Understanding and Addressing the Opioid Crisis
Nevada’s Prescription Drug Abuse Summit

CDC PERSPECTIVE
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National Center for Injury Prevention and Control
Division of Unintentional Injury Prevention
How it all got started...

“In Dreamland, former Los Angeles Times reporter Sam Quinones deftly recounts how a flood of prescription pain meds, along with black tar heroin from Nayarit, Mexico, transformed the once-vital blue-collar city of Portsmouth, Ohio, and other American communities into heartlands of addiction..” —Mother Jones
Outline of this talk

• Intertwined epidemics
• Risk factors for heroin use/overdose
• Emerging threats – toxic adulterants
• The Ohio case
• What can we do?
• Call to action
The amount of opioids prescribed has QUADRUPLED from 1999-2014,

but the pain that Americans report remains UNCHANGED.
Quarter billion opioid prescriptions in 2012
Since 1999, there have been more than 165,000 deaths from overdose related to prescription opioids.
For every Rx opioid overdose death in 2011, there were...

- 12 treatment admissions for opioids
- 25 emergency department visits for opioids
- 105 people who abused or were dependent on opioids
- 659 nonmedical opioid users

SAMHSA NSDUH, DAWN, TEDS data sets.
Sharp increases in opioid prescribing coincides with sharp increases in Rx opioid deaths

Opioid Sales (kg per 10k)

Rx Opioid Deaths (per 100k)

Rise in Rx overdose deaths since 2000 and recent increase in heroin & fentanyl deaths

- Commonly Prescribed Opioids: like oxycodone or hydrocodone
- Methadone
- Heroin
- Synthetic opioids: like fentanyl

Opioid prescribing can vary 3-fold between states

Number of painkiller prescriptions per 100 people

- 52–71
- 72–82.1
- 82.2–95
- 96–143
States with more opioid pain reliever sales tend to have more drug overdose deaths

Drug poisoning death rates have increased in almost every state in the last 4 years
2002 Rapid Increase in Drug Overdose Death Rates by County

SOURCE: NCHS Data Visualization Gallery
2007 Rapid Increase in Drug Overdose Death Rates by County

SOURCE: NCHS Data Visualization Gallery
2014

Rapid Increase in Drug Overdose Death Rates by County

SOURCE: NCHS Data Visualization Gallery
Prescription Drug Overdose: Prevention for States

**Purpose:** To provide states guidance and resources to prevent prescription drug overdoses by addressing problematic opioid prescribing.

- non-research FOA
- Cooperative agreements
- State health departments
- Awards of $750K-1M
- 4-year awards
- PFS “supplement” for certain states
Four “Priority Strategies”

Required Strategies

1) Prescription Drug Monitoring Programs (PDMPs): Enhancing and maximizing PDMPs

2) Community or Insurer/Health System: Implementing community and insurer/health system interventions

Optional Strategies

3) Policy Evaluation: Evaluating state-level laws, policies, and regulations

4) (Rapid Response Projects RRP): Innovative, rapid response prevention
For example: 
Enhance & Maximize PDMPs

**Major Activities:** States must select 2 major activities:

1. Move toward universal PDMP registration and use
2. Make PDMPs easier to use and access
3. Move toward a real-time PDMP
4. Expand and improve proactive reporting
5. Conduct public health surveillance with PDMP data
Trends in Heroin Use & Health Outcomes
Prescription opioid misuse is a major risk factor for heroin use

3 out of 4 people who used heroin in the past year misused opioids first

7 out of 10 people who used heroin in the past year also misused opioids in the past year

A majority of people newly dependent on heroin report abusing prescription opioids first.

Heroin overdose deaths nearly four times higher for men than women

Adults age 25-44 have the highest rate of heroin overdose

EMERGING THREATS

- **Fentanyl analogs or derivatives**
  - Experimentation in production of synthetic opioids
  - Concern over availability of extremely powerful opioids (e.g., Carfentanil)

- **Indications of large scale production of counterfeit prescription opioid pain relievers with fentanyl**
  - Commonly abused opioid pain relievers
  - Impacts new group of people misusing opioids
  - Broader potential geographic reach
Illicitly-Made Fentanyl (IMF)

- Includes fentanyl and fentanyl analogs
- Manufactured unlawfully in clandestine labs, mainly in China
- Main route: Mexican Drug Trafficking Organizations
- Most recent increases in non-fatal and fatal fentanyl-involved overdoses linked to IMF
- Often mixed with heroin and/or sold as heroin, or as counterfeit pills

