Syndemics: Part 1

What addiction treatment providers should know about HIV and viral hepatitis

June 5, 2018

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Great Lakes (HHS Region 5)

ATTC Addiction Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

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Introduction

1. What are Syndemics?
2. Syndemics of opioid misuse and HIV/HCV in the Great Lakes Region
3. What roles can health care providers play in addressing Syndemics?
   - Screening
   - Linkage to care
   - Co-location of treatment
   - Care coordination

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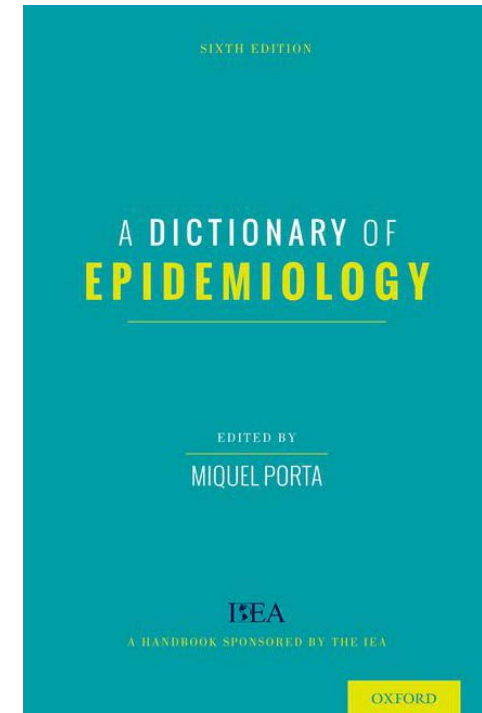
Epidemiology of opioid use disorder and related infections

EPIDEMIC [from the Greek *epi* (upon), *dēmos* (people)] The occurrence in a community or region of cases of an illness, specific health-related behavior, or other health-related events clearly in excess of normal expectancy.



Events: Deaths from opioid overdose

Behaviors: Opioid misuse, Injection drug use, Diversion

Illnesses: Opioid Use Disorder, Neonatal abstinence syndrome, HIV infection, Hepatitis C infection

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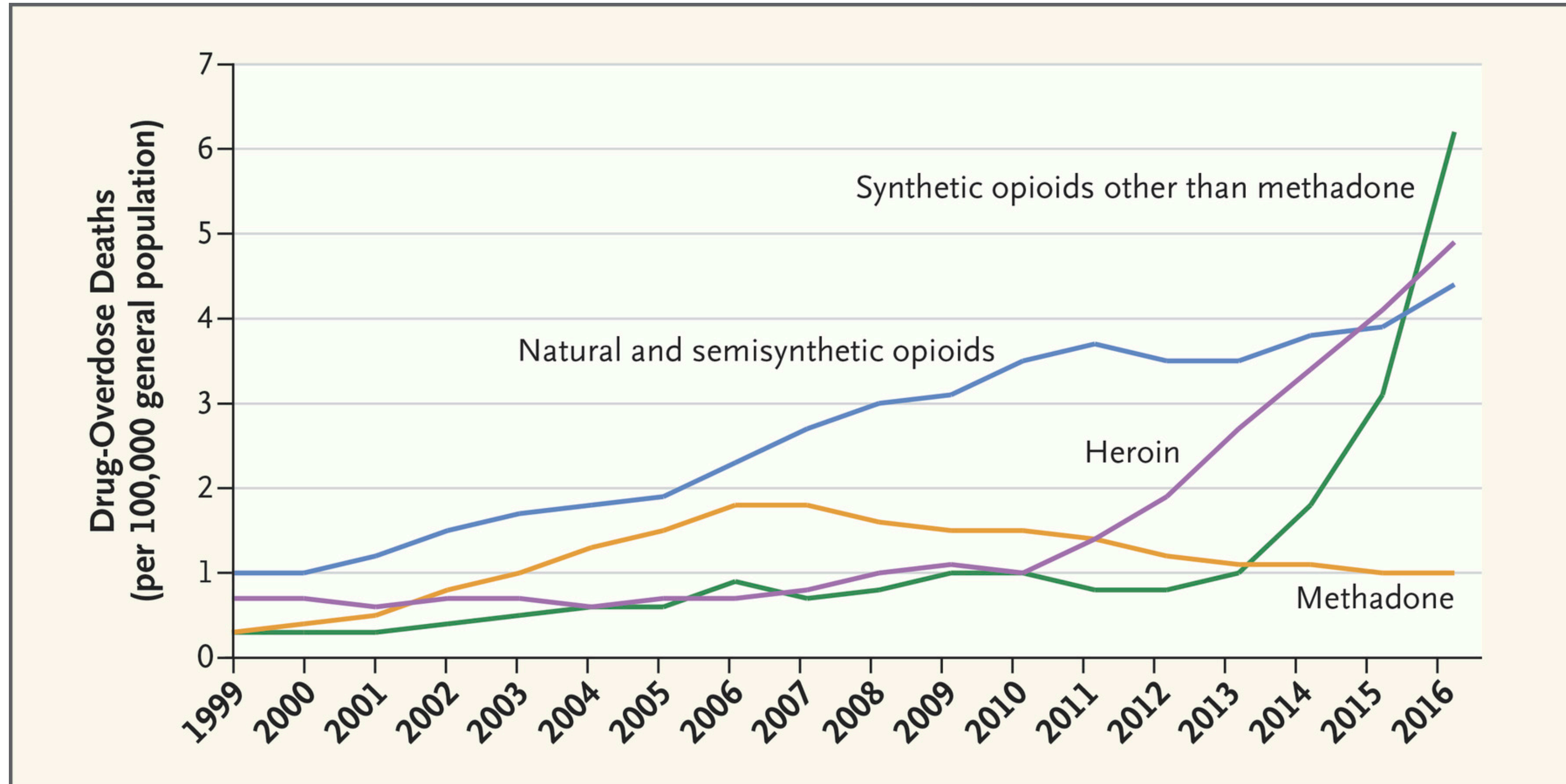
Drug-Overdose Death Rates, by Type of Opioid, United States, 1999–2016.



N Engl J Med 2018; 378:1565-1567

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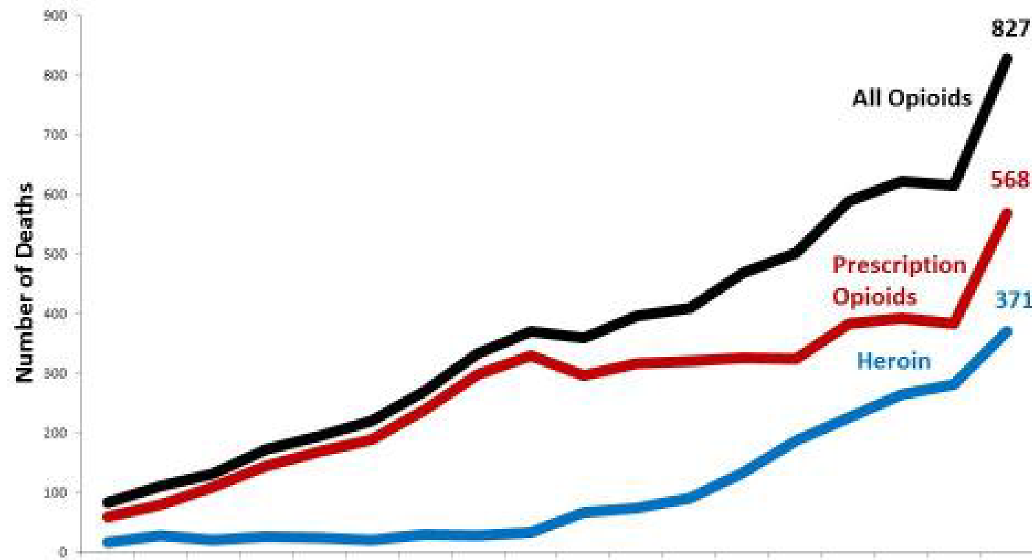
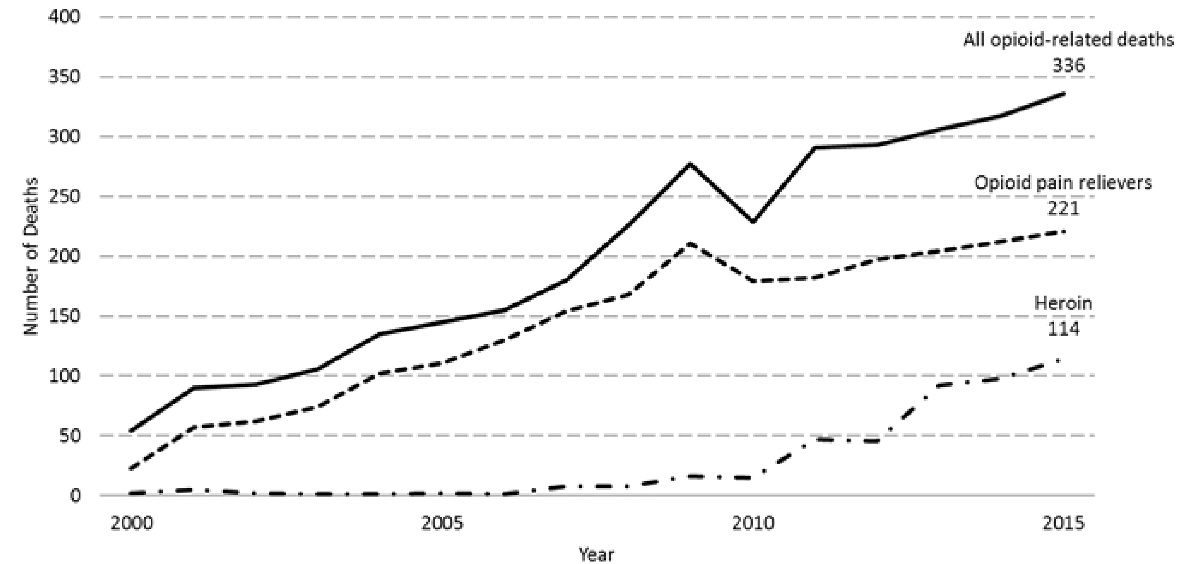
Opioid-related deaths in Wisconsin & Minnesota, 1999–2016.

number of overdose related deaths in Wisconsin.



