Why do people use drugs?

Why do so many people use drugs?

Unintentional Drug Poisoning Deaths Involving Opioid Analgesics, Cocaine and Heroin: United States, 1999–2011

What should we do?

David Labby PhD MD
Health Share of Oregon
September 22, 2017
Objectives

To understand:

1. The epidemiology of the opioid epidemic in Oregon and the US.
2. The emerging evidence on the social determinants of opioid use.
3. The variety of strategies that are needed to address the epidemic.
4. The importance of a community response and what it takes to build a coordinated effort.
Drug Overdose Deaths—US
2000-2015

Amount Opioids Prescribed in the US

- 2012: 259 million prescriptions for opioid pain medications
  - Enough for every adult in US to have a bottle of pills
- Opioid dependency
  - 2013: 1.9 million persons diagnosed
Prescription Opioids in Oregon: Scope of the Problem

Pain Treatment with Prescription Opioids

- ~20% of Oregonians have chronic pain (760,000)
- In 2016, almost 1 in 4 Oregonians received a prescription for opioid medications (>900,000)

Non-Medical Use of Prescription Opioids

- Tied for 2nd in the nation in 2012-2013; 1st in 2010-2011.¹
- 212,000 Oregonians (5% of population)

¹ SAMHSA National Survey on Drug Use and Health, state level data
Oregon Opioid Prescribing by Age: 2016

Age group (years)

<18  18-29  30-44  45-64  65-74  75+

Fills Per 1,000 residents

1600
1400
1200
1000
800
600
400
200
0
Oregon Pain Medication Misuse

• Oregon: highest state for nonmedical use of prescription painkillers*
  – 6.4% of persons ≥12 years
  – 7.4% of persons 12-17 years
  – 15.0% of persons 18-25 years

*SAMHSA- 2010-11 National Survey on Drug Use and Health, state level data
Drug Overdose Deaths, Oregon 2000-2015

Pharmaceutical Opioids
Heroin
Methamphetamine and stimulants
Risk Groups for Opioid Overdose Deaths

- Men > women
- Ages: 25-55 years
- White > black, Latino
- Poor, rural > higher SES, urban
- Pre-existing mental health issues
Opioid Overdose Deaths by County
Oregon 2011-2015

180 deaths (4.5 per 100,000 residents) for pharmaceutical opioid overdose in 2015
Why do so many people use drugs?

The emerging bigger picture...
US all-cause mortality rates, ages 45-54

Midlife mortality by all causes in the U.S.
Men and women ages 50-54, death by all causes

White non-Hispanic midlife mortality from “deaths of despair” in the U.S. by education
Ages 50-54, deaths by drugs, alcohol, and suicide

Midlife mortality from "deaths of despair" across countries

Men and women ages 50-54, deaths by drugs, alcohol, and suicide

“Deaths of Despair” – Urban vs Rural

Drug, alcohol and suicide mortality
white non-Hispanics 50-54

“Deaths of Despair” for white non-Hispanics, Ages 45-54
“Deaths of Despair” for white non-Hispanics, Ages 45-54

2014

Death Rate (per 100k)

0–25  25–50  50–75  75–100  100+
Angus / Deaton hypothesis:

Why?

• Decline in blue collar jobs since 1970s, especially for those with less than a college degree
  – Major impact on white working class men
    • Fewer jobs, lower wages, lower returns on experience
    • Reduced marriage rates, higher divorce, worse family lives
    • Increases in reports of poor health
    • Increasing poor mental health
    • Increased incidence of chronic pain
      – Loss of economic supports
      – Loss of social supports
        » Increased suicide
        » Increasing substance use
          • Alcohol
          • Drugs

“This process was unfolding before heavy-duty prescription opioids flooded the market, but their presence has heightened its impact.”
Why do people use drugs?