Figure 1: Illicit Fentanyl and Fentanyl Precursor Flow Originating in China

1. Fentanyl in powder form and pill presses are shipped via mail services.
2. The powder fentanyl is processed and mixed with heroin, or sold as heroin, or pressed into pills and sold in the Canadian drug market.
3. Some fentanyl products are smuggled from Canada into the United States for sale, on a smaller scale.
4. The powder fentanyl is processed and mixed with heroin, or sold as heroin, or pressed into pills and sold in the United States drug market.
5. The powder fentanyl are cut and diluted for further smuggling, or pressed into counterfeit prescription pills.
6. Diluted powder fentanyl and counterfeit prescription pills containing fentanyl are smuggled from Mexico into the United States.
7. Precursors for manufacturing fentanyl are shipped via mail services.
8. Precursors are used to manufacture fentanyl in clandestine laboratories.
9. Precursors are likely smuggled across the Southwest border into Mexico to manufacture fentanyl.
10. Precursors are likely used to manufacture fentanyl in clandestine laboratories.

Source: DEA
*Arrows do not represent specific transportation routes.
Number of Reported Law Enforcement Seizures Testing Positive for Fentanyl by State: 2013
Number of Reported Law Enforcement Seizures Testing Positive for Fentanyl by State: 2015
"While pharmaceutical fentanyl (from transdermal patches or lozenges) is diverted for abuse in the United States at small levels, this latest rash of overdose deaths is largely due to clandestinely-produced fentanyl, not diverted pharmaceutical fentanyl."
Fentanyl Alert in Ohio

FOR IMMEDIATE RELEASE
Contacts: ODH Office of Communications (614) 644-8562
OhioMHAS Office of Communications (614) 728-5090

September 24, 2015

Fentanyl Significantly Contributes to Rise in Ohio Drug Overdose Deaths
New Data Shows Some Promising Progress in Key Areas in Fight Against Opiate Abuse, But More Work Ahead

Increases in Fentanyl Drug Confiscations and Fentanyl-related Overdose Fatalities

This is an official CDC HEALTH ADVISORY

Table 1: Top 10 states by total Fentanyl Seizures, 2014, unpublished NFLIS data

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Number of Fentanyl seizures</th>
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<tbody>
<tr>
<td>1</td>
<td>Ohio</td>
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<tr>
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<td>177</td>
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<tr>
<td>10</td>
<td>Indiana</td>
<td>133</td>
</tr>
</tbody>
</table>

Fentanyl reports in NFLIS, by State
July – December 2014

Drug Enforcement Administration, Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit
09-15-2015
Fentanyl Deaths in Ohio

Figure 1. Fentanyl-Related Drug Overdoses, Ohio, 2012-2014

- **Unintentional Drug Poisonings**
- **All Drug Poisonings**

Source: Ohio Department of Health, Office of Vital Statistics; Analysis Conducted by Injury Prevention Program
Key findings from Ohio EpiAid

- Illicit fentanyl is driving the epidemic in Ohio
  - Strong correlation between illicit confiscations and deaths
  - DEA report of high illicit fentanyl supply in Ohio
  - Similarity in demographics of heroin and fentanyl decedents
  - Tox reports show heroin and/or cocaine often co-implicated
  - Qualitative data indicating powder fentanyl sold as heroin

- Potency of fentanyl is high, and onset of death can be rapid

- Use of multiple surveillance tools can help track and anticipate fentanyl deaths
Key findings from Ohio EpiAid

- **High Risk groups point out opportunities to intervene**
  - Recent release from jail, hospital, or rehabilitation facility
  - History of Mental illness
  - Those at risk for Prescription Opioid misuse/abuse
    - Many fentanyl decedents have a history of Rx opioid use, often at concerning doses
    - A substantial number of fentanyl decedents had an Opioid prescription within a year of fatal overdose (27% within last month)
Recent Alerts

Influx of Fentanyl-laced Counterfeit Pills and Toxic Fentanyl-related Compounds Further Increases Risk of Fentanyl-related Overdose and Fatalities

CDC, August 25, 2016

DEA Report: Counterfeit Pills Fueling U.S. Fentanyl and Opioid Crisis
Problems resulting from abuse of opioid drugs continue to grow
July 22, 2016
What Can We Do?

The Public Health Model

1. Define the problem
2. Identify risk and protective factors
3. Develop and test prevention strategies
4. Assure widespread adoption
Step 1: Where is the problem? How big is it?

