

Alaska ID ECHO: HCV-HIV-PrEP-STIs



ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM



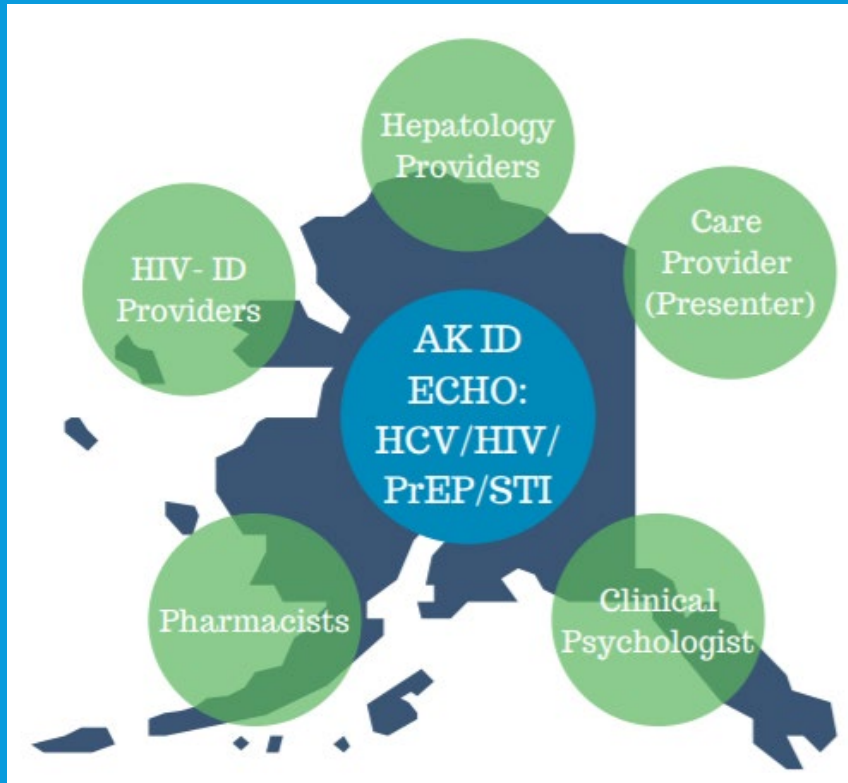
NPAIHB

Indian Leadership for Indian Health

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AK ID ECHO: CONSULTANT TEAM



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Welcome to Alaska Infectious Disease ECHO: HCV, HIV, PrEP, STIs

Approved Provider Statements:



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INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, Alaska Native Medical Center (ANMC) is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Contact Hours:

ANMC designates this activity for a maximum of 12 contact hours, including 3 total pharmacotherapeutics contact hours, commensurate with participation.

Financial Disclosures:

Youssef Barbour, MD & Lisa Townshend-Bulson, APRN / faculty for this educational event, are primary investigators in an ANTHC sponsored hepatitis C study funded in part by Gilead Sciences. All of the relevant financial relationships listed have been mitigated.

Requirements for Successful Completion:

To receive CE credit please make sure you have actively engaged in the entire activity, your attendance is recorded by the facilitator, and complete the course evaluation form found here: <https://forms.gle/18t4EgvN2WdnM4P77>



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ALASKA NATIVE
MEDICAL CENTER



HCV Reinfection

Lisa Townshend-Bulson, MSN, FNP-C,
ANTHC Liver Disease & Hepatitis Program Director

Objectives

- Recognize that hepatitis C is part of a syndemic
- Discuss how to define hepatitis C reinfection
- Identify rates of HCV reinfection, including among Alaska Native/American Indian persons in Alaska
- Identify strategies to prevent HCV reinfection

