

Hepatitis C Virus (HCV) in Indian Country

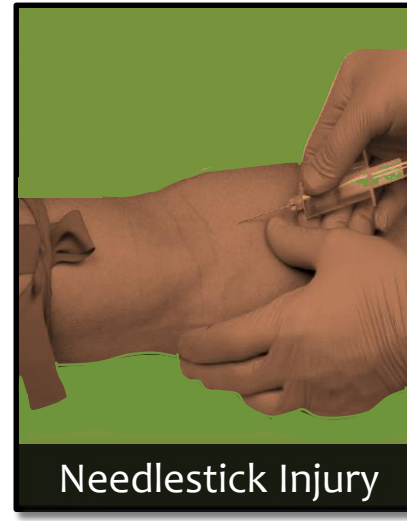
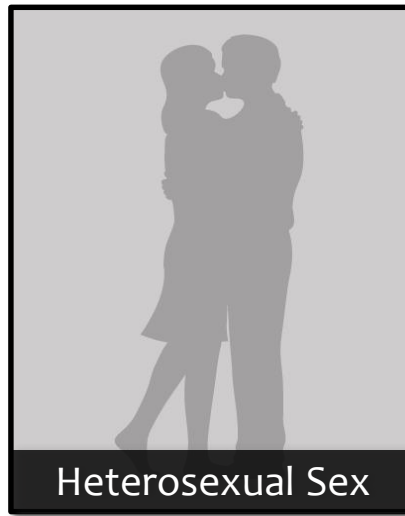
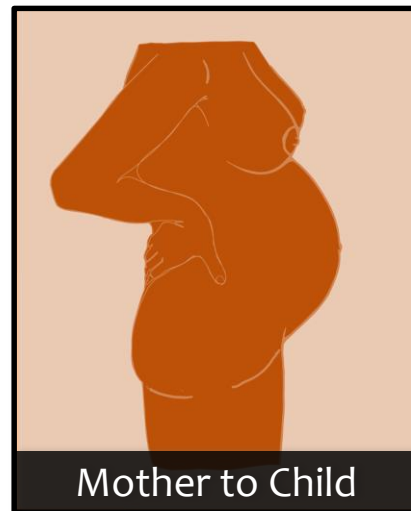
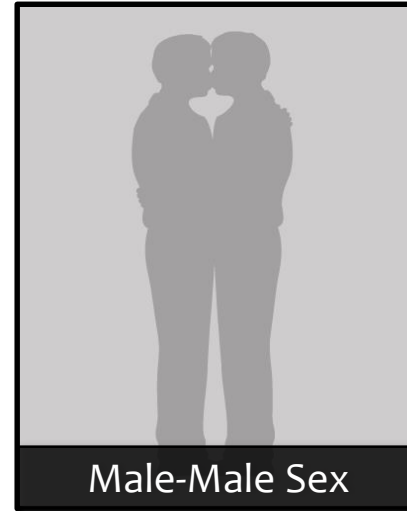
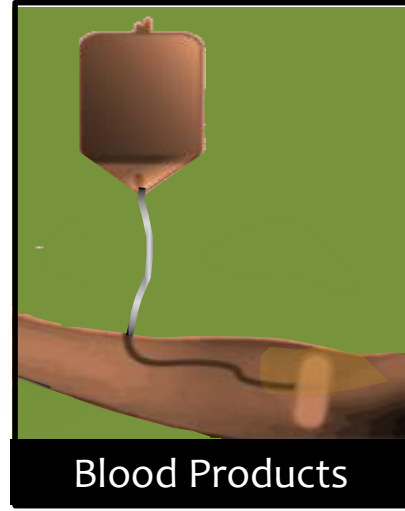
Brigg Reilley

