Substance Use, HCV, Sexually Transmitted Infections and HIV

Providers have the Power

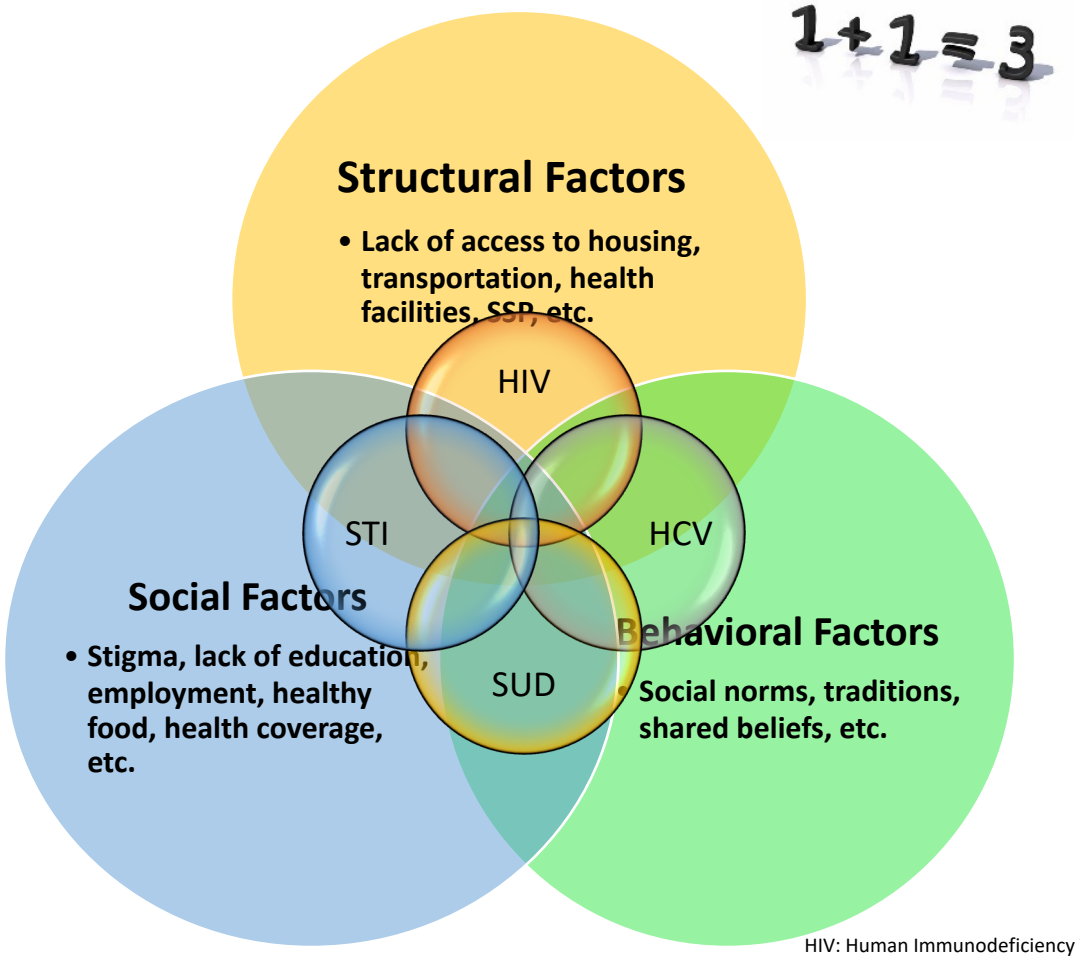
Conflict of Interest Disclosure Statement

Dr. Mera does not have any conflicts of interest to report in relation to this presentation.

Syndemic

Core principles:

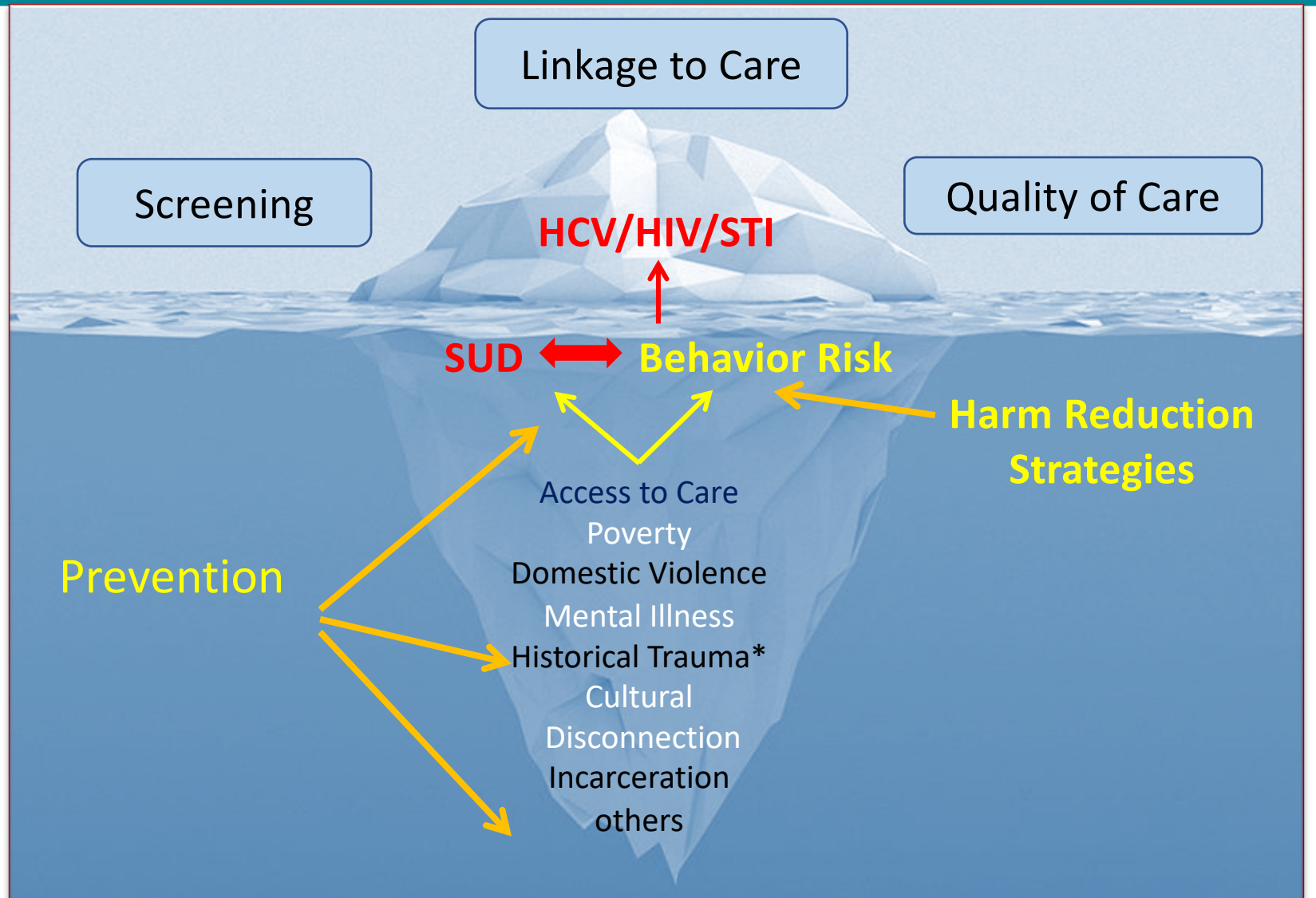
- Clustering of two or more conditions in a population
- Synergism produces an excess burden of disease
- Precipitation and propagation by large scale behavioral, structural, and social forces



