OHA COVID-19 Webinar Series for Healthcare Providers

Thursday, June 18th

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Oregon Health Authority

Agenda Items

- COVID-19 epi updates
- Addressing the disproportionate impacts of COVID-19
- Reopening updates
- Long term care facility testing plan
- Interpreting test results
- COVID-19 literature, FDA updates
- Clinical care questions and answers

Epidemiology update

The COVID-19 Pandemic Update in Oregon

As of June 17:

- 6,007 positive COVID-19 cases
- 183 deaths
- 178,132 negative tests
- Our attention is on multiple outbreaks and increasing community spread

The COVID-19 Pandemic Update in Oregon

As of June 14:

- 889 new cases over past week (44% increase from the previous week)
- >20,000 total tests completed for past 2 weeks
- 3.1% percent positive tests over the past week

Overall:

- 899 or 15.4% of known cases hospitalized
- Total case fatality rate 3.1%

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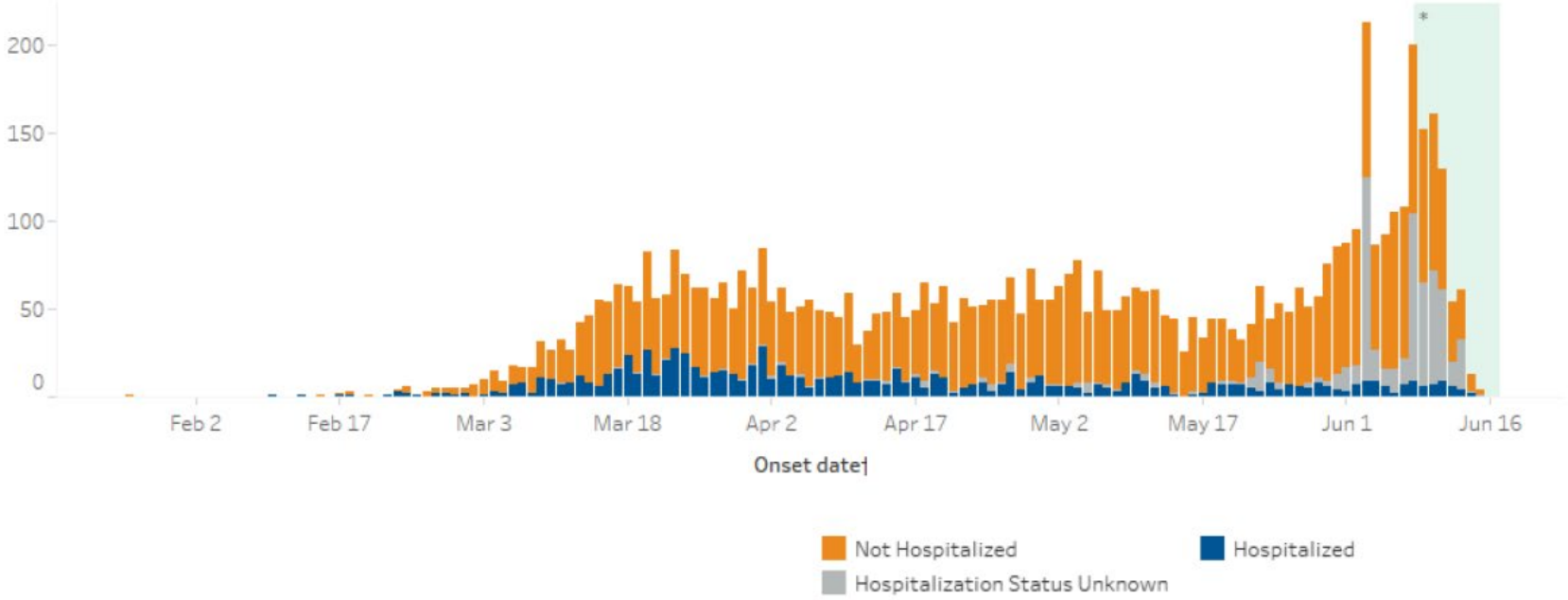
Epidemiologic curve

Oregon's Epi Curve: COVID-19 cases

This chart shows the number of Oregonians who have been identified as COVID-19 cases and whether they were ever hospitalized for their illness.‡

Total Cases	Hospitalized	Not Hospitalized	Hospitalization Status Unknown
6,218	929	4,645	644

*Illnesses that began during this time period may not yet be reported.

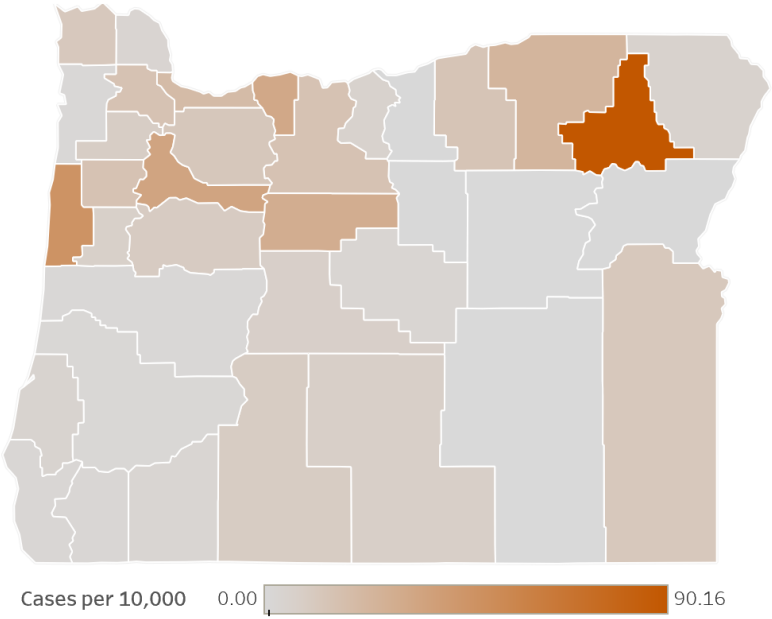


COVID Case Count by County

Testing and Outcomes by County

Oregon's COVID-19 Testing and Outcomes by County

This map shows the number of COVID-19 cases per 10,000 people by county in Oregon.* The number of cases in a community de
of people who live there. These rates help us compare counties of different sizes more evenly than total case counts alone. Hov
below to see the total number of cases, recovered cases, deaths, and positive and negative tests in that county. The table sumr
rates and percentages for all counties.



