

Epidemiology of Hepatitis C Virus (HCV)



Jamie Ritchey, MPH, PhD
ITCA TEC Director
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Overview

- Background
- Epidemiology of HCV



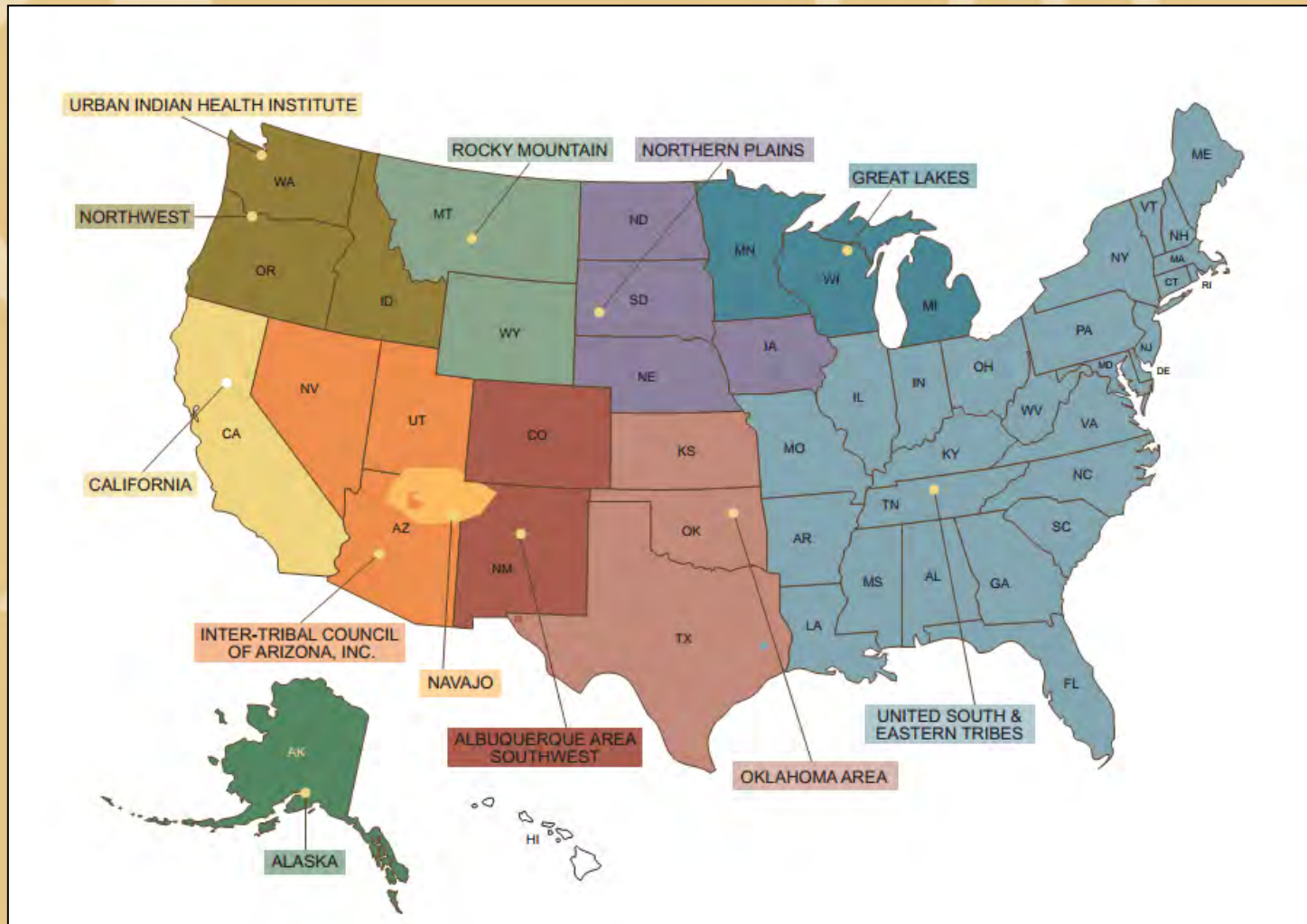


Background



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ITCA TEC is part of a larger national effort to provide public health services to Tribes in each region.