Singer, M. and Clair, S. (2003), Syndemics and Public Health: Reconceptualizing Disease in Bio-Social Context. Medical Anthropology Quarterly, 17: 423-441. https://doi.org/10.1525/maq.2003.17.4.423

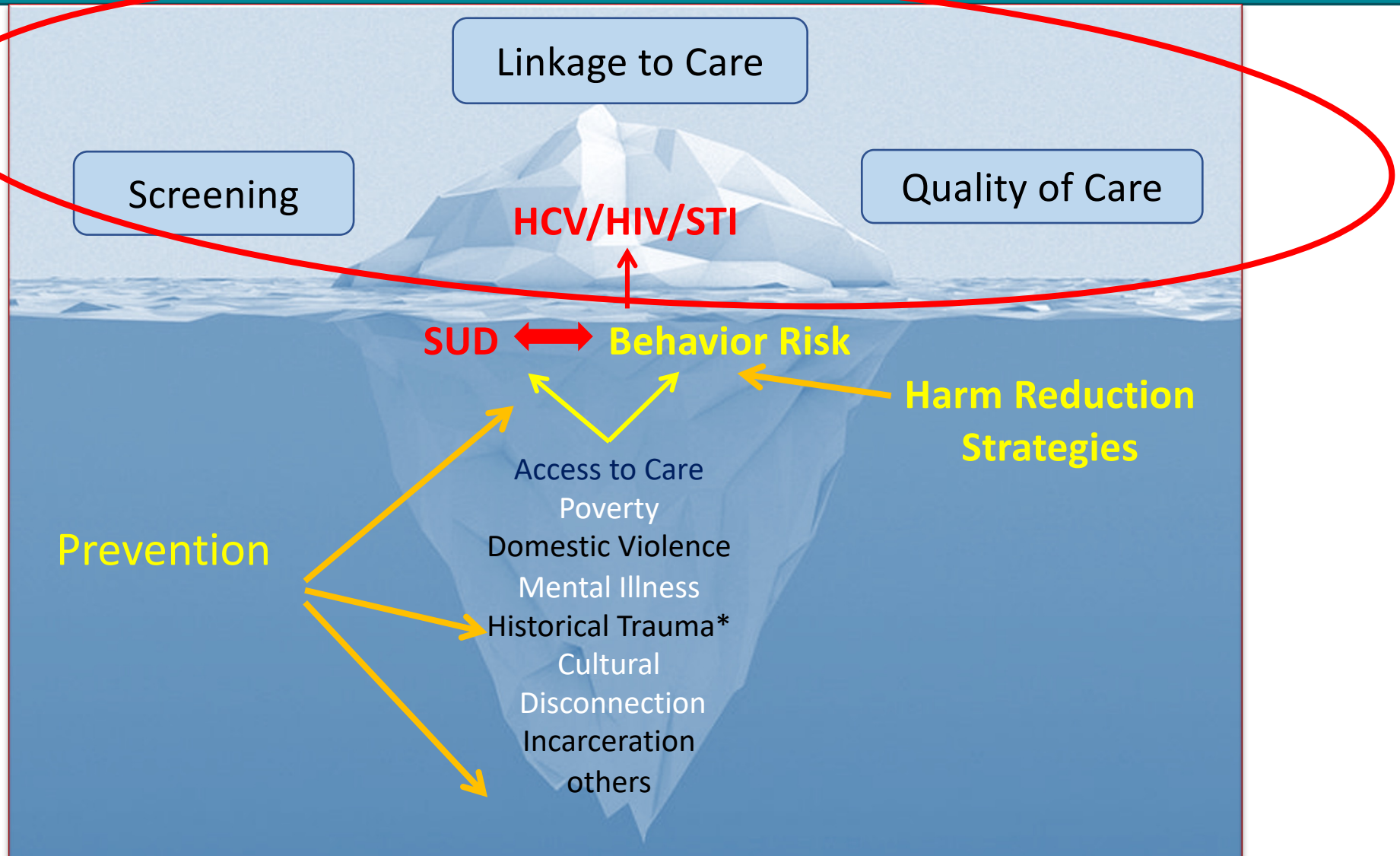
HIV: Human Immunodeficiency Virus
HCV: Hepatitis C virus
SUD: Substance Use Disorder

Syndemic



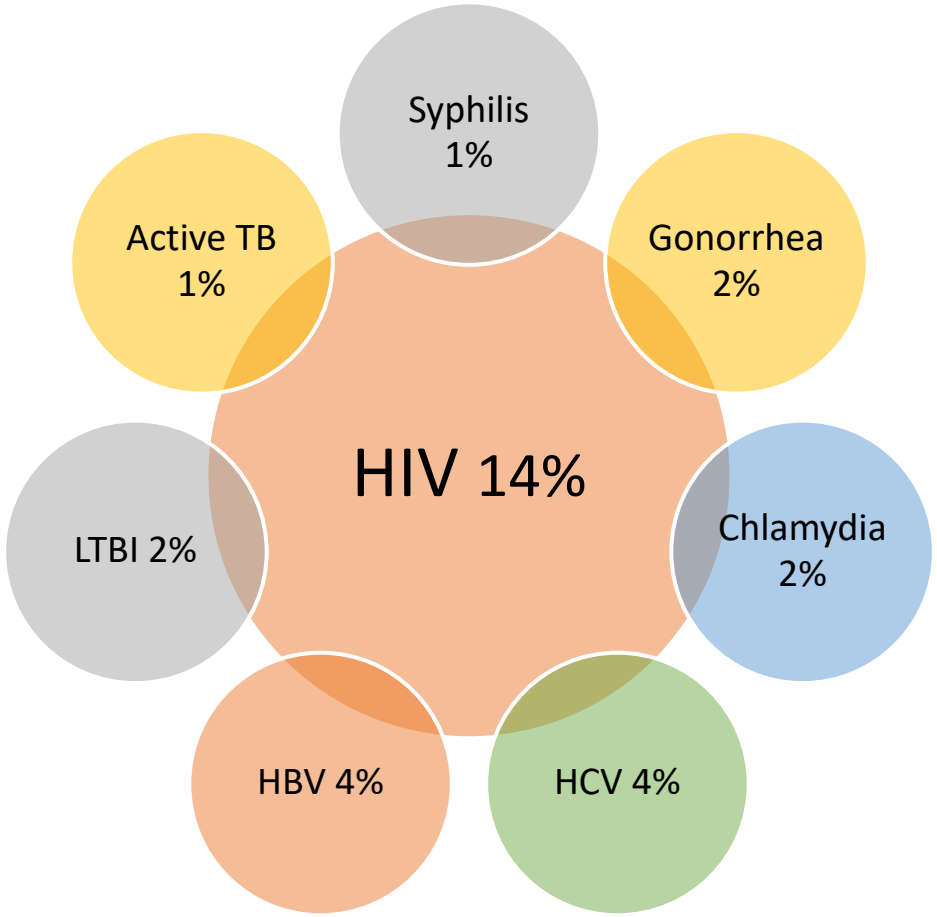
Maria Yellow Horse Brave Heart Journal of Psychoactive Drugs Vol. 35, Iss. 1, 2003

