vaccine effectiveness (VE) this season was estimated to be 47%*. Over the past ten flu seasons, overall VE has ranged from 19% (2014-2015 season) to 60% (2010-2011 season).

As shown above, VE was similar for Flu A (H3N2) (44%) and Flu A (H1N1)pdm09 (46%). There is no available estimate for Flu B VE for the 2018-2019 season as of June 1. Overall VE estimates varied by age group. Vaccine effectiveness estimates were highest among those aged 6 months to 17 years (61% VE) and lowest among those aged 50+ (24% VE).

Flu Vaccine Uptake

2018-2019 Oregon Flu Vaccine Doses Reported by Week

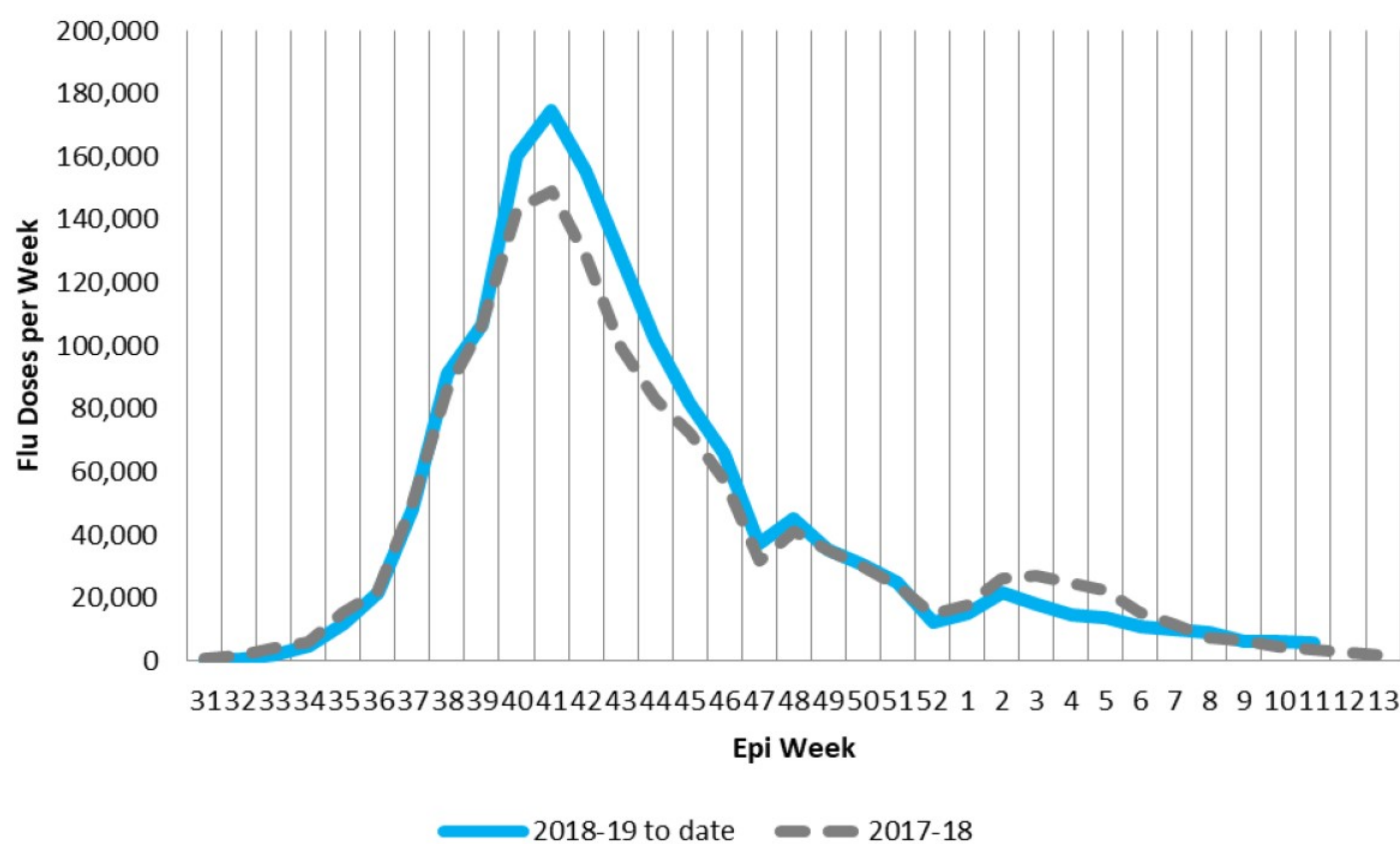


Figure source: Oregon Health Authority

As of mid-March, the Oregon Health Authority (OHA) estimated that around 45% of all Oregonians received a flu vaccine during the 2018-2019 flu season.