Paradigm Shift:

From: What is wrong with them?
To: What has happened to them?
Adverse Childhood Experiences (ACE) Study

• 1998 Kaiser Permanente & the Centers for Disease Control
  V. Fellitti and R. Anda

• Demographics
  – Average age 57
  – “Solidly middle class”
    • White
    • Attended college

• Surveyed experience up to 18 yo

• “ACE Score” Computed based on positive response to each domain

Adverse Childhood Events / Rate:

- Substance Abuse 27%
- Parental Separation/Divorce 23%
- Mental Illness 17%
- Battered Mother 13%
- Criminal Behavior 6%
- Psychological Abuse 11%
- Physical Abuse 28%
- Sexual Abuse 21%
- Emotional Neglect 15%
- Physical Neglect 10%

Why do people use drugs....
Why do people use drugs?....

Strong Correlation Between ACEs and Substance Use

• Individuals with ACEs
  – Lifetime illicit drug use and self-reported addiction (Dube et al, 2003)
  – Prescription drug use (Anda et al, 2008)
  – Early initiation of alcohol use. (Dube et al, 2006)
  – Problem drinking behavior into adulthood (Dube et al, 2002)

• People with 4+ ACES:
  – 10x increase in use of IV drugs; for males with 6+ACEs 46x increase
  – 7x increase in alcoholism
  – Increased risk of liver, lung, heart disease
  – 3x increase in depression in men; 5x in women
  – 13x increase in the prevalence of attempted suicide
  – 4.5x increase in intimate partner violence; 5x increase in risk of rape; with ACE 5, 9x
  – Increased risk of teen pregnancy, prescription drug use, job loss, homelessness, high school non graduation, incarceration
  – 25 year early mortality

What if we actually asked: “What happened to you?”

- Beyond “adverse childhood experiences” are there other “adverse life experiences” that lead to these bad outcomes?

- Can this help us figure out what to do?
Life Experience Health Study

• Based on earlier study focused on “high utilizers”
  – Interviews with 50 members enrolled in Health Resilience Program evaluated by researchers at CORE

• Survey of critical life experiences of Health Share members
  – 2 year study with Providence Center for Outcomes Research funded by Robert Wood Johnson Foundation

• 100 questions: experience from early family to present
  – 10,000 sent, 38% response rate after intensive follow up
  – Broad representative sample from healthy to complex health
What We Found: Hard Lives

- **Overall** Health Share Members
  - **43%** had 4+ Adverse Childhood Experiences (National Average: 14%)
    - Highest (40+%) Physical abuse / neglect, household substance abuse, parental divorce
    - Only 20% reported NO ACEs; national average = 41%
  - **Over half** reported they struggled with school; 27% did not graduate High School or get a GED
  - **33%** ran away from home
  - **39%** reported substance abuse; 28% in childhood
  - **41%** were homeless at sometime; 22% homeless in childhood
  - **40%** struggled to find work
  - **56%** reported verbal abuse by a loved one; 26%, physically abused
  - **36%** had been in jail

![Image of people with varying colors indicating different statuses]
## Higher Complexity = Higher Life Adversity

<table>
<thead>
<tr>
<th>Medical Complexity</th>
<th>Low</th>
<th>High</th>
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</thead>
<tbody>
<tr>
<td>ACE score</td>
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<tr>
<td>ACEs=0</td>
<td>27.26</td>
<td>16.69</td>
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<tr>
<td>ACEs≥4</td>
<td>32.32</td>
<td>54.77</td>
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<tr>
<td>Struggle with schoolwork</td>
<td>43.32</td>
<td>62.42</td>
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<tr>
<td>Did not graduate high school</td>
<td>21.90</td>
<td>29.76</td>
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<tr>
<td>Substance abuse ever</td>
<td>27.60</td>
<td>59.22</td>
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<tr>
<td>Homeless ever</td>
<td>26.61</td>
<td>54.72</td>
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<tr>
<td>Ran away from home</td>
<td>17.84</td>
<td>40.80</td>
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<tr>
<td>Physical abuse from a loved one</td>
<td>21.93</td>
<td>37.22</td>
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<tr>
<td>Verbal abuse from a loved one</td>
<td>46.68</td>
<td>70.46</td>
</tr>
<tr>
<td>Jail</td>
<td>24.85</td>
<td>48.05</td>
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</table>
Highest Adversity Rates = 55% of Medically Complex With High ACEs