	Case Count per 10,000
Statewide Total	14.7
Union	90.2
Lincoln	46.8
Marion	35.0
Hood River	32.2
Jefferson	28.9
Umatilla	23.8
Multnomah	19.9
Washington	15.5
Polk	15.4
Wasco	15.4
Morrow	14.2
Clackamas	12.4
Malheur	11.9
Clatsop	11.7
Linn	9.9
Klamath	9.4

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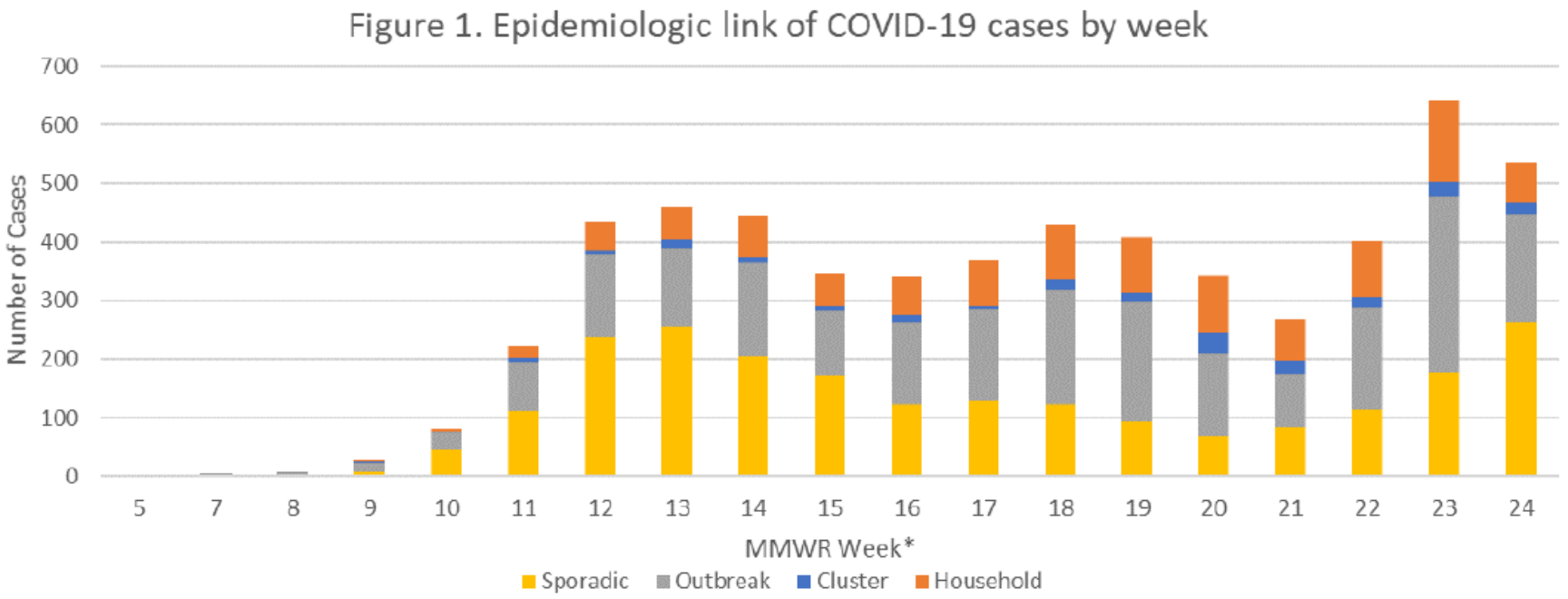
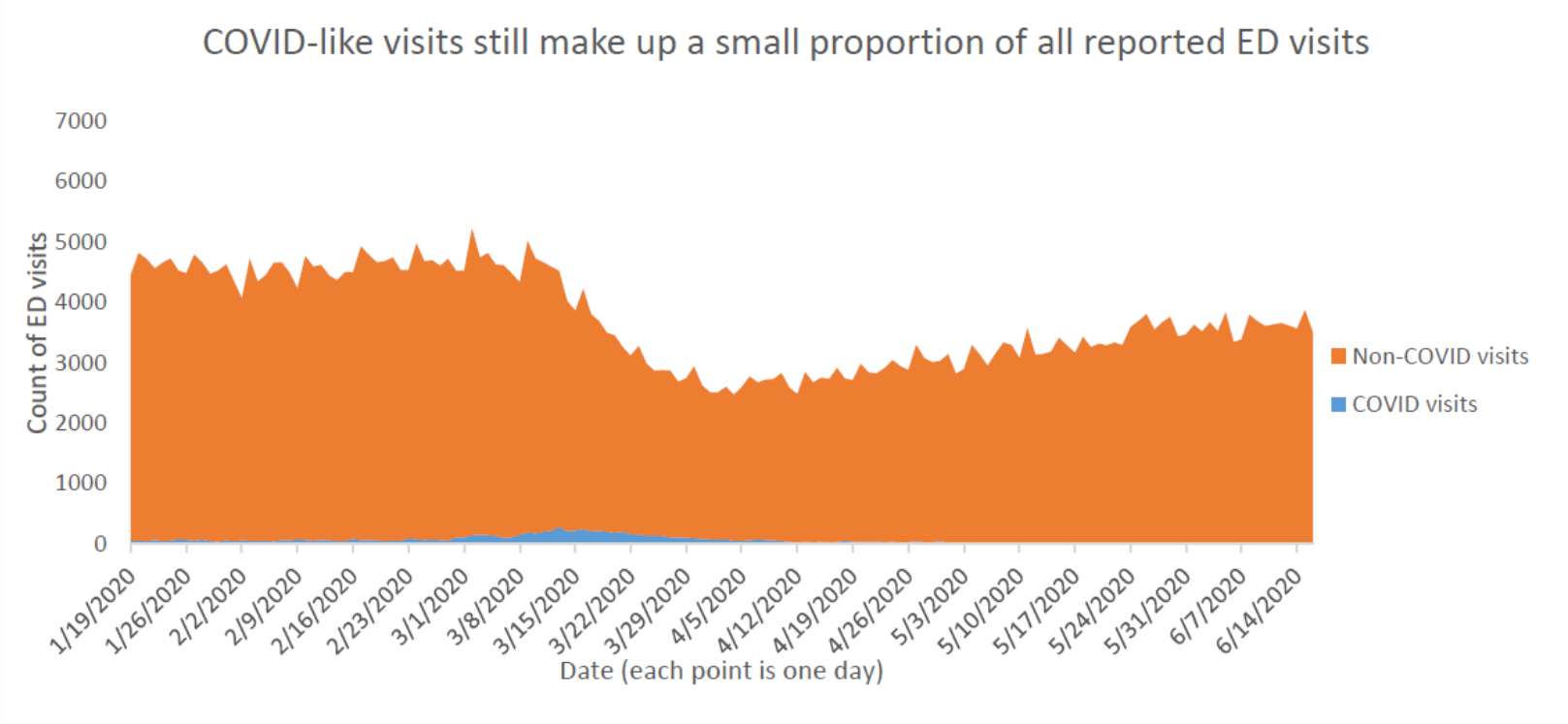
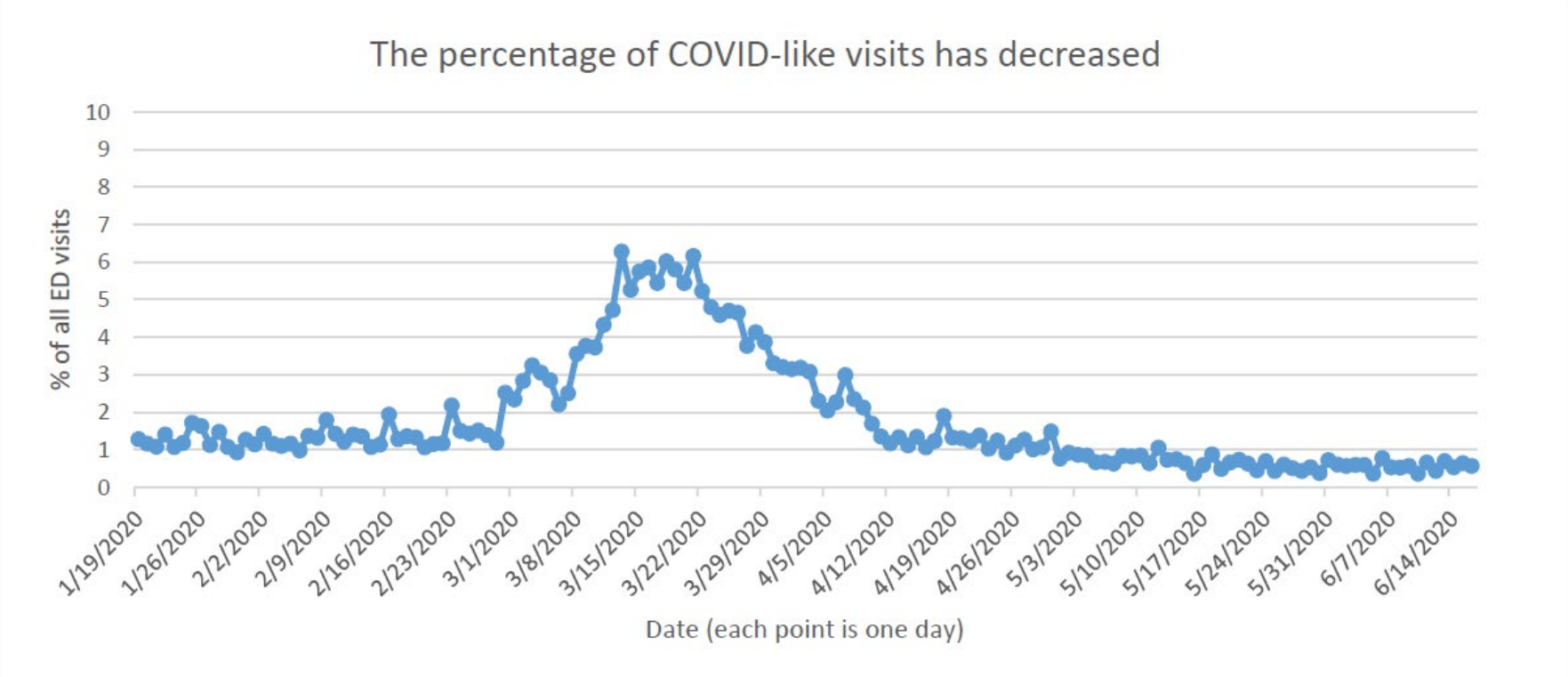
Epi Link of COVID-19 Cases by Week