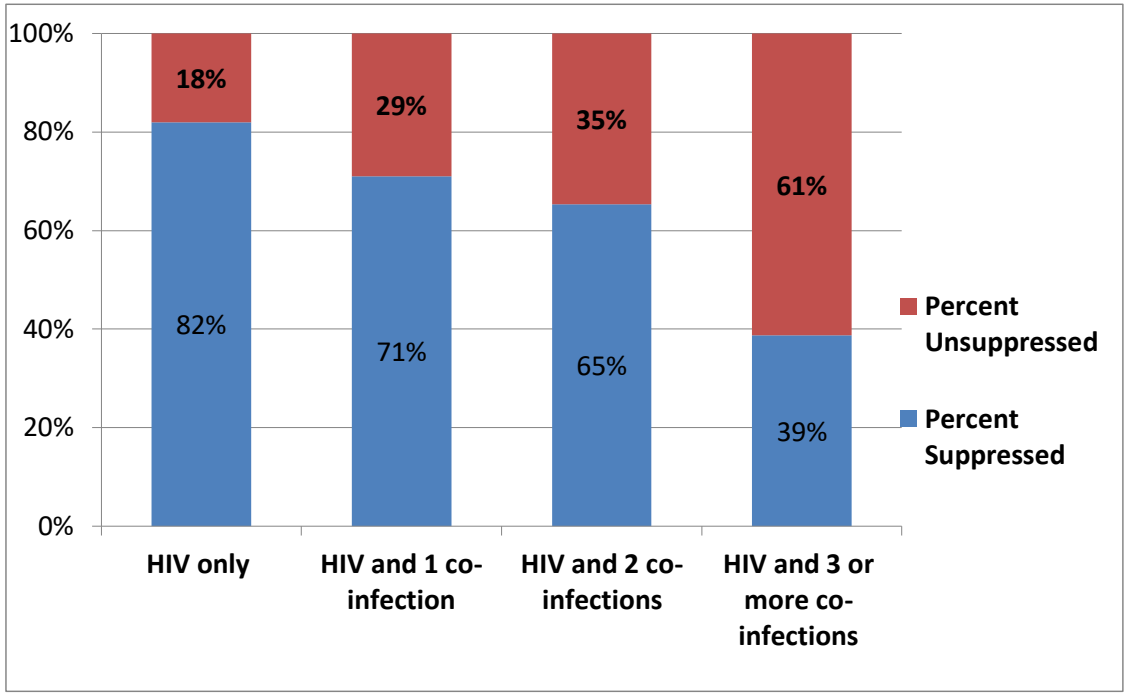
Syndemic



Maria Yellow Horse Brave Heart Journal of Psychoactive Drugs Vol. 35, Iss. 1, 2003

HIV Syndemic Outcomes





- Syndemics are associated with poorer HIV health outcomes among PLWHA
- Significant "dose-response relationship" between the number of co-infections and mean VLs
- In addition to numbers of co-infections, particular demographic subgroups, and certain geo-clusters were also associated with poorer health outcomes, underscoring the need to address multiple conditions in tandem in an I integrated health system

Chu PL, Santos GM, Vu A et al. Journal of the International AIDS Society 2012. 15:102-103

Indiana HIV Outbreak

From 2004-2013

- < 5 HIV infections reported annually in Austin, Indiana

In late 2014

- 3 new HIV diagnoses in Austin IN, 2 of them had shared needles

By mid-January 2015

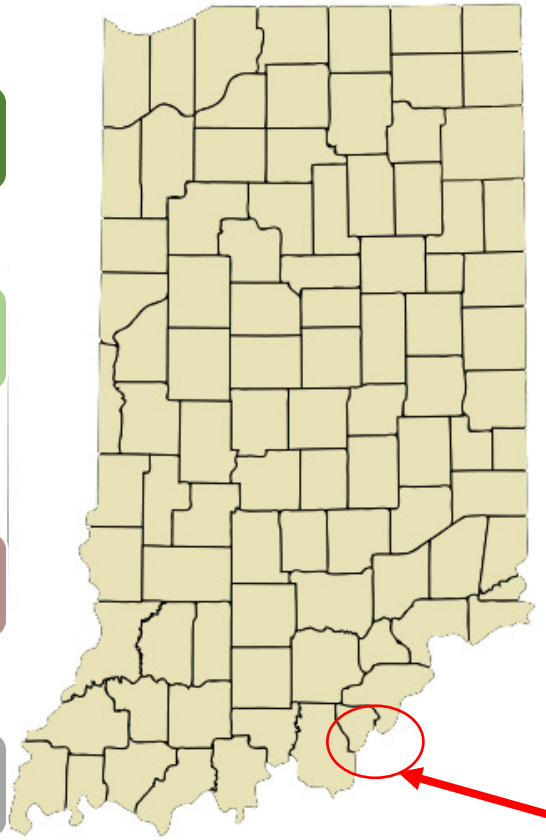
- Through contact tracing ISHD identified 8 more new infections
- The source of infection: Injection of the opioid oxymorphone (semi-synthetic opioid analgesic)

As of June 14, 2015:

- 170 new HIV infections and 115 co-infected with HCV in a Community of 4200 people

All epidemiologically linked to Austin, IN

- Infections were recent and from a single HIV strain



Scott County: Among the state's 92 counties, ranked 92nd in a variety of health and social indicators, including life expectancy

Indiana HIV/HCV Outbreak: Syndemic Risk Factors in Austin County

High poverty (19.0%)

Unemployment (8.9%)

