OHA COVID-19 Webinar Series for Healthcare Providers

September 17, 2020

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Ariel Smits, MD, MPH
Agenda Items

- First, Oregon wildfire update
- COVID-19 update
- Other Oregon COVID-19 updates
- COVID-19 literature updates
- COVID-19 questions and answers
- Closing
Oregon Wildfire Update
Oregon Wildfire Situational Update

As of September 16:

• 26 active fires in Oregon
• More than 940,950 acres burned
• Broad evacuations persist, while some able to return home
• Hospital impacts improving, although census is high
• Poor air quality across the state
• Oregon Wildfire Resources can be found here: https://wildfire.oregon.gov/
• OHA Website: Wildfire and Smoke information https://www.oregon.gov/oha/PH/Preparedness/Prepare/Pages/PrepareForWildfire.aspx
Oregon Disaster Declaration Granted 9/16

- Oregon was granted a Presidential Disaster Declaration to supplement state, tribal and local recovery efforts in areas affected by the wildfires since Sept. 7.
- The declaration makes federal funding available to affected individuals in Clackamas, Douglas, Jackson, Klamath, Lane, Lincoln, Linn and Marion counties.
- Individuals and business owners who sustained losses in the designated area can begin applying for assistance by registering online at www.DisasterAssistance.gov or by calling 1-800-621-3362.
- Federal assistance through FEMA’s Public Assistance program is available to 20 Oregon counties.
Symptoms: COVID-19 vs. Smoke Exposure

- Continue a high-level of clinical suspicion for COVID-19

Know the difference between symptoms of smoke exposure and COVID-19

**Symptoms that can be caused by both wildfire smoke and COVID-19:**
- Cough, difficulty breathing, runny nose, headache, and fatigue

**Symptoms not related to wildfire smoke exposure:**
- Fever, chills, muscle and body aches, vomiting, diarrhea, and loss of taste or smell
COVID-19 Interim Shelter Guidance

- Evacuation shelters should adopt procedures and policies to prevent the spread of COVID-19.
- Small shelters (fewer than 50 residents) should be prioritized over larger shelters.
- Coordinated with local public health regarding a shelter plan for those with illness due to suspected or confirmed COVID-19.
- All shelter residents, even those without symptoms, may have been exposed to COVID-19 and should self-quarantine after leaving the shelter.
- Full guidance can be found here: https://sharedsystems.dhsoha.state.or.us/DHSForms/Served/le2256A.pdf
Replacing medical items lost to fire

- Oregon Health Plan (OHP) members can get prescription medications and durable medical equipment replaced that were lost or left behind due to the wildfire.
- Members enrolled in a CCO can find the contact information for their CCO here: https://www.oregon.gov/oha/hsd/ohp/pages/coordinated-care-organizations.aspx
- For open card OHP members, they can contact Member Services at 800-273-0557.
Hazardous Air Pollutants Exposure and Mortality from COVID-19 in the US

  - Looked at 5 different air pollutants
  - An increase in the respiratory hazard index is associated with a 9% increase in COVID-19 mortality.
    - Long term increase, not short-term event such as wildfire smoke
  - Although differing in magnitude, this association holds for individual HAPs acetaldehyde, and diesel PM.
  - Our models suggest increased chronic multi-air pollutant exposure, even at levels below expected impact thresholds, are associated with higher COVID-19 mortality rates when controlling for known socioeconomic and behavioral health influences.
COVID-19 Update
As of September 16:

- 29,850 total cases
- 2,319 hospitalized cases
- 521 deaths
COVID-19 Situation in Oregon

For the week of September 7-13*:

• 1,294 new cases were recorded.
  – This is down 12% from the prior week.

• The number of Oregonians newly tested was 1,736.
  – This is down 35% from the week prior, likely a result of the wildfires.

• 5.6% of test results were positive.
  – compared to 4.3% the week prior

*Numbers may change as additional test results from specimens collected during the time period are reported.
# Continued Disproportionate Impact

