Key Outcomes

Update: The OHSU COVID Forecasting Brief will move to a every other week schedule. The next brief will be available the week ending Friday, July 1st.
Hospitalized Patients in Oregon

As of 6/13/2022, 299 people are hospitalized with COVID-19 in Oregon. This is 8 less than last report.

Source: https://public.tableau.com/profile/oregon.health.authority.covid.19#!/vizhome/OregonCOVID-19HospitalCapacitySummaryTables_15965754787060/HospitalizationbySeveritySummaryTable
Regional Hospital Census

Region 5 has bounced higher than other regions. Other regions have shown very slight declines in weekly data.

A peak in hospitalization is apparent in New England. A crest is evident in Mid-Atlantic. Other regions are showing continued mild increases.
The pediatric census level is at 12 as of 6/2.

Source: https://healthdata.gov/Hospital/COVID-19-Reported-Patient-Impact-and-Hospital-Capa/g62h-syeh/data
Oregon Hospital Capacity

As of 6/12/22, 4% of occupied ICU beds are filled with COVID patients. This level has remained very low during the BA2 wave.

### Share of Occupied w/COVID

<table>
<thead>
<tr>
<th>Region</th>
<th>ICU</th>
<th>Non-ICU</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>2</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>2%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>5</td>
<td>4%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>6</td>
<td>0%</td>
<td>60%</td>
<td>43%</td>
</tr>
<tr>
<td>7</td>
<td>0%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>9</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>4%</td>
<td>7%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: https://public.tableau.com/profile/oregon.health.authority.covid.19#!/vizhome/OregonCOVID-19HospitalCapacitySummaryTables_15965754787060/HospitalizationbySeveritySummaryTable
New Cases in Oregon

Oregon cases levels are about middle of the pack (12th in US) and appear to have crested.

Note: Holiday weekends and changes in daily reporting sometimes lead to temporary increases in the 7-day moving average.

ED Visits for COVID

The number and percent of ED visits for COVID has increased during BA2.

The rate has plateaued and begun a slight decline.

Source: https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVID-19PublicHealthIndicators-SummaryTable/SevereDiseaseIndicators-SummaryTable
Cases by County in U.S.

The Northeast has begun a decline in cases leading to lower risk levels. Other regions are showing some increases.

The hospital census has declined in all states in the Northeast. Cases have also dropped significantly.

The most recent complete week (6/5-6/11) had a test positivity of 12.2%.

The rate appears to have peaked.

Total Tests

After increasing modestly during BA2, the testing rate has shown a slight decline in recent weeks.

Wastewater levels continue to show plateau, increase or sustained increase.

In Portland, viral concentrations appear to have peaked.

Data from Portland are highlighted in the chart over time.

Source: https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonsSARS-CoV-2WastewaterMonitoring/WastewaterDashboard
Review of Leading Indicators
While the masking rate varies between regions, the levels is largely unchanged since beginning of April.

Source: https://covidcast.cmu.edu/
Time with others indoors is generally steady across regions in the US and Oregon.

Source: https://covidcast.cmu.edu/
Bar/Restaurant Indoors

The percent of people indicating going to a bar or restaurant indoors is relatively stable across regions.

Source: https://covidcast.cmu.edu/
Large Events Indoors

The percentage of people attending large events indoors is lower in Oregon than other regions. The trend is generally stable.

Source: https://covidcast.cmu.edu/
Symptoms

Symptom levels appear to have peaked and begun a slight decline. Oregon, the Pacific region, and the Northeast region reached higher levels of symptoms than other areas. This is consistent with more potential due to higher masking rates during BA1.

Note: This question asks individuals if anyone in their household or community has symptoms of COVID.

Source: https://covidcast.cmu.edu/
Statewide Forecast
Behavior Effects

This value represents how effective the non-pharmaceutical interventions (NPIs) and individual behaviors have been at reducing the spread of the virus.

The last 9 weeks of data have shown considerably lower levels of transmission reduction from non-pharmaceutical interventions.
The percent susceptible is at 14% which is down from two weeks ago.
The primary forecast shows a slight increase in hospitalized patients as the impacts of BA2 and reduced COVID restrictions are experienced.