- Few affected persons were employed or insured

Education

- Low educational attainment (21.3% no high school)
- Little HIV awareness in the general population
- Unaware of transmission risks and treatment benefits
- No routine HIV education in schools (abstinence only)

Ranked lowest in the State for health indicators and life expectancy

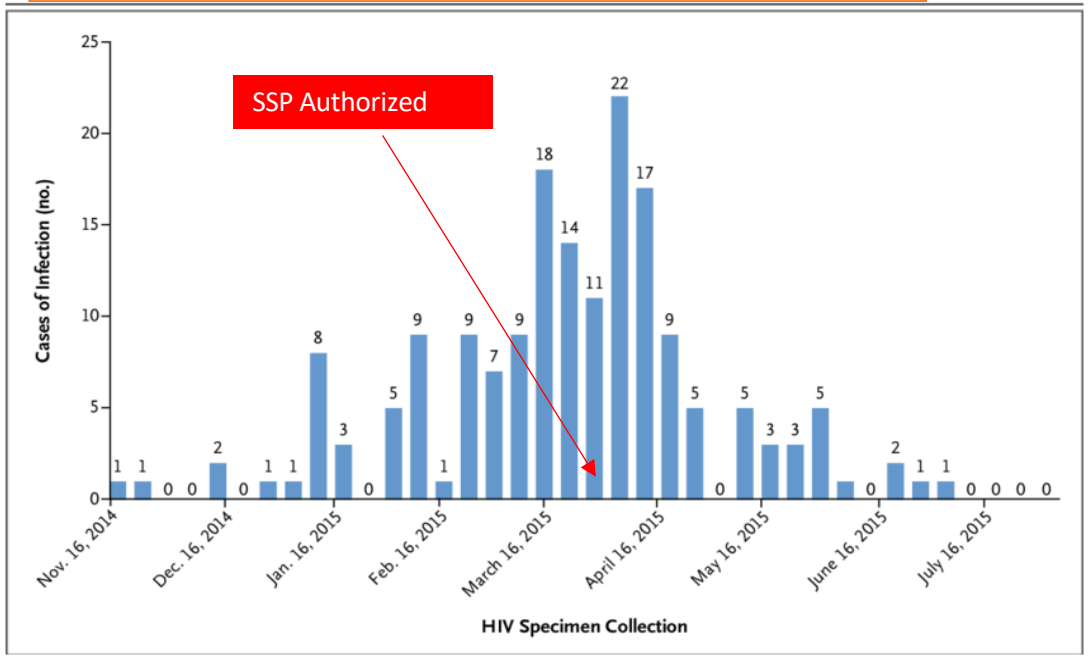
SSP program not permitted by state law

No outpatient HIV/HCV care available

Limited addiction services, including MAT

How Was the Outbreak Controlled?

- **One stop shop**
  - Behavioral health treatment
  - HCV/HIV/MAT treatment provided
- **SSP emergency authorization**



The NEW ENGLAND JOURNAL of MEDICINE

Perspective

Lessons from Scott County — Progress or Paralysis on Harm Reduction?

Sanjay Kishore, B.A., Margaret Hayden, M.Phil., and Josiah Rich, M.D., M.P.H.

"Four years after the United States received a wake-up call about the importance of harm reduction, the most vulnerable areas of the country remain asleep. Despite the federal government's goal of ending the HIV epidemic in the United States, it's not clear that it will do what is necessary to address the spread of HIV and HCV in rural America. Health professionals can advocate for legal changes that authorize syringe-exchange programs and other lifesaving interventions."

