Hepatitis C in Oregon

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Hepatitis C in Oregon – Agenda

- WYSC (Why you should care)
- Overview of hepatitis C and Oregon’s HCV burden
- Recent reports, plans and recommendations
- Our Common Aims: HIV|HCV|Overdose|Opioids
- Discussion & Next Steps
- Resources for more information

HEPATITIS C?
BE SURE. REQUEST THE TEST.
"People often ask me what's unique about Scott County," said Adams, the Indiana health commissioner. "I tell them, 'Absolutely nothing.'"

HIV Outbreak 2014-2015, Scott County, Indiana

- Access to basic health care, substance abuse treatment and HIV prevention were limited
- Introduction and transmission of HIV-1 strain within a network of PWIDs who shared syringes to inject an extended release formulation of the oral prescription drug oxymorphone
  - 181 case patients, 92.3% were co-infected with HCV
  - 536 persons were named as contacts; 468 contacts were located, assessed for risk and tested for HIV, and, if infected were linked to care
- Resources to prevent HIV and HCV and resources to treat HIV did not exist in the community before the outbreak

Lessons Learned

- Routine HIV screening in rural counties
- Large PWID networks can exist in rural areas
- Prevalence of HCV was high among PWIDs
Natural History of HCV Infection

HCC= Hepatocellular Carcinoma
ESLD= End Stage Liver Disease

Source: University of Washington’s Hepatitis C on-line training (CMEs)
http://www.hepatitisc.uw.edu/go/evaluation-staging-monitoring/natural-history/core-concept/all#variable-outcomes-chronic-infection
Who should be tested for Hepatitis C?

- The CDC and the United States Preventive Task Force (USPTF) recommend HCV testing based on a
  - person’s age (1945-1965 birth cohort)
  - past or ongoing risk behavior
  - exposures or conditions associated with increased risk or HCV infection.

HEP C?
REQUEST THE TEST.
Hepatitis C can be cured

But first, people need to learn their HCV status. REQUEST THE TEST.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Trade Name</th>
<th>% of people cured in studies</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simeprevir* (1)</td>
<td>Olysio</td>
<td>~ 80%</td>
<td>2013</td>
</tr>
<tr>
<td>Sofosbuvir* (1,2,34)</td>
<td>Sovaldi</td>
<td>84% to 96% depending on genotype</td>
<td>2013</td>
</tr>
<tr>
<td>Ledipasvir-sofosbuvir (1)</td>
<td>Harvoni</td>
<td>↑90%</td>
<td>2014</td>
</tr>
<tr>
<td>Ombitasvir-Paritaprevir-Ritonavir and Dasabuvir (1)</td>
<td>Viekira Pak</td>
<td>↑90%</td>
<td>2014</td>
</tr>
<tr>
<td>Daclatasvir* (3)</td>
<td>Daklinza</td>
<td>↑90% (community rate 58-69% for genotype 3)</td>
<td>2015</td>
</tr>
<tr>
<td>Elbasvir-Grazoprevir (1,4)</td>
<td>Zepatier</td>
<td>↑90%</td>
<td>2015</td>
</tr>
<tr>
<td>Ombitasvir-Paritaprevir-Ritonavir* (3, 4)</td>
<td>Technivie</td>
<td>↑90%</td>
<td>2015</td>
</tr>
<tr>
<td>Sofosbuvir-Velpatasvir (1-6)</td>
<td>Epclusa</td>
<td>↑90%</td>
<td>2016</td>
</tr>
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https://www.youtube.com/watch?v=RahytDNPMMy8&feature=youtu.be
Total reported cases of chronic HCV

By 2015, 59,645 cases were reported to Oregon’s HCV registry (est. population 58,816)

Assuming that at least 50% of Oregonians with HCV are unaware of their diagnosis, the actual number is probably closer to 90,500
Mean annualized rates of chronic HCV cases reported, 2011-2015
Overview: Estimated hepatitis C prevalence per 100,000 population, 2010

Other rates per 100,000 persons:
- Alaska: 2,190
- Hawaii: 1,480
- Washington DC: 3,270

Source: https://hepvu.org/map/
Overview

Age-adjusted death rates from HBV, HCV and HIV in the United States, 1999-2007


Age-adjusted death rates from HBV, HCV and HIV in Oregon, 2000-2007
Rates of hepatitis C related deaths per 100,000 population, 2014