Opioid-related deaths continue to increase in Minnesota, driven by a steady rise in opioid pain reliever deaths and a more recent surge in heroin deaths



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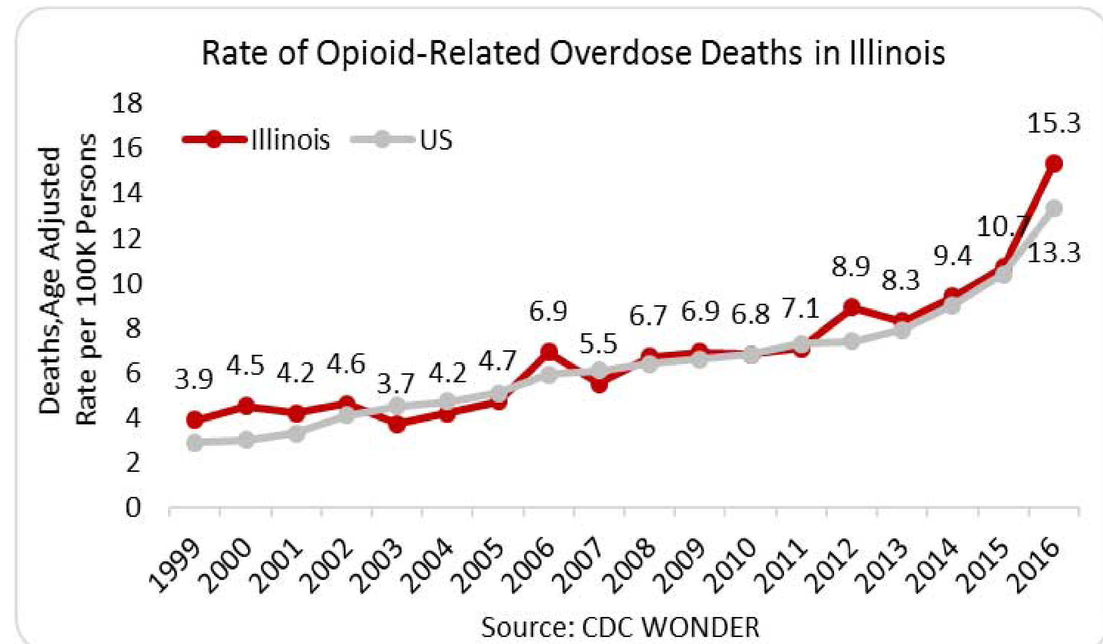
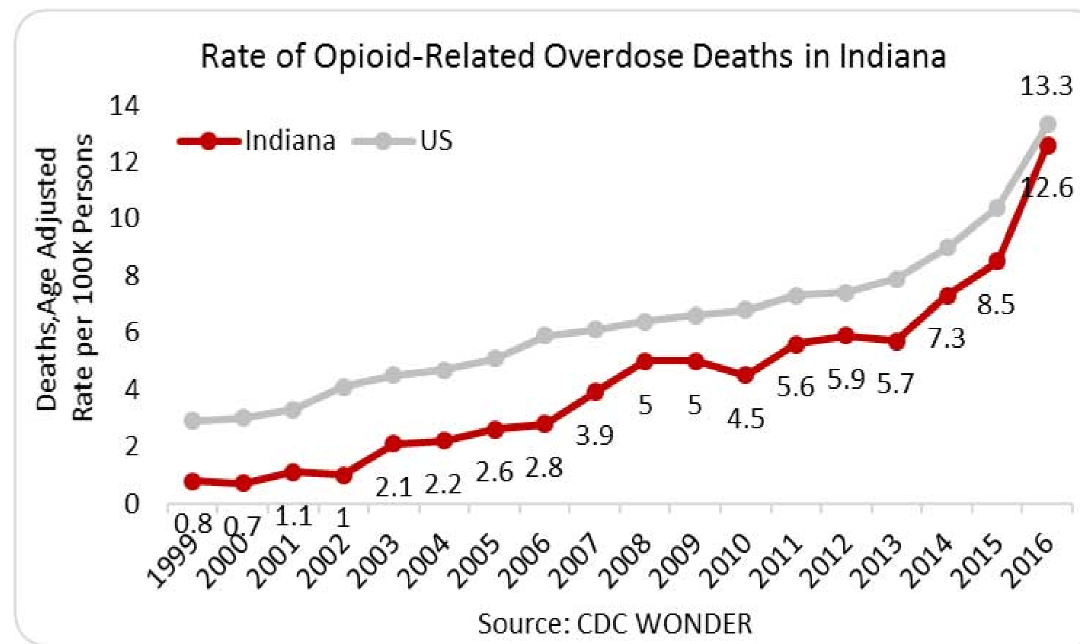
Opioid-related deaths in Illinois & Indiana, 1999–2016.

OPIOID Summaries by State

National Institute on Drug Abuse





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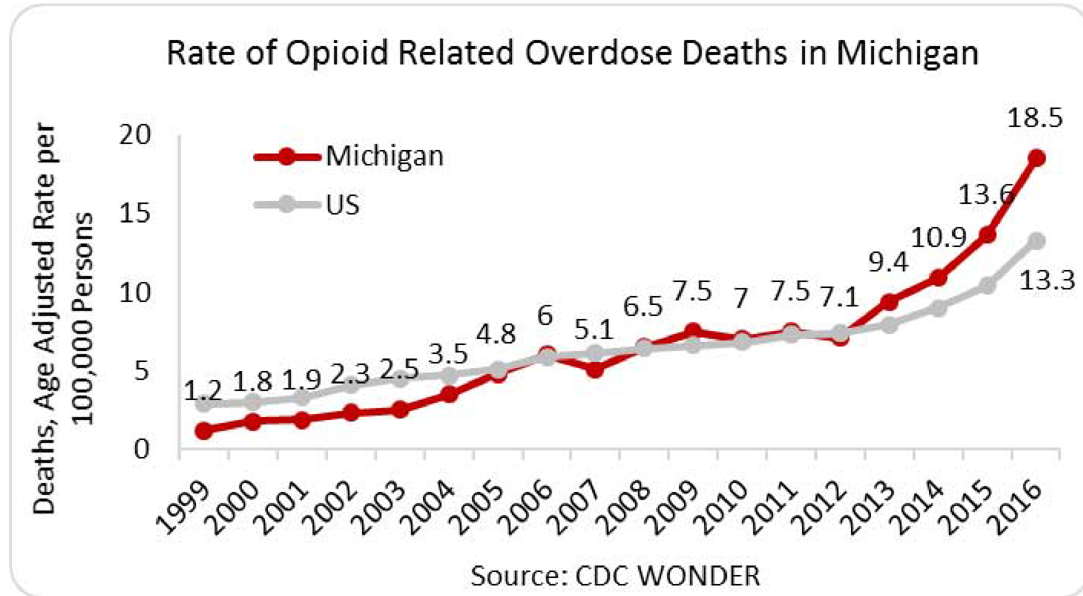
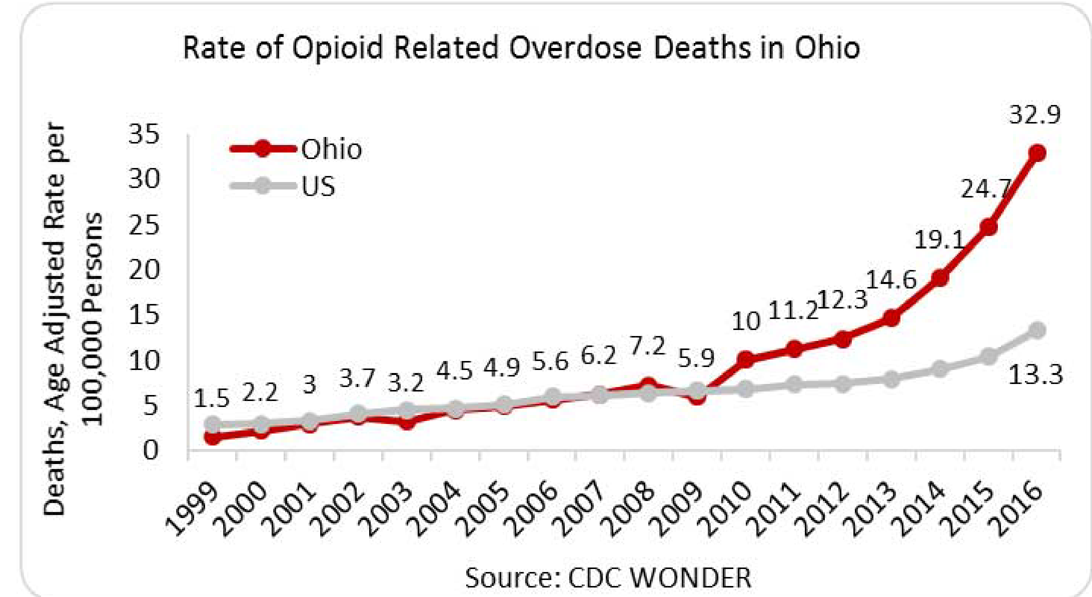
Opioid-related deaths in Michigan & Ohio, 1999–2016.





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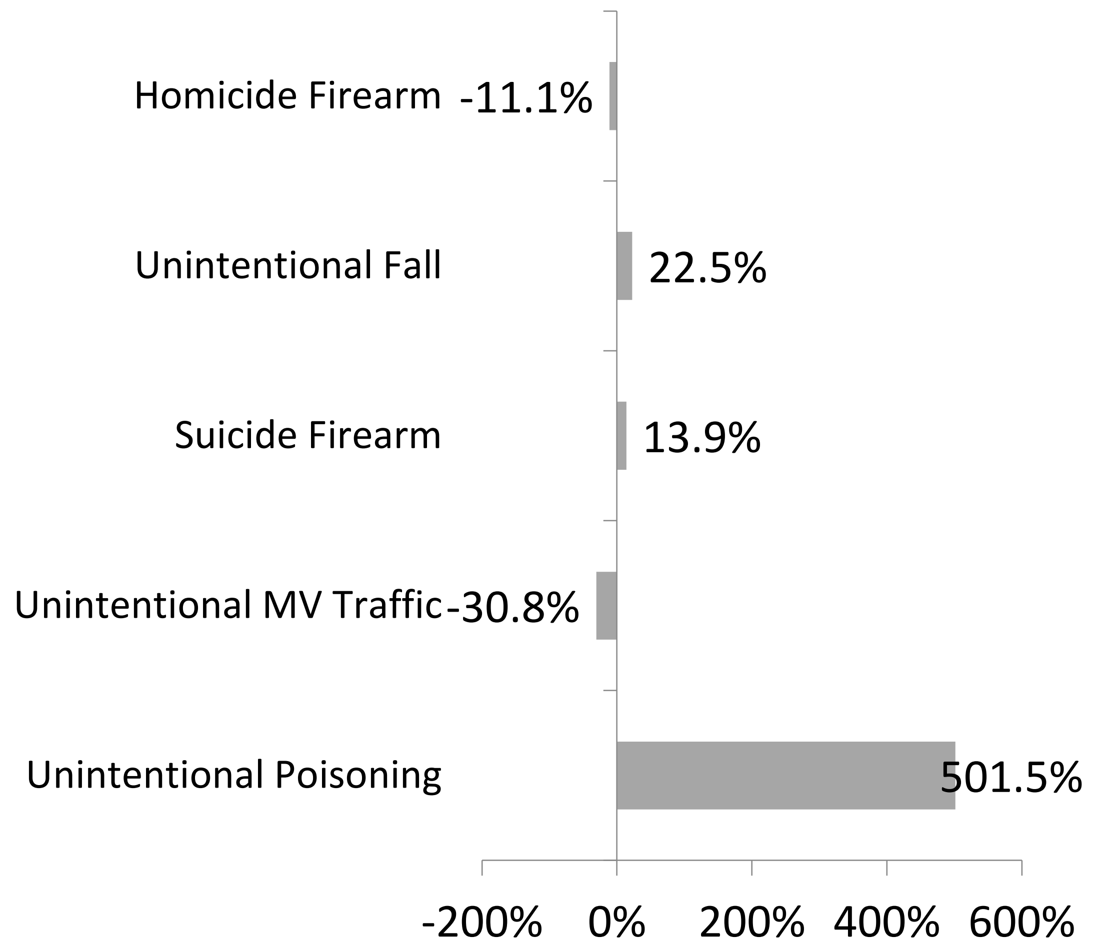
Percent Change in Leading Causes of Injury Death*— Indiana, 1999–2009



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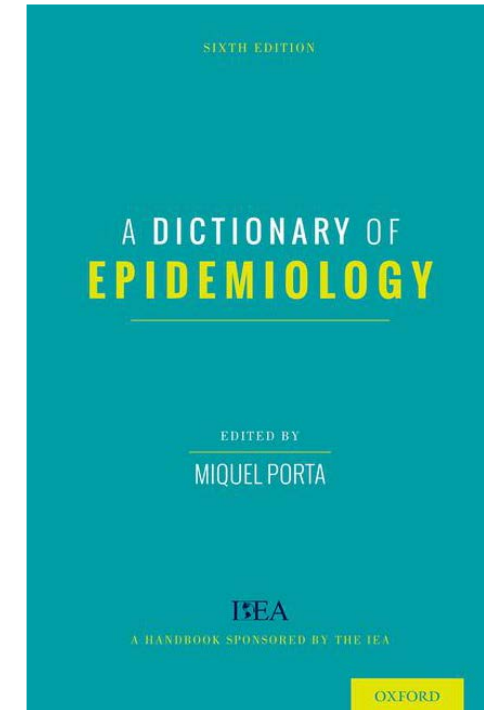
Epidemiology of opioid use disorder and related infections, continued

Syndemic - Two or more afflictions, interacting synergistically, contributing to excess burden of disease in a population. In syndemic theory, individual epidemics are sustained in a community/population because of harmful social conditions and injurious social connections.



