




**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.



# Learning Objectives

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- I. Participants recognize the interaction of the SUD epidemic in relation to the HCV, HIV and STIs epidemics in Indian Country**
  - II. Participants can understand and explain the concept of a Syndemic**
  - III. Participants describe interventions to prevent and control the HIV, STI, HCV and SUD Epidemic at the**
    - I. Macro level (societal)**
    - II. Micro level (health system leadership)**
    - III. Individual level (health professional)**

# Outline

- **Clinical Case**
- **The SUD | HCV | HIV | STI Syndemic**
  - Example: Scott County, Indiana
- **The SUD | HCV | HIV | STI Syndemic in Indian Country**
- **Interventions to Mitigate the Syndemic:**
  - Societal (Macro), Health System (Micro), Health Professional (Individual)
- **Conclusions**



# Clinical Case: Mr. S



**Mr. S** is a 24-year-old AI/AN male who suffered a right femur fracture (MVA) 6 years ago. Unfortunately, **pain management training or policies were not available** in the institution, and he was discharge from the hospital with oxycodone hydrochloride for pain control.

# Clinical Case: Mr. S



**Two years ago**, his new medical provider refused to refill the oxycodone. Unfortunately, **the provider was not trained in screening for SUDs. Nor did he have an MAT waiver.** The patient then turned to his friends who gave him oxycodone, but later he had to purchase it in the streets.

# Clinical Case: Mr. S



One year ago, he started injecting heroin since it was cheaper. Unfortunately, **SSPs are not available** where he lives, and he has been sharing needles and syringes.

# Clinical Case: Mr. S



Three days ago, he presented to the ED with **opioid withdrawal symptoms** (nausea, vomiting, diarrhea, restlessness, abdominal pain). Fortunately, **the ED medical provider was trained in SUD management** and induced him with Buprenorphine/Naloxone and gave him a 3-day prescription, enough until he could be evaluated and placed on MAT.



# Clinical Case: Mr. S



In addition, **the provider was also trained in screening for STIs, HCV, HIV, and HIV PrEP.** During the ED visit he was screened and tested positive for HIV. HCV and other STIs screens were negative, and he was referred to the Primary Care clinic for HIV evaluation and treatment.

# Missed Opportunities

## Individual Provider

- Orthopedic surgeon did not follow pain management guidelines
- The patients PCP did not recognize that the patient has an SUD

## Health System

- Should have had policies in place for pain management and MAT
- Should have policies in place for screening for SUD, HIV, HCV and STIs

## Society

- Should recognize that SSPs are evidence-based practices

We Should Not be Relying on Fortune for Patient Care



# Outline

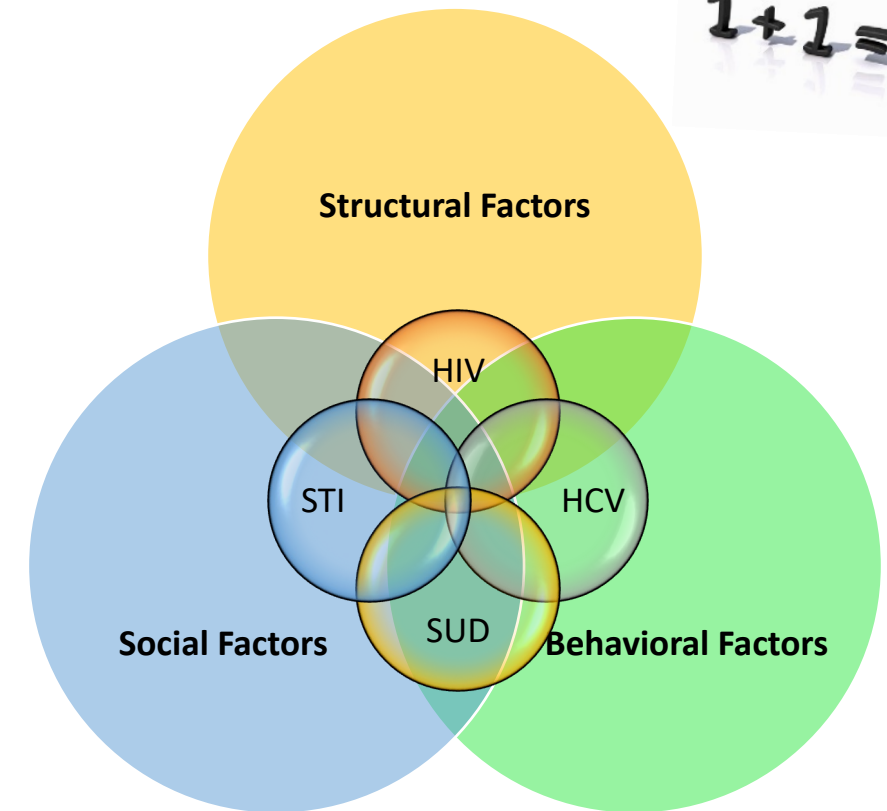
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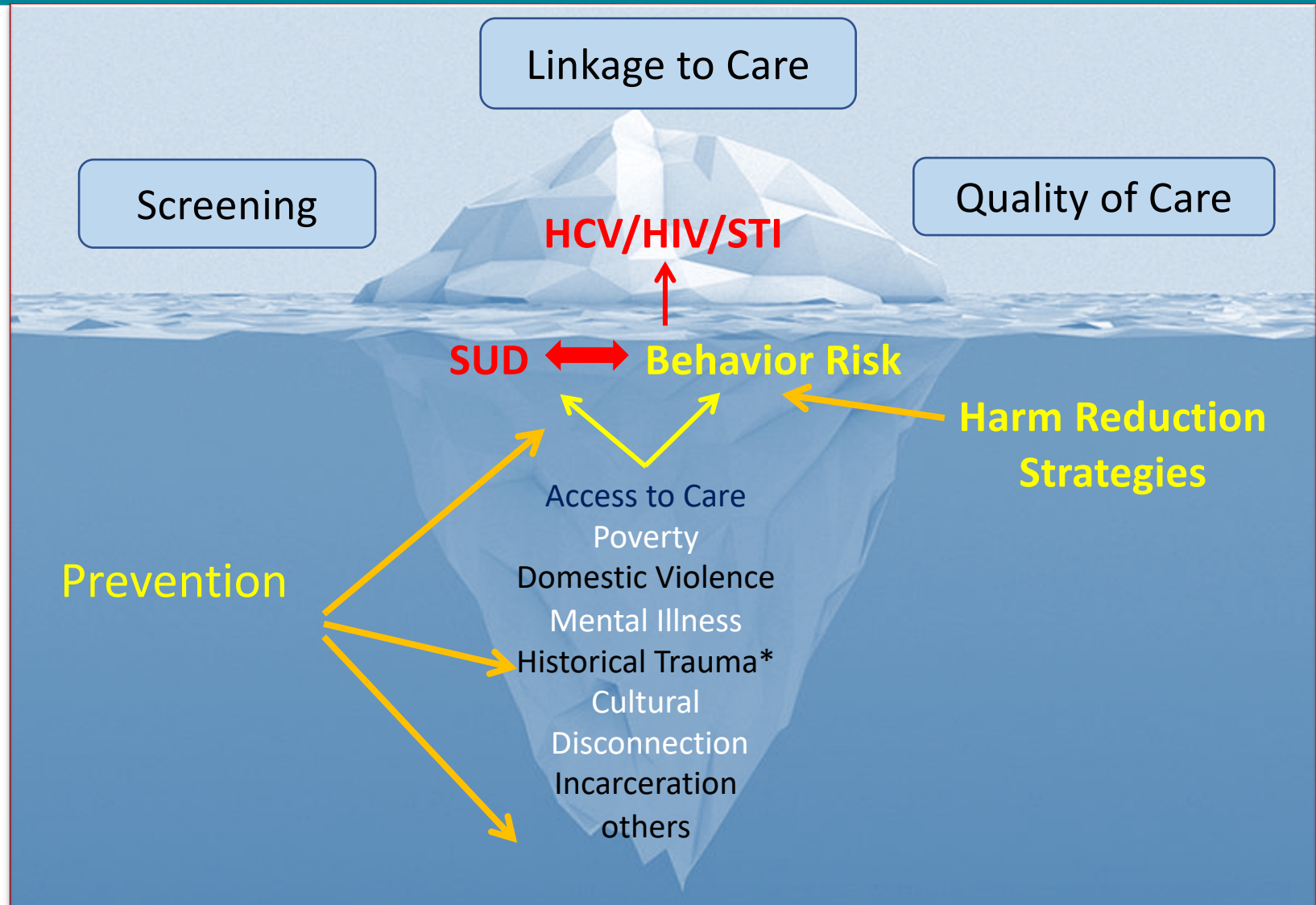
# Syndemic Theory

