NIDA Responds to the Syndemic of Opioids, Viral Hepatitis and HIV

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Virtually All of the U.S. Have Increased Drug Overdoses:
Estimated Age-adjusted Death Rates per 100,000 for Drug Poisoning by County.

63,362 Deaths in 2016
(42,249 from Prescription and Illicit Opioids)

Evolution of the Opioid Overdose Deaths:

**Analgesics** ➔ **Heroin** ➔ **Fentanyl**

- **19,413 “Fentanyl”**
- **17,087 Prescribed**
- **15,469 Heroin**

Source: NCHS WONDER, NCHS Data Brief 294
Viral Hepatitis, HIV, and Opioid Addiction are co-occurring epidemics.

- **Shared risk factors and causes**
- **Cross-cutting benefits of treatment**

**HIV** (and **Hepatitis C**) Outbreak Linked to Oxymorphone Injection Use in Indiana, 2015

Injection Drug Use Is Driving new Hepatitis C Infections

- ~31,000 new HCV infections in 2015
- 1:1 male: female ratio, predominantly white

- Persons who inject drugs are the reservoir (main source) of Hepatitis C infection
- Currently ~750,000 persons who inject drugs in USA
- Surge in Hepatitis C in young persons who inject drugs (18-25 years old)
- Heroin as an initiating opioid has increased sharply

Recommendation to Prevent Hepatitis C: Better access to effective OUD treatments – Buprenorphine, Methadone and Naltrexone
Combined Use of Syringe Services Programs and Medication Assisted Treatment Reduces HCV Transmission Among People Who Inject Drugs (PWID)

**HCV Infectivity:** HCV Remains Infectious Up to 6 Weeks on Improperly Cleaned Surfaces

Syringe Services Programs:
- Are an effective component of an integrated approach to reduce HIV/HBV/HCV in PWID
- Also offer alcohol swabs, sterile water, condoms, naloxone, testing, and referral to treatment
- Reduce overdose deaths and increase entry into treatment

Combining high access to syringe programs with MAT reduces risk of HCV infection by 74%

How Can NIH/NIDA Research Help?
NIH Opioid Research

Using Research to End the Opioid Crisis

PAIN MANAGEMENT
Safe, effective, non-addictive strategies

- Nonpharmacological Treatments (e.g. TMS)
- Biomarkers For Pain
- Opioid Vaccines
- Non-Opioid Analgesics
- Respiratory Stimulation Devices

OPIOID ADDICTION TREATMENT
New, innovative medications and technologies

OVERDOSE REVERSAL
Interventions to reduce mortality and link to treatment
New NIH Initiative to Address the Crisis: HEAL: Helping to End Addiction Long-term

- Collaborative, cross-cutting research
  - From basic to behavioral – and everything between
  - Innovative partnerships – across agencies, sectors, organizations – will ensure rapid progress

- $500M just added by Congress
  - Adds to $600M current funds = $1.1B for FY18
  - Will propel HEAL

- Advances national priorities for pain, addiction research
NIDA-Supported Hepatitis C Research

• NIDA: 2\textsuperscript{nd} largest NIH funder—$32.6 M (FY2016)
• Interventions for rural, at-risk women; support for women in drug court; financial literacy & vocational training for at-risk women; tailored prenatal care for pregnant women
• Rapid HCV testing in care settings
• Utilization of case managers within a coordinated care framework

• Adaptation of HIV model of “treatment as prevention”
• Efficacy of direct acting antivirals in substance using populations
Reported *Hepatitis C Cases by County*, 2013-2014 Combined

**Partnership of NIDA and Appalachian Regional Commission (ARC)**

- Targeting opioid IDU, OD, HIV and HCV
- One-year planning grants to describe:
  - problem scope
  - contributing health trends
  - Resources, obstacles
- 4 Grants Funded RFA-DA-16-015

**In FY2017 broadened program to include CDC, SAMHSA and ARC**

Source: NNDSS
NIDA, CDC, SAMHSA, ARC: Using Research to Combat HIV and Viral Hepatitis in Rural Areas
22 MSAs:

Plans for 2018

- Improve recruitment of young (<30 years) PWID
- Include HCV testing in NHBS sites
- Expand recruitment outside of urban core
NIDA and NCI are working with CDC to develop a study of the elimination of HCV in a high-risk community in Kentucky.

Work to date includes pilot funding to the University of Kentucky to develop community-based components:

- Syringe exchange
- Drug treatment
- Linkages with criminal justice (because of high-risk persons re-entering the community)
- Access to medical care.
- Hepatitis C testing and TREATMENT