Syndemic theory

Using Syndemic Theory to Understand

Vulnerability to HIV Infection

- Merrill Singer, 1996:
  - Substance Abuse
  - Violence
  - AIDS

"SAVA"

- Current Syndemic, ~2006-present:

HIV, Hepatitis C, and Opioid use

Disorder

Behavioral Factors

Social Factors

Trauma

Poverty

SYNDEMIC

HIV/AIDS

Incarceration

Substance abuse

Structural Factors

Wilson et al. J Urban Health. 2014 Oct; 91(5): 983–998.

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HCV cases reported among people ages 15-29 and heroin overdose deaths, Wisconsin, 2006-16.

Number

1200
1000
800
600
400
200
0

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Hepatitis C infections among people ages 15-29

Heroin overdose deaths

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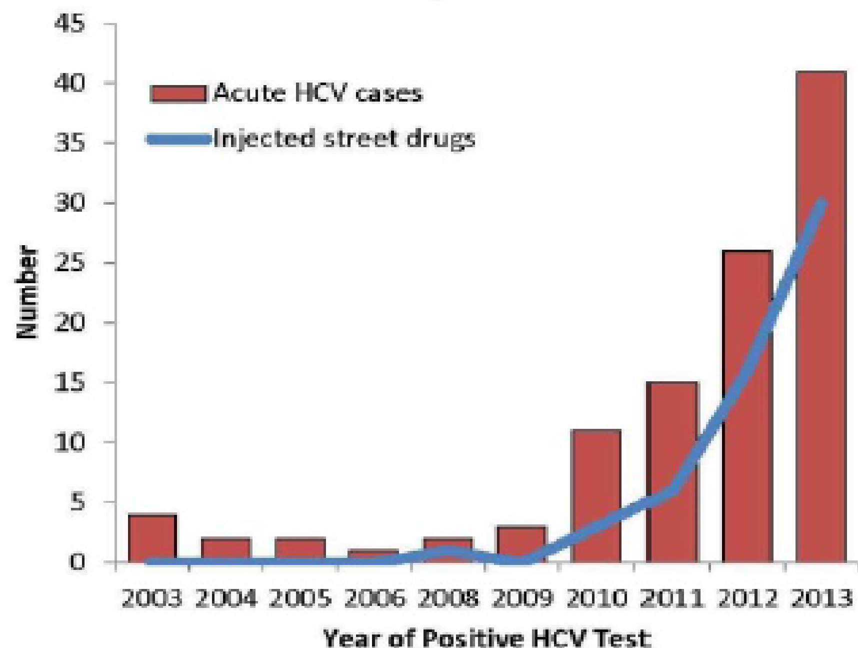
Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Weekly / Vol. 61 / No. 19
May 18, 2012

Notes from the Field

Hepatitis C Virus Infections Among Young Adults — Rural Wisconsin, 2010

During November 2010, Wisconsin Division of Public Health (DPH) staff members noted the number of hepatitis C virus (HCV) infections reported annually among persons aged <30 years in six contiguous rural counties of Wisconsin had increased from an average of eight cases per year during 2004–2008 to an average of 24 cases per year during 2009–2010. To understand factors associated with this increase, DPH, local health departments, and CDC investigated the epidemiologic and laboratory characteristics of 25 cases reported during 2010 among adults aged <30 years who resided in these six counties.



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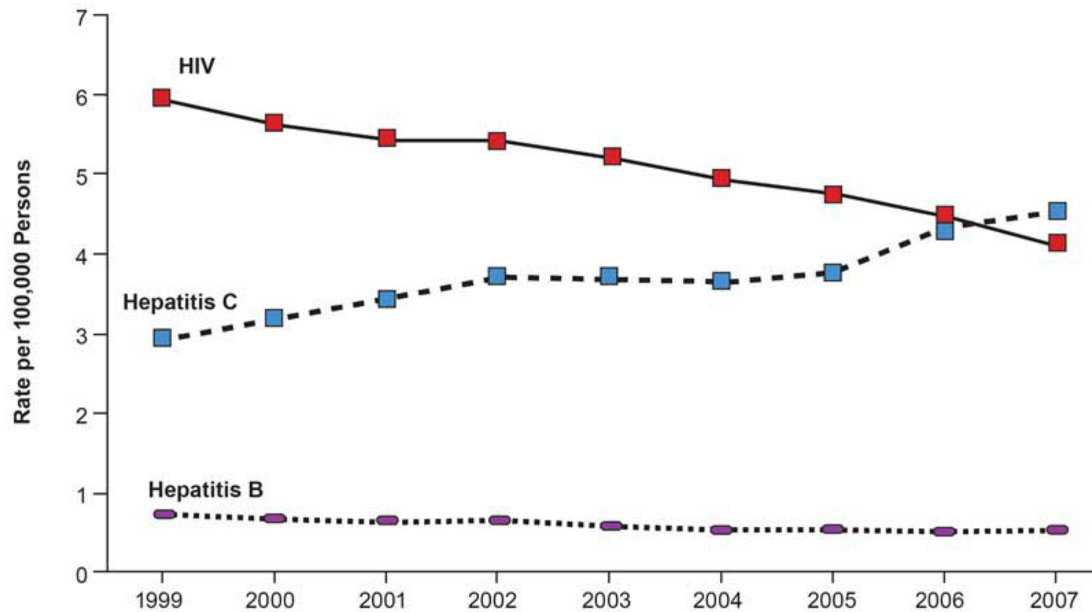
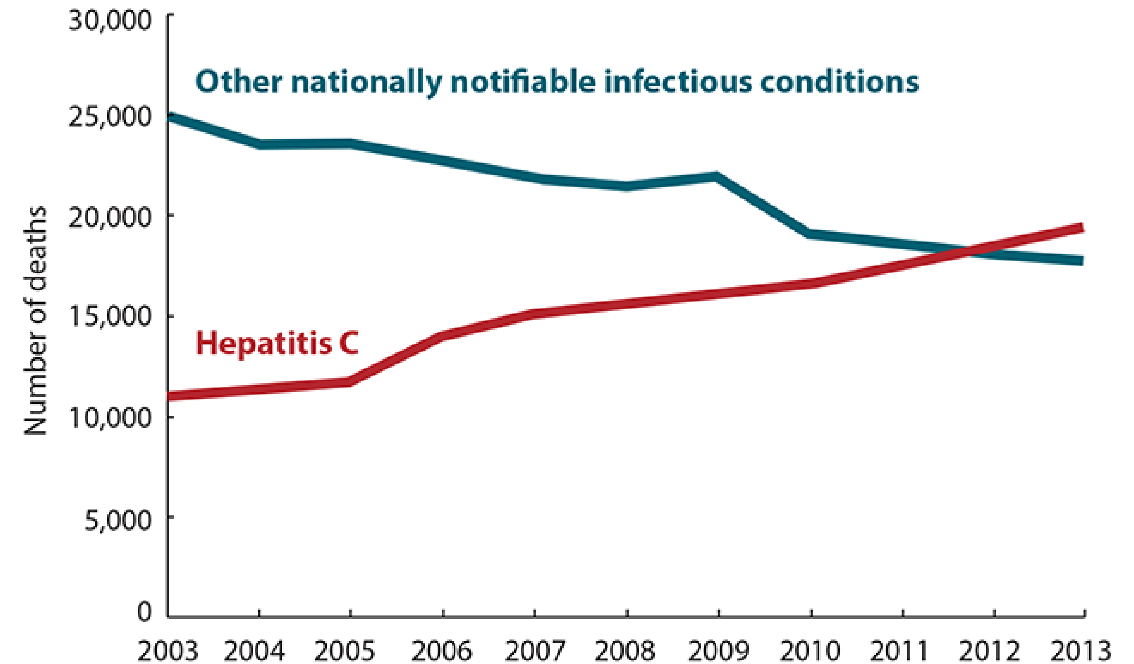
2006: Deaths from HCV outnumber deaths from HIV/AIDS in U.S.



Ly et al. *Ann Intern Med*. 2012 (156) 271-278

2012: Deaths from HCV outnumber deaths all other reportable infections combined



Ly et al. *Clin Infect Dis*. 2016 (62):10

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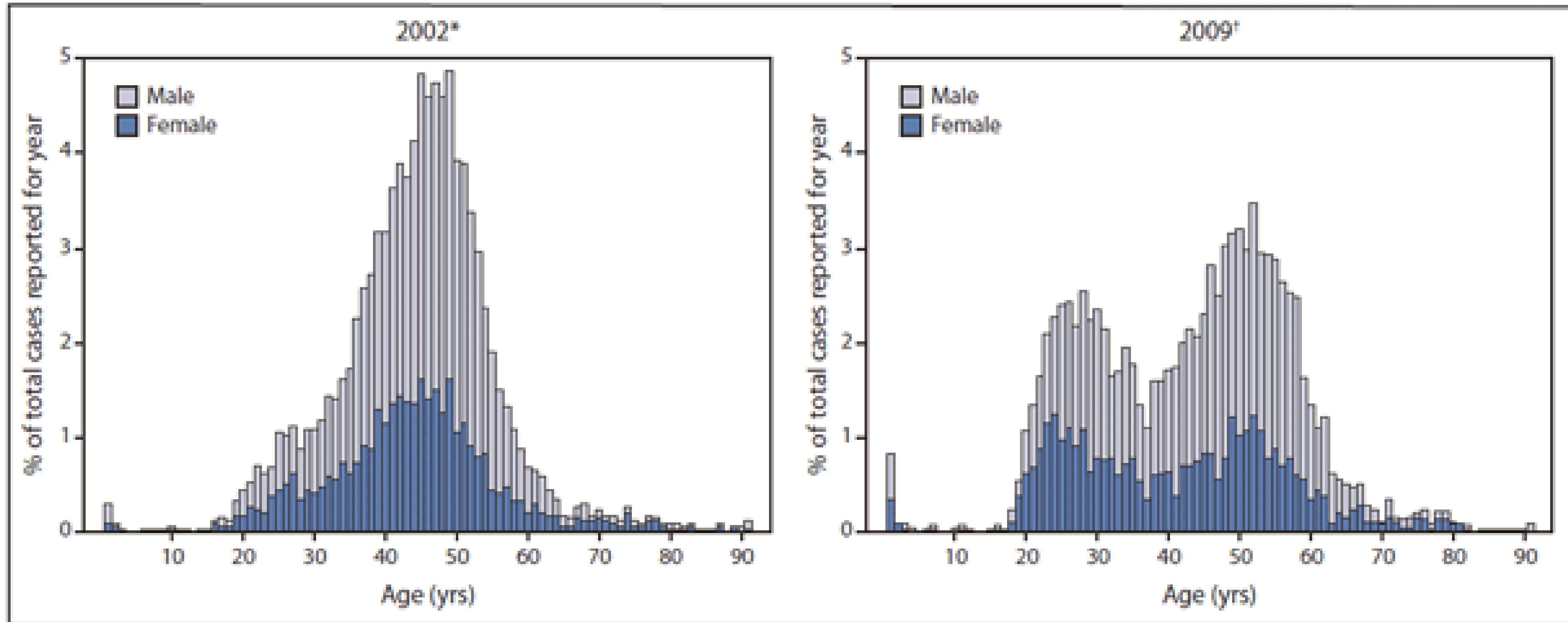
Age distribution of newly reported confirmed cases of hepatitis C virus infection — Massachusetts, 2002 and 2009