## Core principles:

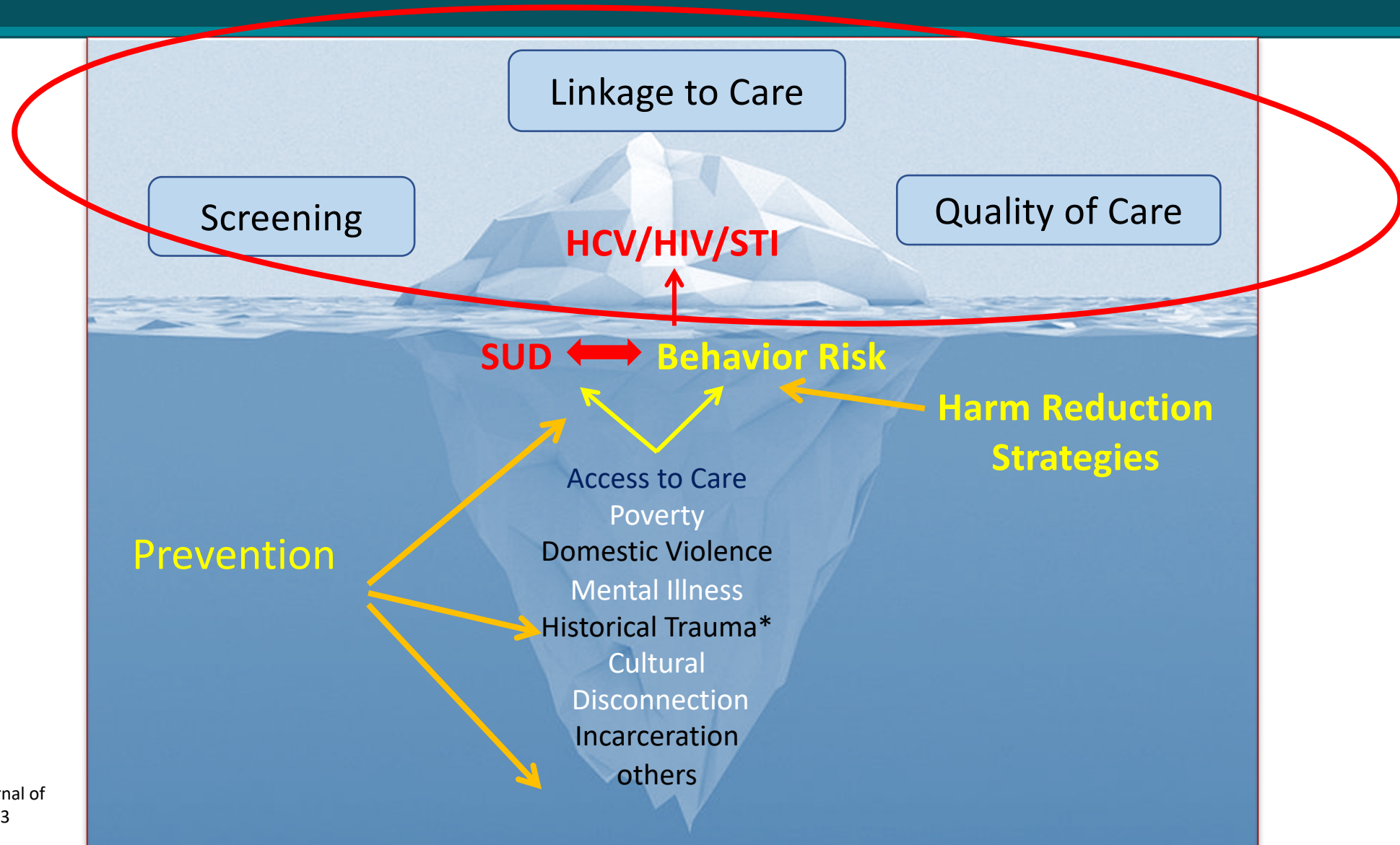
- Clustering of two or more conditions in a population
- Synergism produces an excess burden of disease
- Precipitation and propagation by large scale behavioral, structural, and social forces