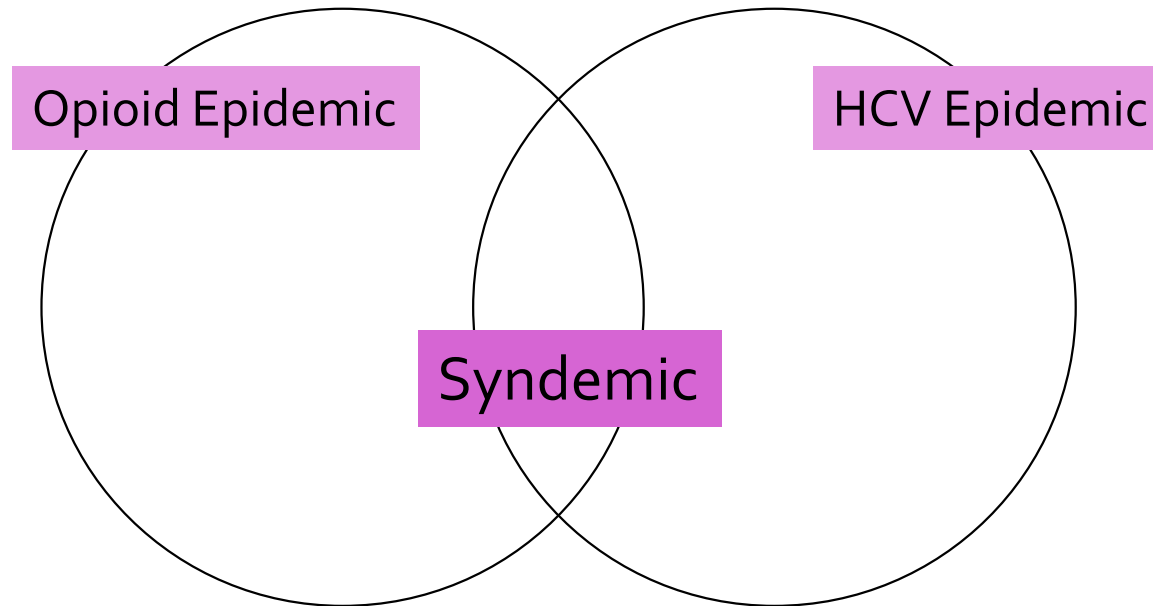
Opioid-HCV Syndemic

What's A Syndemic? Hepatitis C Among Injection Drug Users Is An Urgent Example

[Ronald O. Valdiserri](#)

APRIL 12, 2021

10.1377/forefront.20210407.8040



The Opioid Epidemic



70,630

people died from drug overdose in 2019²



10.1 million

people misused prescription opioids in the past year¹



1.6 million

people had an opioid use disorder in the past year¹



2 million

people used methamphetamine in the past year¹



745,000

people used heroin in the past year¹



50,000

people used heroin for the first time¹



1.6 million

people misused prescription pain relievers for the first time¹



14,480

deaths attributed to overdosing on heroin (in 12-month period ending June 2020)³



48,006

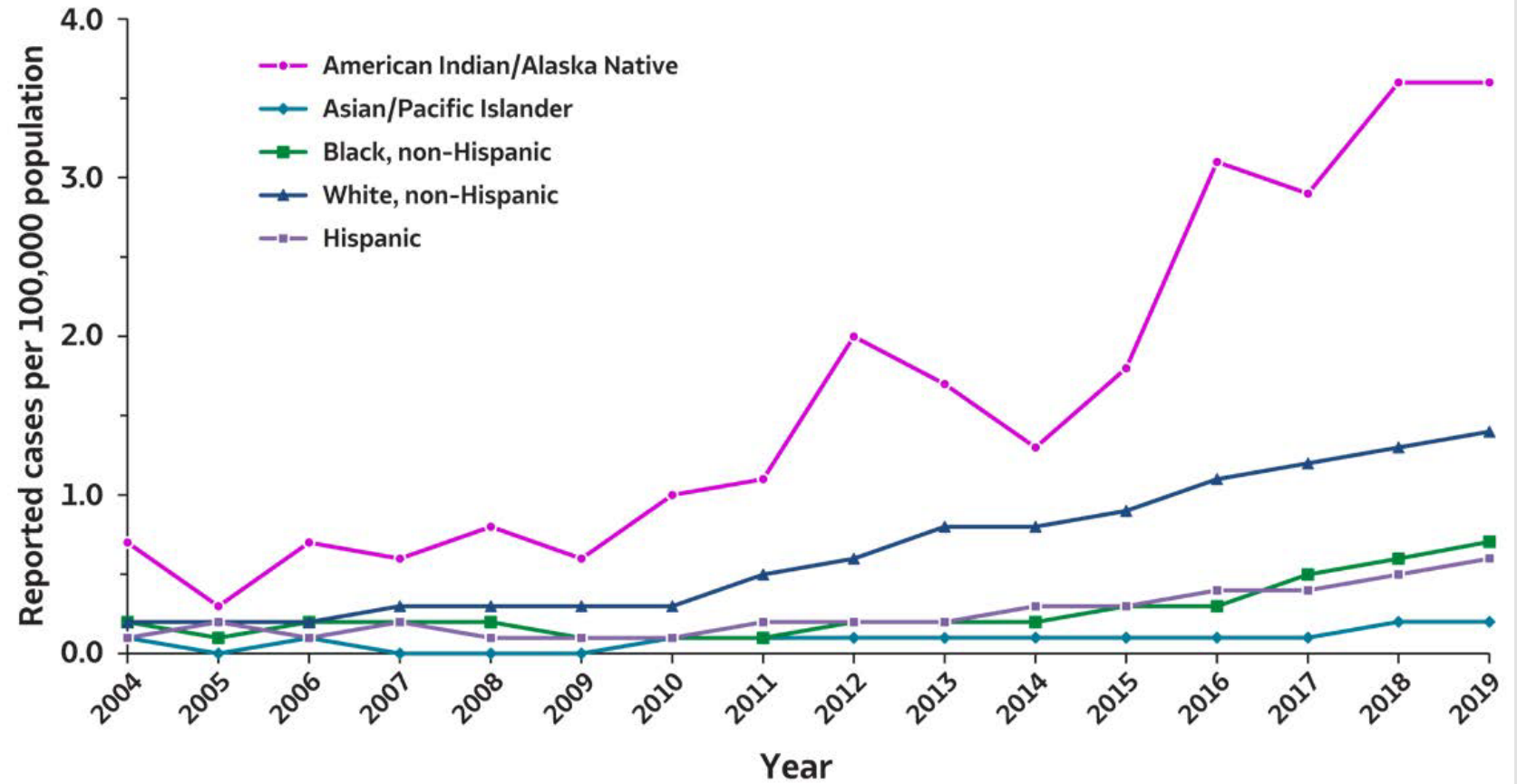
deaths attributed to overdosing on synthetic opioids other than methadone (in 12-month period ending June 2020)³