MMWR / May 6, 2011 / Vol. 60 / No. 17

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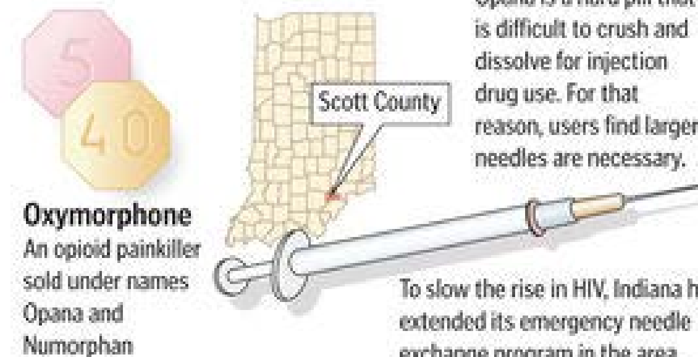
Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Weekly / Vol. 64 / No. 16
May 1, 2015

Community Outbreak of HIV Infection Linked to Injection Drug Use of Oxymorphone — Indiana, 2015

Caitlin Conrad[1], Heather M. Bradley[2], Dita Broz[2], Swamy Buddha[1], Erika L. Chapman[1], Romeo R. Galang[2,3], Daniel Hillman[1], John Hon[1], Karen W. Hoover[2], Monita R. Patel[2,3], Andrea Perez[1], Philip J. Peters[2], Pam Pontones[1], Jeremy C. Roseberry[1], Michelle Sandoval[2,3], Jessica Shields[4], Jennifer Walthall[1], Dorothy Waterhouse[4], Paul J. Weidle[2], Hsiu Wu[2,3], Joan M. Duwve[1,5] (Author affiliations at end of text)

Scott County (Pop 4,200)

- **2009-13:** 3 cases of HIV reported
- **Jan 2015 – Jun 2015: 173 cases**



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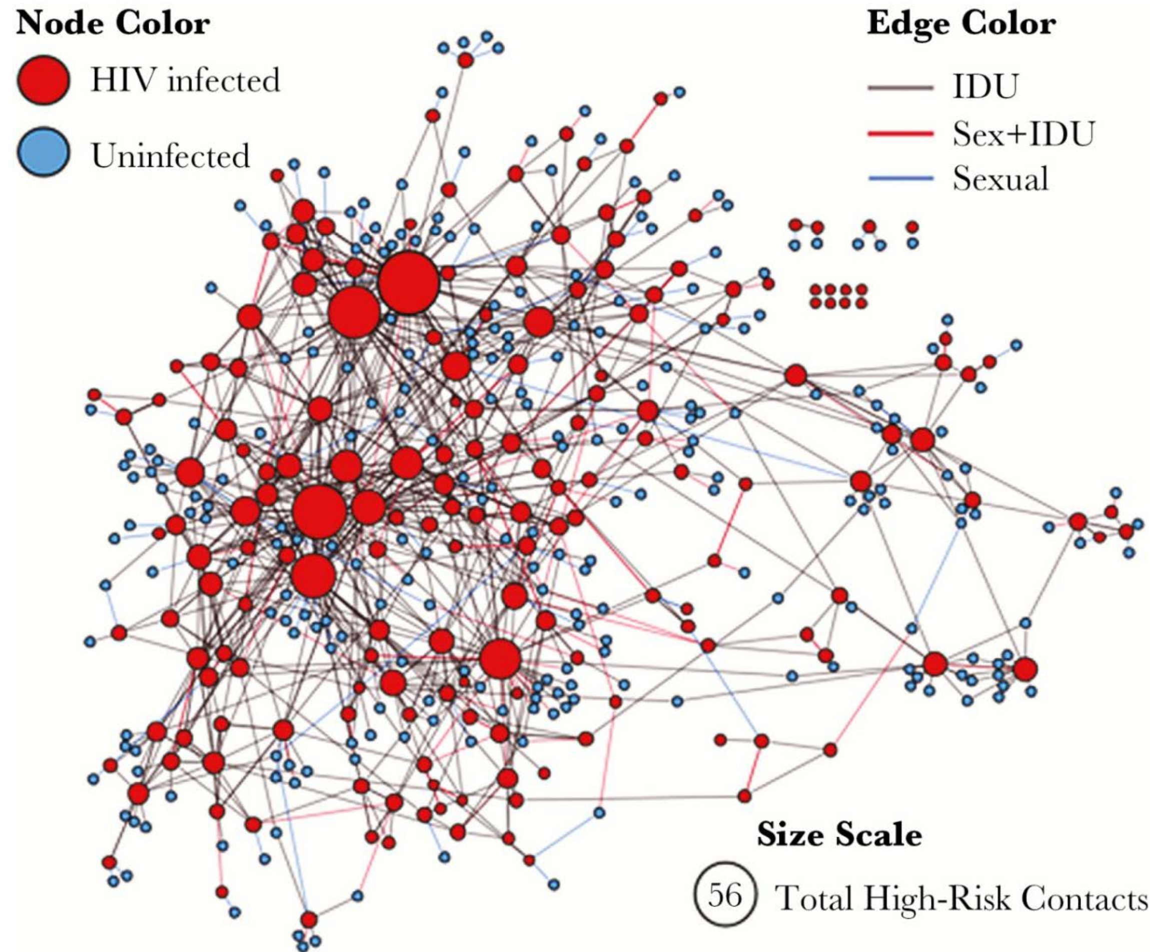
Scott County Outbreak: Early Investigation

- Multigenerational drug use
- Sharing of injection equipment common
- Daily injections: 4-15
- Number of partners: 1-6 per injection event
- Review of first 135 HIV+ Cases:
    - Median age 32 (18-57)
    - 55% male, 100% non-Hispanic White
    - High poverty & unemployment
    - Low educational attainment (21% no high school)

- **Hepatitis C Co-infection common**
- HIV+ persons → 95% Hep C co-infected
- HIV- contacts→ 60% HCV monoinfected

MMWR Morb Mortal Wkly Report 2015, April 24, 2015

Scott County Outbreak: Contact tracing and network analysis



Hepatitis C Co-infection common

HIV+ persons → 95% Hep C co-infected

HIV- contacts→ 60% HCV monoinfected

From: Detailed Transmission Network Analysis of a Large Opiate-Driven Outbreak of HIV Infection in the United States

J Infect Dis. 2017;216(9):1053-1062. doi:10.1093/infdis/jix307

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Scott County Outbreak: Multi-pronged, coordinated response to HIV

Testing

Expanding Services

Insurance

Federal Partners

State Partners

Viral Suppression

Behavioral & Mental Health

Treatment

Local Partners

Academic Partners

Risk Reduction

Education

From DM Janowicz, MD, at Atlanta, GA: April 8, 2016, IAS-USA.

Scott County Outbreak: Public Health Response

Cumulative HIV infections diagnosed,
Scott County, Indiana through June 14, 2015 (n=170)

Adult prevalence as of Jun-14-2015
Scott County (14,559): 1.1%
Austin (2,841), 80% cases: 4.8 %

Cumulative case count
180
160
140
120
100
80
60
40
20
0

Initial diagnosis
Cluster identified
Local incident command established
HIV testing staff & DIS deployed
Federal support requested
Public health emergency declared
Local HIV clinic opened
Syringe exchange started
MMWR and HAN issued
Over 28,000 cumulative syringes dispensed

1-Nov-2014
1-Dec-2014
1-Jan-2015
1-Feb-2015
1-Mar-2015
1-Apr-2015
1-May-2015
1-Jun-2015

MMWR Morb Mortal Wkly Report 2015, April 24, 2015

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Scott County Outbreak

What went wrong?

- Little awareness of HIV/HCV in the general population
- No education about HIV in schools
- Syringe exchange not permitted by state law
- Economic disadvantage; few health services
- Limited addiction services; no medication assisted therapy in the county
- Wide availability of oxymorphone

<u>What went right?</u>

- Numerous stakeholders engaged
- Policy change enacted in real-time
- Coordinated response
- Co-localization of services
- Rapid availability of HIV treatment, including Pre-exposure prophylaxis (PrEP)

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What should addiction treatment providers know about HIV and viral hepatitis? Part 1

1. The necessary response to HIV/HCV is a “Continuum of Care”

2. Populations at greatest risk for HIV/HCV also face substantial barriers navigating health systems

3. Two promising approaches to addressing HIV/HCV/Opioid Syndemic:

   ❶ Co-location of services

   ❷ Care coordination

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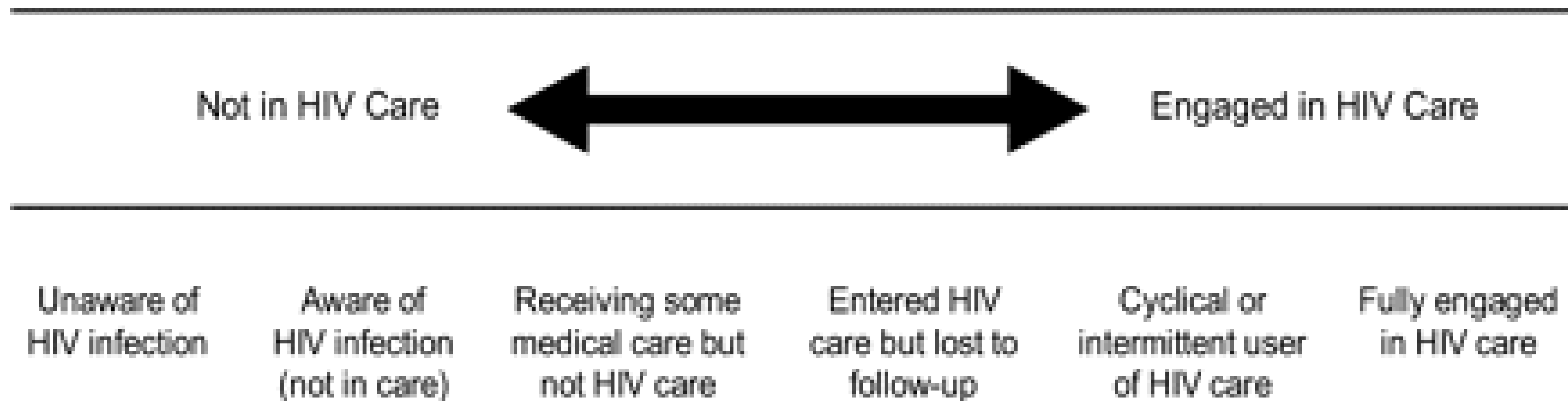
What should addiction treatment providers know about HIV and viral hepatitis? Part 2

The necessary response to HIV/HCV is a "Continuum of Care"