# Syndemic



# Syndemic



# 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

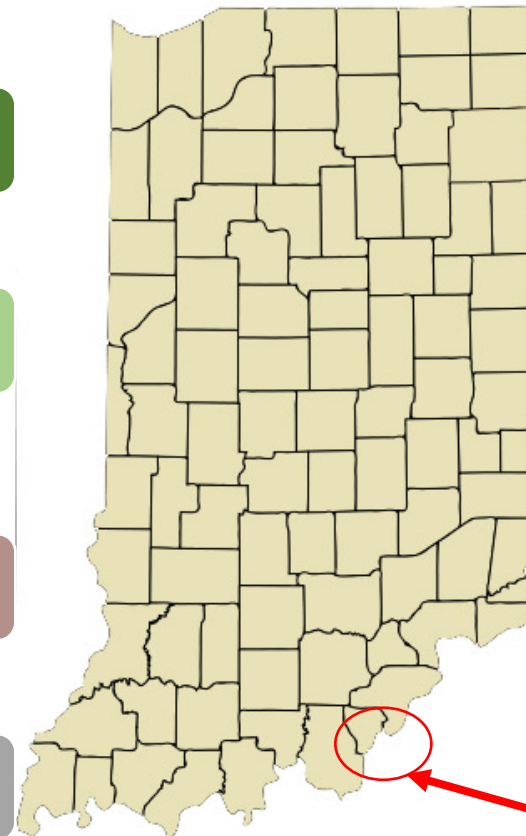
- Through contact tracing ISHD identified 8 more new infections
- The source of infection: Injection of the opioid oxymorphone (semi-synthetic opioid analgesic)

## 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 92<sup>nd</sup> 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

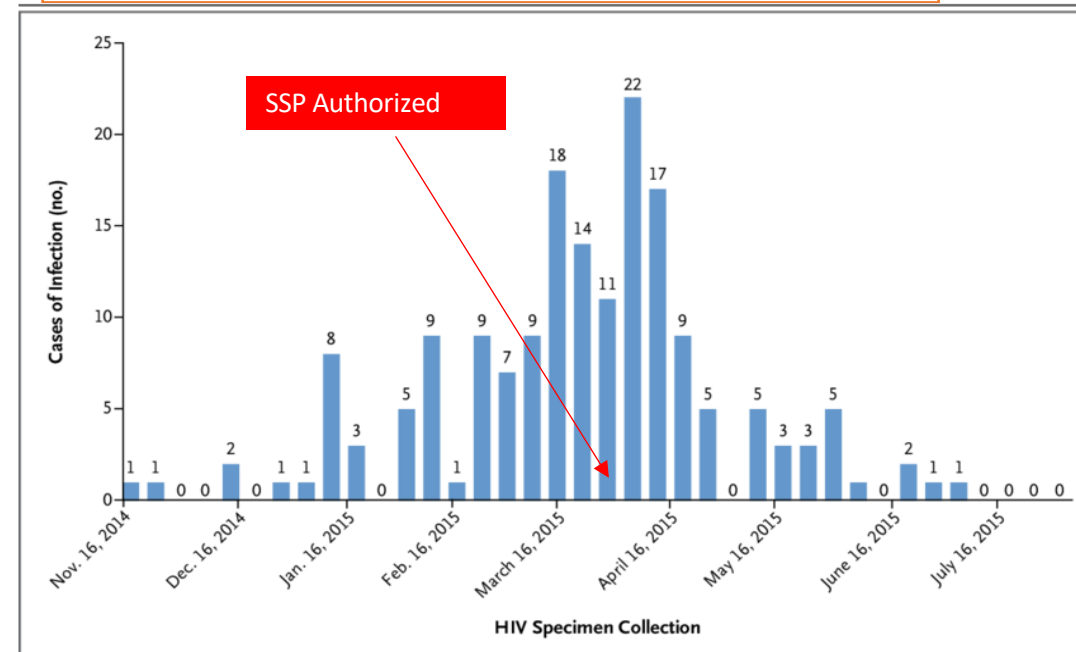
SSP program not permitted by state law

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**





# Outline

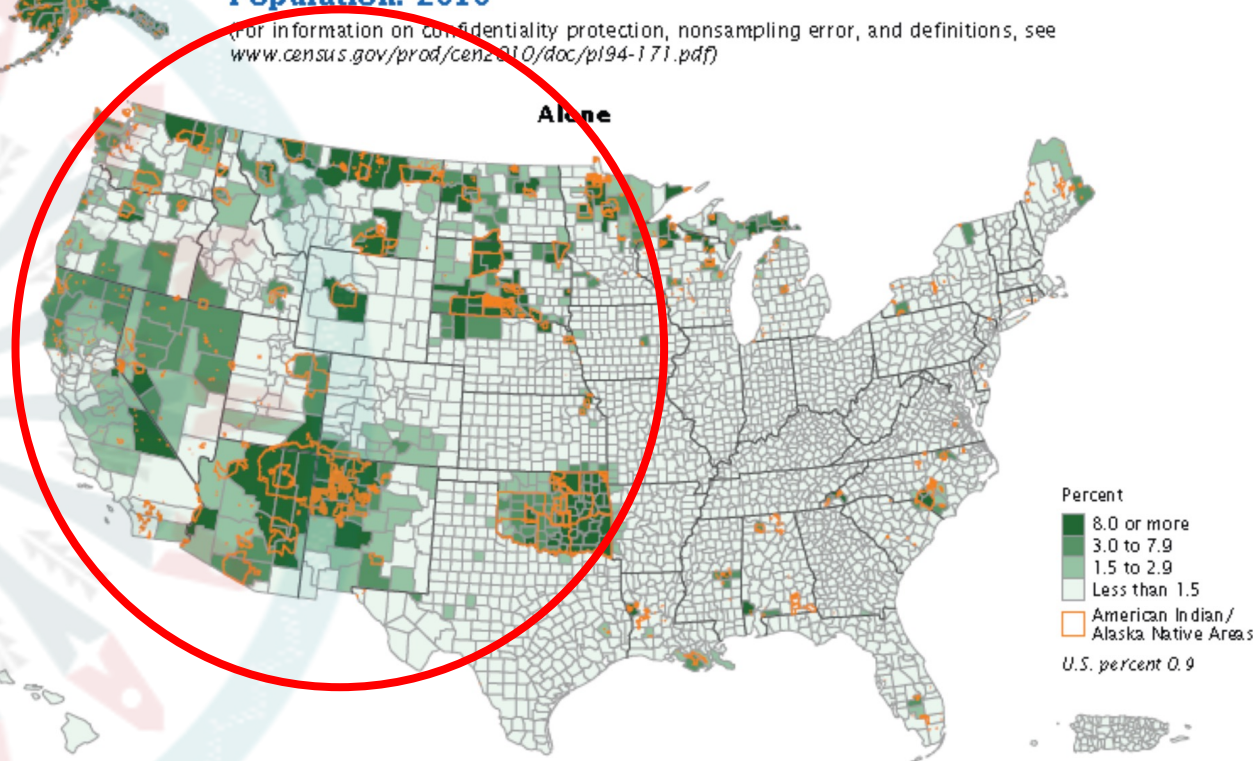
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# American Indian/Alaska Native (AI/AN) Statistics in the United States

Figure 4.  
**American Indian and Alaska Native as a Percentage of County Population: 2010**

For information on confidentiality protection, nonsampling error, and definitions, see [www.census.gov/prod/cen2010/doc/p194-171.pdf](http://www.census.gov/prod/cen2010/doc/p194-171.pdf)



- 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<sup>1,2</sup>
    - 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.