Other rates per 100,000 persons:
- Alaska 8.4
- Hawaii 6.3
- Washington DC 15.2

Source: HepVu (www.hepvu.org). Emory University, Rollins School of Public Health, in partnership with Gilead Sciences, Inc.
The age distribution for 2015 reflects a 60% increase in HCV cases under 35 years of age from 7.5% to 11.9%. 
Reports, Recommendations and Plans

2015
• Oregon Viral Hepatitis Epi Profile

2016 / 2017
• National Strategy for Elimination of Hepatitis B and C (National Academy of Sciences)

• Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs and Health (HHS/SAMHSA)

• Comprehensive HIV and HCV Programs with People Who Inject Drugs: Practical guidance for collaborative interventions (WHO)

• National Viral Hepatitis Action Plan, 2017-2020 (HHS) CDC

• HCV in Oregon Fact Sheet
Heroin Overdose Death Rates by County, Oregon 5-year rates

Source: OHA Injury and Violence Prevention Program PDMP Data Dashboard accessed 5/25/17

Technical notes

• Counties with smaller population may have rates suppressed due to small numbers. 5-year rates may be more reliable.
• Drug related overdoses are identified in hospital discharge and death certificates using diagnostic codes relevant to drug overdose.
• Certain codes are under-reported, or only reported at a broader level (e.g., opioid overdose rather than heroin overdose) leading to undercounting of certain measures.
• Only deaths of unintentional or undetermined intent contribute to death rates.
Levels or layers of influence affect individual opportunities and choices.

Different stakeholders exist in each layer. All stakeholders are important and must be reached effectively to create an environment that supports reduction and elimination of health inequities.

- **Structural/Societal**: State policies and laws, health insurance, law enforcement and justice system.
- **Community & Organizations**: Community-based agencies and businesses, health and social services and clubs or associations.
- **Relationships**: Reached through peer navigators, providers, friends and family.
- **Individual**: Client education, practice and support to knowledge, skill, confidence and intentions.
- **Health Inequities**
**Program Aims**

**HIV**
- Zero new infections
- 100% of Oregonians at high risk of HIV infection have access to PrEP
- 100% of Oregonians diagnosed with HIV are in medical care within 30 days.

**Viral Hepatitis**
- Prevent new infections
- Improve health outcomes
- Reduce and eliminate community and population health disparities
- Decrease future medical costs

**Prescription Drug Overdose Prevention**
- Reduce risks to patients by making pain treatment safer and more effective, emphasizing non-opioid and non-pharmacological treatment
- Reduce harms for people taking opioids and support recovery for people with substance use disorders by making naloxone rescue and medication assisted treatment (MAT), more accessible and affordable
- Protect the community by reducing the number of pills in circulation through implementation of safe prescribing, storage, and disposal practices
- Optimize outcomes by making state and local data available for monitoring, evaluating and improving policies and targeting interventions
Common Aims
HIV|Viral Hepatitis|Opioids & Overdose

- Prevent new HIV and viral hepatitis infections and drug overdoses among persons who use drugs
- Find people living with HIV, HCV and SUD and link to systems of care and services
- Share and use state and local data to monitor progress, inform policy and focus actions to reduce and eliminate community and population disparities
Common Aims
HIV | Viral Hepatitis | Opioids & Overdose

- Prevent new HIV and viral hepatitis infections and drug overdoses
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- State and local data shared and used to monitor progress, inform policy and focus actions to reduce and eliminate community and population disparities

Endorse and implement harm reduction interventions and strategies
- Build capacity of LHD, OHA, and health, community and public service and safety providers to integrate harm reduction strategies
- Engage with consumers, families, community members, local leaders and policy makers and dialogue about ways to reduce harm associated with drug use
- Address stigma

Increase access to the tools that help prevent new infections and harm
- Increase public and provider awareness of overdose risk and access to naloxone
- Improve access to SUD treatment, especially in rural and frontier areas
- Boost screening and linkage
- Pilot innovative strategies to increase access to clean injection equipment, including syringes, wound care and naloxone access in rural and frontier areas
- Implement medication and syringe disposal programs