Northwest Portland Area Indian Health Board

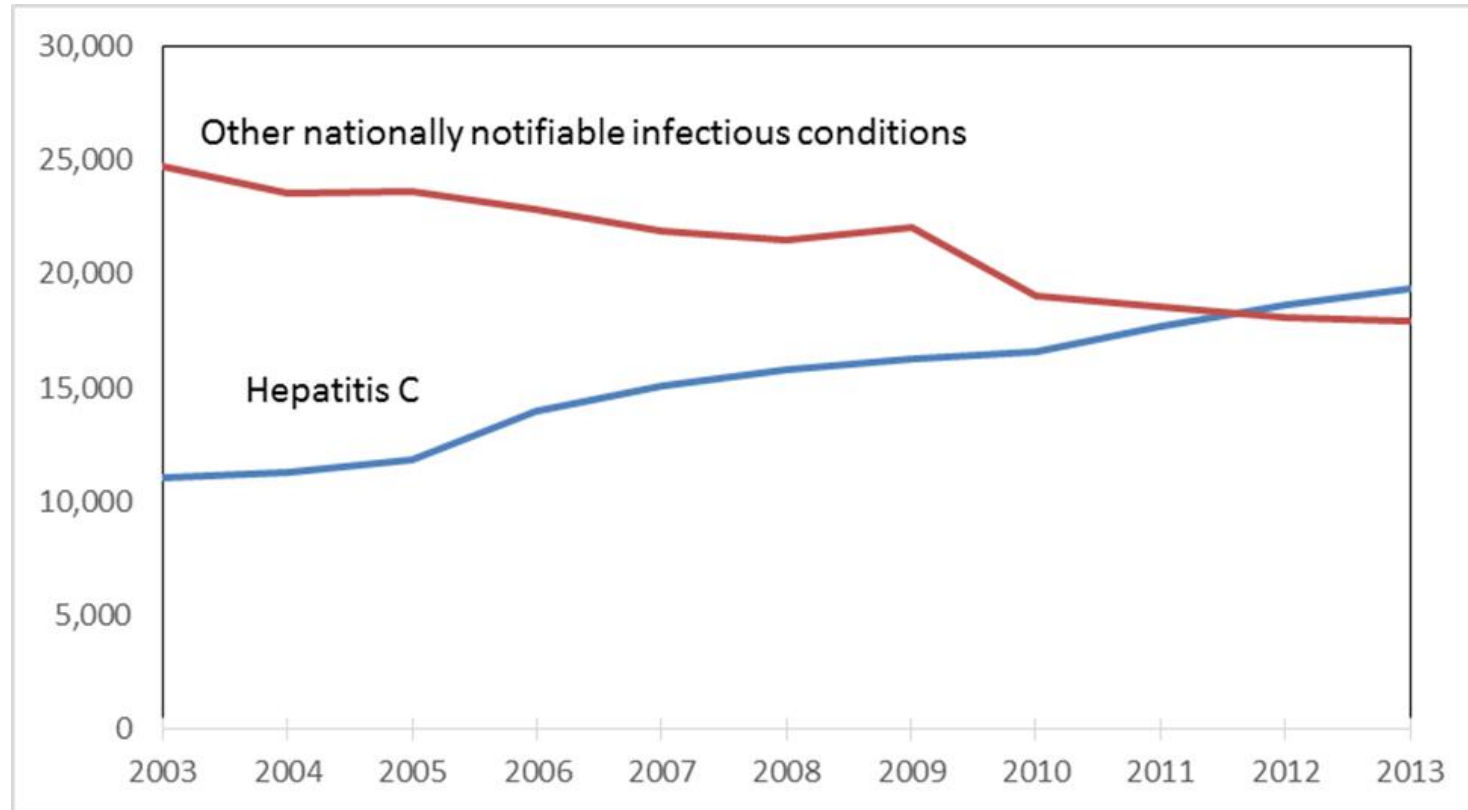
In collaboration with Rick Haverkate

Indian Health Service