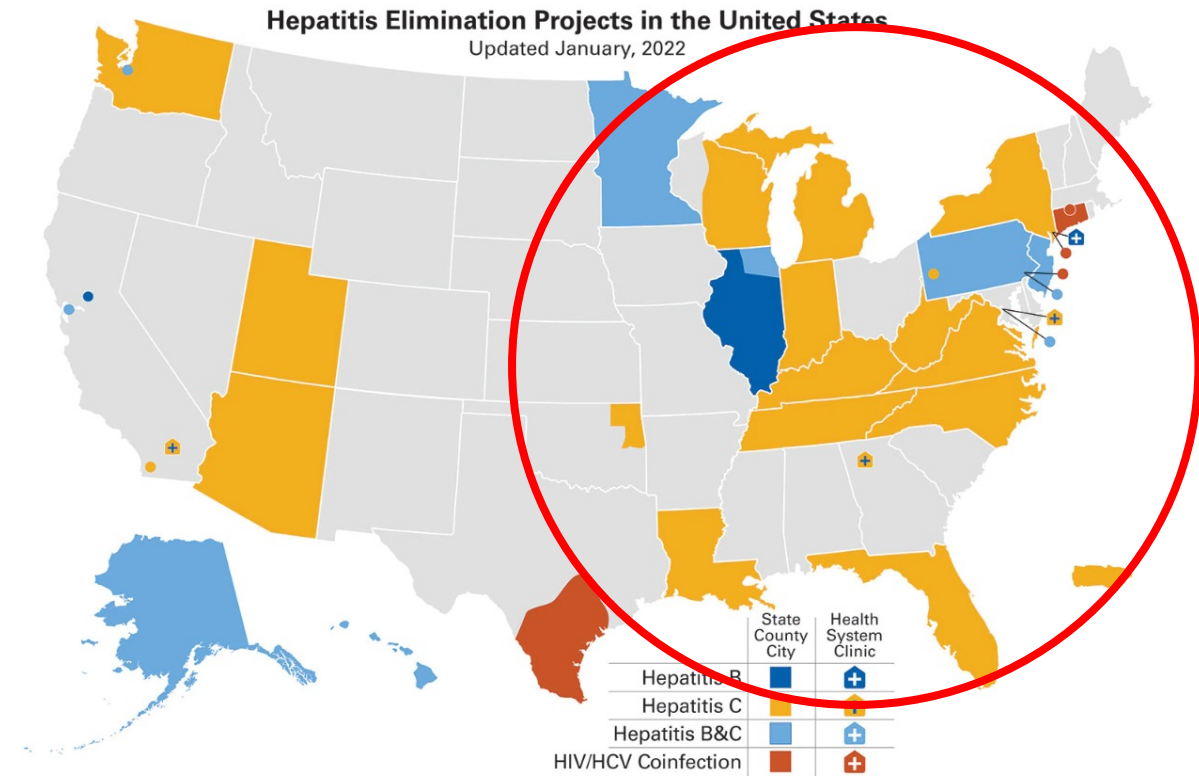
1. Centers for Disease Control and Prevention. Surveillance for Viral Hepatitis: United States, 2016. Retrieved from <https://www.cdc.gov/hepatitis/statistics/2016surveillance/commentary.htm>

2. Center for Disease Control and Prevention. Deaths: Final Data for 2014. [http://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_04.pdf)

3. US Census Bureau. <https://www.census.gov/www>. Accessed Nov 2, 2019

# Mismatch between Hepatitis Elimination Programs and AI/AN Population

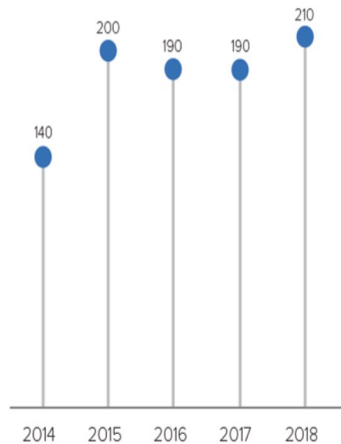
- Most of the hepatitis elimination programs are concentrated in the East Coast
- Most of the AI/AN population is in the north and southwest



# HIV in American Indian/Alaska Native Populations

Estimated HIV Infections Among AI/AN People in the US, 2014-2018

HIV infections have increased since 2014.

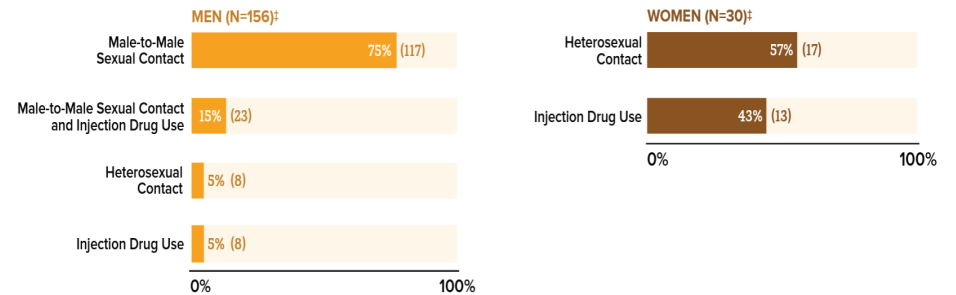


Source: CDC. Estimated HIV incidence and prevalence in the United States, 2014–2018. *HIV Surveillance Supplemental Report 2020,25(1)*.