Daily ED visits

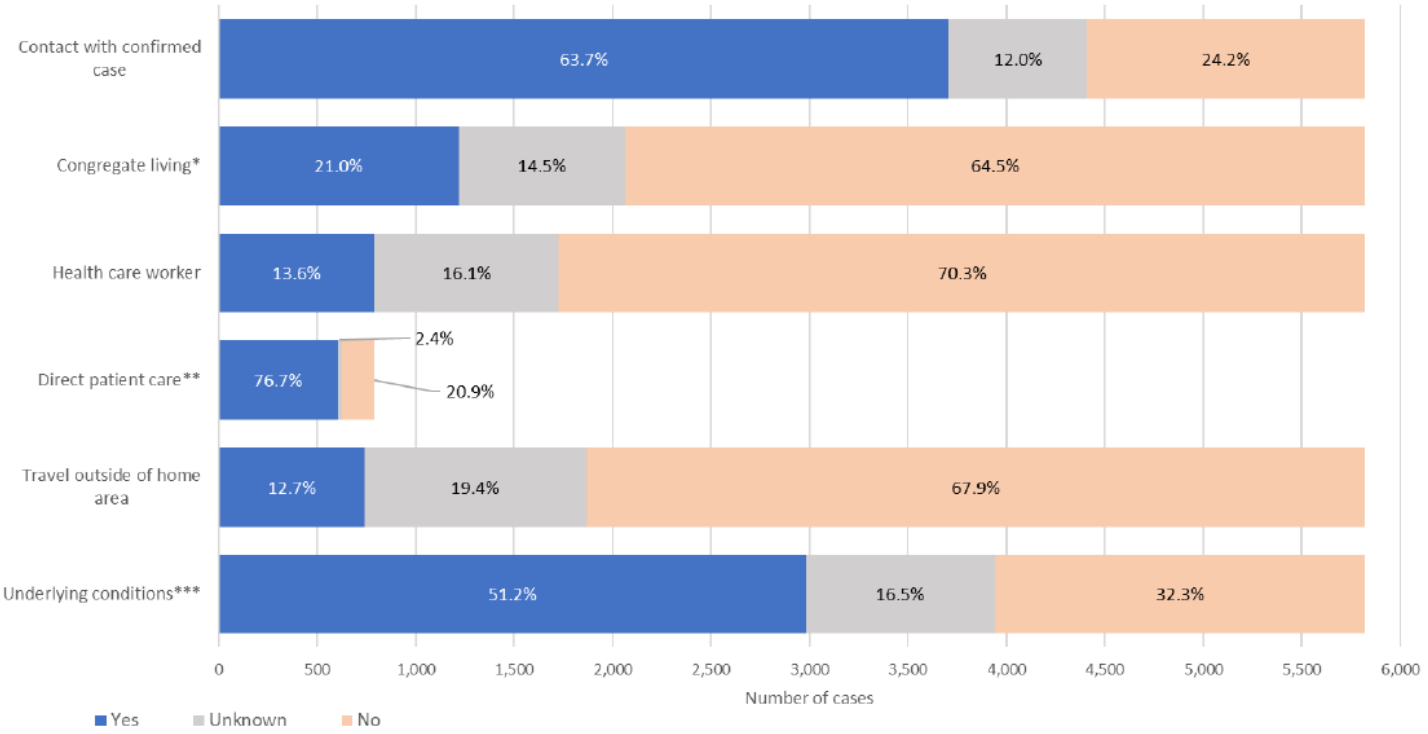


Daily ED visits for CLI



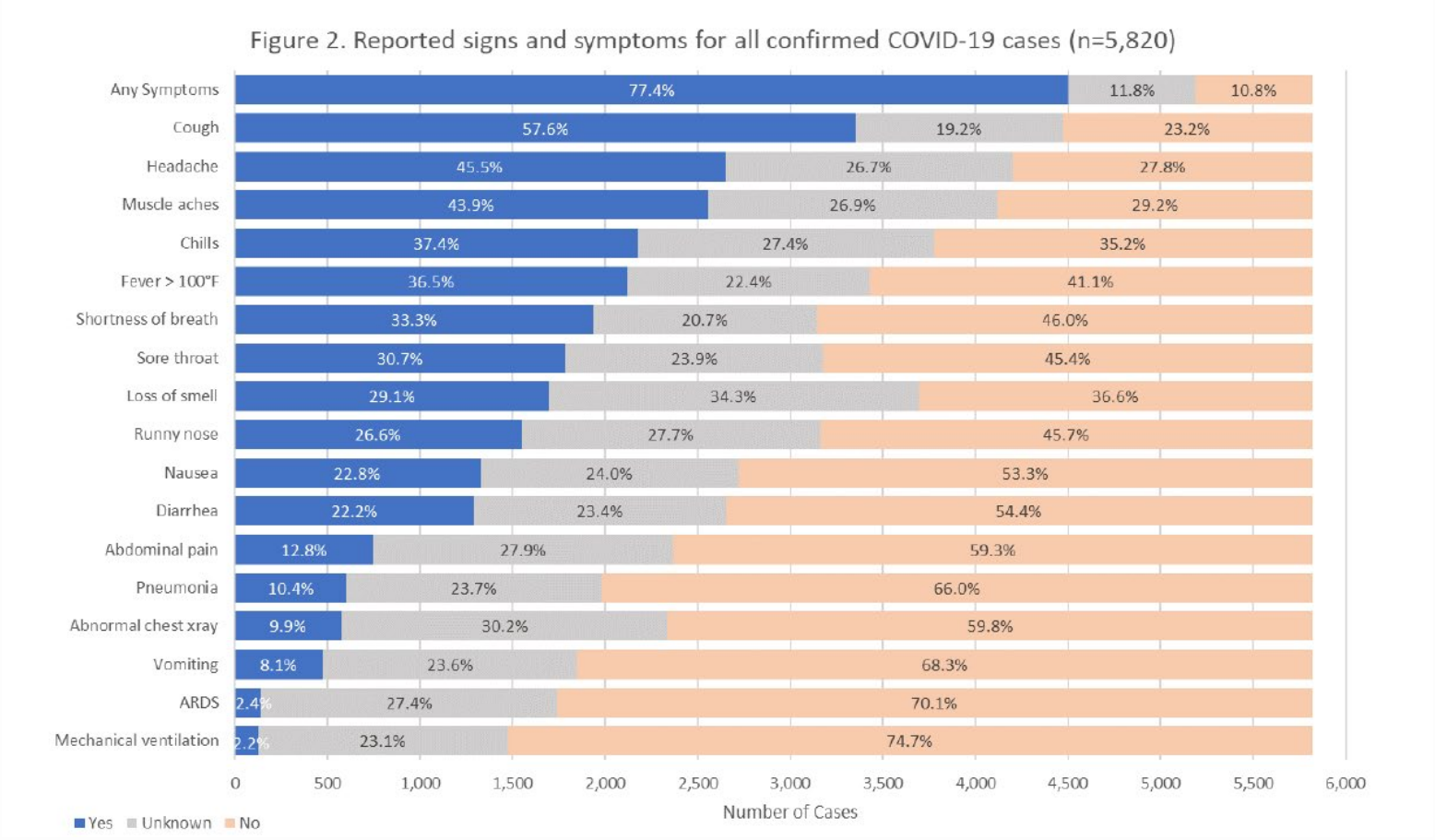
Reported Risk Factors for All COVID-19 Cases as of June 14

Figure 3. Reported risk factors from all COVID-19 cases (n=5,820)

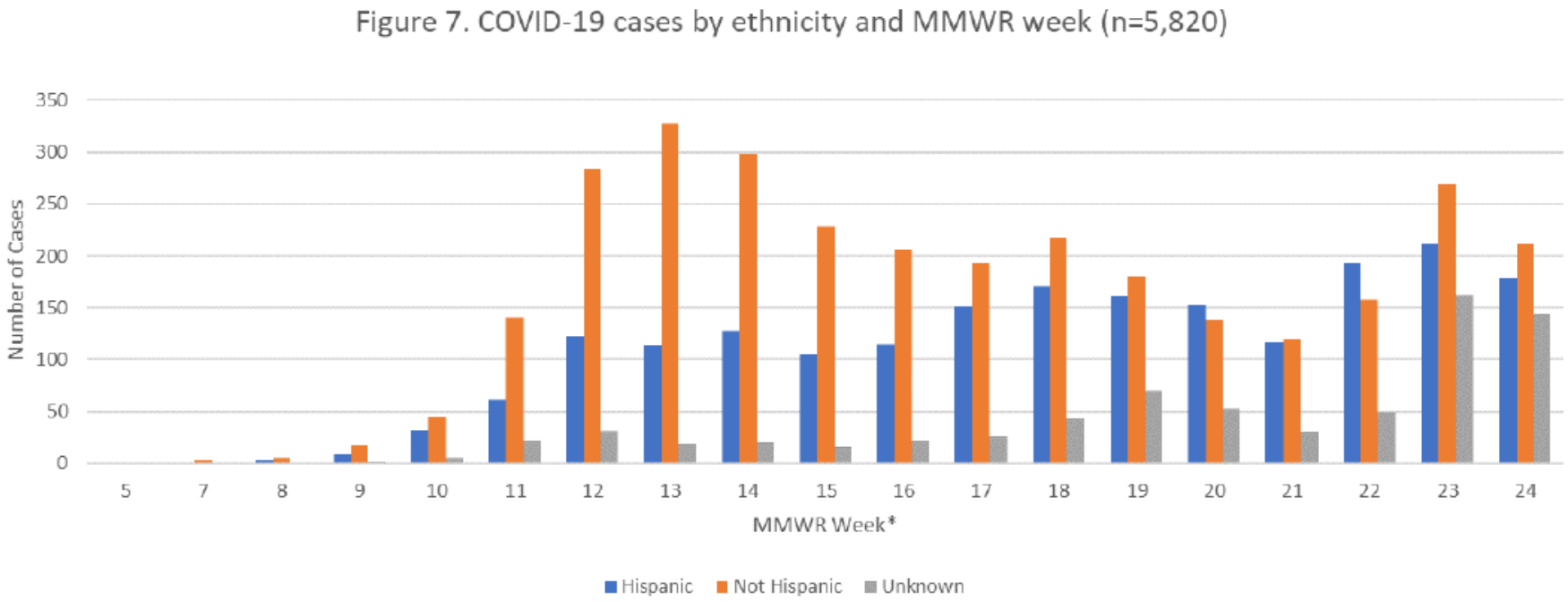


*Congregate living situations include, but are not limited to, long-term care facilities, group homes, prisons, and shelters. Data include people with confirmed cases who live or work in congregate living situations.
**Direct patient care is only asked if a case is a healthcare worker or volunteer. The denominator is the number of healthcare workers or volunteers.
***Underlying medical conditions include cardiovascular disease, chronic liver disease, chronic lung disease, chronic renal disease, current or former smoker, diabetes mellitus, immunocompromised condition, neurologic and neurodevelopmental conditions, obesity, or other chronic diseases.