Risk Factors for Transmission of Hepatitis C

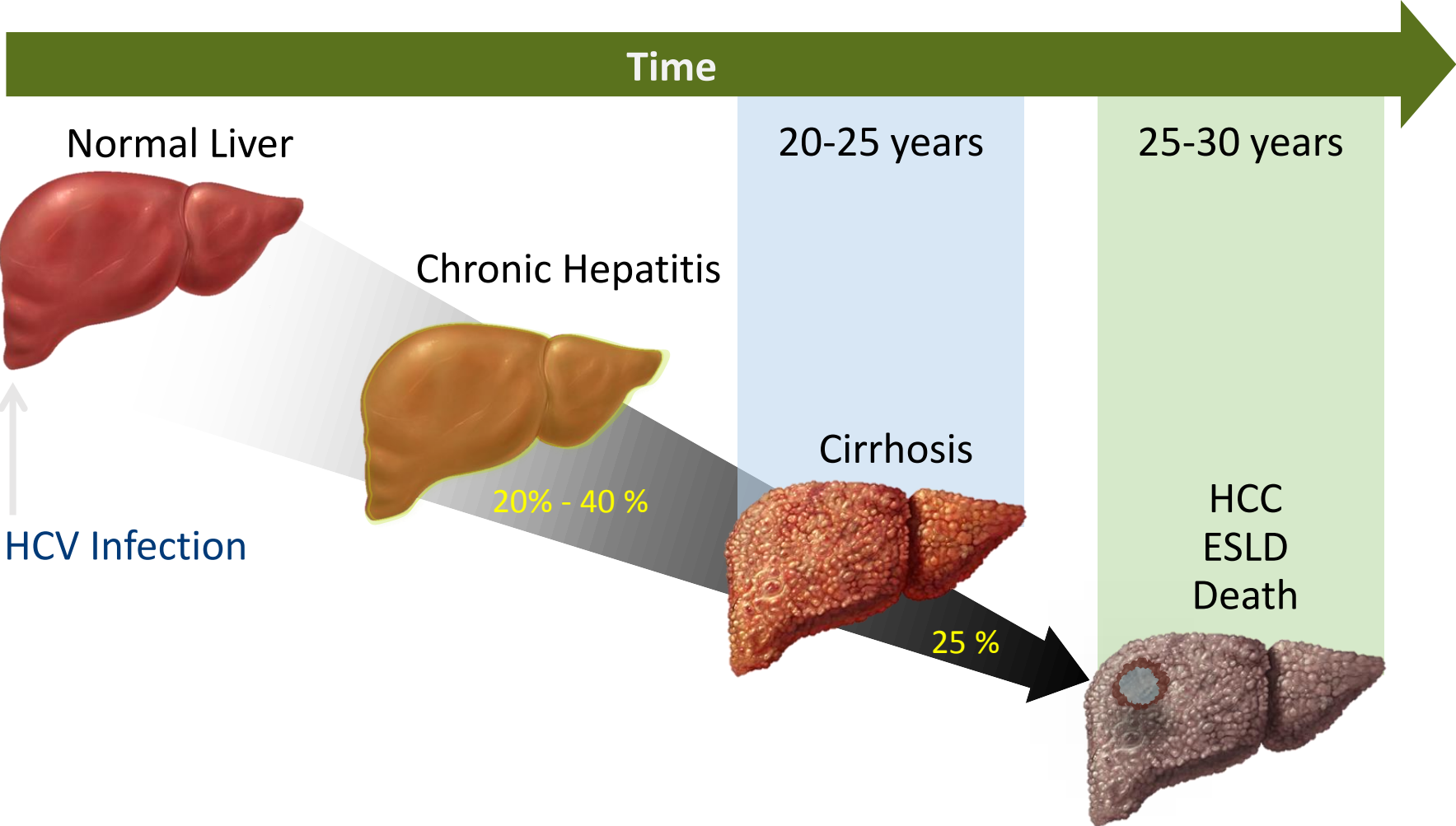


HCV Deaths and Deaths from Other Nationally Notifiable Infectious Diseases,* 2003- 2013