<1%

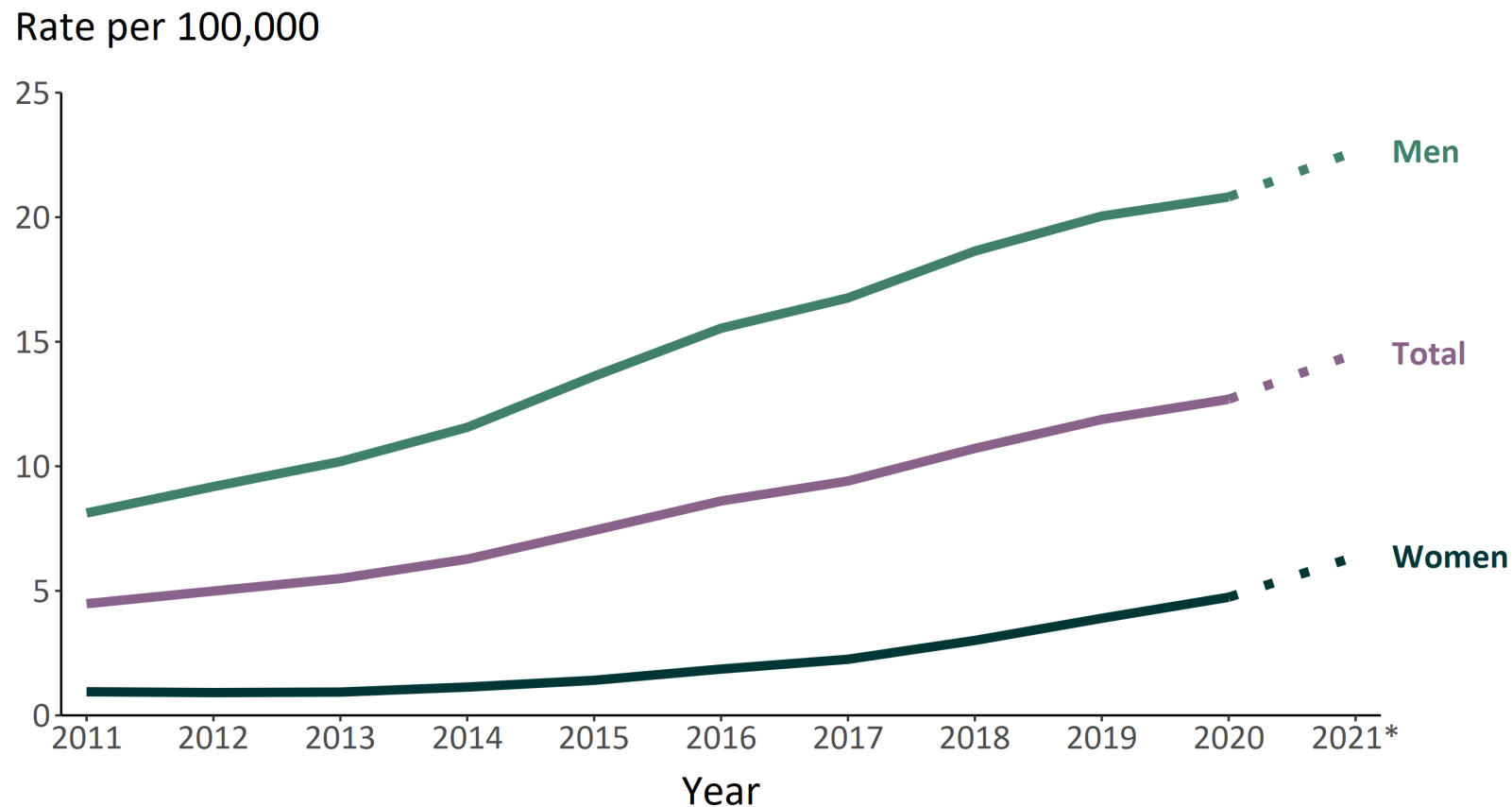
Of the **37,968 NEW HIV DIAGNOSES** in the US and dependent areas\* in 2018, less than 1% (186) were among American Indian/Alaska Native (AI/AN) people.

Most new HIV diagnoses were among AI/AN gay and bisexual men.†



- 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.

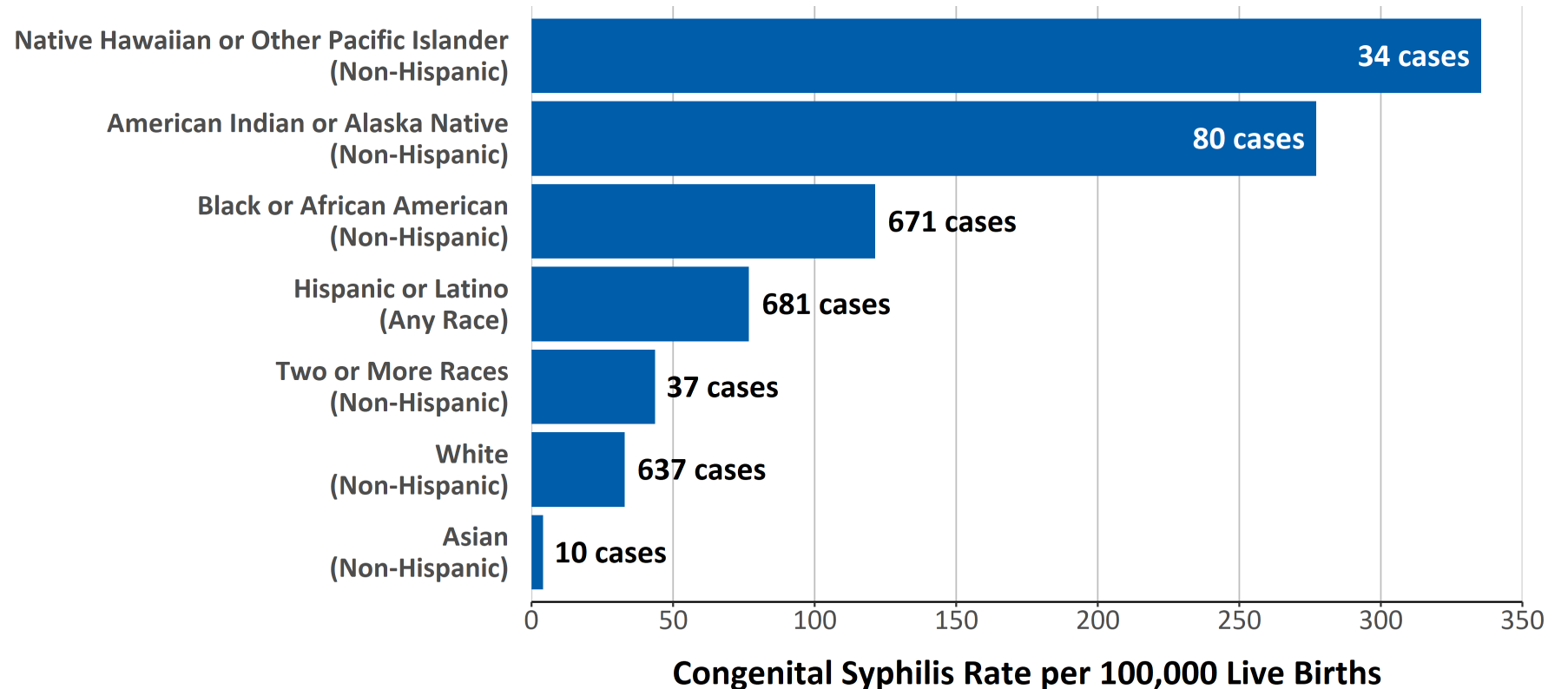
# Rates of primary and secondary syphilis continued to increase in the United States during 2021\*



\* Reported 2021 primary and secondary syphilis data are preliminary as of March 9, 2022.

