Hepatitis C Virus (HCV) in Indian Country

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Risk Factors for Transmission of Hepatitis C

- Injection Drug Use
- Blood Products
- Male-Male Sex
- Mother to Child
- Heterosexual Sex
- Needlestick Injury
HCV Deaths and Deaths from Other Nationally Notifiable Infectious Diseases,* 2003-2013

* TB, HIV, Hepatitis B and 57 other infectious conditions reported to CDC
Hepatitis C: Progression of Disease

- Normal Liver
- Chronic Hepatitis
- Cirrhosis
- HCC
- ESLD
- Death

20-25 years

HCV Infection

20% - 40%

25%

25-30 years
NHANES Survey, United States, 2001-2008
Awareness of HCV Infection Status

Knowledge of HCV Infection

Unaware 50%
Aware 50%

HCV-It’s a common disease

- Leading cause of liver cancer and liver transplants nationwide
- 3.5 million persons HCV+
- HCV related mortality rates in AI/AN higher than any other race/ethnicity (CDC Surveillance report, 2014)
- Hospitalizations for HCV among AI/AN tripled in past several years

Byrd KK, et al Pub Hlth Rep 2011

Prevalence of HCV Antibody, by Year of Birth

<table>
<thead>
<tr>
<th>Year of Birth</th>
<th>HCV Prevalence (%)</th>
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<tbody>
<tr>
<td>1910</td>
<td>7.0</td>
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<tr>
<td>1920</td>
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<td>1930</td>
<td>5.0</td>
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<td>1990</td>
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Recommendations for the Identification of Chronic Hepatitis C Virus Infection Among Persons Born During 1945–1965
Treatment options: Then, and Now
HCV treatment--then

• Limited treatment options
• Long duration
• Side effects and interactions (anemia, depression, body mass index)
• High default rate
• Low clearance/success rate
HCV treatment--now

- Multiple treatment options
- Short duration
- Well tolerated, almost no side effects
- High completion rate
- High cure rates (almost 100%)

however
- Drugs are extremely expensive, although prices have moderated
What We Are Trying To Prevent

- Ascites
- Esophageal Varices
- End Stage Liver Disease

Role of PCP
Goal of Treatment

- **SVR12 (cure) of HCV** is associated with:
  - 50% Reduction in All-cause Mortality
  - 70% Reduction of Liver Cancer
  - 90% Reduction in Liver Failure

SVR: Sustained Virolgical Response

Lok A. NEJM 2012; Ghany M. Hepatol 2009; Van der Meer AJ. JAMA 2012
Lack of Specialist Availability Limits Access to HCV Treatment

Patients with Chronic HCV

Specialist Providers

3,500,000

20,000
Hepatitis C Cascade of Care in United States

- Chronic HCV (high): 5,000,000
- Chronic HCV (NHANES): 100%
- HCV Tested: 50%
- Referred to Care: 35%
- HCV Treated: 9%
- Achieved SVR: 6%

Context IHS

- Federal Agency
- Federal, Tribal, Urban designations for facilities
- Health facilities in 34 of 50 US states
- Serve a population of 2.2 million
- Mostly rural, primary health care
- Few specialists
Main pillars IHS response

• Increase HCV screening and diagnosis
• Increase HCV treatment
HCV Screening

• Electronic ‘reminder’ for clinicians in medical chart flags patients who are unscreened

• HCV policy template can be used by sites to customize local policy and practice on HCV testing and follow up
HCV Screening

• Screening coverage of persons born in 1945-1965 in 2012: 11%

• Screening coverage of persons born in 1945-1965 in 2018: >60%
HCV Treatment

• Overcome specialist limitations with collaborations in telehealth

• Regional clinical trainings on HCV treatment

• Collaboration on drug procurement strategies
Telehealth

University of New Mexico (UNM)
Cherokee Nation Health Services (CNHS)
Northwest Portland Area Indian Health Board (NPAIHB)
University of California San Francisco (UCSF)
Alaska Native Tribal Health Consortium (ANTHC)
Ongoing challenges

• HCV elimination
• HCV prevention
• Overlap with national epidemic of opioid use disorder
• Early detection of HCV-related liver cancer
HCV cure

“When I can tell the patients when we got the final lab results and they are cured, we both cry. Every time.”

-Pharmacist, IHS