<table>
<thead>
<tr>
<th>Race</th>
<th>Cases</th>
<th>% of total cases</th>
<th>Cases per 100,000&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Hospitalized</th>
<th>% Hospitalized</th>
<th>Deaths</th>
<th>Case fatality</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>12,012</td>
<td>40.7%</td>
<td>335.9</td>
<td>1234</td>
<td>10.3%</td>
<td>335</td>
<td>2.8%</td>
</tr>
<tr>
<td>Black</td>
<td>1,007</td>
<td>3.4%</td>
<td>1247.3</td>
<td>93</td>
<td>9.2%</td>
<td>12</td>
<td>1.2%</td>
</tr>
<tr>
<td>Asian</td>
<td>854</td>
<td>2.9%</td>
<td>471.5</td>
<td>87</td>
<td>10.2%</td>
<td>19</td>
<td>2.2%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>733</td>
<td>2.5%</td>
<td>1504.0</td>
<td>70</td>
<td>9.5%</td>
<td>11</td>
<td>1.5%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>551</td>
<td>1.9%</td>
<td>3316.9</td>
<td>78</td>
<td>14.2%</td>
<td>7</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other</td>
<td>10,296</td>
<td>34.9%</td>
<td>n/a</td>
<td>548</td>
<td>5.3%</td>
<td>52</td>
<td>0.5%</td>
</tr>
<tr>
<td>&gt;1 race</td>
<td>546</td>
<td>1.9%</td>
<td>271.7</td>
<td>27</td>
<td>4.9%</td>
<td>8</td>
<td>1.5%</td>
</tr>
<tr>
<td>Not available</td>
<td>3,485</td>
<td>11.8%</td>
<td>n/a</td>
<td>142</td>
<td>4.1%</td>
<td>67</td>
<td>1.9%</td>
</tr>
<tr>
<td>Total</td>
<td>29,484</td>
<td>100.0%</td>
<td>696.0</td>
<td>2,279</td>
<td>7.7%</td>
<td>511</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Case count</th>
<th>% of total cases</th>
<th>Cases per 100,000&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Hospitalized</th>
<th>% Hospitalized</th>
<th>Deaths</th>
<th>Case fatality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>11,812</td>
<td>40.1%</td>
<td>2172.2</td>
<td>647</td>
<td>5.5%</td>
<td>67</td>
<td>0.6%</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>14,268</td>
<td>48.4%</td>
<td>386.4</td>
<td>1450</td>
<td>10.2%</td>
<td>351</td>
<td>2.5%</td>
</tr>
<tr>
<td>Not available</td>
<td>3,404</td>
<td>11.5%</td>
<td>n/a</td>
<td>182</td>
<td>5.3%</td>
<td>93</td>
<td>2.7%</td>
</tr>
<tr>
<td>Total</td>
<td>29,484</td>
<td>100.0%</td>
<td>696.0</td>
<td>2,279</td>
<td>7.7%</td>
<td>511</td>
<td>1.7%</td>
</tr>
</tbody>
</table>
School Readiness Metrics

Required for return to in-person instruction, or a hybrid model of on-site and online learning:

**State level**
- COVID-19 test positivity $\leq 5\%$ in the preceding 7 days for 3 weeks in a row

**County level**
- $\leq 10$ COVID-19 cases per 100,000 population in the preceding 7 days
- COVID-19 test positivity $\leq 5\%$ in the preceding 7 days for 3 weeks in a row

School Readiness Metrics

Oregon COVID-19 County Case Rates and Test Positivity by MMWR Week: July 5th - September 12th

This table is based on data pulled at 12:01 AM on September 14th, 2020. For case counts and case rates, cases are assigned to a week based on their true case date, which is the date when public health first identified them as a confirmed or presumptive COVID-19 case. For percent positivity in testing, persons tested are assigned to a week based on their specimen collection date. All data are provisional and subject to change.

<table>
<thead>
<tr>
<th>County</th>
<th>Week of Data Date</th>
<th>Case Count</th>
<th>Cases per 100,000</th>
<th>Test Positivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon, statewide</td>
<td>July 5, 2020</td>
<td>1,933</td>
<td>45.6</td>
<td>5.7%</td>
</tr>
<tr>
<td></td>
<td>July 12, 2020</td>
<td>2,398</td>
<td>56.6</td>
<td>5.3%</td>
</tr>
<tr>
<td></td>
<td>July 19, 2020</td>
<td>2,172</td>
<td>51.3</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>July 26, 2020</td>
<td>2,320</td>
<td>54.8</td>
<td>6.1%</td>
</tr>
<tr>
<td></td>
<td>August 2, 2020</td>
<td>2,173</td>
<td>51.3</td>
<td>5.2%</td>
</tr>
<tr>
<td></td>
<td>August 9, 2020</td>
<td>1,990</td>
<td>47.0</td>
<td>5.2%</td>
</tr>
<tr>
<td></td>
<td>August 16, 2020</td>
<td>1,683</td>
<td>39.7</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>August 23, 2020</td>
<td>1,682</td>
<td>39.7</td>
<td>4.4%</td>
</tr>
<tr>
<td></td>
<td>August 30, 2020</td>
<td>1,502</td>
<td>35.6</td>
<td>4.7%</td>
</tr>
<tr>
<td></td>
<td>September 6, 2020</td>
<td>1,314</td>
<td><strong>31.0</strong></td>
<td>5.6%</td>
</tr>
</tbody>
</table>
Hospital COVID Census: Statewide Trends