Reported Signs and Symptoms for All COVID-19 Cases as of June 14



COVID-19 Cases by Ethnicity



Severity by Ethnicity as of June 14

Table 4. Severity and rates of COVID-19 by ethnicity (n=5,820)

Ethnicity	Case count	% of total cases	Cases per 10,000[a]	Hospitalized	% Hospitalized	Deaths	Case fatality (%)
Hispanic	2,025	34.8%	37.2	224	11.1%	19	0.9%
Non-Hispanic	3,057	52.5%	8.3	627	20.5%	145	4.7%
Not available	738	12.7%	n/a	48	6.5%	16	2.2%
Total	5,820	100.0%	13.7	899	15.4%	180	3.1%

[a]NCHS Population Estimates: National Center for Health Statistics (NCHS), Estimates of the resident population of the US by year, county, age, bridged race, Hispanic origin, and sex (Vintage 2018). 2) Census Bureau Population Estimates: U.S. Census bureau, Population Division, Annual Estimates of the Resident Population by Age, Sex, Race, and Hispanic Origin for counties (Vintage 2018)

Severity by Race as of May 19

Table 3. Severity and rates of COVID-19 by race[a] (n=5,820)

Race	Cases	% of total cases	Cases per 10,000[b]	Hospitalized	% Hospitalized	Deaths	Case fatality (%)
White	2,555	43.9%	7.1	519	20.3%	133	5.2%
Black	211	3.6%	26.1	35	16.6%	6	2.8%
Asian	218	3.7%	12.0	40	18.3%	8	3.7%
American Indian/Alaska Native	128	2.2%	26.3	13	10.2%	3	2.3%
Pacific Islander	130	2.2%	78.3	28	21.5%	3	2.3%
Other[c]	1,708	29.3%	n/a	199	11.7%	13	0.8%
>1 race	128	2.2%	6.4	18	14.1%	2	1.6%
Not available	742	12.7%	n/a	47	6.3%	12	1.6%
Total	5,820	100.0%	13.7	899	15.4%	180	3.1%

[a]During the course of the case investigation, people are asked to self-report their race, ethnicity, tribal affiliation, country of origin, or ancestry.
[b]NCHS Population Estimates: National Center for Health Statistics (NCHS), Estimates of the resident population of the US by year, county, age, bridged race, Hispanic origin, and sex (Vintage 2018). 2) Census Bureau Population Estimates: U.S. Census bureau, Population Division, Annual Estimates of the Resident Population by Age, Sex, Race, and Hispanic Origin for counties (Vintage 2018)
[c]1,666 of the 1,708 persons who identify as "Other" race also self-identify as Hispanic or Latino.

Current COVID-19 Hospitalizations

	Currently Hospitalized COVID-19 Patients*	Currently Hospitalized COVID-19 Positive Patients**
Hospitalized COVID-19 Patients	141	89
COVID-19 Patients in ICU Beds	46	35
COVID-19 Patients on Ventilators	28	22

*Includes both confirmed and suspected COVID-19 patients
**Includes only confirmed positive COVID-19 patients

June 18, 2020

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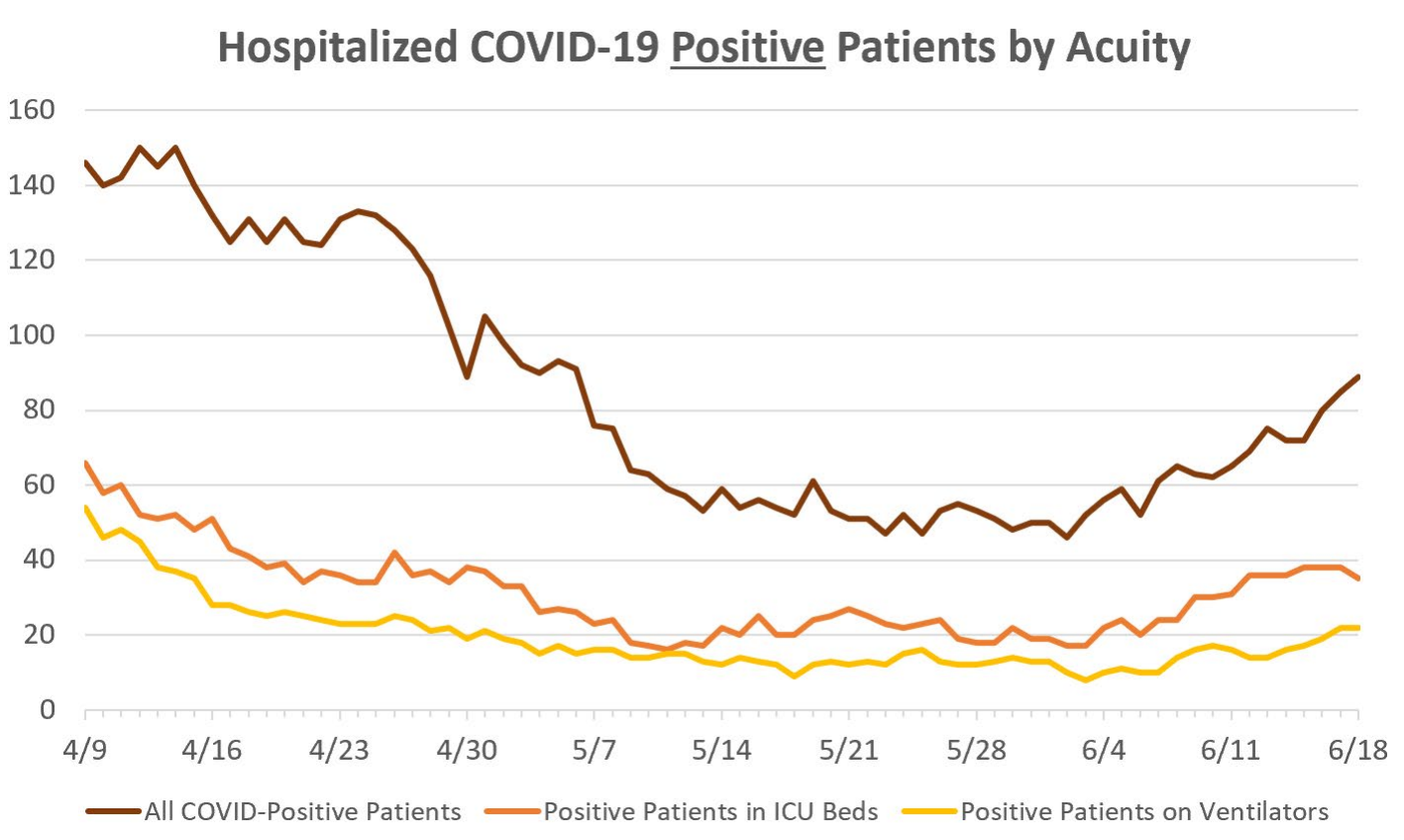
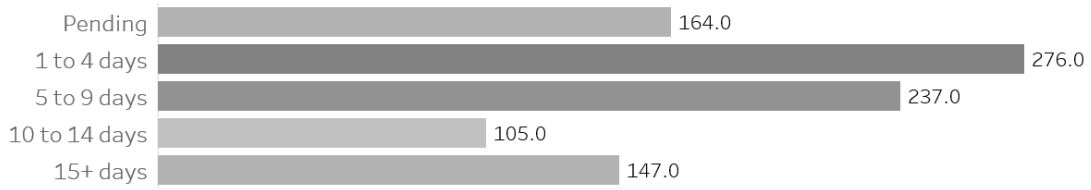
Current COVID-19 Hospitalization Trends: confirmed cases only



Length of Hospital Stay

Length of Hospital Stay

This chart shows the number of positive COVID-19 cases in Oregon who were ever hospitalized for their illness and the length of their hospital stays.



