Hepatitis in Oregon: 2019 in Review

Ann Thomas, MD, MPH
Acute and Communicable Disease Prevention
Overview

I. Trends in hepatitis A in Oregon

II. Vulnerability Assessment:
   ▪ Which counties are at highest risk?

III. Planning for HCV Elimination
Since 2016
- 29,300 cases
- 17,800 hospitalized
- 298 deaths

Risk factors
- Injection or non-injection drug use
- Persons experiencing homelessness
- Related to crowding, poor hygiene
Reported cases of hepatitis A, Oregon, 2013-2019

Number of Cases

2013: 30
2014: 15
2015: 25
2016: 15
2017: 20
2018: 25
2019: 30

Number of Cases
Hepatitis A risk factors, Oregon, 2017-2018, (n=43)

- One cluster of 4 cases in PWIDS in Klamath and Deschutes
- Deschutes provided vaccinations in county jail, homeless camps
OHA Immunization Program Response

• > $300,000 recently awarded to Clackamas, Deschutes, Douglas, Harney, Lane, Malheur, Multnomah and Washington counties received to vaccinate high risk populations
  – Corrections, SSPs, housing services, community health centers, addiction treatment and recovery support
  – Several other counties have received 317-funded vaccine

• Working with 12 hospitals along I-5 corridor to use HAV vaccine for high risk patients in EDs
II. Oregon Vulnerability Assessment

- HIV outbreak in rural Indiana prompted CDC to develop a framework for identifying US communities at risk for HIV and HCV

- CDC’s model identified following risk factors for outbreaks:
  - overdose deaths, prescription opioid sales, income, white race, unemployment, and buprenorphine prescribing potential by waiver
  - Then used the results to predict counties that are most at risk

- In 2019, CDC funded states through opioid response funding to conduct their own analyses to identify risks
Oregon approach

• Identify county-level risk factors that predict which counties have high rates of HCV in people < 30, a good marker for recent acquisition of HCV and injection drug use.

• Explored a number of factors that might impact the risk of spread of injection-drug related infections:
  – Measures of social vulnerability, like housing and food insecurity
  – Drug overdose hospitalizations and deaths
  – Access to prescription opioids
  – Availability of medical and behavioral health care
  – Drug related criminal activity
  – Rural/urban designation, years of potential life lost, income, employment, race/ethnicity
Why develop a vulnerability assessment?

Although individuals with positive lab tests for HCV are reported to the OHA, not everyone who has HCV gets tested, so just looking at where cases of HCV have been reported does not tell the whole story.
Model results

HIDTA
Risky_prescribing
No_transportation
Premature_death
Overdose
Stress
Housing
Food_insecurity
No_insurance
Unemployment
Best predictors of risk for HCV

- HIDTA
- Chronic HCV < 30
- Premature Death
- Risky Prescribing
- Lack of Transportation
What do the results mean?

- Calculate a score for each county that predicts their risk of an HCV outbreak—the higher the score, the bigger the risk of having an outbreak.

- For several counties, the vulnerability index score indicated a higher risk of an outbreak than would have been expected from just reviewing reported rates of HCV

<table>
<thead>
<tr>
<th>Vulnerability</th>
<th>Highest</th>
<th>High</th>
<th>Mid-Range</th>
<th>Lower</th>
<th>Lowest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas</td>
<td>Coos</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multnomah</td>
<td>Malheur</td>
<td>Curry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jefferson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tillamook</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Josephine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Umatilla</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jackson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lincoln</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clatsop</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jefferson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Klamath</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sherman</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clackamas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harney</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wasco</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crook</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Union</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Columbia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gilliam</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deschutes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washington</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wallowa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yamhill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Morrow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wheeler</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>River</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fact Sheet developed for OR-Hope intervention counties and shared with community action teams and other stakeholders to inform local prevention efforts and guide decision-making.
Using the Vulnerability Assessment Results

Providing Data to Counties

Oregon's Substance Use Syndrome

Overdose, Hepatitis C, HIV, Syphilis and Injection Drug Use Related Infections

Levels of community response and evidence-based approaches

Key Strategies for community responses at each level

Resource and Information Links

Malheur County

Facts at a Glance: Substance Use and Health Issues

Malheur County's vulnerability score was the 4th highest in Oregon, indicating a high risk for an SV related outbreak of infectious disease.

Over 10,000 people have died from overdose in 10 years of age 45 and older. In 2015, the rate of overdose deaths for all drug use for all ages was higher in Malheur County than the state of Oregon as a whole.

The rate of overdose deaths has increased in all counties, since 2015, the overdose death rate in the Portland Metropolitan Area.