HHS The Opioid Epidemic by the Numbers. Available at:

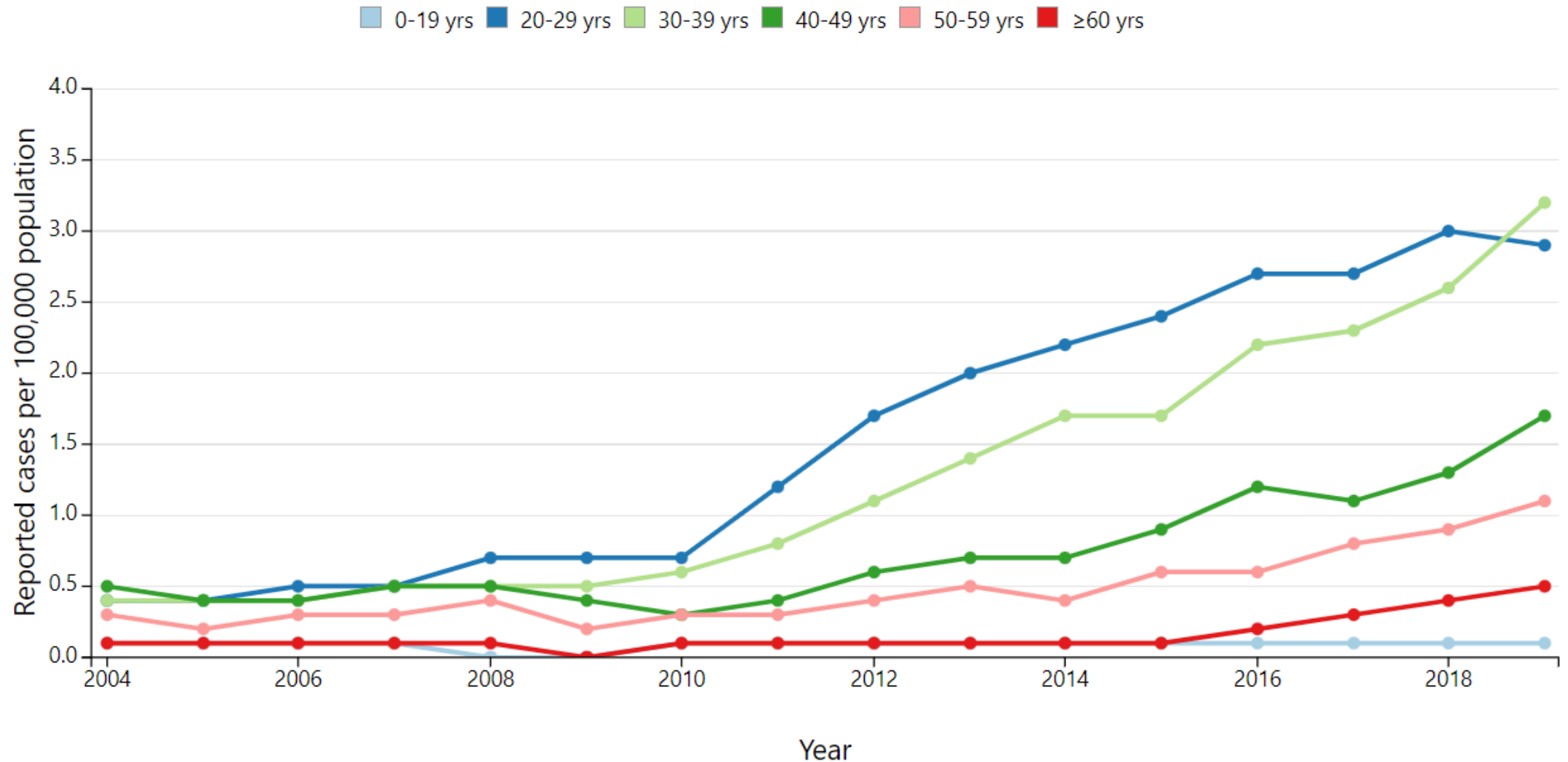
<https://www.hhs.gov/opioids/sites/default/files/2021-02/opioids-infographic.pdf>