Gardner et al., Clin Infect Dis. 2011

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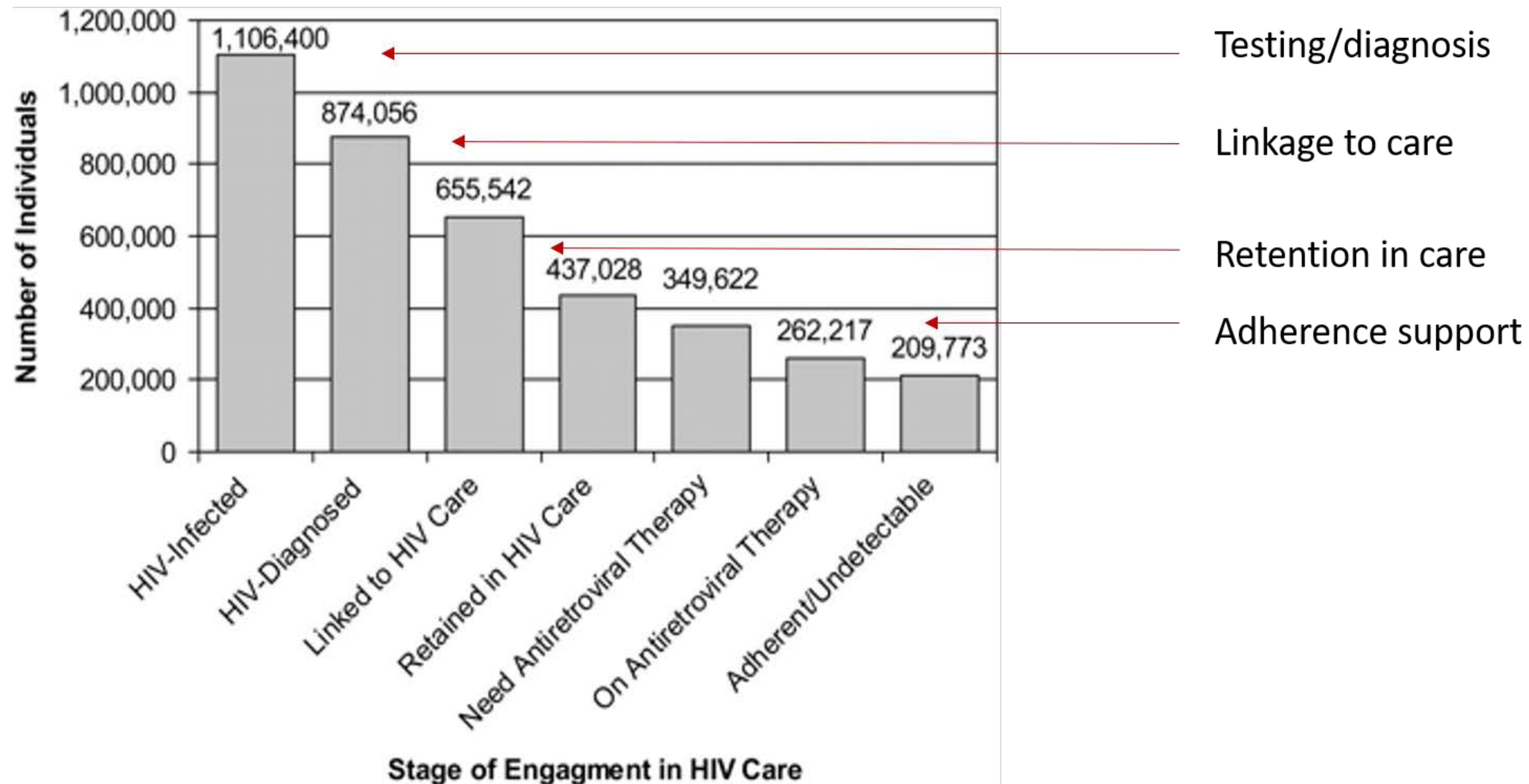
What should addiction treatment providers know about HIV and viral hepatitis? Part 3

The necessary response to HIV/HCV is a "Continuum of Care"



Testing/diagnosis

Linkage to care

Retention in care

Adherence support

Gardner et al., Clin Infect Dis. 2011

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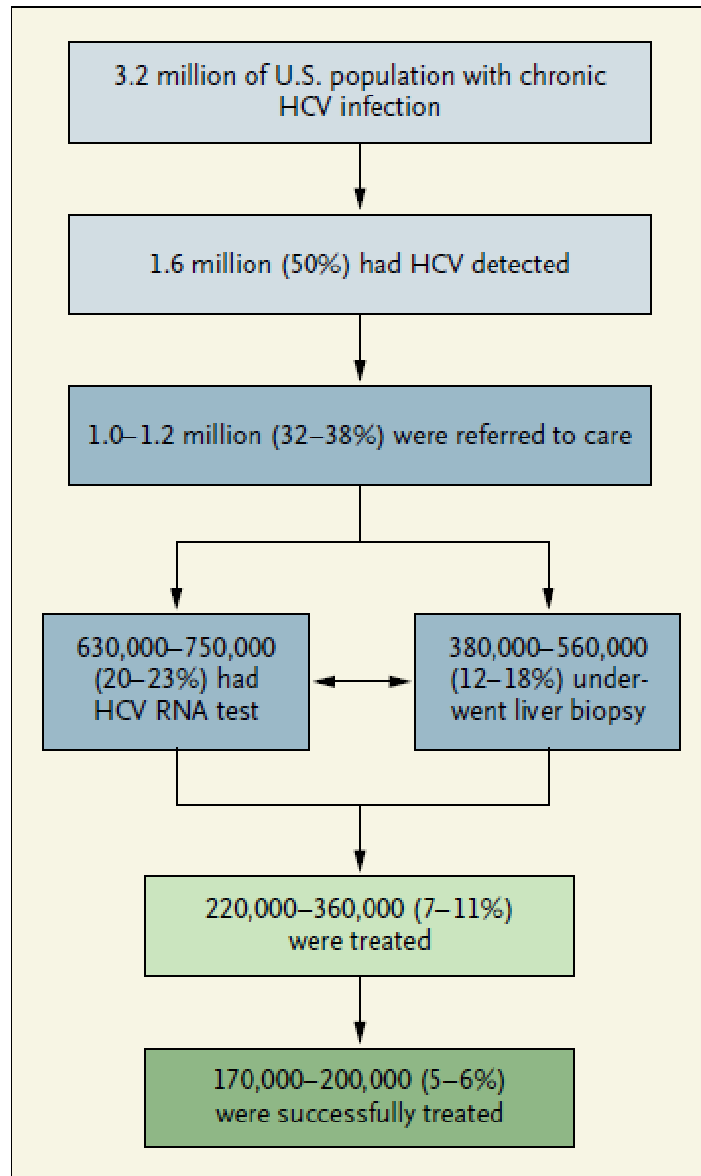
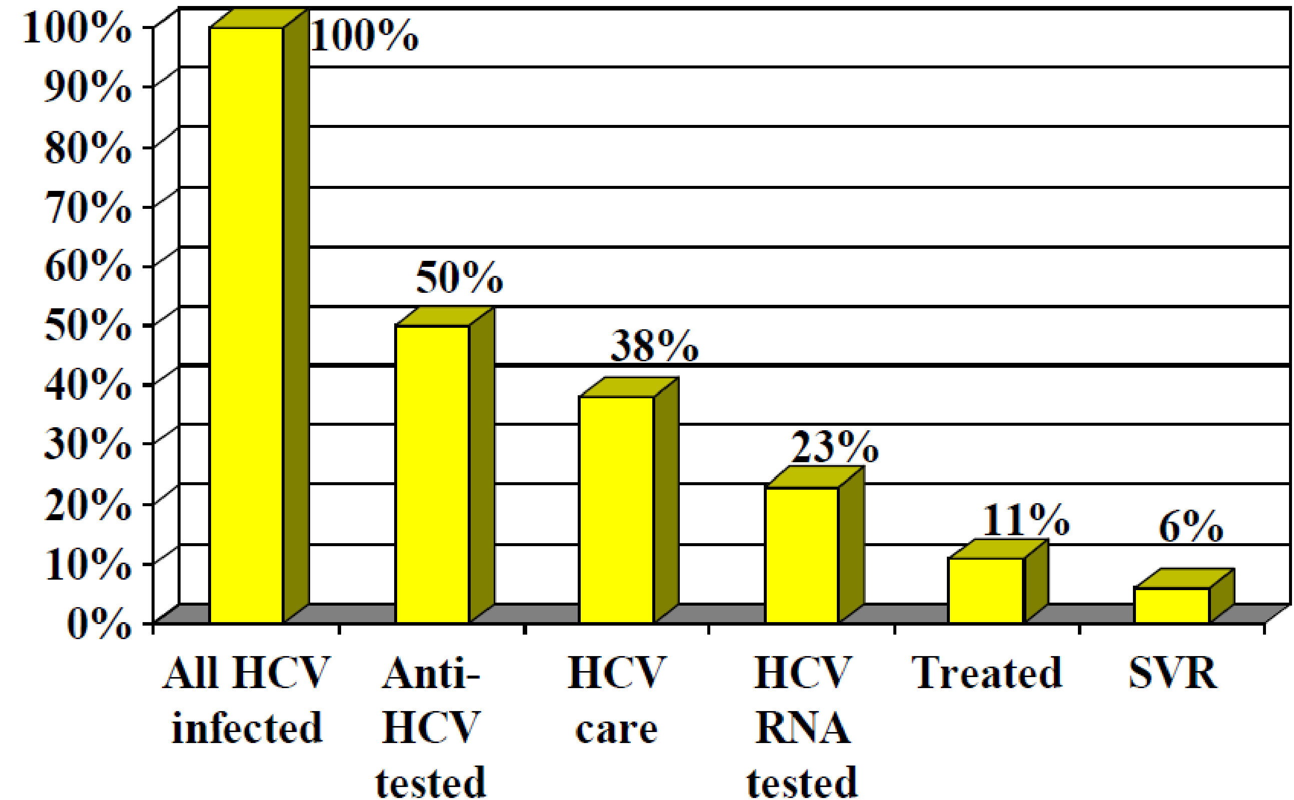
Continuum of HCV care in the United States





Holmberg et al., NEJM 2013

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SAMHSA ADVISORY

www.samhsa.gov • 1-877-SAMHSA-7 (1-877-726-4727)

Behavioral Health Is Essential To Health • Prevention Works • Treatment Is Effective • People Recover

Hepatitis C Screening in the Behavioral Healthcare Setting

Recommendations:

1. Identification of Chronic HCV Infection Among People Born During 1945–1965

- Adults born during 1945–1965 should receive one-time testing for HCV without prior ascertainment of HCV risk.

- **2. Prevention and Control of HCV Infection and HCV-Related Chronic Disease**
- Routine HCV testing is recommended for all people who ever injected drugs illicitly, including those who injected once or a few times many years ago and do not consider themselves users of drugs.

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Exhibit 2. Percentage of Substance Abuse Treatment Facilities That Offer Hepatitis C Services: N-SSATS* Data[39]

Primary focus of facility	Number of facilities	Percentage offering screening for hepatitis C (%)	Percentage offering hepatitis education, counseling, or support (%)
Substance abuse treatment services	7,990	24.4	51.0
Mental health services	997	20.3	25.7
Mix of mental health and substance abuse treatment services	4,732	20.5	40.5
General health care	228	87.7	74.1
Other/unknown	364	22.8	42.9
All facilities	14,311	23.8	45.9

*The *National Survey of Substance Abuse Treatment Services (N-SSATS)* is an annual census of facilities providing substance abuse treatment throughout the 50 states, the District of Columbia, and other U.S. jurisdictions.

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What HCV-related support can Behavioral Health Providers provide to clients?

- Help clients understand their test results
- Counsel clients about how to avoid infecting others and the importance of doing so.
- Referring them to help in finding resources to pay for their hepatitis care and treatment
- Advocacy and support to ensure they are not unreasonably excluded from antiviral treatment

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DISCRIMINATORY STATE MEDICAID RESTRICTIONS

While there have been some improvements in both state Medicaid program transparency and access since 2014, most states still have discriminatory restrictions that keep enrollees from being cured.

Discriminatory State Medicaid Restrictions Include:

Liver Disease Progression

Requiring that patients reach a certain stage of fibrosis (liver disease), which can be irreversible and cause cancer.

Bans on Former Substance Users

Barring patients with a history of alcohol or substance use.

Prescriber Restrictions

Only allowing certain specialists, who can be difficult to find, to prescribe a cure.