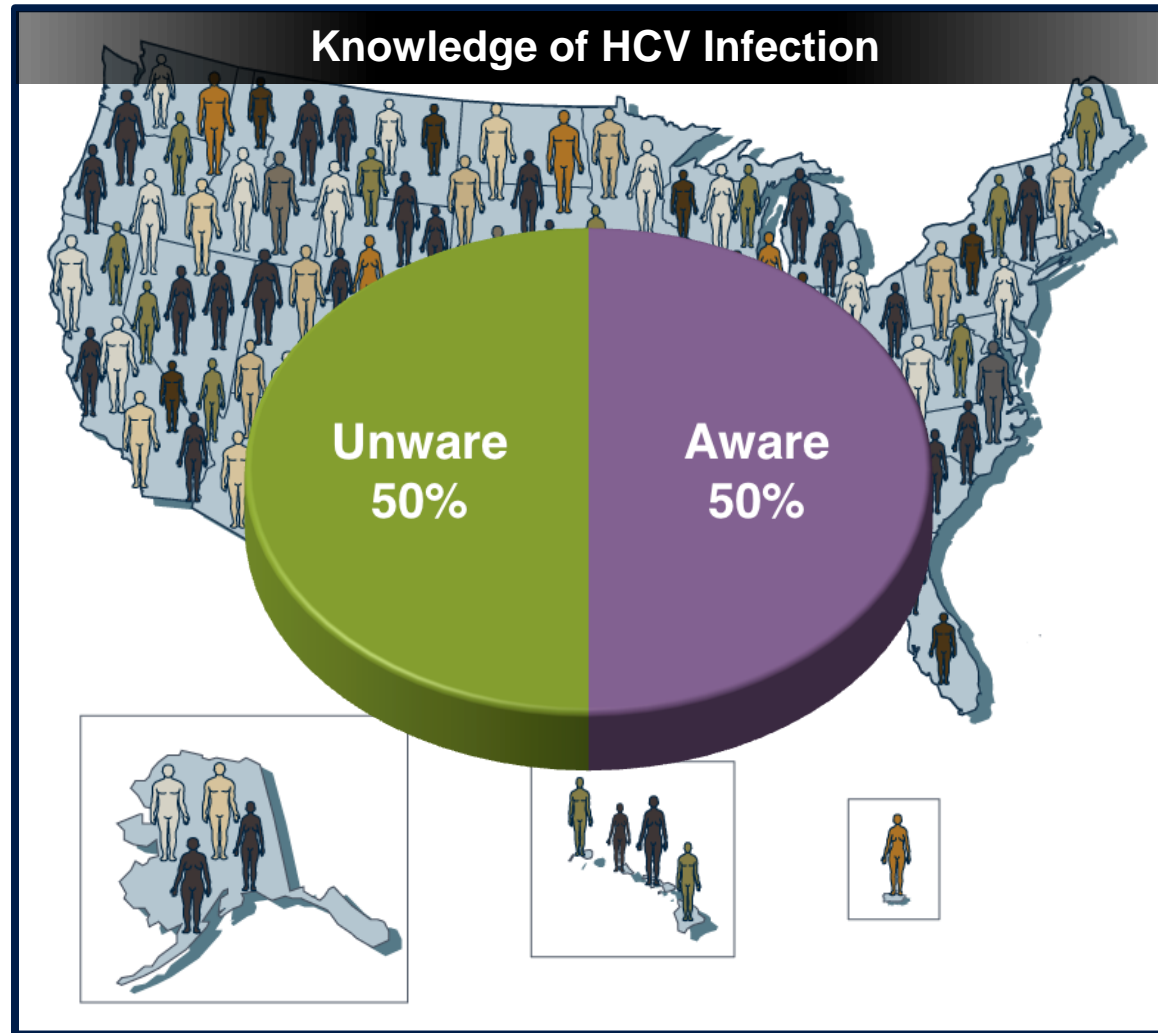
* TB, HIV, Hepatitis B and 57 other infectious conditions reported to CDC

Hepatitis C: Progression of Disease



NHANES Survey, United States, 2001-2008

Awareness of HCV Infection Status



Source: Denniston M, et al. Hepatology. 2012;55:1652-61.