[Graph showing trends in hospitalized patients, COVID-positive patients, and ICU beds over time]
Other Oregon Updates
Pilot Project to Test COVID-19 Exposure Notification Technology

• On September 16, Governor Brown announced that Oregon has joined with Western States Pact members California, Washington, Colorado and Nevada in a pilot project to test COVID-19 exposure notification technology
  – Will test the Exposure Notification Express mobile application developed by Google and Apple
• Exposure notifications (EN) are alerts that people can receive on their phones to let them know if they’ve been in contact with someone diagnosed with COVID-19.
• Participation is voluntary—users must opt in.
  – Users can voluntarily report a verified positive COVID-19 test or diagnosis.
Pilot Project to Test COVID-19 Exposure Notification Technology

- The app confidentially notifies individuals who may have been exposed to someone who tested positive for the virus.
- The app does not collect, store or transmit any personally identifiable user information (including location).
- EN can augment public health contact tracing.
  - Contacts identified through the app are instructed to call their LPHA for follow-up.
- Digital EN is effective at all levels of uptake.
  - 15% uptake in the adult population results in 15% fewer infections, and 11% fewer deaths.
  - ~240 fewer infections per week in Oregon
    https://www.ox.ac.uk/news/2020-09-03-new-research-shows-tracing-apps-can-save-lives-all-levels-uptake
Pilot Project to Test COVID-19 Exposure Notification Technology

- EN can increase the speed and reach of contact tracing including anonymous and forgotten contacts.
- EN can reduce COVID-19 transmission and save lives.
COVID-19 Wastewater Monitoring Project

• OHA has launched a statewide COVID-19 wastewater monitoring project to study the presence of the SARS-CoV-2 virus in more than 40 small to medium-sized communities around the state.
  – Will include weekly wastewater testing over the next 30 months
• The project will enable epidemiologists to better understand the circulation of COVID-19 in some of Oregon’s communities.
  – It will serve as an “early warning” system to tell if COVID-19 is spreading silently in communities.
• Most of the work will be carried out by Oregon State University researchers along with local partners.
• Funded by the CDC
  – Melisa Sutton MD, MPH is the principal investigator
COVID-19 Literature Updates
Influenza vs COVID-19 Symptoms in US Children

• Song et al, JAMA September 8, 2020
  – Retrospective cohort study
    • 315 children with COVID-19
    • 1402 children with seasonal influenza A or B
    • No patients in this cohort were hospitalized with coinfection of both COVID-19 and seasonal influenza
    • Note: sharp drop in influenza positive rate seen with school closures and further reduction with stay at home orders (positive detection rate 22% pre to 0.3% post)
  – Patients hospitalized with COVID-19 were significantly older (median age 9.7 yrs vs 4.2 yrs) and more likely to have an underlying medical condition than those hospitalized with seasonal influenza.
  – Patients with COVID-19 and those with seasonal influenza had a similar hospitalization rate (54 [17%] vs 291 [21%], \( P = .15 \)), intensive care unit admission rate (18 [6%] vs 98 [7%], \( P = .42 \)), and use of mechanical ventilators (10 [3%] vs 27 [2%], \( P = .17 \)).
Influenza vs COVID-19 Symptoms in US Children

• More patients hospitalized with COVID-19 than with seasonal influenza reported fever (41 [76%] vs 159 [55%], \( P = .005 \)), diarrhea or vomiting (14 [26%] vs 36 [12%], \( P = .01 \)), headache (6 [11%] vs 9 [3%], \( P = .01 \)), body ache or myalgia (12 [22%] vs 20 [7%], \( P = .001 \)), and chest pain (6 [11%] vs 9 [3%], \( P = .01 \)).

• Differences between patients hospitalized with COVID-19 vs influenza who reported cough (24 [48%] vs 90 [31%], \( P = .05 \)) and shortness of breath (16 [30%] vs 59 [20%], \( P = .13 \)) were not statistically significant.