Strengthen the systems of care for persons with HIV, viral hepatitis and substance use disorders
- Identify and address systems of care and service challenges and gaps
- Assess need for HIV, HCV and MAT providers across the state, especially rural and frontier areas
- Remove barriers to care and treatment access (e.g. MAT “fail first” policies)

Define and measure success
Encourage public reporting and local media coverage of HIV, HCV and opioid, issues data and measures
**Common Aims**  *Think-Pair-Share Activity*

**HIV | Viral Hepatitis | Opioids & Overdose**

- Prevent new HIV and viral hepatitis infections and drug overdoses
- Find people with HIV, HCV and SUD and link to systems of care and services
- State and local data shared and used to monitor progress, inform policy and focus actions to reduce and eliminate community and population disparities

| Endorse and implement harm reduction interventions and strategies | Increase access to the tools that help prevent new infections and harm | Strengthen the systems of care for persons with HIV, viral hepatitis and substance use disorders |

Define and measure success

Encourage public reporting and local media coverage of HIV, HCV and opioid, issues data and measures
Hepatitis C in Oregon

1 in 25 baby boomers has Hep C.

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1989 HCV identified

1992 - Blood test protects blood supply

1996-98 First HCV treatments FDA approved. Interferon-based regimens. Low SVR rates and difficult side effects.

2000

2001-02 Pegylated interferon treatments FDA approved.

2005 - HCV mouse model

2007 - Promising new drugs enter clinical trial pipeline

2010 - Oraquik Rapid HCV test FDA approved for whole-blood. CLIA waiver submitted.

2011 - Boceprevir and telaprevir FDA approved • OraQuik CLIA waiver approved.

2012 - DAA clinical trials with SVRs • CDC Birth Cohort recommendation • First National Hepatitis Testing Day

2013 - Two Sofosbuvir combinations and Simeprevir FDA approved

2014 - Interferon free DAA’s Harvoni and Viekira Pak approved

2016 - Most Medicaid services still limit access. Surgeon General recommends harm reduction interventions for first time. First HCV positive organ (kidney) transplanted and recipient treated and cured of HCV • SEP begin to open in response to HCV, HIV and opioid crisis among PWIDs

2015 - Daklinza, Technivie and Zepatheir FDA approved • High WAC of HCV medications results in severe restrictions to limit access. • Lawsuits initiated in response to restrictions. • Large outbreaks of acute HCV equally divided among rural/urban, majority of cases under 30 years of age, cases report shared syringes and injection of prescription opioids and heroin. Outbreaks are suggestive of emerging second generation HCV epidemic • AASLD calls for treatment of all persons infected with HCV, except those with < 12 mo. life expectancy due to non-liver comorbid conditions • Human cell culture developed
Hepatitis C Treatment Costs

- The negotiated pricing and cost structure for pharmaceutical products in the US are not transparent.
- The wholesale acquisition costs (WAC) of HCV drugs (“sticker price”) are high.
- Pharmacy Benefit Managers (PBMs), and government agencies negotiate pricing and FEW pay the WAC.

*Wholesale Acquisition Cost vs. Average 2015 Negotiated WAC Discount*

<table>
<thead>
<tr>
<th>Drug</th>
<th>WAC</th>
<th>46% WAC</th>
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<tbody>
<tr>
<td>Sovaldi</td>
<td>$84,000</td>
<td>$35,280</td>
</tr>
<tr>
<td>Olysio</td>
<td>$66,000</td>
<td>$27,720</td>
</tr>
<tr>
<td>Daklinza</td>
<td>$63,000</td>
<td>$26,460</td>
</tr>
<tr>
<td>Harvoni -8 wks</td>
<td>$63,000</td>
<td>$26,460</td>
</tr>
<tr>
<td>Harvoni -12 wks</td>
<td>$94,500</td>
<td>$39,690</td>
</tr>
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</table>

- Competition and negotiated pricing have NOT improved access to care for many persons with HCV infection and continue to limit the public health impact of these new therapies.

All stakeholders need to work together to bring medication prices to the point where all people in need of treatment are able to afford and access treatment.
Hepatitis C Treatment Costs

**ICER** = Incremental cost-effectiveness ration

**QALY** = Quality Adjusted Life Year