Note:
164 positive, hospitalized COVID-19 patients have an unknown length of hospital stay. This is because information on their exact date of hospital admission and/or discharge is still pending.

Addressing the Disproportionate Impact of COVID-19

Priority: Addressing the Disproportionate Impact of COVID-19

- State and local public health authorities working with community leaders, community organizations, employers and beyond to identify and act on needs and priorities
  - REAL-D Data Collection
  - Financial, Housing, Food and other Resources
  - Access to Testing
  - Culturally relevant messaging and language access
  - Information on CAWEM, Public Charge, COVID Testing/Tx
- Community Based Organization funding opportunity
  - More details to follow next slide
- ***Much more work to do.***

COVID-19 Funding Opportunity for Community Based Organizations

- CBOs are central to the success of the work to integrate methods, tactics and strategies that are most responsive to the needs of people of color, people with disabilities, immigrant and refugee communities, Tribes, Migrant and Seasonal Farm Workers and LGBTQIA+ communities.
- CBOs have the opportunity to support three areas of work as part of our COVI-19 response:
  - Community engagement, education and outreach
  - Contract Tracing
  - Social services and wraparound supports
- Applications due June 24th
  - For further information including application: https://www.oregon.gov/oha/ERD/Pages/COVID-19-Funding-Opportunity.aspx

Reopening Oregon Update and Resources

Reopening Updates

Governor Kate Brown Announces Plans for Face Covering Requirement, Outlines Next Steps in County Reopening Process

June 17, 2020

Press availability scheduled for 11 am, Thursday, June 18

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Categories:
Health
Safety

Portland, OR—Governor Kate Brown released the following statement today:

"Last week I issued a statewide pause on all county applications to move into Phase 1 or Phase 2. This meant holding off on reviewing the reopening applications from Hood River, Marion, Multnomah, and Polk Counties.

"I instituted the statewide pause because of the rising number of cases in both rural and urban communities. I did this to give public health experts time to assess what factors are driving the spread of the virus and make adjustments to our reopening strategy.

"Since then, the Oregon Health Authority has continued to analyze data in the state, including the source of the growth in new cases, hospitalizations, results of contact tracing, and other metrics. Additionally, I have consulted with independent health experts, business leaders, and local elected officials. Today, I am announcing the following four decisions:

"First, I will be instituting a requirement to wear face coverings while in indoor public spaces, such as grocery stores and other businesses, for the following counties: Multnomah, Washington, Clackamas, Hood River, Marion, Polk, and Lincoln. This mandate will be effective beginning Wednesday, June 24.

https://www.oregon.gov/newsroom/Pages/NewsDetail.aspx?newsid=36806

Governor Brown's Announcement:

Starting June 19:

- Moving Marion, Polk and Hood River Counties to Phase 2
- Allowing Multnomah County to move to Phase 1

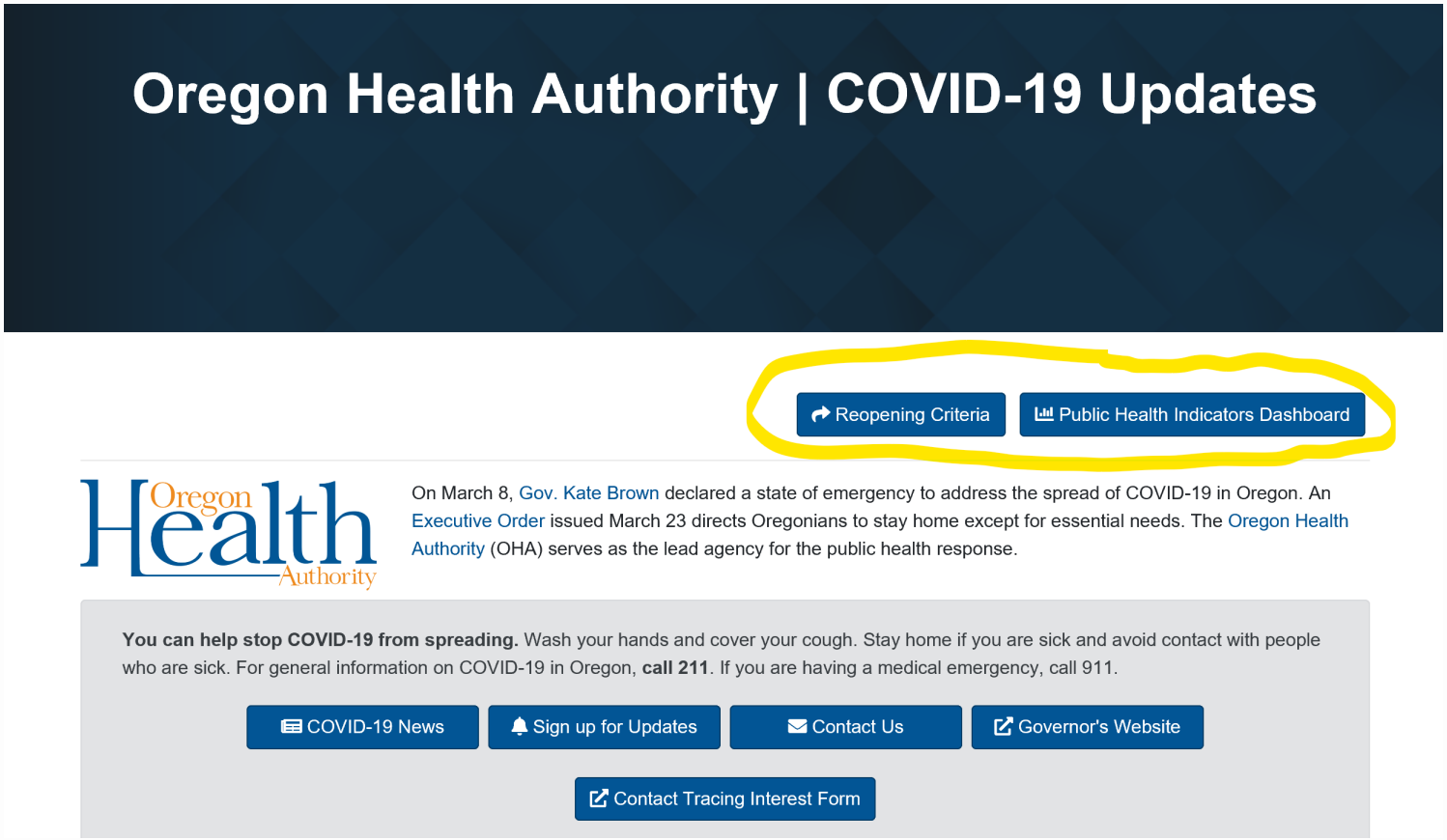
Effective June 24:

- Instituting requirement to wear face coverings while in indoor public spaces, such as grocery stores and other businesses, for Multnomah, Washington, Clackamas, Hood River, Marion, Polk and Lincoln Counties

Moving Ahead:

- Grouping Several counties together as regional units for future reopening decisions:
  - Multnomah, Washington and Clackamas Counties
    - Will remain in Phase 1 for at least 21 days after June 19
  - Marion and Polk Counties