Background



ITCA offices, Phoenix, AZ

- Need for a strong voice through unity & collective action
 - Non-profit tribal organization
 - Established in 1975
 - 21 tribal government membership
- Promotes tribal collaboration
- Public policy development
- Technical assistance & training for planning & program development
- Resource identification
- Analyze & disseminate information for community self-development

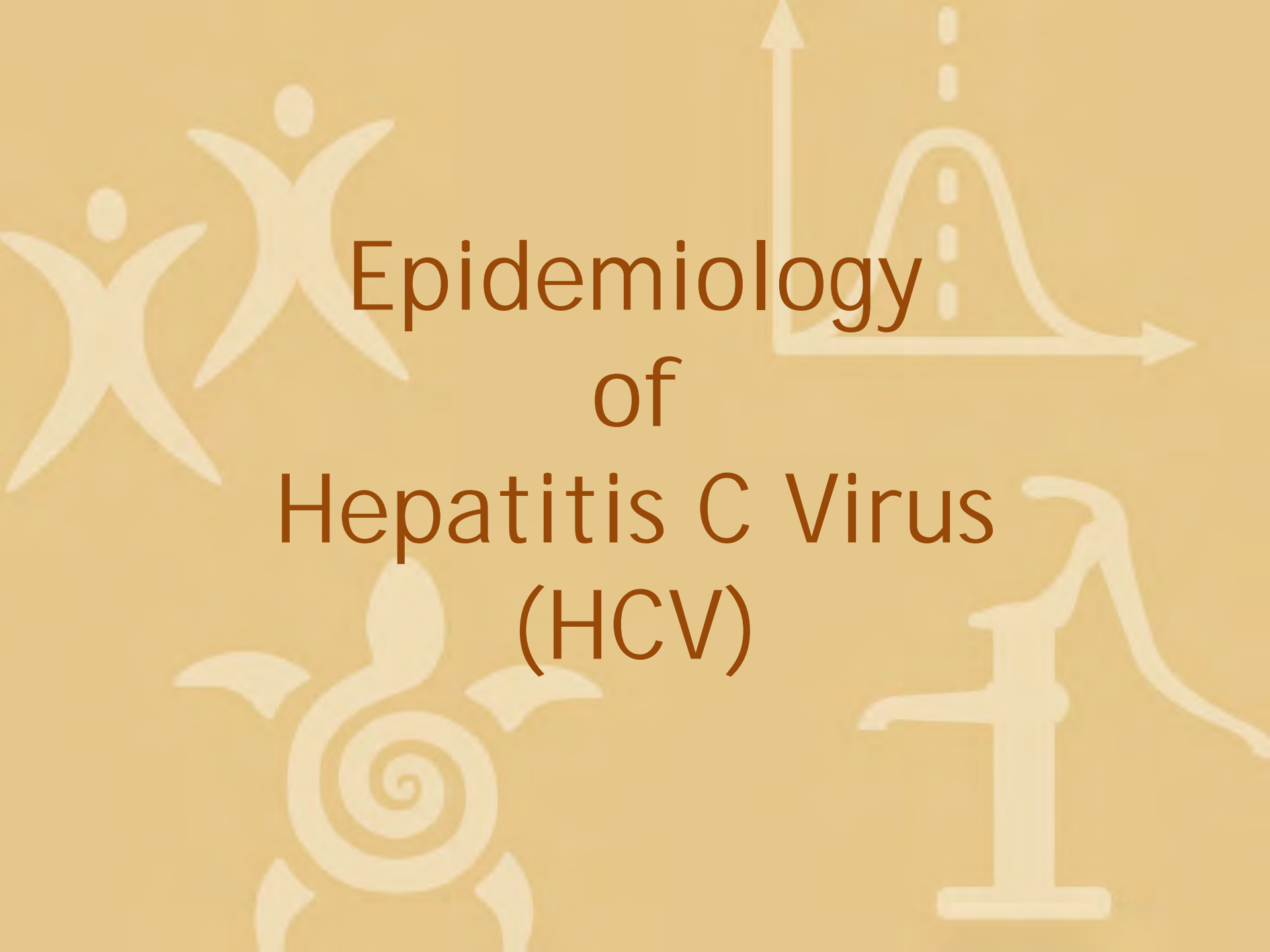


Background

SEVEN CORE FUNCTIONS - IHS Cooperative Agreement

“Functions of TECs: In consultation with and on the request of Indian tribes, tribal organizations, and urban Indian organizations, each Service area epidemiology center established under this section shall, with respect to the applicable Service area”, and in summary:

- Collect data
- Evaluate data and programs
- Identify health priorities with tribes
- Make recommendations for health service needs
- Make recommendations for improving health care delivery systems
- Provide epidemiologic technical assistance to tribes and tribal organizations
- Provide disease surveillance to tribes



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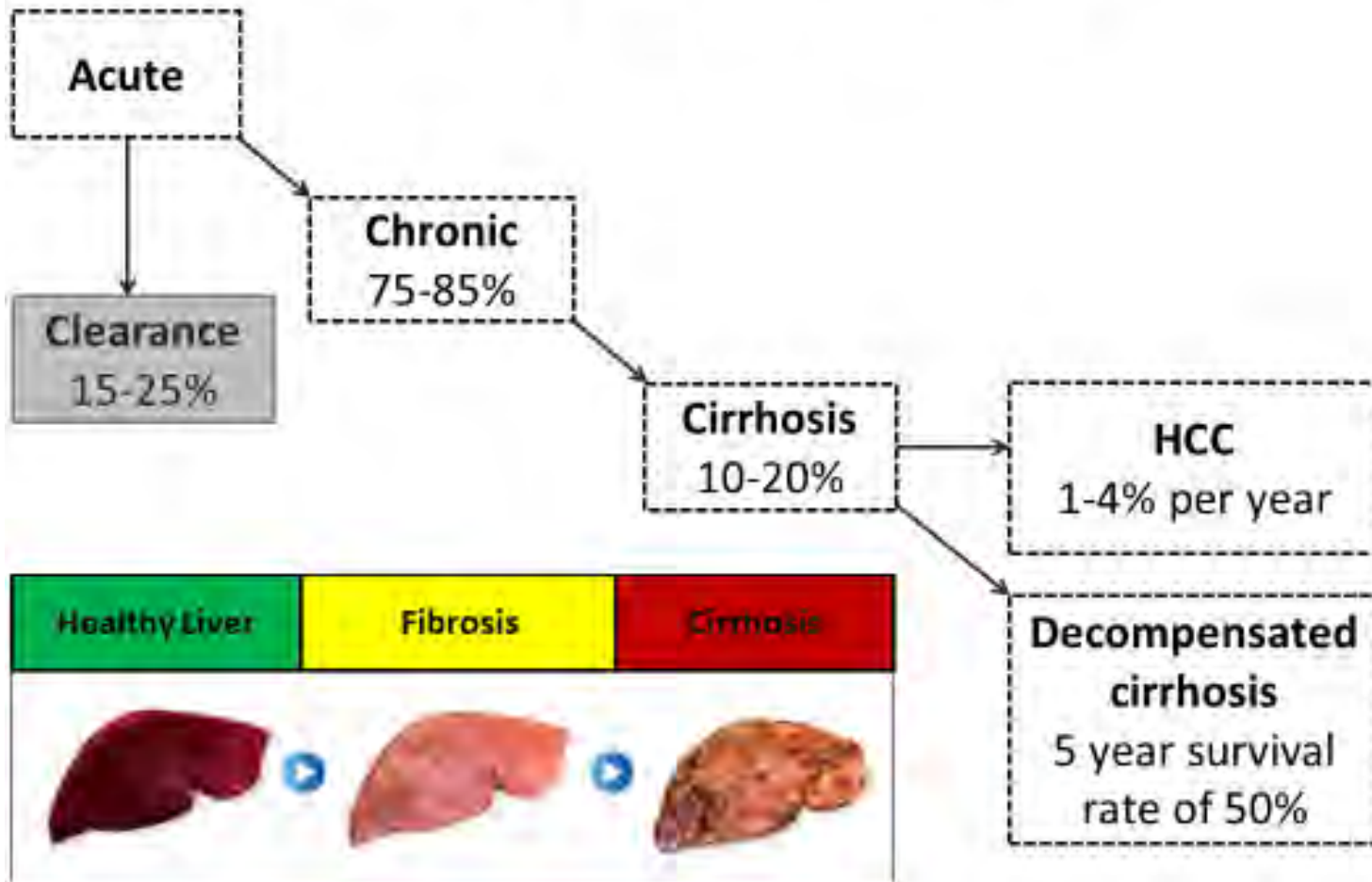