<table>
<thead>
<tr>
<th>Event</th>
<th>ACE≥4 (42.59%)</th>
<th>Low (%)</th>
<th>High (%)</th>
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<tbody>
<tr>
<td>Struggle with schoolwork</td>
<td>64.86</td>
<td>69.16</td>
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<tr>
<td>Did not graduate high school</td>
<td>22.62</td>
<td>32.32</td>
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<tr>
<td>Substance abuse ever</td>
<td>47.5</td>
<td>75.88</td>
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<tr>
<td>Homeless ever</td>
<td>45.12</td>
<td>75.64</td>
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<tr>
<td>Ran away from home</td>
<td>36.52</td>
<td>57.81</td>
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<tr>
<td>Physical abuse from a loved one</td>
<td>46.67</td>
<td>52.19</td>
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<tr>
<td>Verbal abuse from a loved one</td>
<td>66.17</td>
<td>86.57</td>
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</tr>
<tr>
<td>Jail</td>
<td>35.54</td>
<td>56.61</td>
<td></td>
</tr>
</tbody>
</table>
Why do some people with high ACEs have poor outcomes, but others do not?

- For 55% of members with complex health conditions the very high prevalence of sequential adversities suggests high ACEs can “set up” a cascade of risk multipliers
  - Stressed families (poverty)
  - Food, housing insecurity, high ACEs
  - Poor social / emotional / learning skills
  - School struggles, poor learning
  - Dropping out / alcohol, street drug use with peers, other health risk behaviors
  - High school non graduation, few employment options
  - Involvement with shadow economy, homelessness, addiction
  - Arrest / incarceration
  - Homelessness, addiction, **poor health**
What Should We Do?

• What should we do as health care providers? As primary care, specialty, hospital, behavioral health, pharmacy?
  – We have evidence, guidelines and tools... just do it!

• Who can we join with beyond health care?
  – Are children with behavior problems in preschool or school simply expelled or suspended?
  – Do people in trouble with the law for low level drug offenses receive punishment rather than treatment?
  – Are people with mental health and substance use disorders put in jail rather than in treatment?
  – Are individuals with substance use disorders provided treatment but not culturally appropriate recovery support
  – Are people leaving the corrections system without adequate reentry supports?
The Oregon Opioid Initiative

Aim: Reduce deaths, non-fatal overdoses, and harms to Oregonians from prescription opioids, while expanding use of non-opioid pain care

1. REDUCE RISKS TO PATIENTS – MAKE PAIN TREATMENT SAFER & MORE EFFECTIVE:
   Rx more non-opioid and non-pharmacological treatment

2. REDUCE HARMS FOR ALL OPIOID USERS; SUPPORT SUBSTANCE USE RECOVERY:
   Increase access to naloxone rescue, medication-assisted treatment (MAT)

3. PROTECT THE COMMUNITY – REDUCE NUMBER OF PILLS IN CIRCULATION:
   Implement of safe prescribing, storage, and disposal practices

4. OPTIMIZE OUTCOMES USING STATE AND LOCAL DATA:
   monitor, evaluate progress to inform policies and targeted interventions
How Do We Work Together?
“Collective Impact Framework”

It’s not just Health Care

Who does this?
Oregon Opioid Initiative Partnerships

Centers for Disease Control & Prevention
Substance Abuse & Mental Health Services Administration
Department of Justice

Federal

Public safety/ Law Enforcement
Local Public Health Needle exchange programs
Community Based Service and Peer Organizations
Schools
Churches
County Programs

State

State policy makers / statutes
Oregon Health Leadership Council
Health Systems
Public health departments
OR Coalition for the Responsible Use of Meds Payers

Coordinated Care Organizations
Health systems
Primary & Specialty Care
Emergency Departments
Pain management clinics
Specialty Mental Health
Opioid Use Disorder Treatment Programs
Pharmacies

Local Health Care & Treatment

Community
Thank You!