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

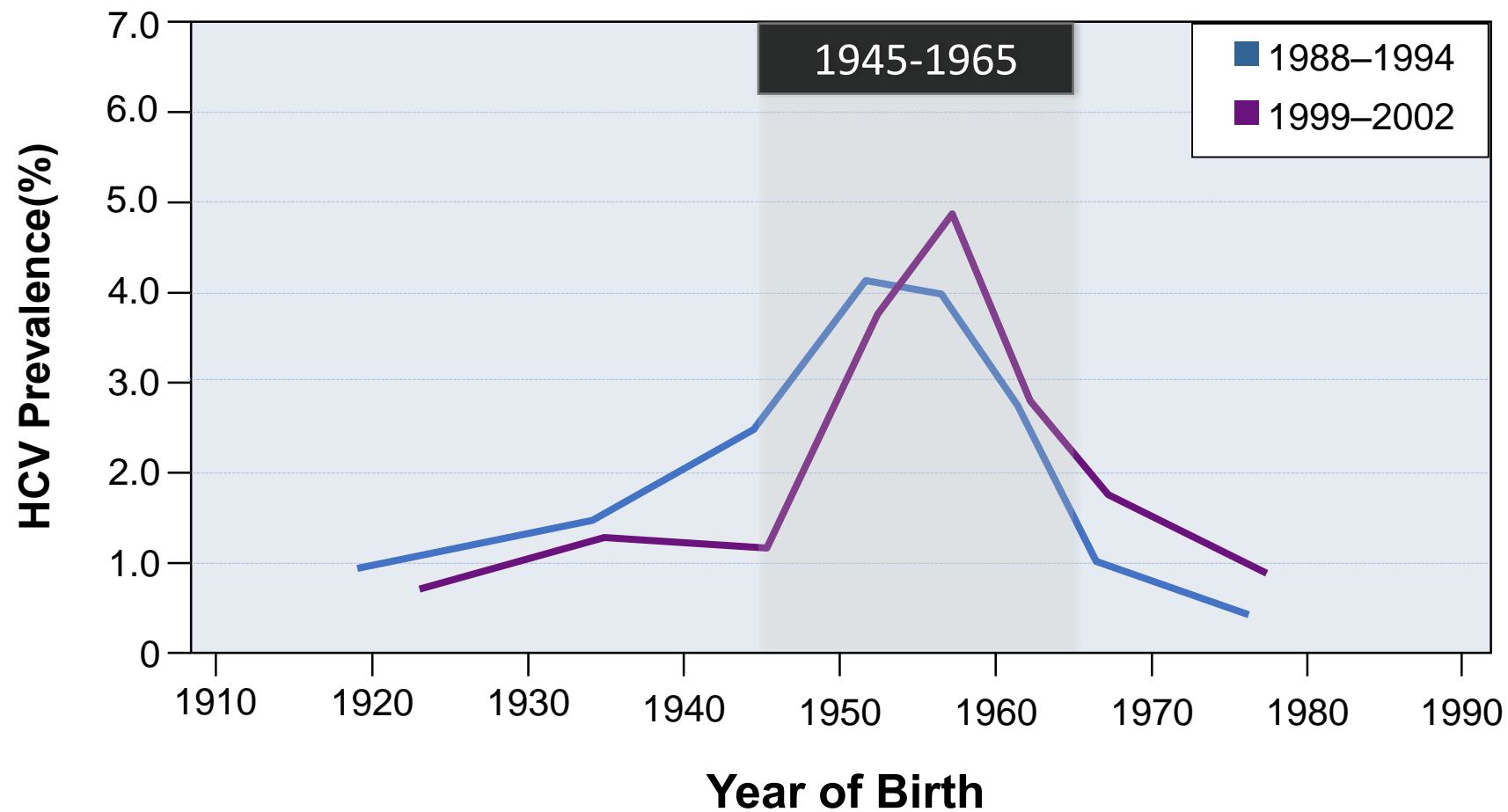
Forecasted Annual Incident Cases of Decompensated Cirrhosis (DCC), Hepatocellular Carcinoma (HCC), Liver Transplants, and Deaths Associated with Persons with Chronic Hepatitis C Infection and No Liver Cirrhosis in the United States in 2005



DB, Wittenborn, JS, Weinbaum, CM Sabin, M, Smith, BD, Lesesne, SB. Forecasting the Mortality and Morbidity Associated with Prevalent Cases of Pre-Cirrhotic Chronic Hepatitis C Infections in the United States. *Journal of Digestive Liver Diseases* 2010.

NHANES Survey: United States, 1988-1994 and 1999-2002

Prevalence of HCV Antibody, by Year of Birth



Source: Armstrong GL, et al. *Ann Intern Med.* 2006;144:705-14.