In 2015 in Malheur County:

- 34 people were alive with HCV
- 50 people were alive with HIV
- 12 months of median household income
- 24 people were hospitalized with injection drug use related infection

In 2018:

- 1,500 people were enrolled
- There were 382 people in Opioid Treatment Programs (OTP) in Malheur County
- There were 264 people in Vivitrol in Malheu County
- 10 people in NSP Agency
- 200 people were served by 116 individual providers for non-based services

Drug Treatment Programs
III. Planning for HCV Elimination

• Received small grant from Association of State and Territorial Health Officials (ASTHO) for technical assistance for elimination planning
• Center for Disease Analysis Foundation coordinated a multi-stakeholder effort to assess the burden of HCV in Oregon and answer basic questions for policy development
• Partners: OHA, OHSU, Providence Health Systems, Department of Corrections, OR Medicaid Program, Portland Area Indian Health Board, ASTHO and CDC
Oregon’s Care Cascade, 2018

Cascade of Care in Oregon, 2018

Viremic Infections
Beginning of 2018

Diagnosed
Through 2018

Treated
During 2018

Cured

- 10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000

57,200
35,800
3,600
3,400

6%
63%
95%

Data sources: 1) OR surveillance data; 2) OR death certificates; 3) Treatment data from APAC, VA, and DOC
Assumptions: 1) 75% of reported patients are viremic; 2) 63% of cases diagnosed; 3) 95% of patients cured using currently available DAAs
## Characteristics of persons with HCV (viremic), Oregon, 2018 (N=57,200)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945-1965 birth cohort</td>
<td>57%</td>
</tr>
<tr>
<td>Women of child-bearing age</td>
<td>13%</td>
</tr>
<tr>
<td>People who currently inject drugs</td>
<td>11%</td>
</tr>
<tr>
<td>Incarcerated</td>
<td>4%</td>
</tr>
<tr>
<td>Enrolled in OR Medicaid</td>
<td>20%</td>
</tr>
</tbody>
</table>
WHO targets to eliminate HCV by 2030

- 80% reduction in new cases
- 90% diagnosis of all infections
- 65% reduction in liver-related mortality
How to do it

• Current standard of care will reduce number of viremic infections and deaths, but not meet WHO targets

• WHO-Plan A
  – Use combination of treatment and harm reduction (enough to prevent 20% of new infections)

• WHO-Plan B
  – No harm reduction, but more patients treated
# Strategies for HCV elimination by 2030

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Target</th>
<th>2019</th>
<th>2020</th>
<th>2021-23</th>
<th>≥ 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard of Care</td>
<td>New infections</td>
<td>1,400</td>
<td>1,400</td>
<td>1,300</td>
<td>1,300</td>
</tr>
<tr>
<td></td>
<td># Treated</td>
<td>4,500</td>
<td>3,200</td>
<td>2,800</td>
<td>2,500</td>
</tr>
<tr>
<td>Plan A: Harm reduction +RX</td>
<td>New infections</td>
<td>1,400</td>
<td>1,200</td>
<td>900</td>
<td>470</td>
</tr>
<tr>
<td></td>
<td># Treated</td>
<td>4,500</td>
<td>3,200</td>
<td>3,200</td>
<td>3,200</td>
</tr>
<tr>
<td>Plan B: RX only</td>
<td>New infections</td>
<td>1,400</td>
<td>1,400</td>
<td>1,300</td>
<td>1,100</td>
</tr>
<tr>
<td></td>
<td># Treated</td>
<td>4,500</td>
<td>5,000</td>
<td>5,000</td>
<td>5,500</td>
</tr>
</tbody>
</table>
Number of Oregon Health Plan clients receiving treatment for hepatitis C by quarter, Oregon 2017—Q3 2019

Risk Corridor initiated. Advanced fibrosis scores still required.

Coverage expanded to F2 (with limited coverage for less advanced stages)

Coverage expanded to F0 starting March 1, 2019.
- Fibrosis barrier removed.
- Fibrosis testing requirement removed, which was especially an issue in rural areas.
Summary

• Local data for action and data-driven approach to prioritizing resources

• Treatment as prevention is a viable strategy in Oregon (> 1,000 Medicaid patients treated in 2019)

• Need for improved access to harm reduction services
  – SSPs, Peer-driven interventions, MAT, naloxone, wound care services
Acknowledgements

- **Hepatitis A**: Tasha Poissant, Mimi Luther

- **Vulnerability Assessment**: Kathy Pickle, Courtney Crawford

- **HCV Elimination**: ASTHO, CDAF, Kent Benner, Daniel Dewsnup, Andy Seaman, Dee Weston, Trevor Douglas, Eric Vinson, Jessica Leston, Atif Zaman, Mark Loveless, Tim Menza
Questions

1 in 25 baby boomers has Hep C.

GET TESTED