The Opioid Crisis is a Wicked Problem
Jonathan C. Lee, MD

Virginia Chapter Annual Meeting and Clinical Update

March 9, 2019
Financial Disclosure

- Jonathan C. Lee is a salaried physician at The Farley Center at Williamsburg Place.
- There is not a conflict of interest relevant to the topics that I will be discussing.
Objectives

- Define a wicked problem
- Define the opioid crisis
- Review Virginia BOM regulations
- Review Virginia PMP and NarxCare
- Diagnosis and management of addiction
- Discuss strategies to solve the opioid crisis
What is a wicked problem?
Wicked Problem Definition (Olver, 2015)

- Complex systems with components that interact in poorly understood and unpredictable ways
- Interventions into the system produce downstream consequences that cannot be known in advance and cannot be undone
- Changing one element of the system changes the dynamics of the entire system
• **Myth** that risk of addiction was low when opioids were prescribed for chronic pain based on a one-paragraph letter that was published in the NEJM in 1980

• In 1996, the American Pain Society introduced “pain as the 5th vital sign”

• The Joint Commission on Accreditation of Healthcare Organizations evaluated pain scores
Purdue Pharma: maker of OxyContin

• In 2007, Purdue and 3 executives pleaded guilty to misbranding OxyContin and agreed to pay $634.5 million to resolve a US Dept. of Justice investigation.

• In 2014, >240 million prescriptions were written for prescription opioids (US Dept. of HHS)

• By 2015, ~92 million people in US were prescribed an opioid (Ann Intern Med, 2017)
Purdue sold $1.74 billion of OxyContin in 2017

• In August 2018, New York joined 26 US states and Puerto Rico to sue Purdue Pharma
  – Widespread fraud and deception in the marketing of opioids, and contributing to a nationwide epidemic that has killed thousands.
  – Misleading doctors and patients by overstating the ability of opioids to improve bodily function, while downplaying the risk of addiction.

Misuse or “Nonmedical Use” of Rx (NIDA, 2016)

- Taking a medication in a manner or dose other than prescribed
- Taking someone else’s prescription
- Taking a medication to feel euphoria
- 4 in 5 new heroin users started out by “misusing” prescription opioids
Opioid Overdose Epidemic in the US (CDC, 2017)

- From 1999 to 2016, more than 630,000 people died from drug overdoses
- In 2016, drug overdoses killed ~64,000
  - 2/3 of overdose deaths involved opioids
  - 5 times higher than in 1999
- 115 people die every day from opioid OD
Drug poisoning mortality more than doubled in the United States from 2000 to 2015

Poisoning mortality involving opioids more than tripled

Reduced life expectancy for non-Hispanic white individuals in the United States from 2000 to 2014
Virginia’s Opioid Crisis

1 out of 6 high schoolers have misused prescription drugs in their lifetime

1 out of 56 high schoolers have used heroin in their lifetime

Every 12 hours a Virginian dies from an opioid overdose

Every 2 hours a Virginian is arrested for an opioid-related crime

There were 4,076 administrations of Narcan by Emergency Medical Services in 2016

Virginia spends $546 million annually on healthcare related to opioid abuse
Virginia Board of Medicine Regulations on Opioid Prescribing (8/18/18)

William L. Harp, MD
Executive Director
Virginia Board of Medicine
www.dhp.virginia.gov
History of Opioid Prescribing in the Commonwealth of Virginia

2002—Concern at the Board about overdose deaths

2003—Legislature gave the Board a simple negligence standard for taking action

2003—Legislature establishes the Prescription Monitoring Program

2004—Board adopted the FSMB Model Policy on the Use of Controlled Substances in the Treatment of Pain
In 2006, the BOM and the PMP, with support from the MSV, began presentations around the state on pain management and the proper prescribing of opioids.
History of Opioid Prescribing in the Commonwealth of Virginia

2007--Purdue Pharma paid $634.5M for “misbranding” with Oxycontin

2007--Prescription Monitoring Program got $20M

2007--Board of Medicine develops regulations on pain management and prescribing
History of Opioid Prescribing in the Commonwealth of Virginia

2009--Executive Branch requested that the Board withdraw its regulations

Meanwhile, robust enforcement by the Board continued and overdose deaths remained fairly constant

2013--Updated FSMB Model Policy for the Use of Opioid Analgesics in the Treatment of Chronic Pain adopted by the Board
2014--Governor McAuliffe and Attorney General Herring became concerned about the crisis with prescription drugs and heroin in our communities.