• Two patients with influenza A died. No deaths were observed among patients with COVID-19 or influenza B

• Conclusions: Children with COVID-19 and influenza present with similar symptoms and have similar hospitalization rates, ICU admission rates, and intubation rates.
Clinical Outcomes in Young Adults Hospitalized with COVID-19

- Cunningham et al, JAMA September 9, 2020
  - Cohort study
    - 3222 adults aged 18-34 with diagnosis of COVID-19 admitted to US hospitals
  - During hospitalization, 684 patients (21%) required intensive care, 331 (10%) required mechanical ventilation, and 88 (2.7%) died.
  - The median length of stay was 4 days (interquartile range, 2-7 days).
  - Morbid obesity (adjusted odds ratio [OR], 2.30; 95% CI, 1.77-2.98; vs no obesity; \( P < .001 \)) and hypertension (adjusted OR, 2.36; 95% CI, 1.79-3.12; \( P < .001 \)) were common and in addition to male sex (adjusted OR, 1.53; 95% CI, 1.20-1.95; \( P = .001 \)) were associated with greater risk of death or mechanical ventilation.
  - Diabetes also associated with death or intubation
  - No difference based on race or ethnicity
Maternal and Perinatal Outcomes from COVID-19

• Allotey et al, BMJ, September 1, 2020
  – Living systematic review and meta-analysis
    • N=77 studies (11,432 women)
  – Pregnant women with COVID-19 are more likely to require ICU admission or mechanical ventilation than pregnant women without COVID-19.
  – 73 pregnant women (0.1%) with confirmed covid-19 died from any cause.
  – Increased maternal age (1.78, 1.25 to 2.55), high body mass index (2.38, 1.67 to 3.39), chronic hypertension (2.0, 1.14 to 3.48), and pre-existing diabetes (2.51, 1.31 to 4.80) were associated with severe covid-19 in pregnancy.
Maternal and Perinatal Outcomes from COVID-19

- Spontaneous preterm birth rate was 6% (95% confidence interval 3% to 9%) in women with COVID-19. The odds of any preterm birth (3.01, 95% confidence interval 1.16 to 7.85) was high in pregnant women with COVID-19 compared with those without the disease.

- A quarter of all neonates born to mothers with COVID-19 were admitted to the neonatal unit (25%) and were at increased risk of admission (odds ratio 3.13, 95% confidence interval 2.05 to 4.78) than those born to mothers without COVID-19.

- Conclusion: Pre-existing comorbidities, high maternal age, and high body mass index seem to be risk factors for severe COVID-19 in pregnant women. Preterm birth rates are high in pregnant women with COVID-19 than in pregnant women without the disease.
COVID-19 Questions and Answers
What are the long term effects of COVID-19?

- Yelin et al, Lancet, September 1, 2020
  - Reported long term effects of COVID-19:

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Extreme fatigue</td>
<td>Muscle weakness</td>
<td>Low grade fever</td>
</tr>
<tr>
<td>Inability to concentrate</td>
<td>Changes in mood</td>
<td>Diarrhea and vomiting</td>
</tr>
<tr>
<td>Memory Lapses</td>
<td>Sleep difficulties</td>
<td>Shortness of breath</td>
</tr>
<tr>
<td>Chest pains</td>
<td>Headaches</td>
<td>Needle pains in arms and legs</td>
</tr>
<tr>
<td>Sore throat/difficulty swallowing</td>
<td>Palpitations</td>
<td>Loss of taste and smell</td>
</tr>
<tr>
<td>Skin rash</td>
<td>New onset DM and HTN</td>
<td></td>
</tr>
</tbody>
</table>
What are the long term effects of COVID-19?

- Theoretical long-term effects of COVID-19
  - Lung scarring or damage
  - Cardiac damage
  - Neurologic effects
What are the long term effects of COVID-19?

• Studies currently underway
  – National Heart, Lung, and Blood Institute
    • COVID-19 Observational Study, or the CORAL study
      – researchers across approximately 50 participating PETAL network hospitals plan to enroll 3,000 adult COVID-19 patients to follow their long term outcomes for 2 years
  – In the United Kingdom, the Post-Hospitalisation COVID-19 Study (PHOSP-COVID) aims to follow 10,000 patients for a year.
  – Data-sharing initiatives such as the CAPACITY registry, launched in March, are compiling reports from dozens of European hospitals about people with COVID-19 who have cardiovascular complications.
Healthcare Provider Weekly Webinars

- 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-1:15 p.m.
  - For full resources and benefits, register at: https://connect.oregonechonetwork.org/Series/Registration/278
Thank you