- **Primary and Secondary Syphilis — Rates of Reported Cases by Sex, United States, 2011–2021\***

# 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\***

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# SUD | HCV | HIV | STI Syndemic: Macro Level Interventions (Society)

## National or Statewide Interventions

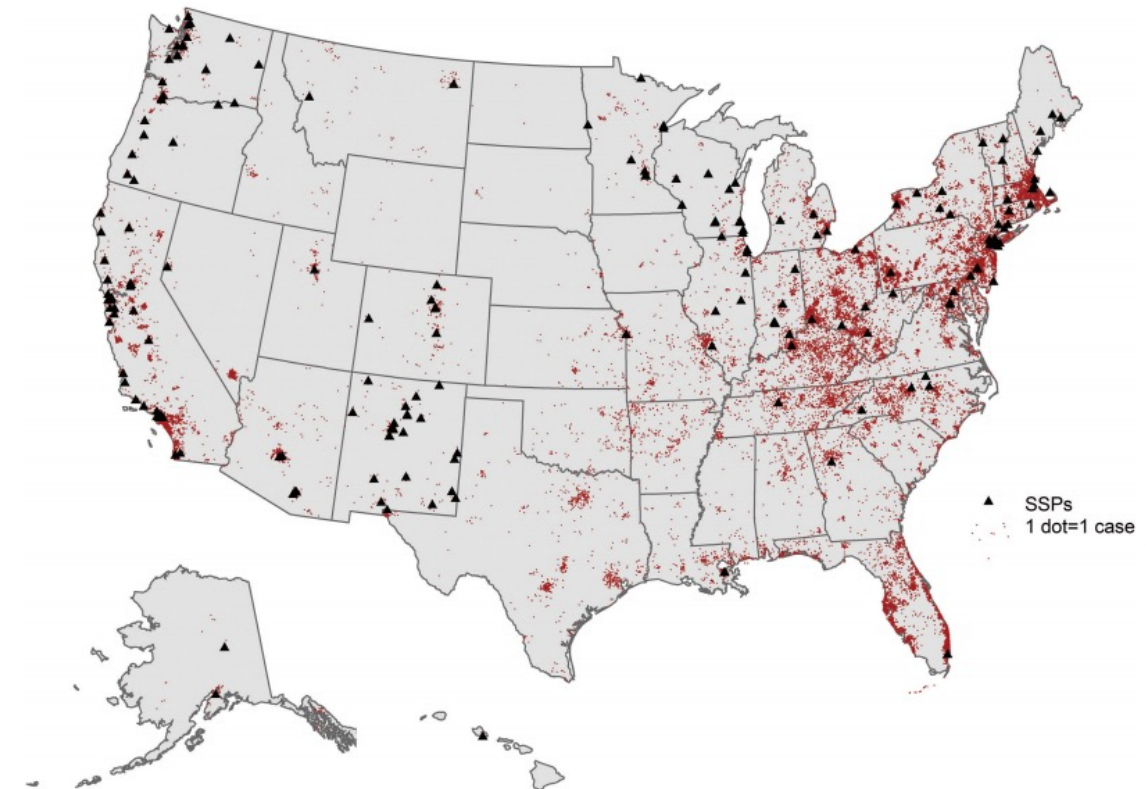
- ***Eliminate social and structural determinates associated with IDU***
  - Poverty (Decrease the economic inequality gap)
  - Lack of education
  - Racism
  - Stigma
  - Mass incarceration (Reform drug laws)
- ***Decrease Injection Drug Use and/or make it safer***
  - SSP services available
  - MAT services available
  - Behavioral health services





# 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

# SUD | HCV | HIV | STI Syndemic: Micro Level Interventions (Health System)



Recognition of the problem by leadership



Policy development to address the problem



Definition of goals objective and targets



Strategic planning



Incentive

# CNHS EHE Epidemic Program Interventions

## **Understanding our leadership and community:**

- Advisory board
- General public, PrEP patients, and HIV patient surveys

## **Community and provider HIV awareness:**

- Public campaign and school education
- Provider workshops, ECHO, diversity training



# CNHS EHE Epidemic Program Interventions

## HIV screening expansion

- Lab triggered screening in ED/UC, home testing
- Electronic health care reminder
- HIV screening policy change
  - Every 3 years for age 13-54
  - Every 5 years for age 55-75



# “Reflex Lab-Triggered” HCV/HVI Screening

## Patient presents to lab for routine/other phlebotomy

Example: ED visit for pneumonia, sent for CBC and CMP, extra tube drawn for HCV antibody

## Process completed by hand (not automated)

Results Sent Directly to HCV Program Staff



## HIV antibody is added-on post phlebotomy if criteria met for screening

- If screening is due
- If there is signed informed consent in EHR

# CNHS EHE Epidemic Program Interventions

## HIV PrEP expansion

- Expanding capacity with pharmacists and other medical providers

## HIV care improvement

- Same day treatment
- In-depth cascade of care analysis



# Provider Awareness and Education

## PrEP and HIV screening workshops

### PrEP ECHO

- 6 sessions with cases and didactics

### Infectious Disease ECHO

- Weekly meetings with cases and didactics



# Pharmacy-led Training and Treatment

- Patients come to pharmacy asking for PrEP
- Pharmacists are familiar with managing DM, HTN, warfarin and hepatitis C
- Training provided to 3 pharmacy clinics by 4 pharmacists





# CNHS EHE Epidemic Program Interventions

## Harm reduction

- MAT
- SSPs
- Treatment as prevention



# Impact of Interventions

Period	Percent of the Population Tested for HIV at Least Once	Number of PrEP Prescribers	Number of patients on PrEP
2015- 9/2019*	34 %	3	25
9/2019-9/2020*	59%	13	52
Change	↑ 73%	↑ 433%	↑ 208 %

\* Eligible population defined as those who accessed the CNHS at a site where HIV screening offered: Primary Care, Pediatrics, Resident Clinic, Infectious Diseases Clinic, Urgent Care, Emergency Department, Inpatient Hospital Wards