READ FULL REPORT

Source: State of Hepatitis C (Harvard Center for Health Law and Policy Innovation)

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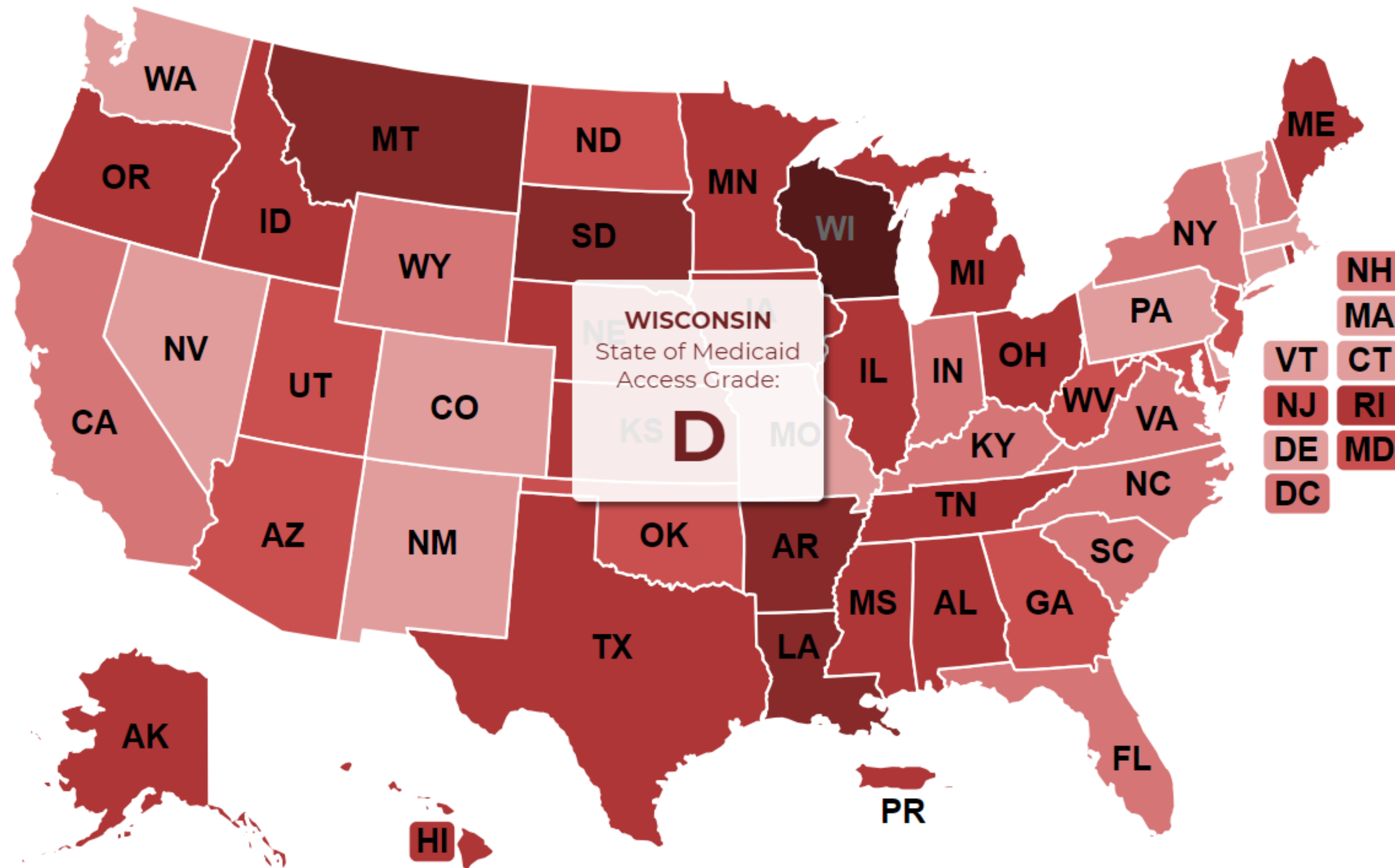
See how your state matches up, part 1



Source: State of Hepatitis C (Harvard Center for Health Law and Policy Innovation)

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See how your state matches up, part 2

Illinois

State of Hepatitis C Medicaid Access: **D-**

+ LIVER DAMAGE RESTRICTIONS

+ SOBRIETY RESTRICTIONS

+ PRESCRIBER RESTRICTIONS

– RECOMMENDATIONS

- Eliminate liver damage, sobriety and prescriber restrictions.
- Ensure parity across FFS/PCCM and MCOs and transparency regarding hepatitis C coverage requirements for MCOs.

Source: [State of Hepatitis C] (Harvard Center for Health Law and Policy Innovation)

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HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Recommendation for When and in Whom to Initiate Treatment	
RECOMMENDED	RATING
Treatment is recommended for all patients with chronic HCV infection, except those with a short life expectancy that cannot be remediated by HCV therapy, liver transplantation, or another directed therapy. Patients with a short life expectancy owing to liver disease should be managed in consultation with an expert.	I, A

Source: HCV Guidelines Website

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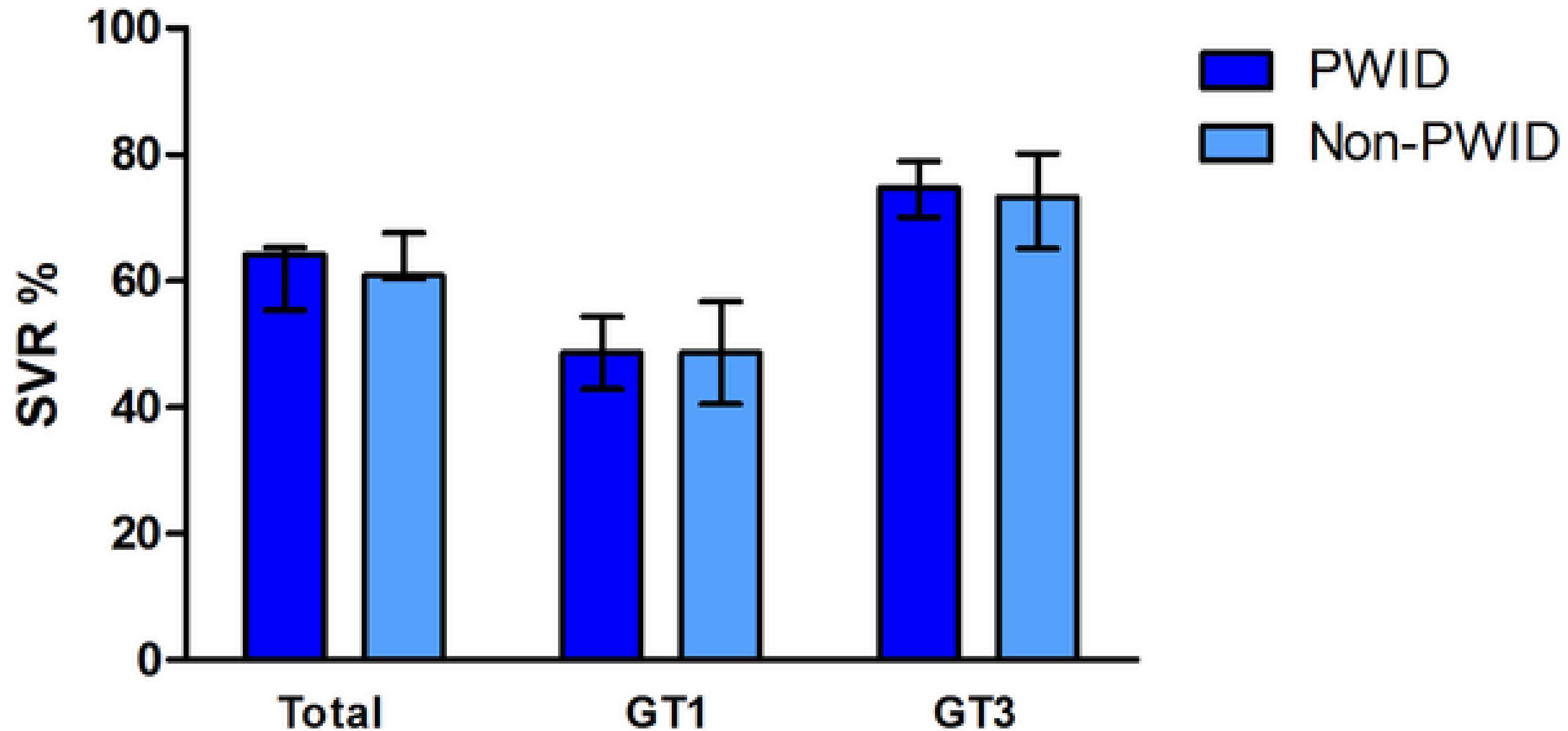
People who inject drugs have comparable rates of HCV cure as people who do not



Elsherif O, Bannan C, Keating S, McKiernan S, Bergin C, et al. (2017) Outcomes from a large 10 year hepatitis C treatment programme in people who inject drugs: No effect of recent or former injecting drug use on treatment adherence or therapeutic response. PLOS ONE 12(6): e0178398. https://doi.org/10.1371/journal.pone.0178398
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0178398

PLOS | ONE

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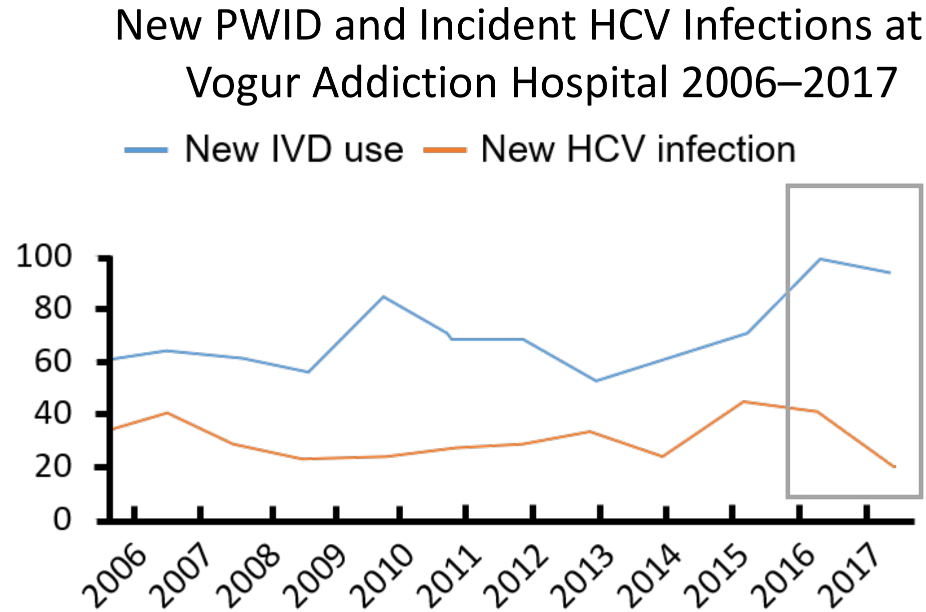
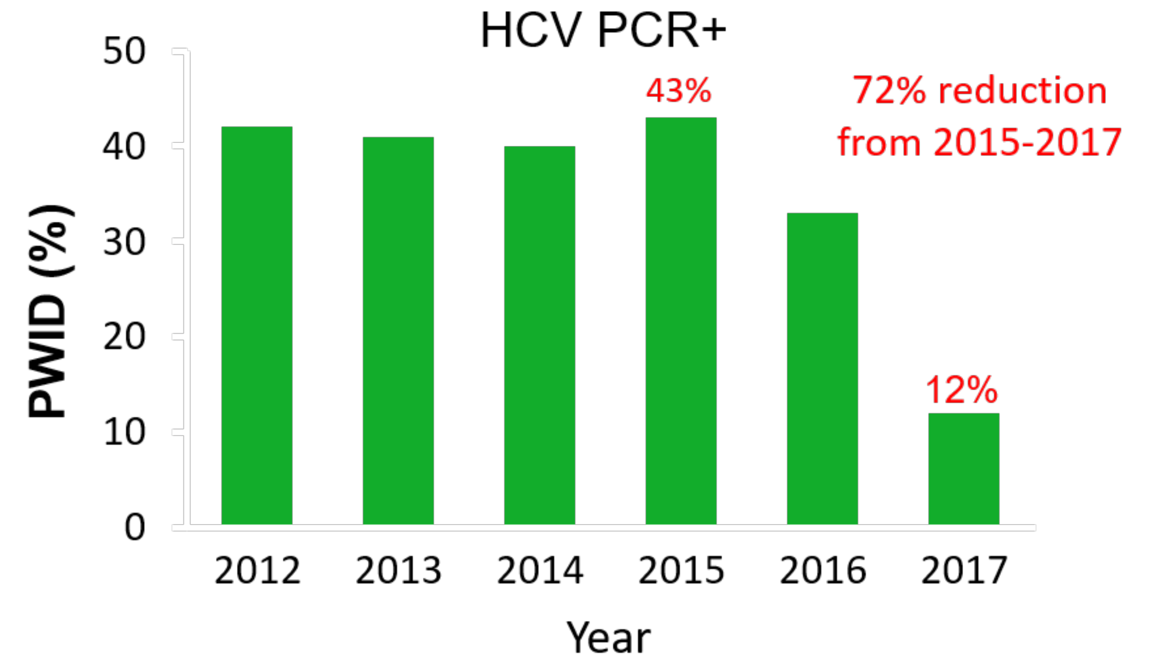
TraP Hep C: HCV Treatment as Prevention Program in Iceland Reduced Incidence in 2 Years



53% reduction in incidence of new HCV 2015–2017



- Major scale up with reasonable cure rates
  - Overall SVR: 90%; SVR for patients who completed treatment: 94%
- Dramatic reduction in community viral load and HCV incidence

Tyrfingsson T, et al. EASL 2018. Abstract PS-095.