Reopening Oregon: Updates and Public Health Indicators



www.healthoregon.org/coronavirus

Long Term Care Facility Testing

Long Term Care Facility Testing Plan

- On June 9, Governor Brown announced that Oregon will be implementing a comprehensive coronavirus testing plan to help protect the residents and staff of long-term care facilities
  - Press release can be found here: https://www.oregon.gov/newsroom/Pages/NewsDetail.aspx?newsid=36767

- Long Term Care Facility Testing Plan finalized and posted June 12:
  - By 9/30/20, ensure all residents and staff at all 685 nursing, residential care and assisted living facilities licensed by DHS offered testing for COVID-19 at least once
  - Within 30 days of completion of baseline testing, initiate ongoing testing strategy: mandatory testing of 25% of staff every seven days

https://sharedsystems.dhsoha.state.or.us/DHSForms/Served/le2721.pdf

Interpreting test results

Test characteristics

- Sensitivity = true positive rate
  - Proportion of patients with disease who have a positive test result
- Specificity = true negative rate
  - Proportion of patients without disease who have a negative test result
- Sensitivity and specificity allow likelihood ratios to be calculated. You can multiply the pretest probability of disease by the likelihood ratio to get the posttest probability of disease: useful for clinical decision-making
- Calculator available at https://calculator.testingwisely.com/playground/

Sensitivity of PCR tests for COVID-19

- A review based on 7 studies (2 preprints and 5 peer-reviewed articles) with a total of 1330 upper respiratory samples analyzed by RT-PCR on false negative rate of PCR tests. https://www.acpjournals.org/doi/full/10.7326/M20-1495
- Probability of a false-negative result in an infected person:
  - Day 1 after exposure: 0% [=100% false negative rate]
  - Day 2 after exposure: 0% (CI: 0–~10%)
  - Day before symptom onset: 33% (6–73%)
  - **Day of symptom onset**: 62% (35–82%) [38% false negative rate]
  - Day 3 after symptom onset: **80%** (70–88%) [20% false neg rate]
  - Day 16 after symptom onset: 34% (23–46%)

How does a test result change estimated probability of disease?

Table

Table 1| Pre- and post- test probabilities for covid-19 RT-PCR tests, calculations based on a sensitivity of 70% and specificity of 95%

Pre-test probability	Post-test probability, negative test	Post-test probability, two independently negative tests	Post-test probability positive test
5	1.6	0.5	42
15	5	2	71
25	10	3	82
50	24	9	93
75	49	23	98
90	74	47	99

https://www.bmj.com/content/bmj/369/bmj.m1808.full.pdf

How does a test result change estimated probability of disease?

Pretest probability: 5%
(disease prevalence)

Test sensitivity: 70%
Test specificity: 95%

https://calculator.testingwisely.com/playground/

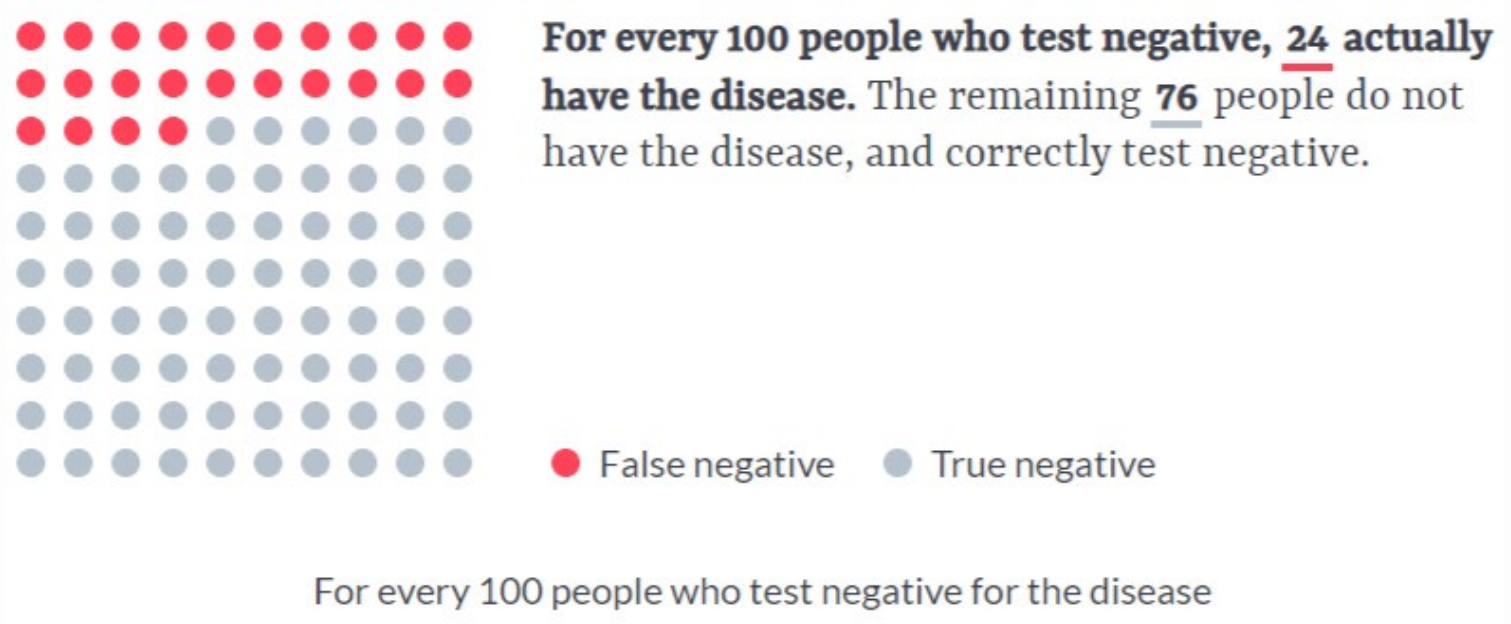
How does a test result change estimated probability of disease?

Pretest probability: 5%
(disease prevalence)

Test sensitivity: 70%
Test specificity: 99%

https://calculator.testingwisely.com/playground/

How does a test result change estimated probability of disease?