# What can we do for Mr. S?



**AS A PRIMARY CARE HEALTH WORKER?  
(INDIVIDUAL)**



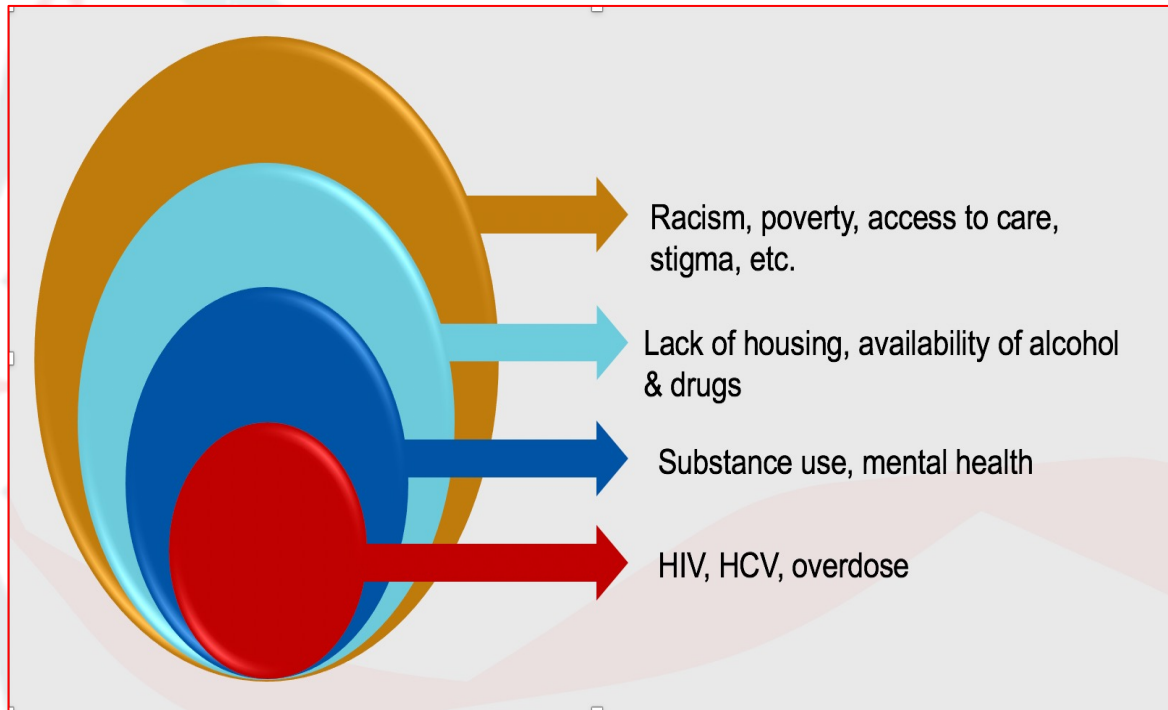
**AS HEALTH SYSTEM LEADERSHIP?  
(MICRO)**



**AS A SOCIETY  
(MACRO)**

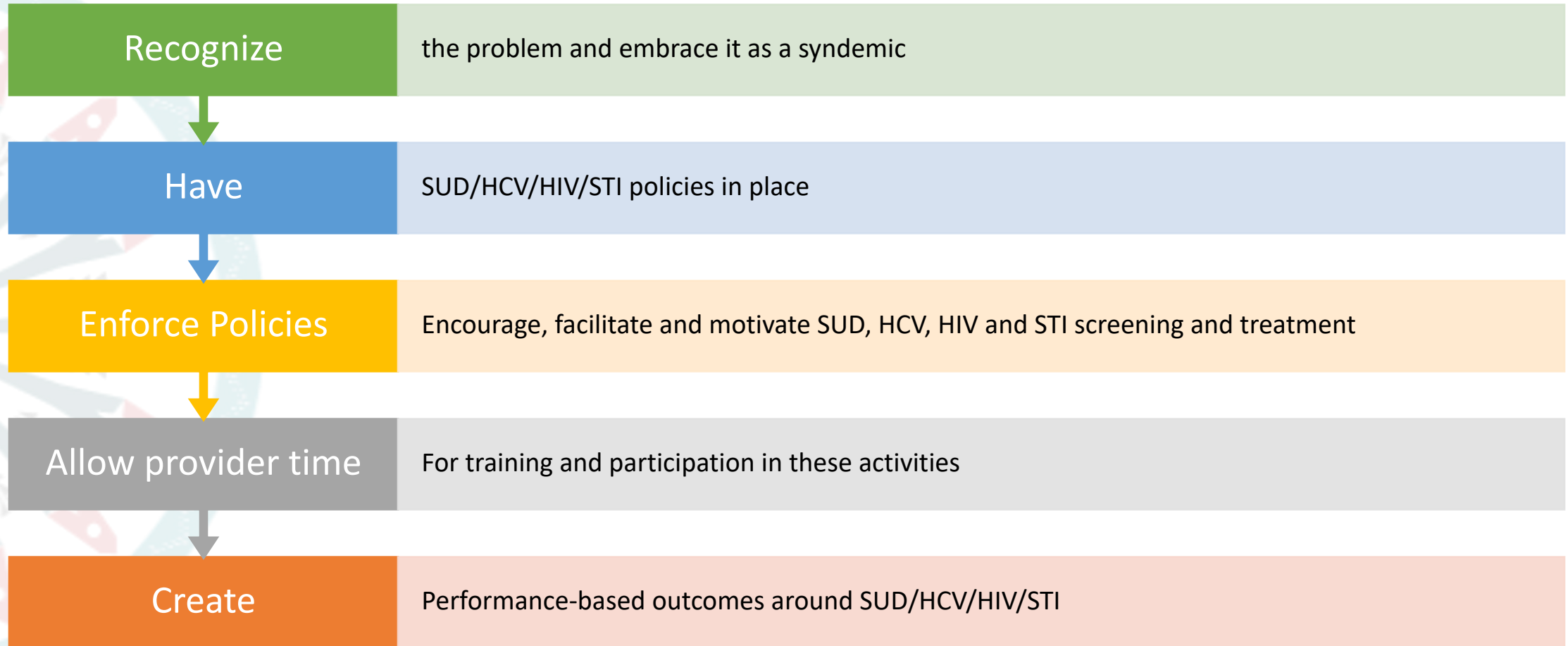


# What Can Society Do For Mr. S?



- 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

# What can Leadership in the Health System do for Mr. S



# What Can the Healthcare Worker Do for Mr. S?



- Vaccinate him for hep A & B
- Have a MAT license and continue Buprenorphine/Naloxone
- Be comfortable prescribing HCV treatment

# What Can the Healthcare Worker Do for Mr. S?



- Educate your patient on safe injection practices
- Refer to or advocate for syringe service programs

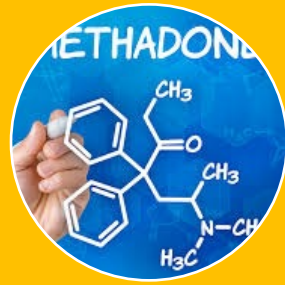
# What Can the Healthcare Worker Do for Mr. S?