Epidemiology

History of HCV

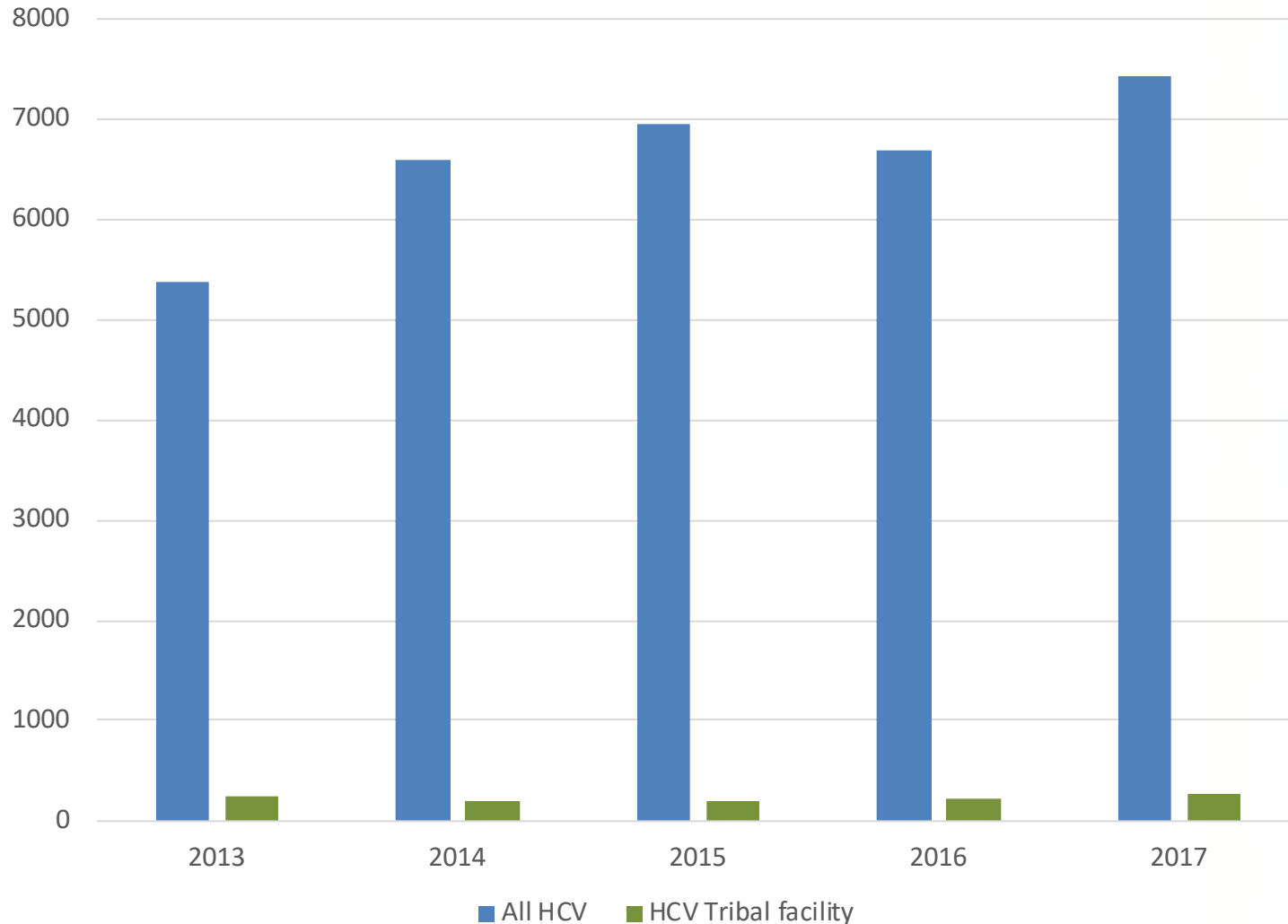
- 1975-1989 Hepatitis “non-A, non-B hepatitis” discovered and later isolated the virus
- 1990: Testing US blood supply HCV
- 1991: First treatment regimen developed (interferon alfa 2b)
- 1992: Improved sensitivity test US blood supply
- 1998: Ribavirin + interferon treatment
- 2001: Pegylated interferon treatment
- 2010: Rapid antibody test
- 2013: Direct-acting antiviral (DAA) meds (interferon not needed)
- 2015: New DAAs good HCV rates of cure for most genotypes, with fewer doses and shorter treatment times