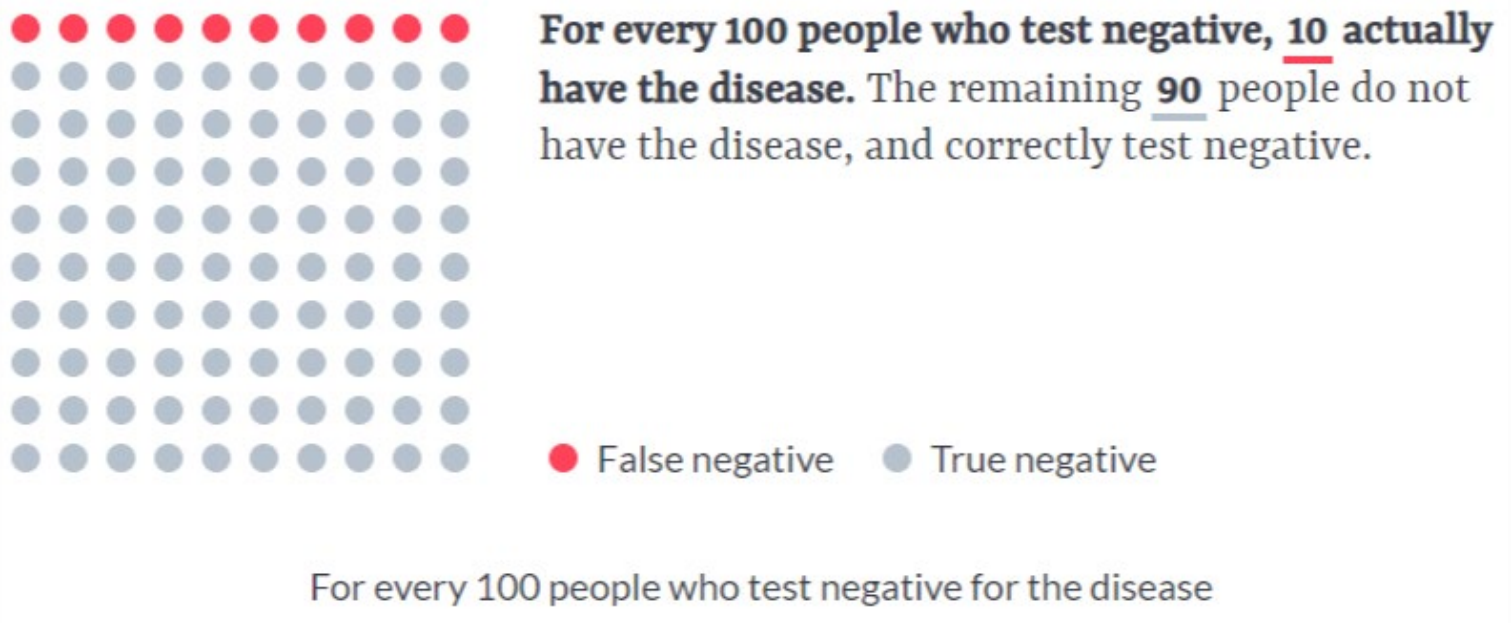


Pretest probability: 50%
(disease prevalence)

Test sensitivity: 70%
Test specificity: 95%

https://calculator.testingwisely.com/playground/

How does a test result change estimated probability of disease?



Pretest probability: 50%
(disease prevalence)

Test sensitivity: 90%
Test specificity: 95%

https://calculator.testingwisely.com/playground/

COVID-19 Literature Updates

RECOVERY Trial Dexamethasone Results

- *Preprint, non-peer reviewed*
- RECOVERY trial
  - RCT of 11,500 hospitalized patients in the NHS
    - 6 treatment arms compared to usual care arm
  - Dexamethasone arm
    - 2104 patients: dexamethasone 6 mg x 10 days
    - 4321 usual care patients
  - Dexamethasone reduced deaths by one-third in ventilated patients (rate ratio 0.65 [95% confidence interval 0.48 to 0.88]; p=0.0003) and by one fifth in other patients receiving oxygen only (0.80 [0.67 to 0.96]; p=0.0021). There was no benefit among those patients who did not require respiratory support (1.22 [0.86 to 1.75]; p=0.14).

New FDA Warning on Drug Interaction

- June 15, 2020
- Co-administration of remdesivir and chloroquine phosphate or hydroxychloroquine sulfate is not recommended as it may result in reduced antiviral activity of remdesivir
- Updated FDA insert on remdesivir:
  - Coadministration of remdesivir and chloroquine phosphate or hydroxychloroquine sulfate is not recommended based on in vitro data demonstrating an antagonistic effect of chloroquine on the intracellular metabolic activation and antiviral activity of remdesivir

Clinical Care Questions

Clinical Care Update

- HHS program for reimbursement for uninsured patients
  - Reimburses for costs related to COVID-19 testing or treatment
  - For dates of service n or after February 4, 2020
  - Reimbursement at Medicare rates
  - Part of the FFCRA, PPPHCEA, and CARES Act
  - More info: https://www.hrsa.gov/CovidUninsuredClaim

Your questions

- If a chronic disease (hypertension, diabetes) is controlled is it less of a risk factor?
  - There is no data on degree of control of a chronic disease and the severity of COVID-19
  - Chronic disease associated with poorer outcomes include hypertension, diabetes, obesity, chronic renal insufficiency, and respiratory disease
- Do we know how ACE and ARB impact disease?
  - Rapid review by the Oxford Center for Evidence Based Medicine found no association with ACE or ARB use and severity of disease
  - Current recommendations are to continue a patients ACE or ARB therapy
- Any comments on tissue cholesterol levels and severity of COVID?
  - No studies to date have shown high cholesterol levels alone affect the severity of COVID. However, high cholesterol is associated with hypertension, heart disease, diabetes and other known risk factors

Your questions

- How long are we finding these symptoms persisting for folks with mild vs moderate vs severe infection?
  - WHO:
    - Patients with mild disease tend to recover in 14 days
    - Patients with more severe disease may take 3-6 weeks for symptom resolution
- What is survival rate of those on vents?
  - 66-86% of patients requiring ventilatory support died based on 2 case series; this is higher than death from other causes of viral pneumonia
- What are the sequelae of COVID infection?
  - This is a poorly studied topic, but one of great interest
  - Expect to have more data published as the number of survivors increases

Your questions

- Have you seen a pattern of respiratory complication relating to blood type, like more in type A, less type O?
  - There have been several recent pre-print (non-peer reviewed) papers indicating that people with type O blood might have a lower rate of infection than people with type A or B blood
  - This has not been seen in the US; in fact African Americans are more likely to have type O blood than Caucasians but have disproportionately higher COVID infection rates
  - Blood type might be a “stand in” for other immune-related genes
- Recommendations for doing office spirometry safely?
  - The CDC considers nebulizer therapy and spirometry to be high-risk exposures. The CDC recommends the use of appropriate PPE for these procedures (N95 masks, gown, gloves).

Your questions

- Are there guidelines for target SpO2 in COVID patients in the outpatient setting?
  - The World Health Organization (WHO) suggests titrating oxygen to a target peripheral oxygen saturation (SpO_2) of ≥90 percent
- Is it valuable to do pulse oximetry on asymptomatic patient as a screening?
  - According to the American Lung Association, pulse oximetry does not play a role in COVID screening. Patients should concentrate on other symptoms, such as fever or shortness of breath. A normal pulse ox reading can provide a false sense of security
- Any info on the validity of temperature as screening tool given asymptomatic transmission?
  - Fever is just one symptom of COVID. Relying solely on temperature as a screening tool will miss many cases. Also, many types of non-oral/rectal thermometers are not reliable. OHA recommends screening with more than just thermometers (questionnaires, etc.)

Healthcare Provider Webinar Changes

- *Note **new schedule starting in June**!*
  - Moving to weekly events- no more Tuesday sessions.

- **Oregon Health Authority COVID-19 Information Sessions for Oregon Health Care Providers**
  - 1st and 3rd Thursdays, noon-1 p.m.
  - Weekly session information, slides and recordings at: www.healthoregon.org/coronavirushcp

- **OHSU's COVID-19 Response ECHO for Oregon Clinicians Part 2**
  - 2nd and 4th Thursdays, noon-1 p.m.
  - For full resources and benefits, register at:

  https://connect.oregonechonetwork.org/Series/Registration/278

Thank you.

Oregon Health Authority