HCV Epidemic

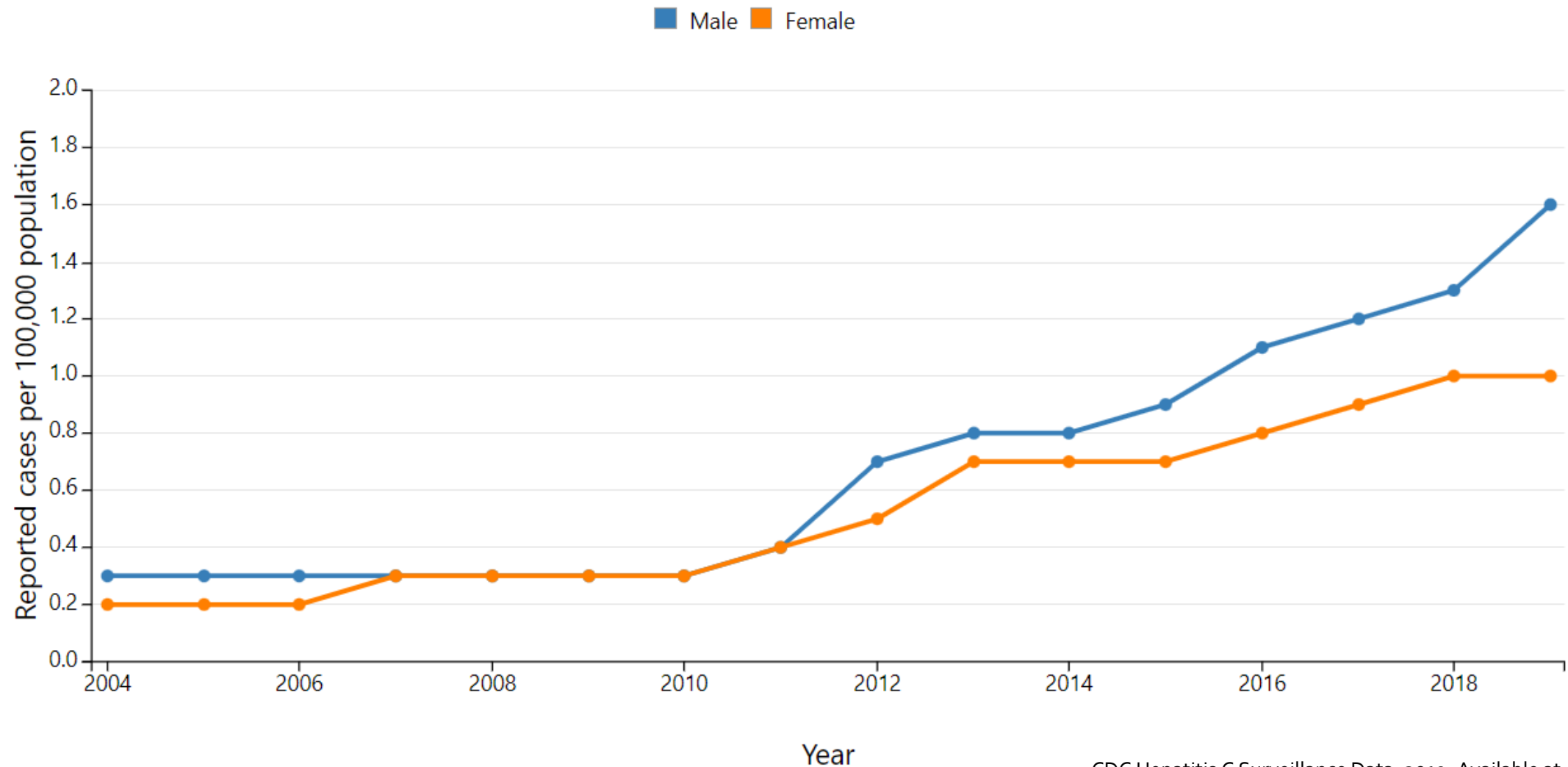
Rates of reported acute HCV infection by race/ethnicity U.S., 2004-2019