May 1, 2019, at NEJM.org

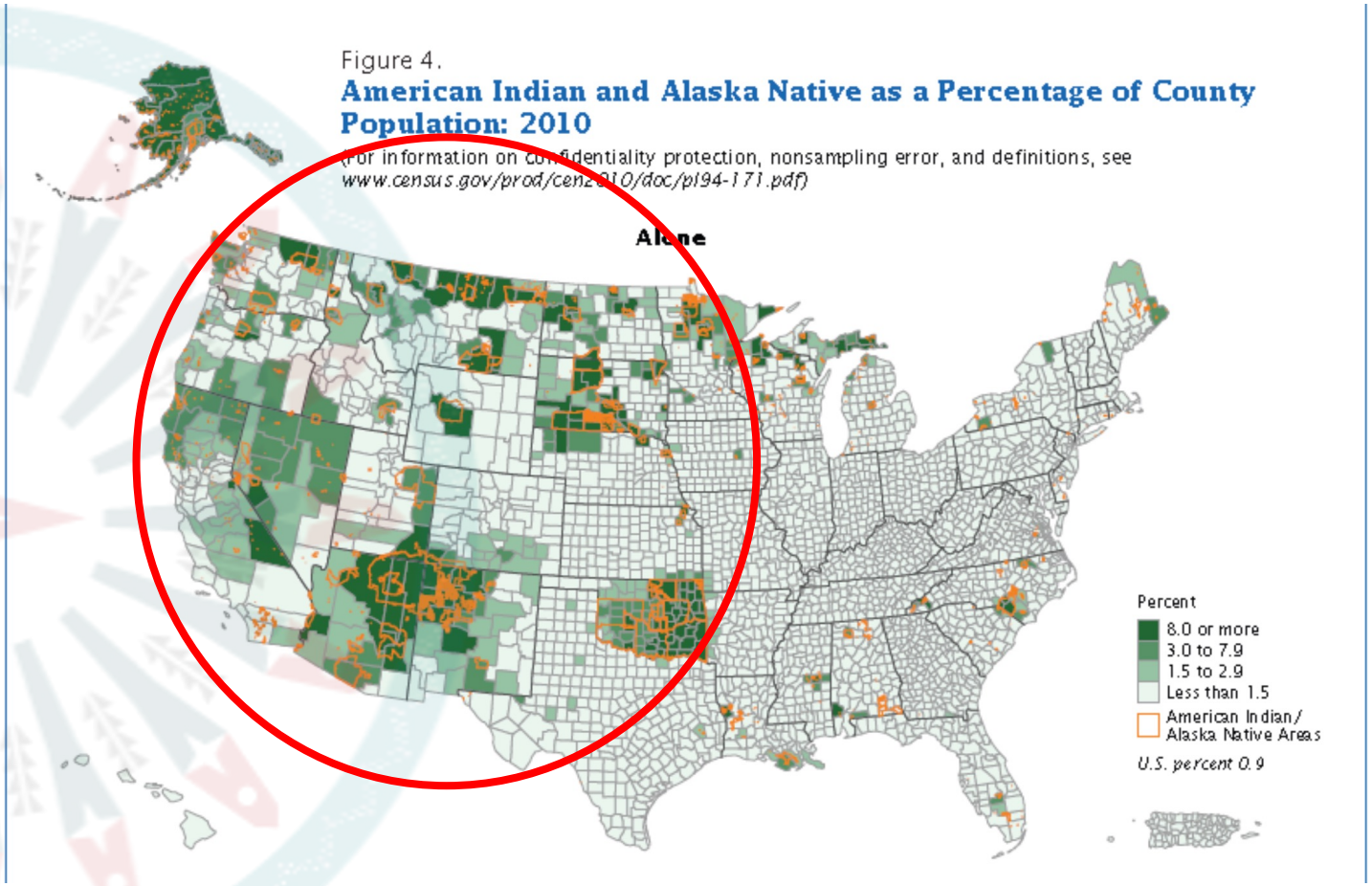
The State of STIs in the USA 2021

United States

Disease	Reported cases	Change from previous year
HIV diagnoses (2021)	35,716	↑
Acute Viral Hepatitis C (2020 [Covid-19 Pandemic])	4,798	↑
Acute Viral Hepatitis B (2020 [Covid-19 Pandemic])	2,157	↓
Hepatitis A (2020 [Covid-19 Pandemic])	9,952	↓
Primary and Secondary Syphilis (2021)	53,767	↑
Chlamydia (2021)	1,644,416	↑
Gonorrhea (2021)	710,151	↑
Tuberculosis (2021)	7,882	↑

https://gis.cdc.gov/grasp/nchhstpatlas/main.html

American Indian/Alaska Native (AI/AN) Statistics in the United States



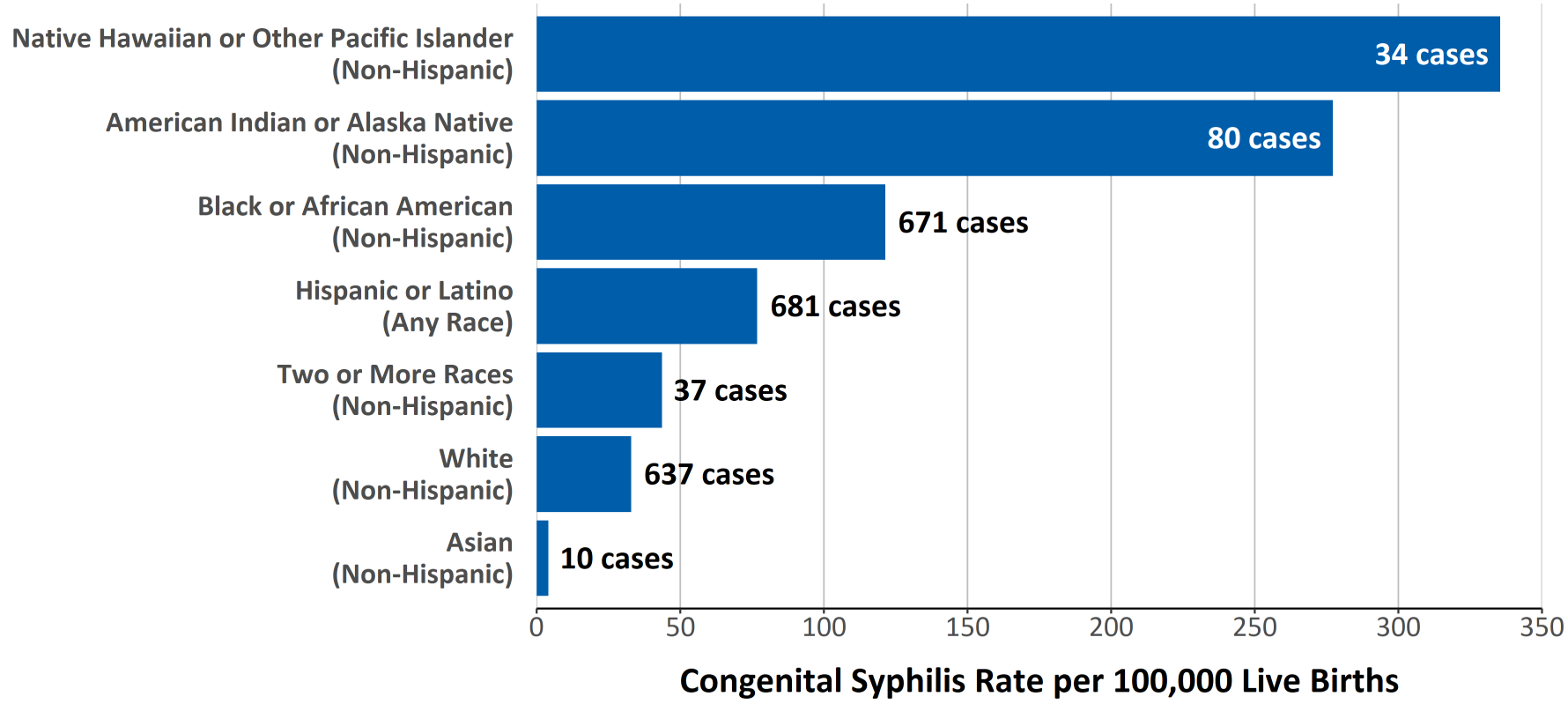
- 573 Federally recognized tribes
- 5.2 million AI/AN alone or in combination
- California and Oklahoma have the highest rate of AI/AN population

- **Hepatitis C in AI/AN in the US**

- HCV disproportionately affects AI/AN[1,2]
- The AI/AN HCV **mortality** rate is 10.8 deaths per 100,000, compared to 4.5 per 100,000 nationally.
- From 2015 to 2016, **incidence** rates of acute HCV among AI/ANs rose from 1.8 to 3.1 cases per 100,000.
- Rates of **chronic liver disease** and cirrhosis deaths are 2.3 times higher among AI/ANs than Whites.

1. Centers for Disease Control and Prevention. Surveillance for Viral Hepatitis: United States, 2016. Retrieved from https://www.cdc.gov/hepatitis/statistics/2016surveillance/commentary.htm
2. Center for Disease Control and Prevention. Deaths: Final Data for 2014. http://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_04.pdf
3. US Census Bureau. https://www.census.gov/www. Accessed Nov 2, 2019

Racial and ethnic disparities in rates of reported congenital syphilis continued to persist in 2021*