- **Enhance Public Health Surveillance**
  - Increase testing for fentanyl by ME/Coroner and Law Enforcement
  - Monitor DEA data on heroin and fentanyl seizures
  - Collect and analyze ME/Coroner and Toxicology reports using NVDRS system to refine risk factor analysis
  - Continue to utilize and refine syndromic surveillance of Heroin-related ED visits
  - Implement tracking of EMS naloxone usage, particularly multiple use
CDC’s New State-based Program

- “Enhanced State Surveillance of Opioid-Involved Morbidity and Mortality”; CDC-RFA-CE16-1608
- 12 states funded at ~ $350k/each
- Awardees will be funded to:
  - Increase the timeliness of nonfatal opioid overdose reporting
  - Increase the timeliness of fatal opioid overdose and associated risk factor reporting
  - Disseminate surveillance findings to key stakeholders working to prevent opioid-involved overdoses
Why new data sources are helpful

Figure 4: Number of Fentanyl Exhibits in NFLIS, 2004-2015

Source: DEA
Case in Point: Correlation between seizures and deaths

Law enforcement seizures (dark blue) and fentanyl-involved overdoses (light blue), Ohio, 2013-2014
Step 2: Identify risk and protective factors

- Refine risks and target groups in your state/region
- Men
- Ages 25-44
- People who have misused Rx opioids in the past year
- Previous overdoses
- Recent institutionalization
- History of Mental Illness
Step 3: Develop & test interventions

- **Start upstream with the Rx problem** – don’t be afraid of “driving people to heroin”
- Best existing evidence is outlined in CDC’s Prevention for States funding and Haegerich et. al article
- Adopt and implement the *CDC Guideline for Prescribing Opioids for Chronic Pain*


What we know, and don’t know, about the impact of state policy and systems-level interventions on prescription drug overdose.
Responding to the Heroin Epidemic

**PREVENT**

People From Starting Heroin

Reduce prescription opioid painkiller abuse. Improve opioid painkiller prescribing practices and identify high-risk individuals early.

**REDUCE**

Heroin Addiction

Ensure access to Medication-Assisted Treatment (MAT). Treat people addicted to heroin or prescription opioid painkillers with MAT which combines the use of medications (methadone, buprenorphine, or naltrexone) with counseling and behavioral therapies.

**REVERSE**

Heroin Overdose

Expand the use of naloxone. Use naloxone, a life-saving drug that can reverse the effects of an opioid overdose when administered in time.

SOURCE: CDC Vitalsigns, July 2015
Opioid Abuse and Dependence exceeds Medication-Assisted Treatment Capacity in most States

[Graph showing the rate of past year opioid abuse or dependence compared to the rate of OA-MAT capacity across states.]

Rate of abuse/dependence exceeds capacity

Naloxone distribution is increasing but gaps remain

From 1996 – 2014, 644 local sites in 30 states and DC distributed kits
152,000+ kits to laypersons
Reports of 26,000+ reversals
Doubling of organizations providing kits in last year

Step 4: How to get started?
Look at a Road Map!

Or a Task Force Report…

“We can’t incarcerate our way out of this problem”

Follow the Leader!
Rhode Island’s Strategic Plan on Addition and Overdose

Oregon Injury and Violence Prevention Program
What CDC is doing about heroin…

- **Improve data** new state-based surveillance program with 12 states (~$3.5M); work with DEA and local HIDTAs. Personnel “swap” to improve information sharing.

- **Develop and test interventions** with 8 HIDTA directors in 20 states, bridging public health and public safety.

- **Strengthen state & local efforts** by scaling up effective interventions: link CDC’s $70M program to other efforts.
## Working with HIDTAs

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<thead>
<tr>
<th>HIDTA</th>
<th>Hot Spot(s)</th>
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<tr>
<td>Appalachia</td>
<td>Huntington, WV</td>
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<tr>
<td>Atlanta/Carolinas</td>
<td>Atlanta, NC I-85 corridor – POST OD-PROTOCOL FOR ED AND HOSPITALS?</td>
</tr>
<tr>
<td>Michigan</td>
<td>Detroit, Wayne County -</td>
</tr>
<tr>
<td>New England</td>
<td>Hillsborough County, NH – NALOXONE DISTRIBUTION? PATIENT NAVIGATOR PROGRAM?</td>
</tr>
<tr>
<td>New York/New Jersey</td>
<td>New York City- EMERGENCY DEPARTMENT PROTOCOL, LINKAGES TO SERVICES, CAMDEN MODEL?</td>
</tr>
<tr>
<td>Ohio</td>
<td>Cuyahoga County (Cleveland), and Dayton – PRISON RELEASE PROGRAM &amp; JUDICIAL REFORM?</td>
</tr>
<tr>
<td>Philly/Camden</td>
<td>Delaware Co., PA; Camden Co., NJ; and New Castle Co., DE</td>
</tr>
<tr>
<td>Wash/Baltimore</td>
<td>Baltimore City, Anne Arundel County, MD and Berkeley County, WV</td>
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IF NOT NOW...
WHEN?