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



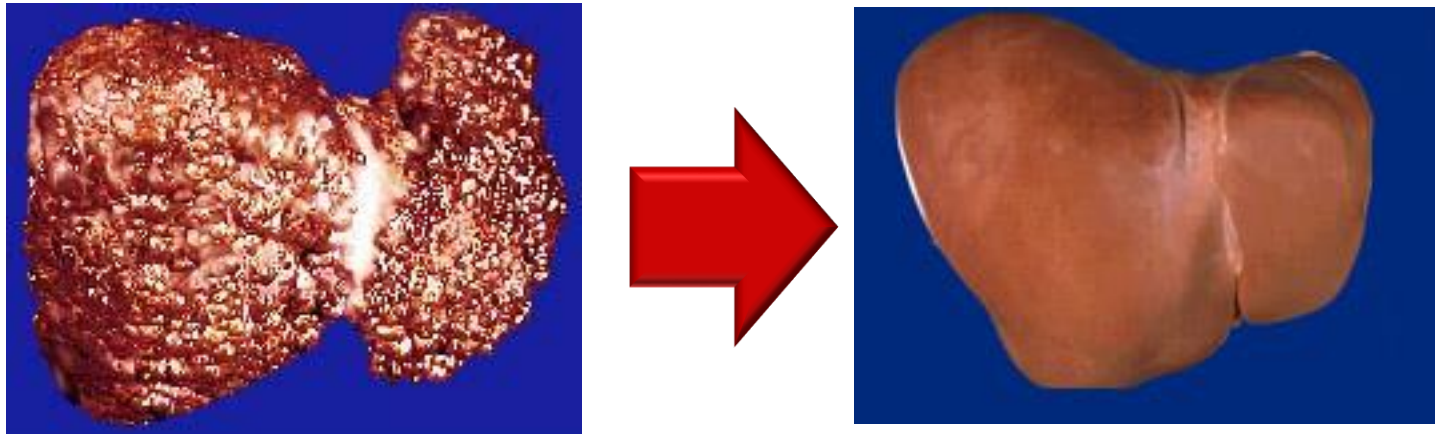
Esophageal Varices



End Stage Liver Disease

Goal of Treatment

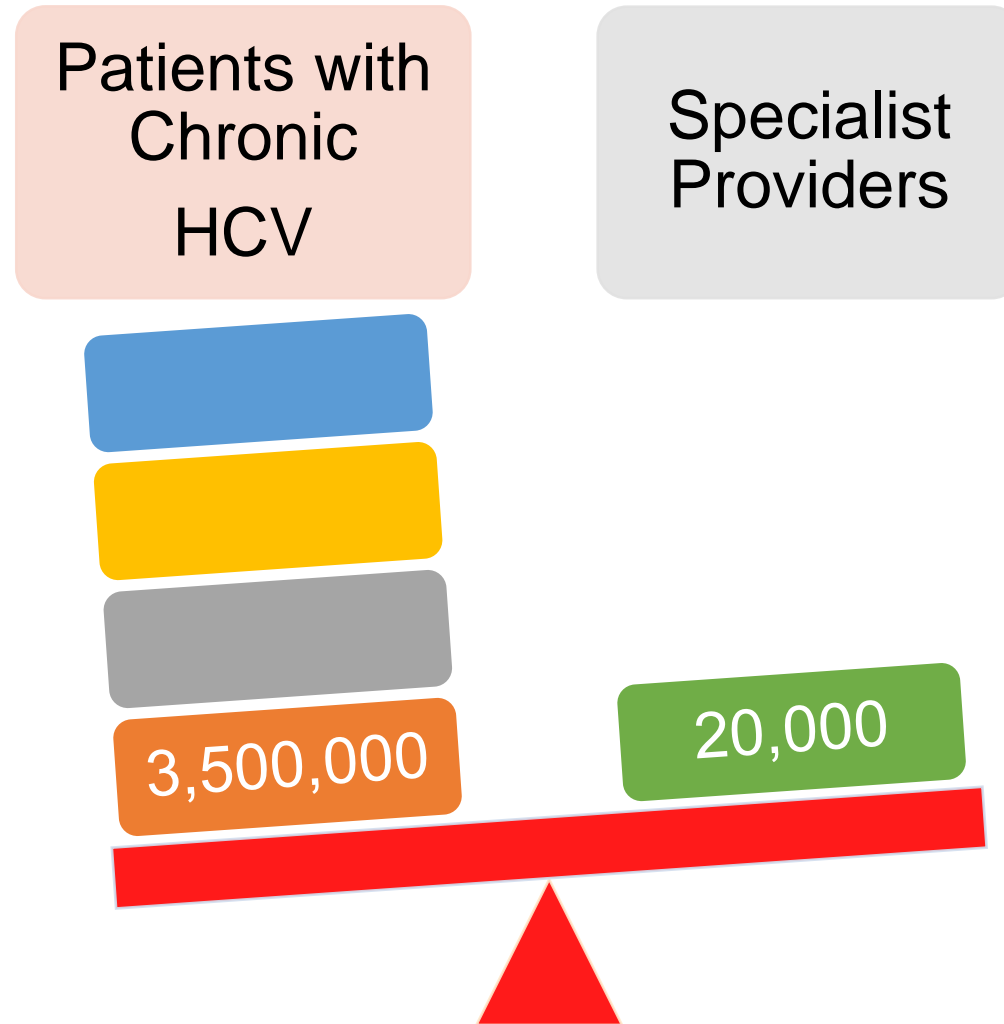
- **SVR12 (cure) of HCV** is associated with:
 - 50% Reduction in All-cause Mortality
 - 70% Reduction of Liver Cancer
 - 90% Reduction in Liver Failure