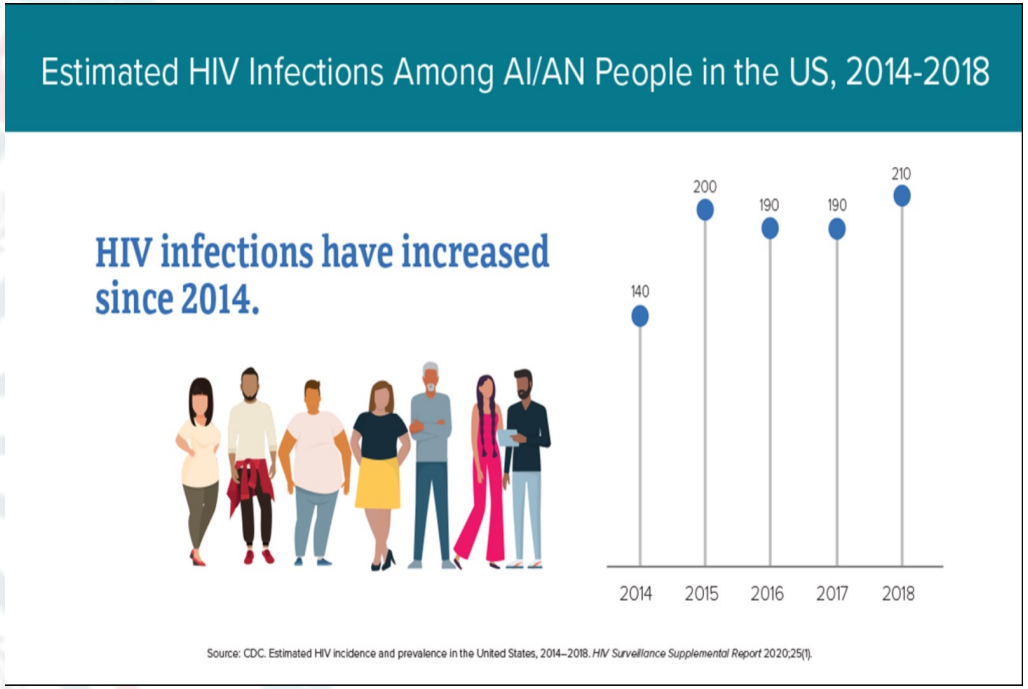


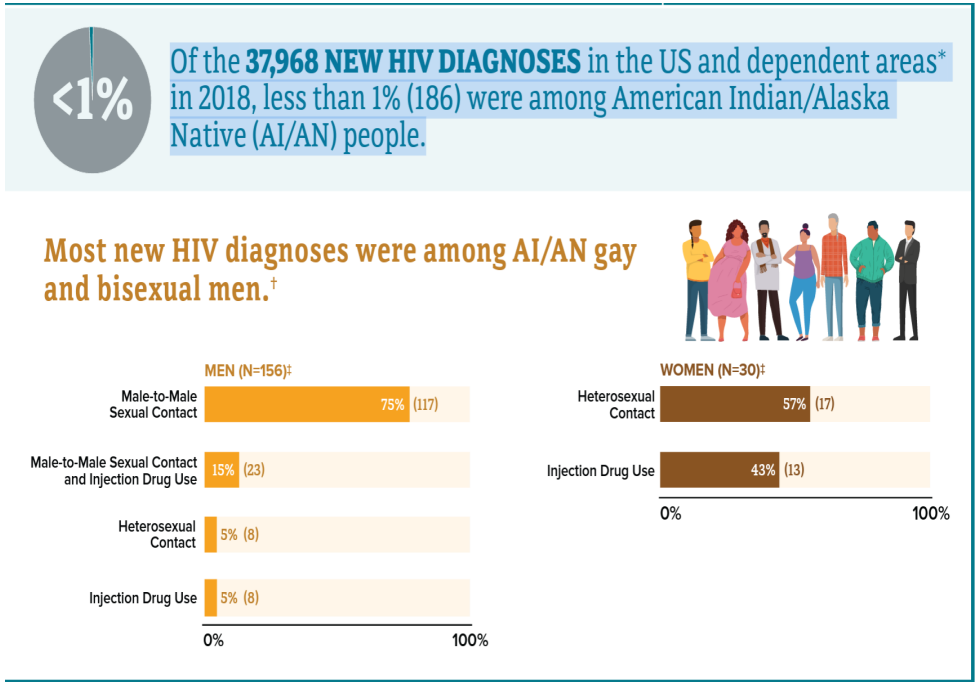
* Reported 2021 congenital syphilis data are preliminary as of March 9, 2022.

NOTE: In 2021, 118 cases (5.2%) were missing reported race and/or hispanic ethnicity.

- **Congenital Syphilis — Case Counts and Rates of Reported Cases by Race and Hispanic Ethnicity, United States, 2021***

HIV in American Indian/Alaska Native Populations





- In the U.S. in 2018, both male and female AI/AN had the highest percent of estimated diagnoses of HIV infection attributed to injection drug use, compared with all races/ethnicities.
- Among men, 15% (23) of new HIV diagnoses were attributed to injection drug use, and 11% (21) were attributed to both male-to-male sex and injection drug use.
- Among women, 43% (13) of new HIV diagnoses were attributed to injection drug use.

HIV, HCV, STIs, Drug Use Among AI/AN

- **AI/AN had the highest percent of estimated diagnoses of HIV infection attributed to injection drug use**
- **Syphilis rates rapidly increasing**
  - Exacerbates HIV transmission
- **Drug use is increasing nationwide and in Indian Country**
- **AI/AN have greatest rates of new HCV diagnoses**
  - Over 2x national rate of HCV-related mortality
  - Rates are decreasing with greater availability of treatment

Interventions to Mitigate the Syndemic

AS A PRIMARY CARE HEALTH WORKER?

(INDIVIDUAL)

AS HEALTH SYSTEM LEADERSHIP?

(MICRO)

AS A SOCIETY

(MACRO)

What Can Society Do (Macro level)?