Rates of reported acute HCV, by age group – U.S., 2004-2019



Rates of reported acute HCV, by sex – U.S., 2004-2019



Past HCV Treatment Definitions

- Treatment Failure - Failure to lose HCV RNA during/by the end of HCV treatment
 - May include virus decreases then increases while on treatment or
 - Presence of quantifiable virus at the end of treatment
- Relapse – Return of HCV RNA following clearance of the virus on treatment or before Sustained Virologic Response (SVR) [SVR is checked at/after 12 weeks following treatment completion]
- Reinfection – Recurrence of viremia with risk factors identified and sometimes recognized by change in genotype

HCV Reinfection Defined

- Simple Definition: A positive HCV RNA after initial HCV clearance
- Higher rates of reinfection seen in:
 - Persons who inject drugs (PWIDs)
 - Condomless MSM
 - Use of drugs by inhalation
 - Younger age
 - Male sex
 - HIV coinfection

The SIMPLIFY and D3FEAT studies

Reinfection after DAA therapy among Persons Who Inject Drugs in SIMPLIFY and D3FEAT studies

Recurrence of HCV in IDU/non-IDU patients After SVR12 from international open-label trials from 25 sites in 8 countries

Baseline	DAA treatment (12 weeks) N = 179
Current opioid substitution therapy, n (%)	108 (60%)
Injecting following EOT	
Any injecting drug use	124 (69%)
Daily or greater injecting	52 (29%)
Heroin injecting	82 (46%)
Methamphetamine injecting	52 (29%)
Other opioid injecting	43 (24%)
Cocaine injecting	34 (19%)

- 6 monthly follow up for re-infection after SVR24 up to 108W post treatment.
- Overall reinfection rate was 3.6 (1.6-8.0)/100py including non injecting and injecting patients

Reinfection rates according to injection behaviour

Patient Profile	Reinfection rate	CI
No Injecting	0.0 cases/100 py	
<Daily injecting	1.5 cases/100 py	(0.2-10.3)
≥ Daily Injecting	8.9 cases/ 100 py	(3.7-21.4)

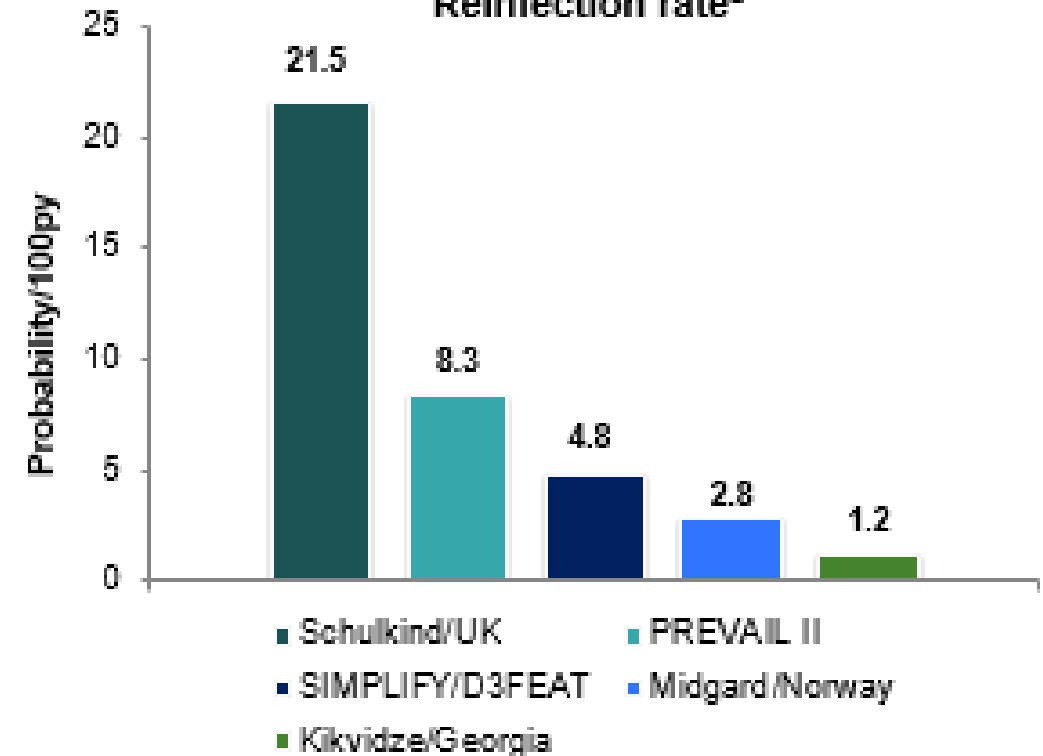
Reinfection following successful HCV DAA therapy occurs predominantly in people with ongoing injecting