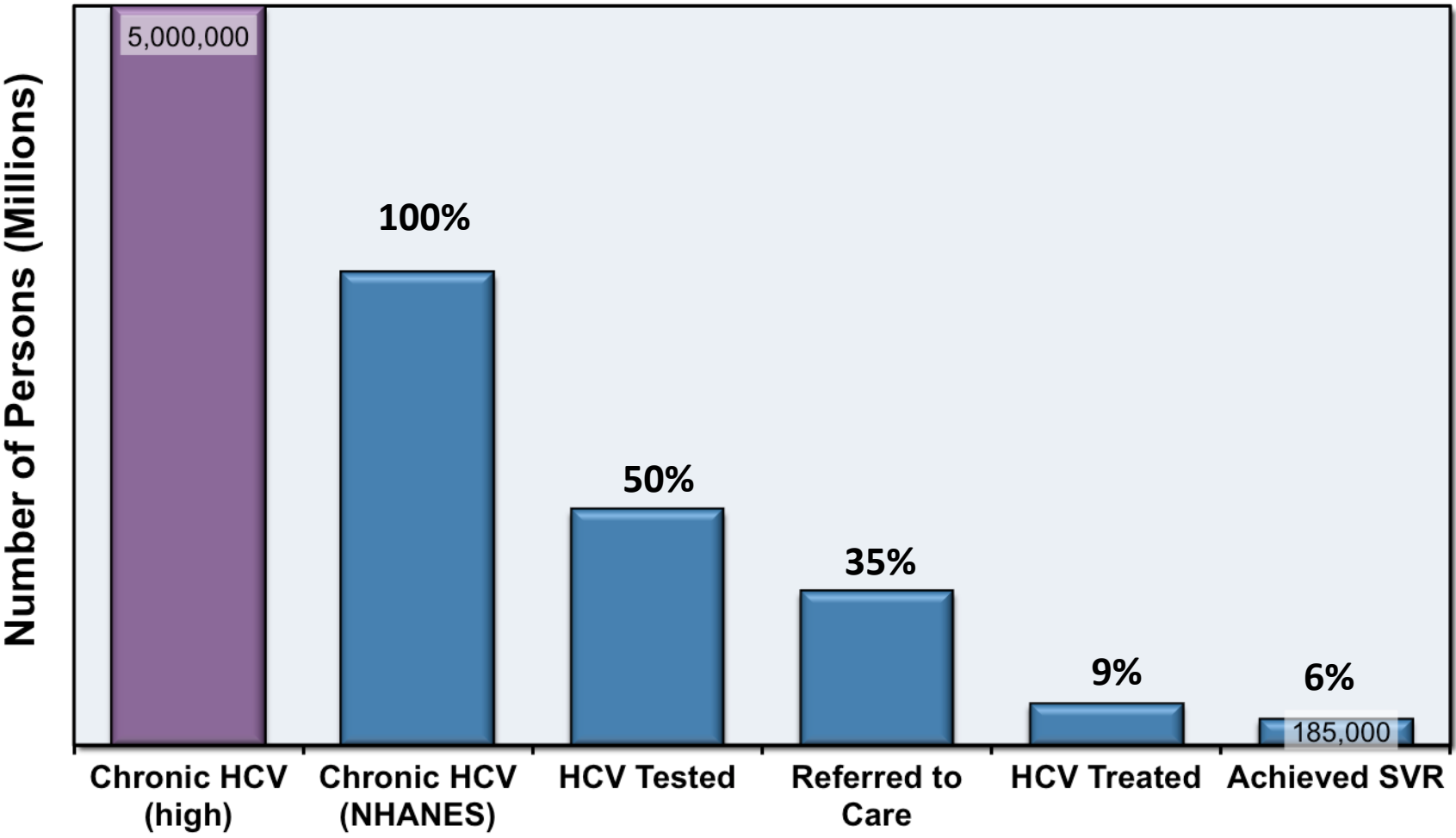
SVR: Sustained Virological Response

Lok A. NEJM 2012; Ghany M. Hepatol 2009; Van der Meer AJ. JAMA 2012

Lack of Specialist Availability Limits Access to HCV Treatment



Hepatitis C Cascade of Care in United States



Source: Holmberg SD, et al. N Engl J Med. 2013;368:1859-61.