Around 1.5 million flu vaccines were administered to Oregon residents, which is higher than the 1.37 million administered during the 2017-2018 flu season and the 1.24 million administered during the 2016-2017 flu season.

The peak week for Oregonians to receive a flu vaccine was during week 41 (October 7 through October 13).

The age groups with the highest flu vaccination rates were the groups aged 6 months to 6 years (64%), 65-69 (70%), and 70-74 (71%).

Mid-season projected seasonal flu immunization rates by county

In December, Oregon Health Authority provided preliminary projections for end-of-season flu immunization rates by county.

OHA projected that Deschutes County would have the highest flu immunization rate (62%) in the state at the end of this flu season.

Crook County's rate was projected to be 56%, which is tied for the third-highest projected rate in the state. Jefferson County's rate was projected to be 42%, which ranks 22nd out of 36 Oregon counties.

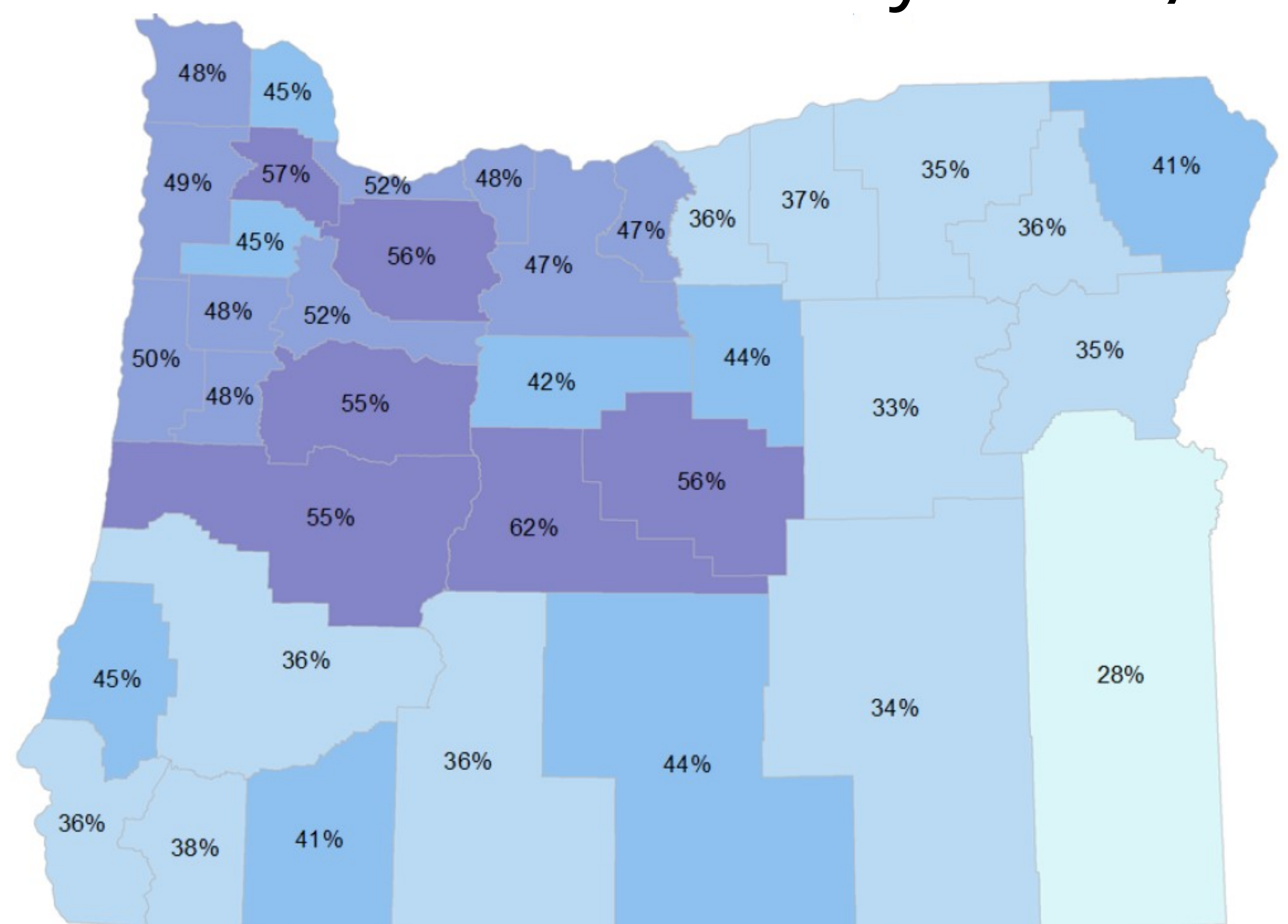


Figure source: Oregon Health Authority