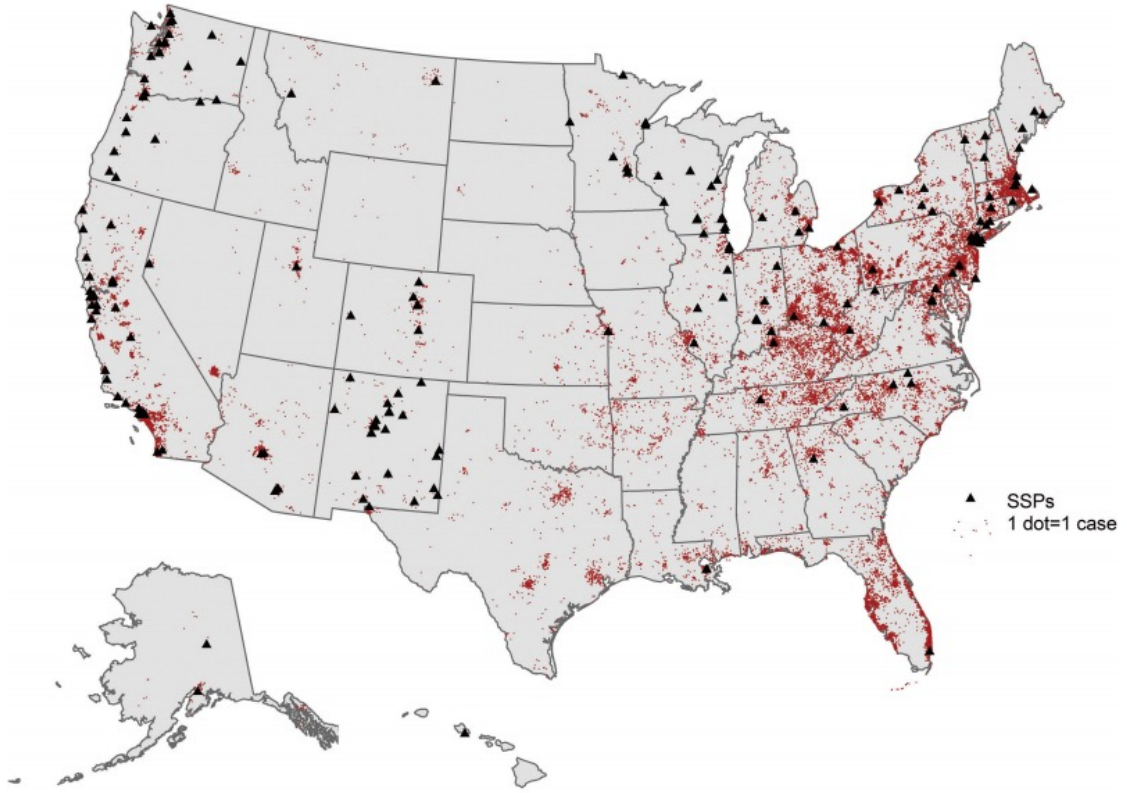
- **Decrease Injection Drug Use and/or make it safer**
  - Make SSP available
  - Easy access to MAT
  - Easy access to behavioral health
- **Eliminate social and structural determinants associated with injection drug use**
  - Poverty (Decrease the economic inequality gap)
  - Housing
  - Lack of education
  - Racism
  - Stigma
  - Mass incarceration (Reform drug laws)

Addressing the root of the problem is critical for the elimination of present SUD/HCV/HIV/STI syndemic and the prevention of future ones

A coordinated approach between society, government, public health will be needed

Geographic Disparities in Access to Syringe Services Programs Among Young Persons With Hepatitis C Virus Infection in the United States

- Number of lifetime PWID – 6.6 million
- Number of persons injecting in past year - 775,000
- 334,000 (43%) living with HCV infection
- 270 SSPs in operation (early 2017)
- Approximately 2,200 additional programs needed for proximal access to syringe services



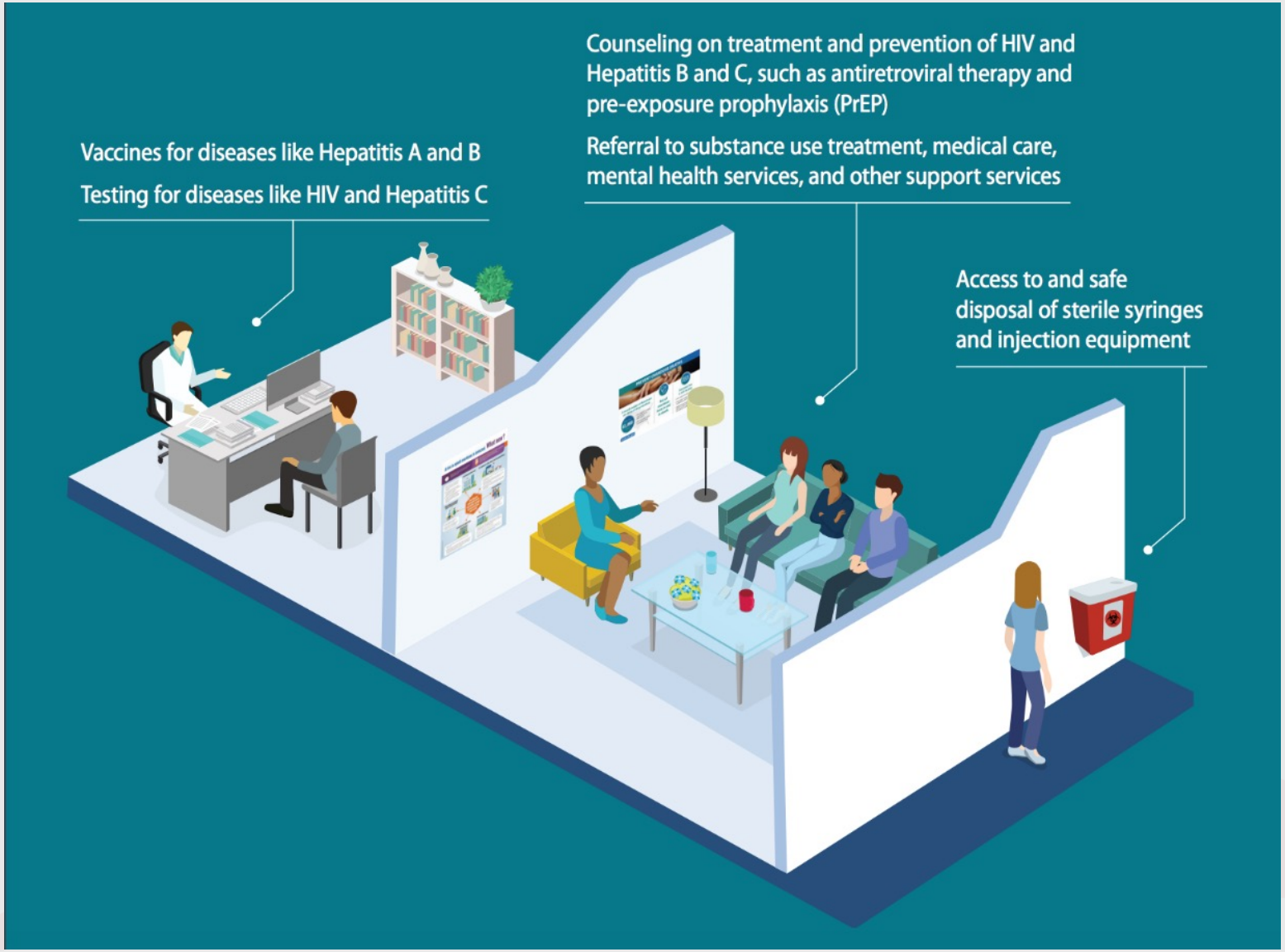
Map of syringe services programs and young persons aged 15–29 years with current hepatitis C virus (HCV) infection identified by the Laboratory Corporation of America and Quest Diagnostics laboratories, July 2015 to June 2016. Dots represent individual cases of HCV infection. Abbreviation: SSPs, syringe services programs.