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

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)



ECHO Whale



PCA Española



Baton Rouge



Pecos Valley MC



DOH Las Cruces



SBRT-First Choice South Vc



Memorial HDX7000

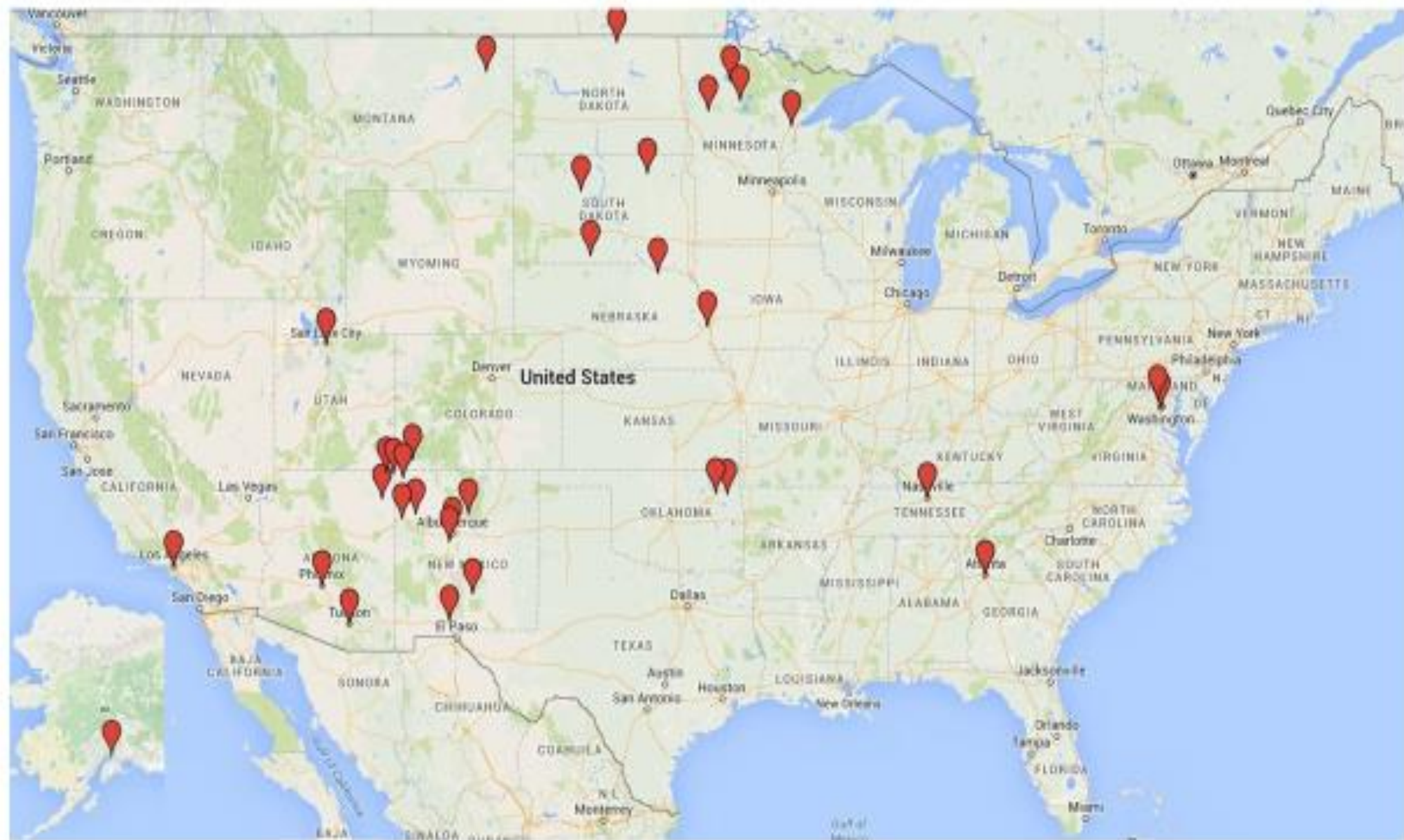


LAS VEGAS ECFH

Treatment

IHS HCV Community





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