Natural History of HCV Infection



Taken From: Arizona Department of Health Services presentation
The State of Hepatitis C, Southwest HCV Tribal Summit, September 2018

HCV cases identified by electronic laboratory reporting (ELR) for Arizona (AZ) facilities and Tribal facilities in AZ by Year, 2013 - 2017



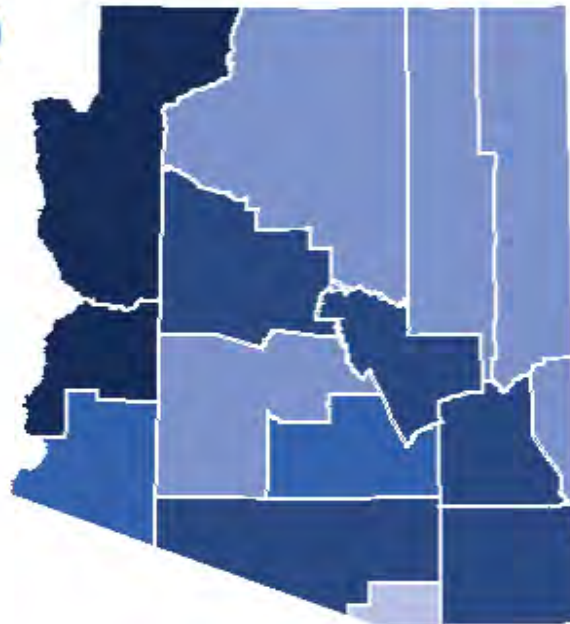
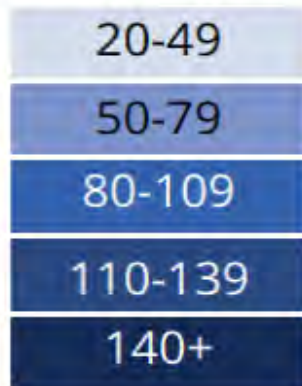
Taken From: Arizona Department of Health Services presentation
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Epidemiology: Hepatitis C incident case rates by county

2017

Rates (per 100,000)



*Taken From: Arizona Department of Health Services presentation
The State of Hepatitis C, Southwest HCV Tribal Summit, September 2018
Based on ELR reports, relative to the county population

Epidemiology: Table 1. Age-adjusted mortality rates (per 100,000) for American Indians & Alaska Natives by Gender in Arizona, 2015

Rank	Female	Both	Male
1	CVD 136	Cardiovascular Disease (CVD) 167	CVD 205
2	Cancer 112	Accidents 139	Accidents 204
3	Heart diseases 89	Cancer 124	Heart diseases 159
4	83 Accidents	Heart disease 119	Cancer 142
5	Liver disease & cirrhosis 66	Liver disease & cirrhosis 77	Liver disease & cirrhosis 91
6	Diabetes 65	Diabetes 74	Diabetes 86

Arizona vital records: <https://pub.azdhs.gov/health-stats/menu/info/trend/index.php?pg=deaths>

