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, August 19th.
As of 8/3/2022, 398 people are hospitalized with COVID-19 in Oregon.

This is below the peak of 464 reached on July 17th.
Regional Hospital Census

While most regions are down from their peak, Region 5 is still at a peak.

Source: https://public.tableau.com/profile/oregon.health.authority.covid.19#!/vizhome/OregonCOVID-19HospitalCapacity/BedAvailabilitybyRegion
The South Atlantic is still increasing modestly in census per capita. Most regions are relatively flat in hospital census which likely represents some declines from previous strains and some increases from BA4/5.
The pediatric census level is at 12 as of 8/3. This is a drop from the peak of 22 set on 6/20.

Source: https://healthdata.gov/Hospital/COVID-19-Reported-Patient-Impact-and-Hospital-Capa/g62h-syeh/data
As of 8/2, 9% of occupied ICU beds are filled with COVID patients. There is no change from last report.

Statewide, the number of available beds remains low at 311.
Wastewater Surveillance

In data through 7/14, most regions have stopped increasing in viral concentrations and are flat or declining.

Specific trends in selected cities are shown on the following slide.

Source: https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonsSARS-CoV-2WastewaterMonitoring/WastewaterDashboard
Wastewater Surveillance

Source: https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonsSARS-CoV-2WastewaterMonitoring/WastewaterDashboard
ED Visits for COVID

The rate of ED visits for COVID has declined in the last week to 4.2%. The absolute number of ED visits for COVID has also declined.

Source: https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/OregonCOVID-19PublicHealthIndicators-SummaryTable/SevereDiseaseIndicators-SummaryTable
Test positivity appears to have peaked at 15.3% the week of 6/26 and has declined to 13.5% in the most recent complete week (starting 7/24).

However, with testing levels much lower, it may not reflect the transmission level in the same way.
New Cases in Oregon

Oregon’s cases levels have been relatively flat since middle of May. At 28 per 100k per day, they are 33rd highest in the US.

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.

With the shorter recovery period of Omicron the weekly estimates are more noisy. In general the model is showing low levels of transmission prevention due to behavior or policy.

The negative values estimated during May of 2022 may reflect the BA2.12.1 variant which was present but not explicitly included in the model. The variant maintained higher infection levels than would have been expected from just the BA2 variant.
The forecast shows declining census values over the next 1-2 months.
The infections underlying the model are shown in the graph.

The peak of the current wave was estimated to occur on 7/13 at 5.6% of the population. The model expects that rate to decline over the next 6 weeks.

These infection rates also drive staff illness and thus Oregon is likely seeing a peak in staff out due to COVID. This should begin to decline as there are no additional variants currently poised to cause increases.
Due to the high prevalence of infections and low hospitalization rate per infection, a significant share of hospitalizations are expected to be incidental.

At the peak on July 17th, it is estimated that 56% of the hospitalizations are incidental.
The forecast model has not changed significantly from 2 weeks ago.
Some additional increase in deaths are expected as a result of the BA4/5 wave.
Ancillary Data
Influenza

While influenza is generally pretty low this year, Australia is seeing a surge that is much larger than previous years.

Source: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm, https://app.powerbi.com/view?r=eyJrIjoiZTIxMzAwMzYtZWE4NC00YTU2LWE3MTUtMTI0OGY1ZjQyMWViIiwidCI6ImY2MTBjMGI3LWJkMjQtNGIzOS04MTBiLTNkYzI4MGFmYjU5MCIsImMiOjh9
CDC Forecasts

Over the next 3 weeks the forecasters reporting results to CDC are showing constant levels of hospitalizations.

Omicron Strains in Oregon

BA4/5 and BA2.12.1 have completely displaced BA2.

Though a new variant is expected at some point, there are no new variants of concern in Oregon.

Source: https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/GISAIDVariantDashboardUpdated/OregonVariantDashboard
After peaking on May 24th, cases have dropped quickly and hospitalizations are dropping more slowly.
Deaths have returned to low levels in Portugal.
Acknowledgments

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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 39%.
- Immune Escape during Omicron: 72%, BA4/5=15%
- Behavior: Decreased NPI pattern.
- Hospitalization Rate: 30% 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.