Slide credit: clinicaloptions.com

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Hepatitis C Virus Elimination Programs

EurekAlert! The Global Source for Science News | AAAS

HOME NEWS MULTIMEDIA MEETINGS PORTALS ABOUT

PUBLIC RELEASE: 13-APR-2018

Hepatitis C virus elimination programs report encouraging results: Is elimination within reach?

EUROPEAN ASSOCIATION FOR T

13 April 2018, Paris, France: Two designed to eliminate hepatitis C encouraging results, suggesting elimination goals. Although both both have reported high levels c (DAAs), and cure among patients chronically infected with HCV.

'Encouragingly, even in individuals with recent intravenous drug use, DAA treatment, although challenging, resulted in an 87% cure rate, including in those that did not complete the treatment regimen', said Dr Valgerdur Rúnarsdóttir from Vogur Hospital in Reykjavík, Iceland. 'People who inject drugs are key drivers of HCV infection in Iceland and this population should be a focus of treatment scale-up. We would like to emphasize and encourage collaboration between addiction treatment centres in both screening and treating HCV. This is key to success in reaching the population in focus'.

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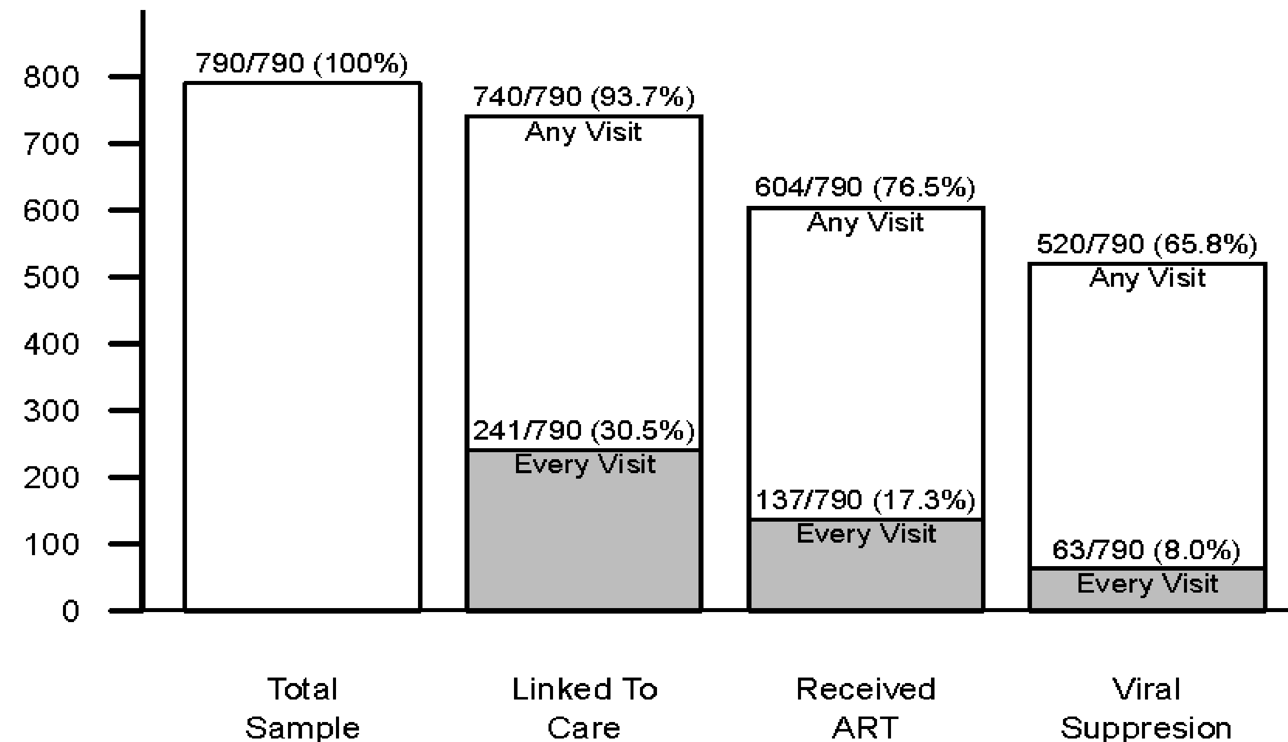
What should addiction treatment providers know about HIV and viral hepatitis? Part 4

2. Populations at greatest risk for HIV/HCV also face substantial barriers navigating health systems

HIV care continuum among people who inject drugs, ALIVE cohort, 1998-2011.



Westergaard R. *AIDS.* 2013;27(16)

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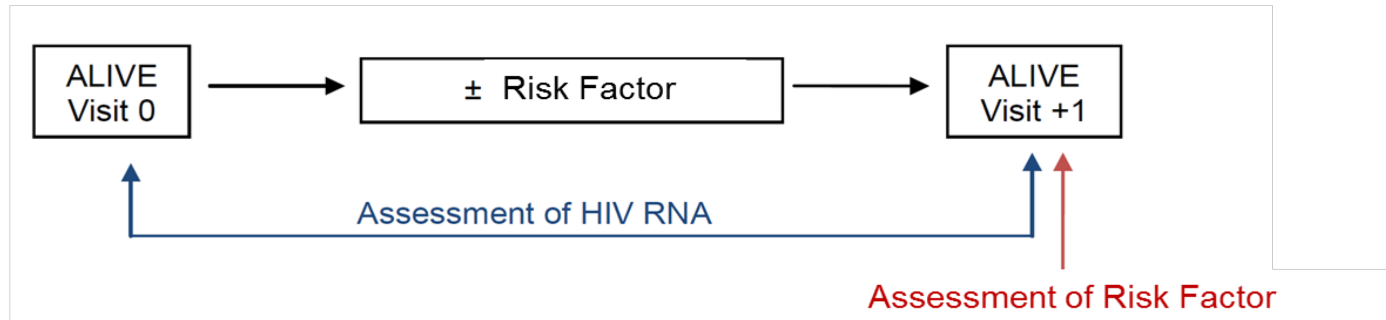
What should addiction treatment providers know about HIV and viral hepatitis? Part 5

2. Populations at greatest risk for HIV/HCV also face substantial barriers navigating health systems

Analysis of sequential ALIVE study visit pairs



- Participants were evaluated at every visit when the viral load was <400

- Logistic regression with generalized estimating equations (GEE) used to assess association between risk factor (reported at second visit) & virologic failure

Westergaard et al. *Clin Inf Dis* 2011; 53:725-31

Top predictors of treatment failure

1. **Incarceration**
2. **Cocaine use**
3. **Unemployment**
4. **Homelessness**
5. **Any drug injection**

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Syndemics of HIV/HCV, mental illness, and substance abuse in criminal justice settings

- Substance abuse
  - 50% of inmates meet DSM-IV criteria for drug dependence
  - 20% have history of injection drug use
  - 1 of 3 heroin users in US pass through CJS annually
- Mental illness
  - 50-65% have psychiatric diagnosis
  - 8-fold higher prevalence of mania or psychosis
- Viral hepatitis
  - ~30% prevalence of hepatitis C in state prison systems (1.5% in general US population)

Source: Maruschak. Bureau of Justice Statistics, 2009

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What should addiction treatment providers know about HIV and viral hepatitis?

3. Two promising approaches to addressing HIV/HCV/Opioid

Syndemic:

❶ Co-location of services

❷ Care coordination

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ANCHOR Substudy: Colocation of HCV and Buprenorphine Treatment, Part 1

- Substudy of single-arm HCV treatment trial in Washington, DC
  - Endpoints: adherence to SOF/VEL, SVR12 rate; risk behaviors, HCV reinfection, HIV acquisition

*Buprenorphine started between Wk 0-24 of SOF/VEL treatment initiation with follow-up for 1 yr at same center and with same provider as HCV treatment.

Rosenthal E, et al. EASL 2018. Abstract PS-092.

Slide credit: clinicaloptions.com
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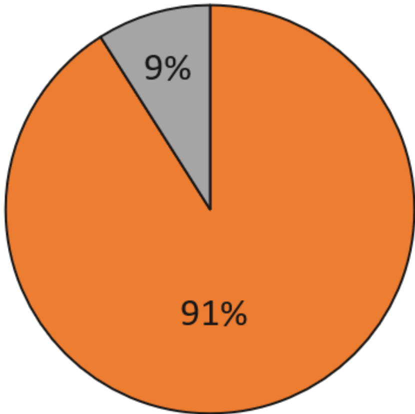
ANCHOR Substudy: Colocation of HCV and Buprenorphine Treatment, Part 2

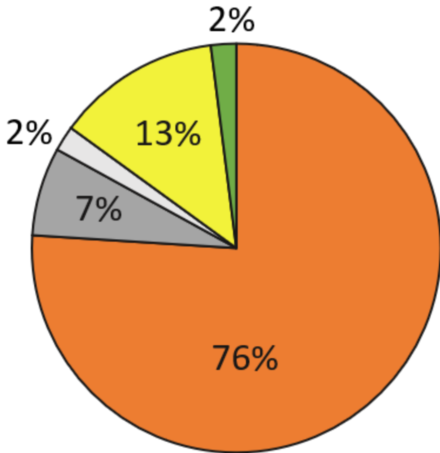
- HCV treatment visit adherence high: 77% to 87% over 24 wks
  - 90% to 95% received study drug

Wk 24: Per Protocol

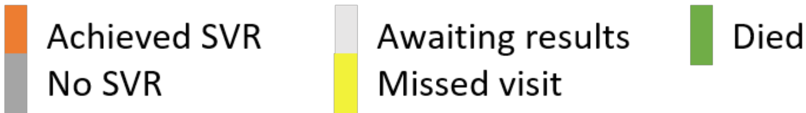


N = 46 (84%)

Wk 24: ITT



N = 55 (100%)



- 39 patients started MAT with 26 (67%) retained
- Patients receiving MAT significantly more likely to receive second SOF/VEL bottle and SOF/VEL at study visit vs those not receiving MAT
- HIV risk behavior decreased significantly from Day 0 of MAT to Wks 4, 12, and 24 (P = .003 for Wk 4 and 24 difference; P = .001 for Wk 12 difference)

Rosenthal E, et al. EASL 2018. Abstract PS-092.