Reinfection Rates from Studies Presented at INHSU 2018

Drug use profile at baseline^a

Study	Definition of RDU	% RDU
Schulkind*	Active injecting	100%
PREVAIL II*	<30d before Tx	52%
SIMPLIFY/D3FEAT**	Active injecting	69%
Midgard†	Active injecting	77%
Kikvidze‡	<6M before Tx	57%

Reinfection rate^a



^a: Consolidated from different studies does not provide head to head comparison

* Schulkind Oral Session T_21/09/2018_INHSU

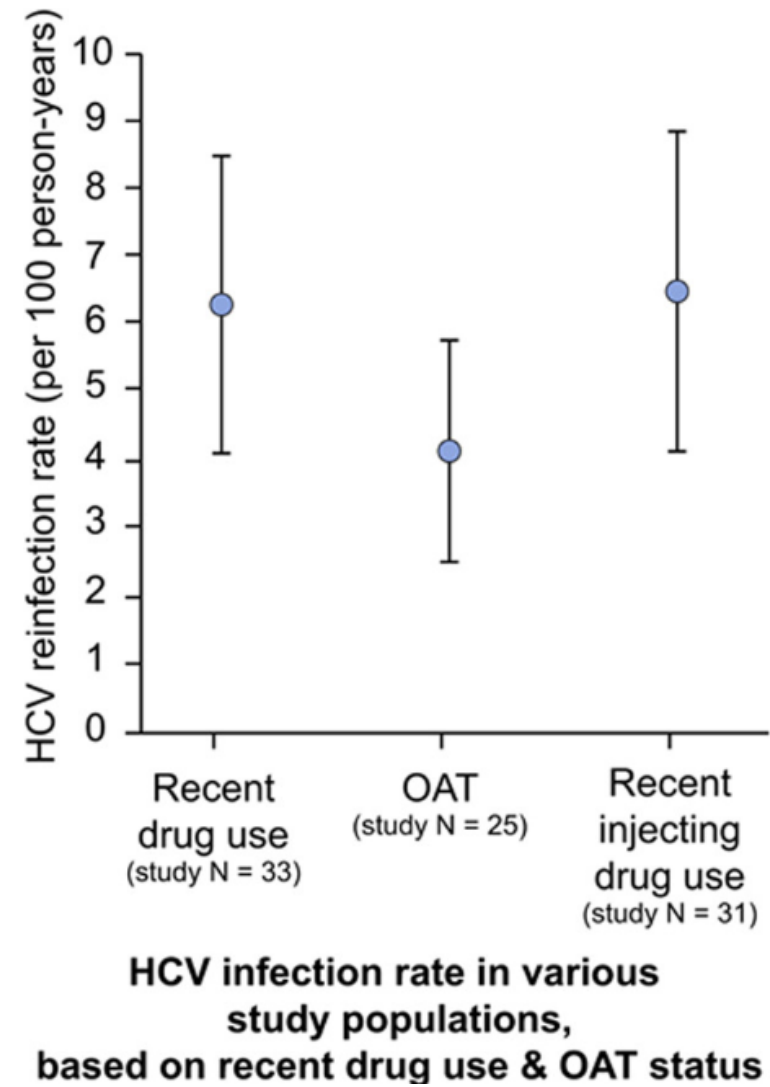
* Kikvidze Oral Session L_20/09/2018_INHSU