Lauren Canary, Susan Hariri, Cecily Campbell, et al., Geographic Disparities in Access to Syringe Services Programs Among Young Persons With Hepatitis C Virus Infection in the United States, *Clinical Infectious Diseases*, Volume 65, Issue 3, 1 August 2017, Pages 514–517

Syringe Services Programs

SSPs adapt to local needs by providing comprehensive support services, such as ways to get treatment, medicines to prevent overdoses, and tools to prevent HIV and viral hepatitis. Many support services may be operated in partnership with federal government funding[1]

Combined use of OST and high coverage of NSP was associated with a 74% risk reduction in HCV acquisition [2]



1. HIV.gov: Syringe Serviece Programs. https://www.hiv.gov/federal-response/policies-issues/syringe-services-programs

Micro Level Interventions (Health System)

Recognize	the problem and embrace it as a syndemic
Have	SUD/HCV/HIV/STI policies in place
Enforce Policies	Encourage, facilitate and motivate SUD, HCV, HIV and STI screening and treatment
Allow provider time	For training and participation in these activities
Create	Performance-based outcomes around SUD/HCV/HIV/STI

Actions to Address the Syndemics Among People Who Inject Drugs as a Primary Care Health Care Worker

- Screening patients for SUDs and mental health disorders
- Testing patients and their sexual or drug-injection partners for HIV, HCV, and STIs
  - With appropriate pre and post-test counseling
- Offering immediate treatment according to established guidelines for patients who test positive

Threading the Needle — How to Stop the HIV Outbreak in Rural Indiana Steffanie A. Strathdee, Ph.D., and Chris Beyrer, M.D., M.P.H. NEJM 373;5 nejm.org July 30, **2015**

Actions to Address the Syndemics Among People Who Inject Drugs as a Primary Care Health Care Worker

- Providing Hep B vaccinations
  - Even one dose can be effective!
- Providing naloxone to opioid users and their families/partners
- Obtaining training to provide opioid agonist therapy
  - Immediate referrals to substance use treatment programs that provide opioid-agonist therapy

Actions to Address the Syndemics Among People Who Inject Drugs as a Primary Care Health Care Worker

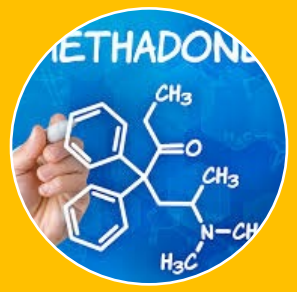
- Supporting injection-drug users by providing sterile syringes or referring them to syringe service programs
- Supporting legislative reforms to expand Medicaid and allow federal funds to support SSPs
- Using PDMPs in clinical decision making involving opiate prescribing

SSPs: Syringe Service Program, PDMPs: Prescription Drug Monitoring Programs

INDIVIDUAL LEVEL INTERVENTIONS (AS A PRIMARY CARE HEALTH WORKER)

HCV/HIV Testing and Treatment

Mental Health Services



Pharmacotherapy

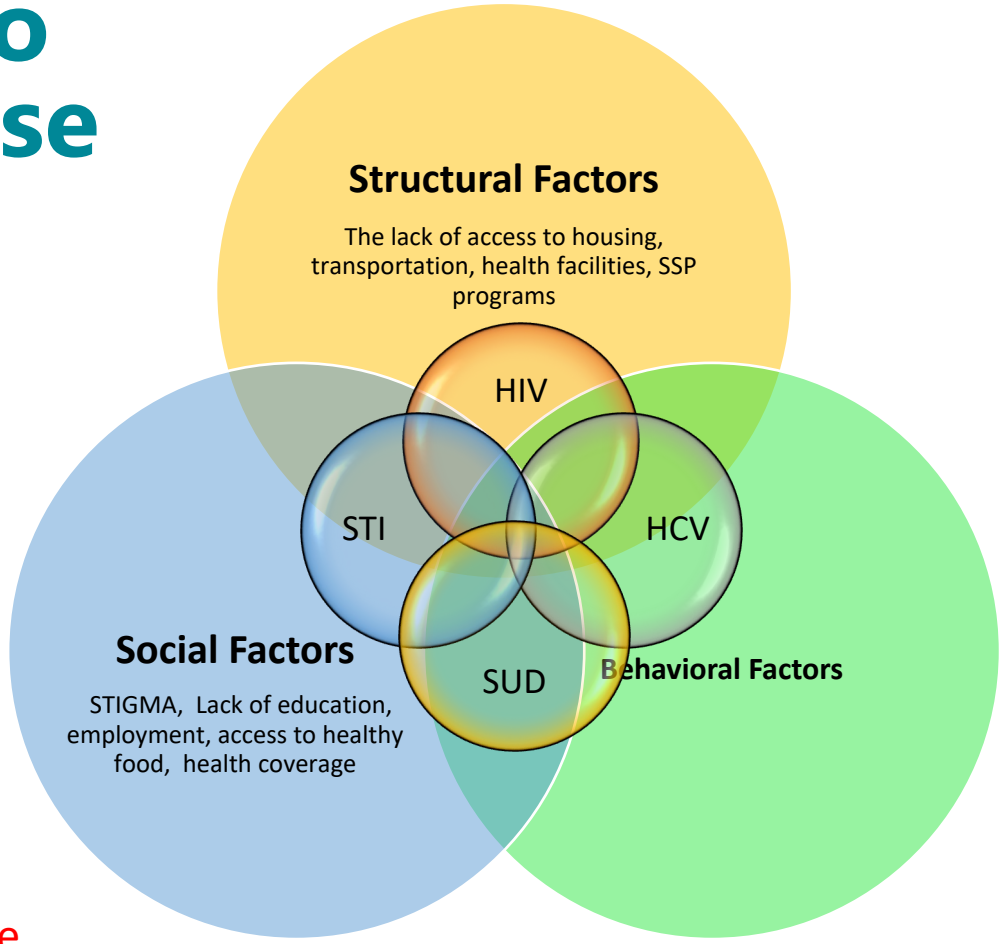
PREP for PWUDs

Naloxone, SSPs& Safer Injection Practices

Recognize and Understand

When people are unable to seek or receive care because of socioeconomic barriers

- Treatable diseases persist at higher rates
- With a higher baseline rate of transmissible infections, it is more likely for the community to be exposed



Nobody is safe until everyone is safe

Conclusions

Ending the syndemic will require a multipronged approach

- SUD services should be integrated into primary care – **barriers for harm reduction should be removed**
- The efficacy of PrEP and HIV treatment has been established – **access for the most vulnerable is critical**
- Syphilis is taking a toll in AI/AN communities – **zero tolerance for congenital syphilis should be the standard**

PCPs should be at the forefront of harm reduction, STI, PrEP, HIV, and HCV treatment.

IF THEY ARE NOT, NOBODY WILL BE.

Questions?

Thank You