**HCV/HIV  
Testing and  
Treatment**



**Mental Health  
Services**



**Medication  
Assisted  
Treatment**



**PREP for  
PWUDs**



**Naloxone, SSPs  
& Safer  
Injection  
Practices**

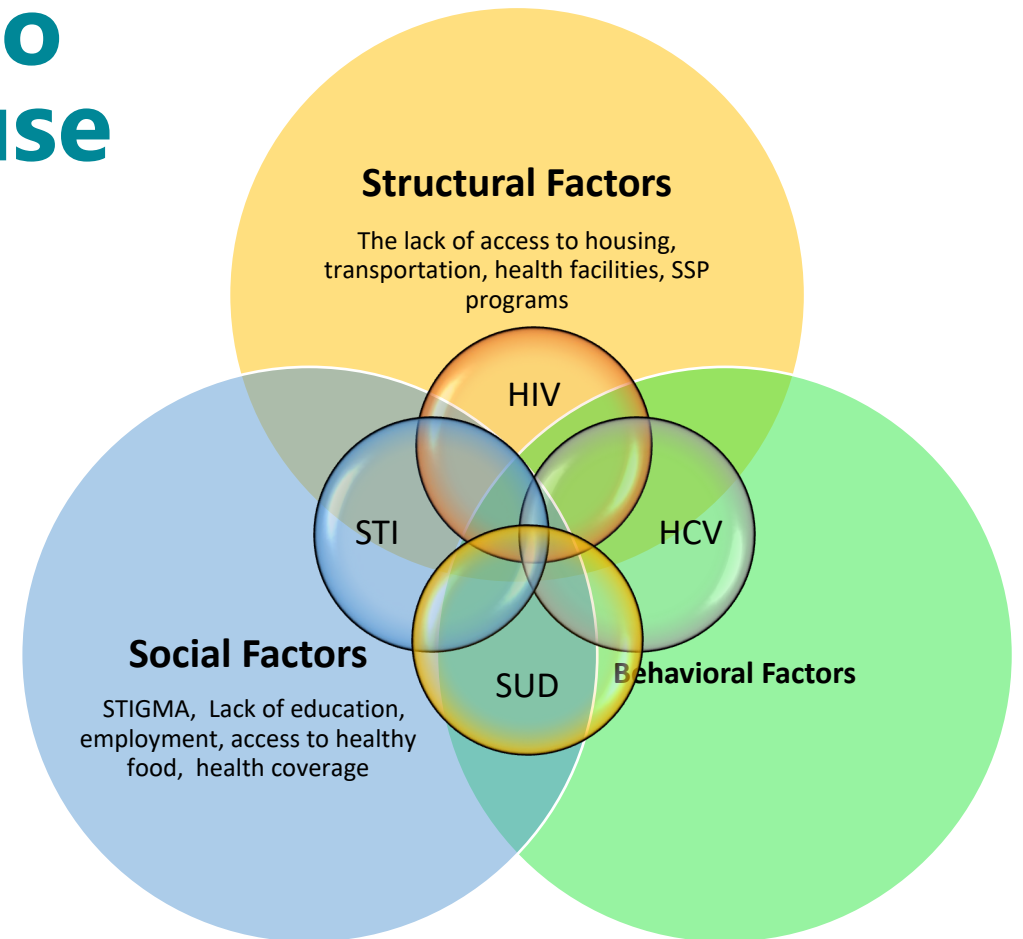




# Recognize and Understand

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

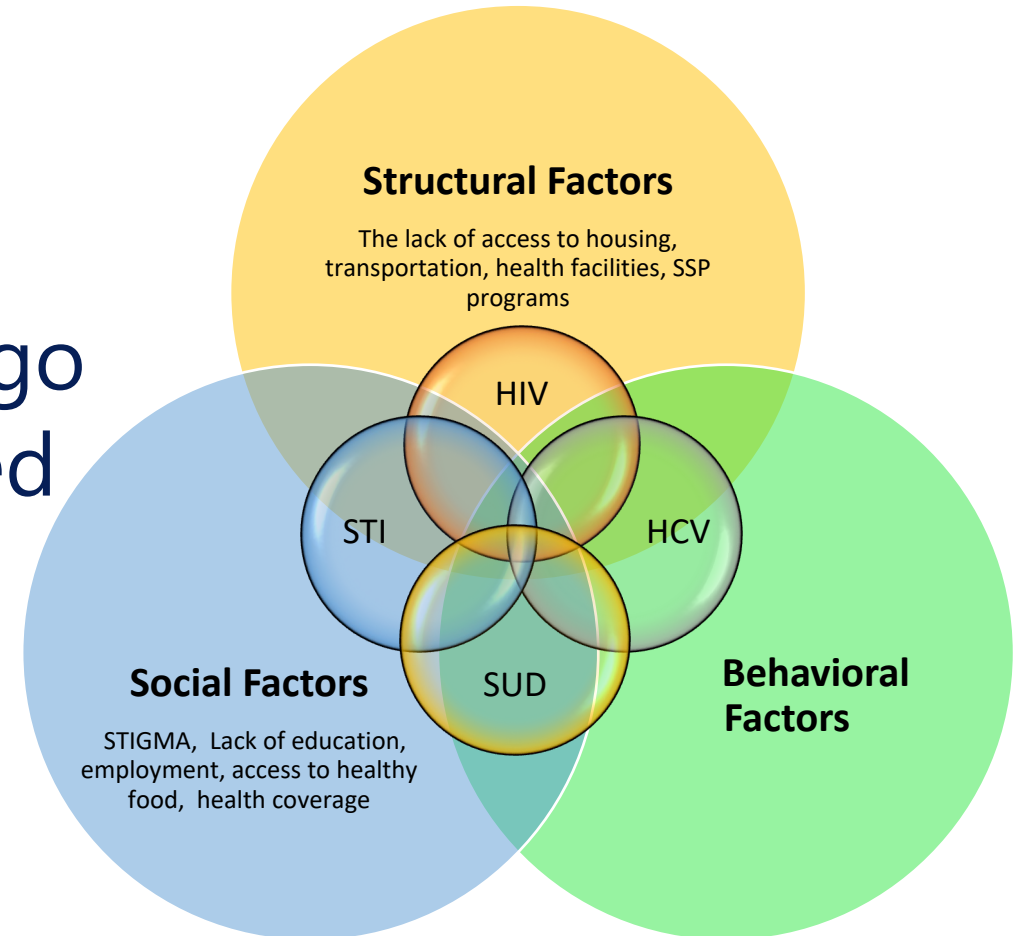
- Treatable diseases persist at higher rates
- With a higher baseline rate of transmissible infections, it is more likely for the community to be exposed



# Recognize and Understand

## Respond to HIV, STIs, HCV and SUD

- By ensuring that the resources go to the communities in highest need in a timely and efficient way



# 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**



**Primary care providers should be  
at the forefront of harm reduction,  
STI, PrEP, HIV, and HCV treatment.**

**IF THEY ARE NOT, NOBODY WILL BE.**

# Questions?

Thank You  
G&V (Wado)

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# Priority Populations People Who Inject Drugs



# Actions to Address the Syndemics Among People Who Inject Drugs



- 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

# Actions to Address the Syndemics Among People Who Inject Drugs



- Providing HBC vaccinations
  - Even one dose can be effective!
- Providing naloxone to opioid users and their families/partners
- Offering immediate referrals to substance use treatment programs that provide opioid-agonist therapy
- Becoming licensed to provide opioid agonist therapy



# Actions to Address the Syndemics Among People Who Inject Drugs



- 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