Opioid Crisis
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Between 1999 and 2016, More than 630,000 Opioid Related Deaths
Costs Exceeded Half a Trillion Dollars in 2015

80% of Heroin Users Misused Prescription Opioids First
8% to 12% will develop dependence

Current Scope of the Problem: 116 Deaths per Day

2.6 to 5 Million with Opioid Use Disorder
Additional 11.5 million misused opioids
170,000 New Heroin Users
948,000 Heroin Users Overall

17,087 Prescription Opioid Deaths
19,413 Overdose Deaths from Synthetic Opioids
15,469 Heroin Overdose Deaths

Unprecedented growth \(\rightarrow\) 240+ million prescriptions were dispensed for opioids in 2014

- In 2016, 214.9 million Rx for opioids were written, at a rate of 66 Rx per 100 adults aged 18+
- Down from the peak in 2012, when 255.2 million Rx were written; 81 Rx per 100 adults aged 18+


Epidemic’s Beginning: 1990s
- Long acting Opioids developed in 1990s
- New Concern: Unmanaged Pain, began to be referred to as the Fifth Vital Sign
  - In response, call for increased use of opioids for pain
- Pharma companies minimized addictive properties, stressing efficacy and safety over adverse outcomes
Deaths due to drug overdoses now higher than deaths due to automobile crashes

The US is in the midst of the largest ever human-caused public health epidemic

Sources: https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6101a3.htm; https://www.cdc.gov/nchs/products/databriefs/db190.htm
Opioid Prescribing Trends

Image source (left-hand graphic) https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6101a3.htm.

Opioid Consumption: The US is an Outlier

“So consider the amount of standard daily doses of opioids consumed in Japan. And then double it. And then double it again. And then double it again. And then double it again. And then double it fifth time. That would make Japan No. 2 in the world, behind the United States.”

“Every other developed country does at least as good or as poor a job as we do managing pain — while not using opioids at anywhere near the same level”.

Opioid Drug Consumption: Uniquely American

› In 2015, roughly 1/3 of all adults in the USA reported taking an opioid-based pain reliever

› Are we older?
  – USA Median Age: 62nd Highest
  https://www.cia.gov

› More apt to be pain?
  – USA 43%
  – Italy 43%
  – France 48%

› Higher overall pill use?
  – Yes, 60% of us take Rx drugs
  – Even when we compare only individuals with no chronic conditions, we take more prescriptions overall.

Opioids: By the Numbers

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Drug Overdoses</th>
<th>Oxycodone</th>
<th>Hydrocodone</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>96%</td>
<td>73%</td>
<td>81%</td>
<td>99%</td>
</tr>
<tr>
<td>World</td>
<td>27%</td>
<td>27%</td>
<td>19%</td>
<td>1%</td>
</tr>
</tbody>
</table>


Opioid Crisis: A Wicked Problem

› Complexity: Interdependence of multifaceted factors that shift over time

› Stakeholders have very different views of the nature and understanding of the problem

› Problem is unstable, it evolves over time with shifting resources and commitment

› Affecting change may have unintended consequences

› Aspects of the problem are always with us

› There is always a well-known solution to every human problem — neat, plausible, and wrong (attributed to Mencken)

Aggressive marketing of Long-Acting Opioids

Pain Mills and Pain Docs Flood Market

Emergence of Synthetic Opioids

Reduced access leads to heroin resurgence

Fentanyl seeping into other drug markets

More deaths now from synthetic drugs than prescription opioids
Opioid Use Disorder

**Adolescents**
- Age 12 to 17
  - 276,000 Users
  - 122,000 Prescription Dependence
  - 21,000 Heroin Users
  - Number of Prescriptions nearly doubled between 1994 to 2007
  - Most received first opioid from friend or family member

**Women**
- More likely to live with chronic pain
- More likely be prescribed prescription pain relievers
- Receive higher doses
- Prescription pain reliever deaths increased 400% vs 239% among men (1999-2009)

**Older Adults**
- Higher rates of chronic pain
- 500,000+ opioid prescriptions in 2016
- Most Dosages exceeded recommended amount.
- Fastest growing group with diagnosed opioid misuse (6 out of every 1,000)

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Opioid Crisis: Multigenerational problem requires multigenerational targeted solutions

**Steep Increase in Hospital Use Related to Opioid Misuse**

**Aging Baby Boomers and Drug Misuse: Implications for Elder Drug Misuse**

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Policy and Consequences

› As prescription drug rates declined
  - Rates of Synthetic drug use increased

According to the CDC, overdose deaths related to Fentanyl increased more than 72% in one year (2014 to 2015).

Opioid use across the generations: Impact on the Family

› Half of all deaths occur among adults aged 25 to 44 years of age
  - Family Network disrupted
  - Cumulative impact of neglect on children
    › Must be the caregiver
    › School disruption
    › Toxic stress levels
    › Chaos
  - Multigeneration drug dependence
  - Missing generation
  - Treatment facilities exclude children, separating families

› Only 24% of opioid prescriptions are obtained legally.
  - 45% of users gain access from family and friends

› "As a family we have been preparing for my mom's death our entire lives." Brittany Pettersen, Colorado House of Representatives
Next Steps: Public Health Response to the Crisis

› Prevent Overdoses
› Increase awareness about chronic disease and long-term management
› Access to screening and treatment, remove stigma
› Strengthen social and community services; education to encourage healthy choices and actions
› Address factors that contribute to the CAUSE of prescribing, support best-practice prescribing, provide alternative treatments to prevent unintended consequences

DOI: 10.1056/NEJMc1511248

Thank you. Questions? Comments?

“For the past 40 years we have been trying the mainly punitive approach; we have increased penalties, we have hounded the drug addict, and we have brought out the idea that any person who takes drugs is a most dangerous criminal and a menace to society. We have perpetuated the myth that addiction to opiates is the great cause of crimes of violence and of sex crimes. .... **Our whole dealing with the problem of drug addiction for the past 40 years has been a sorry mess.”**

Dr. Bowman (1958)