Slide credit: clinicaloptions.com
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What should addiction treatment providers know about HIV and viral hepatitis? Part 6

3. Two promising approaches to addressing HIV/HCV/Opioid Syndemic:

❷ Care coordination

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Care Coordination for HIV: Systems Linkages and Access to Care Initiative

- HRSA "Special Project of National Significance"
- Grants to health departments in 6 states

  (LA, MA, NY, NC, VA, WI)
- WI Project (started 6/1/13):
  - Embeds patient navigators in HIV clinics
  - Program coordinated at state (DHS) level
  - Intervention offered to all HIV+ clients in WI prison system who plan to live in Milwaukee or Madison after release.

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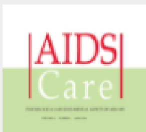

Journal
AIDS Care ›
Psychological and Socio-medical Aspects of AIDS/HIV
Volume 27, 2015 - Issue 9

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Original Articles

“She makes me feel that I'm not alone”: Linkage to Care Specialists provide social support to people living with HIV

Michelle R. Broaddus, Christina R. Hanna, Casey Schumann & Alison Meier

Pages 1104-1107 | Received 18 Nov 2014, Accepted 09 Mar 2015, Published online: 09 Apr 2015

“The LTC Specialists are resource-intensive considering their small caseloads, but fill an important gap in existing, often overtaxed case management systems.”

AIDS Patient Care and STDs

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Fostering a “Feeling of Worth” Among Vulnerable HIV Populations: The Role of Linkage to Care Specialists

To cite this article:
Broaddus Michelle R., Owczarzak Jill, Schumann Casey, and Koester Kimberly A.. AIDS Patient Care and STDs. October 2017, 31(10): 438-446. https://doi.org/10.1089/apc.2017.0048

Published in Volume: 31 Issue 10: October 1, 2017

WI Linkage to Care Program: Main barriers to care identified

- Social isolation
- Low health literacy
- Low motivation
- Failed linkages to needed services (e.g. addiction treatment)
- Lack of a personal relationship with providers

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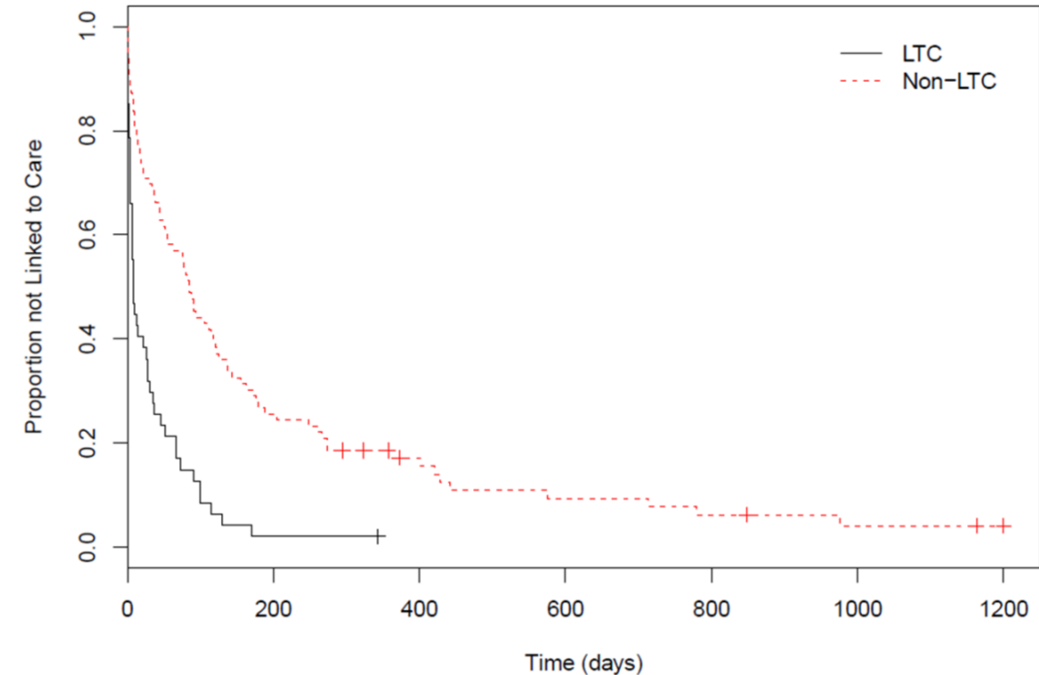
WI Linkage to Care Program: Post-incarceration outcomes part 1

- 122 HIV+ individuals released from prison 133 times between July 1, 2011 and June 30, 2014
- 47 releases (35%) were supported by LTC intervention; 86 releases (65%) received transitional case management only

	Transitional Case Management	LTC Intervention
Linkage to care within 6 months of release	74%	95%
Viral suppression at follow-up (HIV RNA<200)	55%	84%

* P<0.001 for both comparisons



Westergaard R. IAS 2016

WI Linkage to Care Program: Post-incarceration outcomes part 2

"when I first got out, I was so institutionalized, I was not ready for the world. And I, I'll try to put it in words, it was, I was like almost shell-shocked, like the world was too busy and too fast for me to keep up. Like, I couldn't even really navigate on the city buses, that's how crazy incarceration is, what it does to the mind. . ."

". . . so [LTC specialist] being there here to help me and tell me little things like that, it really meant a lot because I needed that."

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AJPH RESEARCH

The Effect of Patient Navigation on the Likelihood of Engagement in Clinical Care for HIV-Infected Individuals Leaving Jail

Janet J. Myers, PhD, MPH, Mi-Suk Kang Dufour, PhD, MPH, Kimberly A. Koester, PhD, Mark Morewitz, MSW, Rebecca Packard, BA, Kate Monico Klein, Milton Estes, MD, Brie Williams, MD, Alissa Riker, BA, and Jacqueline Tulsky, MD

Published in Volume: 31 Issue 10: October 1, 2017

% linked to HIV care within 30 days of release from jail:

Usual Care:	**28%**
NAV intervention:	**44%**

(OR = 1.95; 95% CI = 1.11, 3.46)

Conclusions. "Patient navigation supports maintaining engagement in care and can mitigate health disparities, and should become the standard of care for HIV-infected individuals leaving jail."

Myers. AJPH 2018

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Care coordination for Hepatitis C? . . . for Opioid Use Disorder? Part 1

RESEARCH AND PRACTICE

A Randomized Trial of a Hepatitis Care Coordination Model in Methadone Maintenance Treatment

Carmen L. Masson, PhD, Kevin L. Delucchi, PhD, Courtney McKnight, MPH, Jennifer Hettema, PhD, Mandana Khalili, MD, Albert Min, MD, Ashly E. Jordan, MPH, Nicole Pepper, MSSW, Jessica Hall, BS, Nicholas S. Hengl, BA, Christopher Young, BA, Michael S. Shopshire, PhD, Jennifer K. Manuel, PhD, Lara Coffin, MPH, Hali Hammer, MD, Bradley Shapiro, MD, Randy M. Seewald, MD, Henry C. Bodenheimer Jr, MD, James L. Sorensen, PhD, Don C. Des Jarlais, PhD, and David C. Perlman, MD

Viral hepatitis is a major public health problem among drug users in the United States. Drug users are at high risk of infection with hepatitis A, B, and C viruses (HAV, HBV, and HCV, respectively) through unsterile injection practices and high-risk sexual activity.[1–3] HCV infection can be acquired rapidly by injection drug users, with prevalence rates of 70% or higher among recent-onset injectors.[4,5] Cirrhosis, hepatocellular carcinoma, and death are important sequelae of HCV and chronic HBV infection.[6,7] Superimposed HBV and HAV infection may exacerbate liver disease among those with chronic HCV infection.[8] HIV infection can accelerate disease progression in HCV- and HBV-infected persons.[9–11] Given that a significant proportion of this population remains at risk for these infections, HAV–HBV vaccination programs that effectively engage drug users are needed.[2,12] Treatment options for HCV are rapidly improving with the introduction of direct-acting antivirals (e.g.,

Objectives. We evaluated the efficacy of a hepatitis care coordination intervention to improve linkage to hepatitis A virus (HAV) and hepatitis B virus (HBV) vaccination and clinical evaluation of hepatitis C virus (HCV) infection among methadone maintenance patients.

Methods. We conducted a randomized controlled trial of 489 participants from methadone maintenance treatment programs in San Francisco, California, and New York City from February 2008 through June 2011. We randomized participants to a control arm (n = 245) and an intervention arm (n = 244), which included on-site screening, motivational-enhanced education and counseling, on-site vaccination, and case management services.

Results. Compared with the control group, intervention group participants were significantly more likely (odds ratio [OR] = 41.8; 95% confidence interval [CI] = 19.4, 90.0) to receive their first vaccine dose within 30 days and to receive an HCV evaluation within 6 months (OR = 4.10; 95% CI = 2.35, 7.17). A combined intervention adherence outcome that measured adherence to HAV–HBV vaccination, HCV evaluation, or both strongly favored the intervention group (OR = 8.70; 95% CI = 5.56, 13.61).

Conclusions. Hepatitis care coordination was efficacious in increasing adherence to HAV–HBV vaccination and HCV clinical evaluation among methadone patients. (*Am J Public Health.* 2013;103:e81–e88. doi:10.2105/AJPH.2013.301458)

439. Innovative Linkage to Care for Patients With Hepatitis C Virus Infection

Mariana Castrejon, BS[1]; Samantha Ramirez, RN[2]; Jeffrey Klausner, MD, MPH[1]; Marjan Javanbakht, MPH, PhD[3]; Sammy Saab, MD, MPH[4]; [1]Division of Infectiou Diseases, David Geffen School of Medicine at UCLA, Los Angeles, California; [2]Transplant Services Nursing, UCLA, Los Angeles, California; [3]Department of Epidemiology, UCLA Fielding School of Public Health, Los Angeles, California; [4]Division of Digestive Diseases, David Geffen School of Medicine at UCLA, Los Angeles, California

Session: 60. Hepatitis C
Thursday, October 27, 2016: 12:30 PM

Background. UCLA Health is a complex healthcare system with over 150 offices Southern California. The main cause for liver transplant at UCLA is chronic hepati C virus (HCV) infection. As new and more effective medications become available, it important to screen patients and link them to care in a timely manner. A hepatitis linkage to care coordinator was introduced in January 2016 to facilitate evaluation a treatment for patients diagnosed with hepatitis C infection.

Methods. The UCLA Laboratory provided a weekly list of all patients tested to t HCV linkage to care coordinator. Ordering physicians were notified by the HCV ca coordinator via the electronic medical record system if their patient tested positive f the HCV antibody. The HCV care coordinator recommended HCV Quant Reflex Genotype and Prometheus FibroSpect II testing. The HCV care coordinator work with the ordering physician to facilitate a visit for the patient to hepatology or infe tious disease specialists. We compared the time to evaluation in December 2015 (pri to HCV care coordinator) and April 2016 (after HCV care coordinator).

Results. In December 2015, 31 individuals tested positive for the HCV antiboc

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Care coordination for Hepatitis C? . . . for Opioid Use Disorder? Part 2

Examples:

- **Patient navigators**
- **Peer navigators**
- **Recovery coaches**
- **Linkage to care specialists**
- **Transitional case managers**
- **Care coordinators**

Many have been tried

Most probably work

Few are sustainably funded

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Conclusion:

We need to collaborate, share experiences and disseminate what works to improve care for people living with OUD and HIV/HCV.

"The opioid epidemic is a stark reminder of the consequences of a societal problem that remained hidden for years, in part because of the stigma associated with drug use and the reluctance to confront it as a public health problem. **The concurrent spread of HCV, if not controlled, will similarly have public health and financial repercussions for decades to come.**"

Liang TJ, et al. N Engl J Med. 2018;378:1169-1171.

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