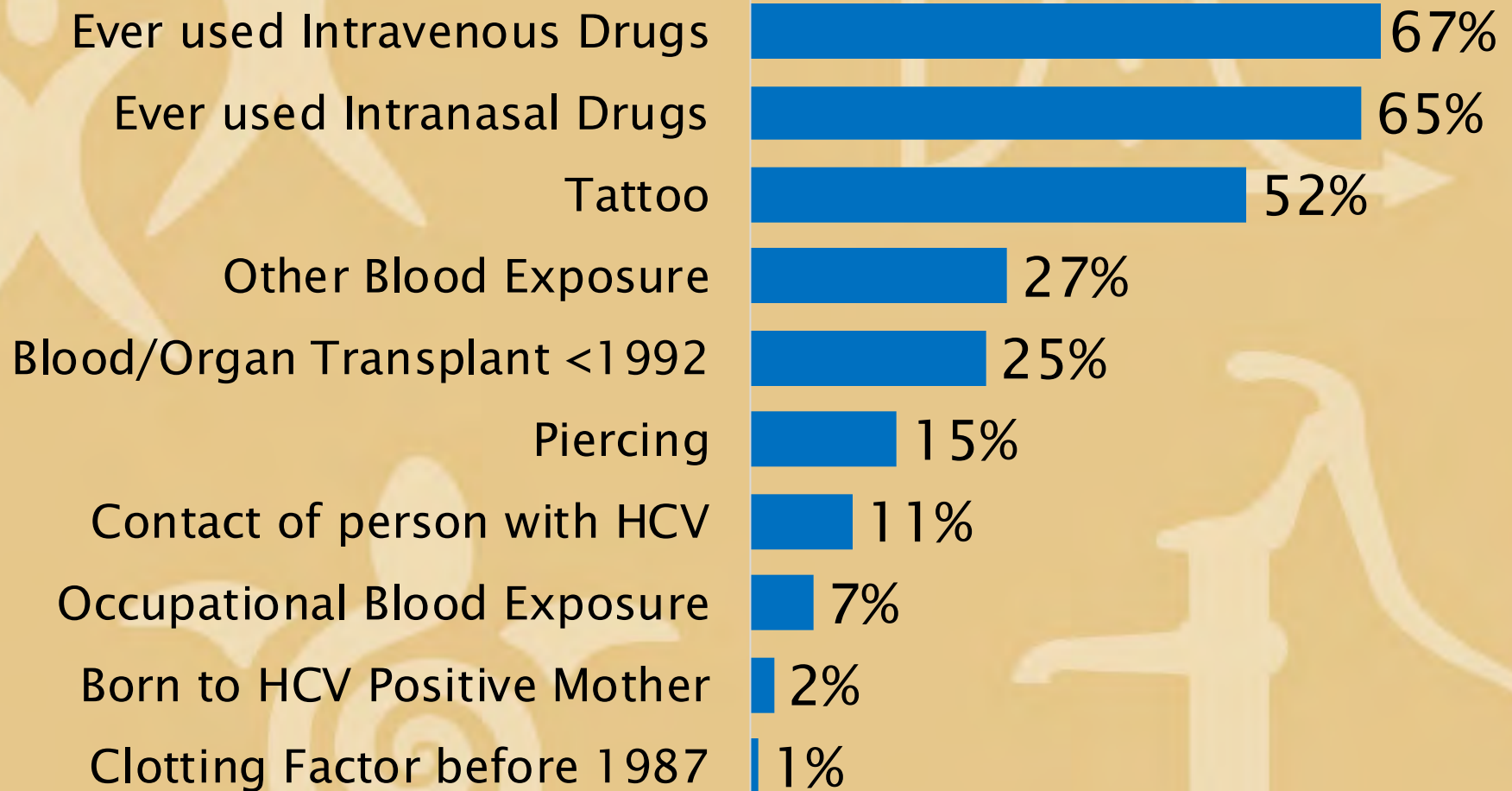
Epidemiology: Table 1. Liver cancer deaths, crude and age-adjusted rates (per 100,000) by Race for in Arizona, 2012 – 2016

Race*	Deaths (n)	Crude rate (per 100,000)	Age-Adjusted death rate (per 100,000)
American Indian/Alaska Native	157	8.2	12.3
Asia or Pacific Islanders	104	8	10.9
Black or African American	103	5.7	7.9
White	2267	7.9	6

*CDC Wonder Compressed mortality files. Communication with Arizona Department of Health Services. 1/22/19, 2/20/19. Includes Hispanic, Non-Hispanic, and not reported ethnicity combined

Epidemiology:

Risk factors among Arizona HCV investigated cases 1998-2008



*Taken From: Arizona Department of Health Services presentation
The State of Hepatitis C, Southwest HCV Tribal Summit, September 2018*



Acknowledgements

- Phoenix - Tucson Area Tribes
- Indian Health Service
- Arizona Department of Health Services



Phone: 602.258.4822

Fax: 602.258.4825

TECinfo@itcaonline.com