The peak so far has been 327 on June 5th. That is expected to be the peak for the BA2 wave.
Due to the high prevalence of infections and low hospitalization rate per infection, a significant share of hospitalizations are expected to be incidental.
The forecast has been largely similar since 4/8.
Some increase in deaths is now evident from BA2. So far the increase is moderate and is expected to peak in the next 2 weeks.
Ancillary Data
Hospitalized Influenza Cases in U.S.

Hospitalized cases of influenza has begun a decline.

Note: weekly surveillance has been extended beyond previous seasons due to the unusual pattern.

*In this figure, weekly rates for all seasons prior to the 2021-22 season reflect end-of-season rates. For the 2021-22 season, rates for recent hospital admissions are subject to reporting delays. As hospitalization data are received each week, prior case counts and rates are updated accordingly. Due to late season activity during the 2021-2022 season, FluSurv-NET surveillance has been extended beyond the typical end date of April 30 (MMWR week 17).
Influenza Cases in Oregon

Influenza cases have stabilized in Oregon and are expected to continue to decline.

Table 1. Influenza Test Results in Oregon, NREVSS, Current Week, 2021-2022 Season

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Tests</th>
<th>Positive No.</th>
<th>Flu A No.</th>
<th>Flu B No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland Metro</td>
<td>2844</td>
<td>64</td>
<td>64</td>
<td>0</td>
</tr>
<tr>
<td>Southern Oregon</td>
<td>811</td>
<td>28</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>Columbia Gorge</td>
<td>357</td>
<td>53</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>Central Oregon</td>
<td>1000</td>
<td>79</td>
<td>79</td>
<td>0</td>
</tr>
<tr>
<td>Willamette Valley</td>
<td>158</td>
<td>18</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td><strong>State Total</strong></td>
<td><strong>5270</strong></td>
<td><strong>242</strong></td>
<td><strong>228</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

CDC Forecasts

Over the next 3 weeks the forecasters reporting results to CDC are generally increases in new hospital admissions.

Omicron Strains in Oregon

BA2.12.1 has grown to approximately 50% of strains sequenced.

Small counts of BA4 and BA5 are being reported but are expected to grow in share quickly.

Source: https://outbreak.info/location-reports?loc=USA_US-OR
BA5 in Portugal

Cases peaked on May 24 and hospitalizations peaked the same week 5/25-5/31.

Deaths have continued to increase in Portugal and have risen to rates nearly as high as during the BA1 wave.
BA5 in Austria

The rate of BA5 has increased quickly in Austria. So far, cases and hospitalizations have not increased.

School Infection Levels

School district data are shown both as a measure of impact of COVID on kids and because schools accept at-home test results to indicate cases.

Eugene continues to increase while Salem and Portland appear to have peaked.

The levels in Portland are similar to during the BA1 wave.

Acknowledgments

Each week this model requires updates, input and expertise from many people.

I would like to thank Dr. William Messer for his assistance in understanding waning dynamics, Brian O’Roak and Xuan Qin, at OHSU, for their expertise to understand genetic sequencing information, and the hospital forecasting workgroup for their feedback on weekly forecasts, including collaboration with Julie Maher and Erik Everson at Multnomah County PDES.

Thank you!
Specifications

- **Specifications:**
- Spread: Omicron is faster spreading due to shorter recovery period (12 days vs 9 days with R0 at 6.5). BA2 faster than BA1 by 23%.
- Immune Escape during Omicron: 72%
- Behavior: Decreased NPI pattern.
- Hospitalization Rate: 15% of Delta
- ICU Rate of hospitalized: 80% of Delta
- Boosters: fitted with actuals and decline expected.
- Incidental: Estimated with community prevalence and calibrated with external estimates.
- Length of stay: shortening of stay over time. From 7 and 14 to 5 and 12 days for those with and without ICU.
- Days from exposure to admission = decreasing from 12 to 8 days.
- Recovery period = 12 days prior to Omicron and 9 days for Omicron.