** Cunningham Oral Session T_21/09/2018_INHSU

† Midgard Oral Session T_21/09/2018_INHSU

‡ Kikvidze Oral Session T_21/09/2018_INHSU

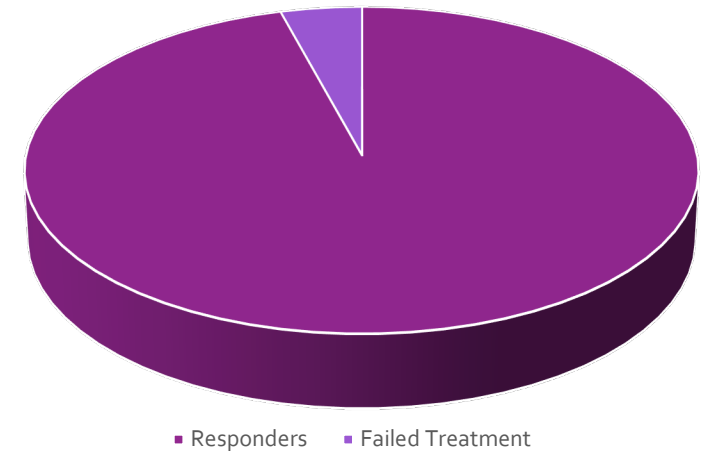
HCV reinfection rates after SVR in PWID



HCV Treatment Sustained Virologic Response (SVR)

- Defined as HCV RNA not detected 12 or more weeks after completion of treatment
- Is considered a virologic cure of hepatitis C

AN/AI DAA Treatment
Response



1118 treated
96% SVR
30 reinfected (2.5%)

HCV Retreatment Options

- In DAA era, often unknown if someone failed past treatment or became reinfected
- Current HCV Guidelines provide guidance on retreatment of persons with HCV in whom prior therapy **failed**
- No guidance on retreatment specifically in persons who are reinfected
- Question: Should retreatment be with:
 - First line treatment agents (glecaprevir/pibrentasvir x 8 weeks or sofosbuvir/velpatasvir x 12 weeks) OR
 - Agents used in treatment failure (sofosbuvir/velpatasvir/voxilaprevir x 12 weeks or glecaprevir/pibrentasvir plus sofosbuvir + weight based ribavirin x 16 weeks)?

Strategies to Prevent Reinfection

- Must begin with initial HCV treatment
- Elimination is dependent on treating enough infected population to reduce the pool of individuals who can transmit infection

• Iceland TraP HepC

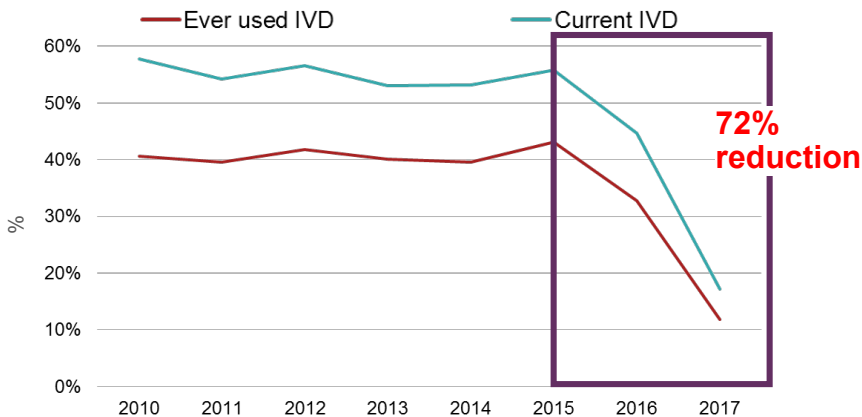
Nationwide effort combining DAA, addiction treatment and harm reduction for elimination

Iceland

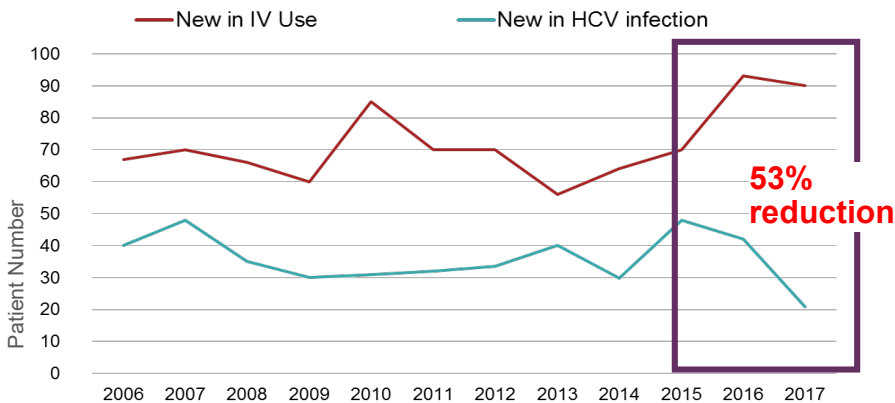
- Population: 340,000
- Estimated HCV seroprevalence: 0.3%
- Treatment to all within 3 years
- Emphasis on those:
 - Actively injecting drugs
 - Incarcerated
 - With advanced liver fibrosis or cirrhosis
- 3rd year for “search and rescue”

Demographics	N=518
Living situation, %	
Home	75
Homeless/halfway house	16
Prison	8
IVDU, %	
Ever	88
Within 6 months	37
Current OST	12
Treatment site, %	
University Hospital	65
Addiction Hospital	30
Penitentiary	5

Proportion of viremic HCV among PWID at Vogur Hospital



New Injection Drug Users and new HCV infections, Vogur Addiction Hospital 2006-2017



Treatment as prevention program in Iceland has translated into a significant reduction in prevalence and incidence among persons who inject drugs

Rapid HCV Screening and Linkage to Treatment

OraQuick HCV



Simplified HCV Treatment

- AASLD HCV Guidelines
- ANTHC Website – enduring credits
- <https://www.anthc.org/what-we-do/clinical-and-research-services/hep/a-chronic-disease-you-can-cure-conference/>

Cont'd Strategies to Prevent HCV Reinfection

Population	RF for HCV Infection or Reinfection	HCV Reinfection Prevention Intervention
PWID	Relapse to IDU High frequency IDU Hospitalization for opiate or IDU related causes Sharing drug works	Opioid Substitution Therapy (OST) High coverage syringe programs Behavioral health counseling for safer injection practices Along with other drug use treatment services
MSM	Receptive anal intercourse without a condom Rectal trauma and bleeding Inconsistent condom use Sex while using illicit drugs	Counseling on safer sex practices including consistent condom use for anal sex Avoidance of illicit drug use while having sex Drug use screening brief intervention and referral for treatment as indicated for HIV infected MSM diagnosed with HCV Linkage to harm reduction services
Contextual Factors	Continued injection drug use and sharing of drug paraphernalia after HCV cure Continued high risk sexual practices after HCV cure	Treating drug use or high risk network members for HCV simultaneously Destigmatization of drug use, sexual practices, hepatitis C and HIV infection
		Development of an effective HCV vaccine

HCV Reinfection Summary/ Discussion

- HCV reinfection rates are low but commonly seen in PWID, MSM, persons who engage in high risk sexual activity
- Treating those with risk for reinfection is key to HCV elimination
- We must continue to destigmatize treatment and re-treatment of those at risk for HCV
- Strategies must include treating HCV infection ASAP combined with wraparound services to prevent reinfection

Thank You!!!



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Visit our website: www.anthc.org/hep

AK ID ECHO DIDACTIC TOPICS FOR 2022

- September 13: Hepatitis B Screening and Lab Interpretation
- October 11: Drug Interaction Considerations with Gender Affirming Hormone Therapy
- November 8: STI EPI Update
- December 13: HIV Update

To pre-register or join: <https://echo.zoom.us/meeting/register/tZ0qc-qqj0qH9cw7gRs1d7K98I3AlvQJjHa>

- View past didactics at www.anthc.org/ak-id-echo



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ADDITIONAL LEARNING OPPORTUNITIES

Alaska Liver Disease ECHO

- Third Thursday of every month from 12:00-1:00 PM
- August 18: Most Common Liver Toxic Drugs
- www.anthc.org/project-echo/alaska-liver-disease-echo

LiverConnect

- Second Tuesday of every month 8:00-9:00 AM
 - September 13: TBA
- www.anthc.org/hep/liverconnect



ADDITIONAL LEARNING OPPORTUNITIES

Addiction Medicine ECHO

- Second and fourth Thursday of every month from 12:00-1:00 PM
- August 11: Opioid Monitoring and Addressing Positive Drug Screens
- August 25: When to Consider Discharge

www.anthc.org/project-echo/addiction-medicine-echo

Indian Country ECHO Programs

- Harm Reduction, Infectious Disease, and more!

www.indiancountryecho.org/teleecho-programs



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