2014--Gov. McAuliffe forms the Governor’s Task Force on Prescription Drug and Heroin Abuse in September.

2015--Gov. McAuliffe receives the Task Force recommendations in October.
In 2016, the General Assembly passed law that authorizes the Board of Medicine to require 2 hours of continuing education on controlled substances each biennium

- Pain management
- Responsible prescribing of controlled substances
- Diagnosis and management of addiction
VA BOM 2-hours of Type 1 CMEs
https://www.dhp.virginia.gov/medicine/

• Board of Medicine Regulations Governing Prescribing Opioids and Buprenorphine
• Board’s Frequently Asked Questions on Opioids and Buprenorphine
• Stanford University course on “How to Taper Patients Off of Chronic Opioid Therapy”
• Prescription Monitoring Program 7-minute video on NarxCare
VIRGINIA’S PRESCRIPTION MONITORING PROGRAM

Ralph Orr
Director
Virginia Prescription Monitoring Program
The PMP

• Resource for Prescribers and Pharmacists
• 24/7 Database of Schedule II –V Prescriptions, gabapentin and naloxone
• Every prescriber & pharmacist is authorized when licensed in Virginia
• Real-time: pharmacies & other dispensers report within 24 hours
• PMP **interoperable** with 30 states including MD, NC, WV, KY, TN, DC
• Pro-active report of outlier prescribing & dispensing for investigation
• Pro-active report of doctor shopping behavior to law enforcement
Integrated PMP

• Means that the information can be reached directly from the patient’s EMR with a simple click

• For many of us, this was the game changer
A maximized PMP...

Could answer or substantiate the answer to 4 important questions

• Is this patient opioid naïve?
• Is this patient using controlled substances frequently or chronically?
• Is this patient’s pattern of controlled substance use concerning?
• Is this patient at risk of overdose and in need of immediate help?

A simple LIST of prescriptions would require analysis to do this & TIME
Enter NarxScores

- 3 scores: narcotic, sedative, stimulant
- 3 digit numbers from 000-999
- Last digit represents the number of current prescriptions
- First two digits result from a multi-dimensional analysis of the Rx data
  - Amount of Medication
  - Number of Providers
  - Number of Pharmacies
  - Concomitant Medications
  - Overlapping Prescriptions
NarxScores weigh medication used and medication behaviors

- Low Dose + Low Risk Behaviors = Low NarxScore
- Low Dose + Risky Behaviors = Mid-Range NarxScore
- High Dose + Low Risk Behaviors = Mid-Range NarxScore
- High Dose + Risky Behaviors = High NarxScore

Distribution of NarxScores

- 75% <200
- 5% >500
- 1% >650
The Fourth NarxScore

Overdose Risk Score

- 3 digits ranging from 000-999
- Highly correlated with risk of unintentional OD death
- Correlated to >5000 OD deaths
### DAVE TEST PATIENT, 118

#### Narx Report

**NARX SCORES**

<table>
<thead>
<tr>
<th>Narcotic</th>
<th>Sedative</th>
<th>Stimulant</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>040</td>
<td>000</td>
</tr>
</tbody>
</table>

**OVERDOSE RISK SCORE**

- **310**
  - (Range 000-999)

**ADDITIONAL RISK INDICATORS (1)**

- > 100 MME total and 40 MME/day average

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**Explanation and Guidance**

This NarxCare report is based on search criteria supplied and the data entered by the dispensing pharmacy. For more information about any prescription, please contact the dispensing pharmacy or the prescriber. NarxCare scores and reports are intended to aid, not replace, medical decision making. None of the information presented should be used as sole justification for providing or refusing to provide medications. The information on this report is not warranted as accurate or complete.

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**Graphs**

**RX GRAPH**

- **Narcotic**
- **Sedative**
- **Stimulant**

<table>
<thead>
<tr>
<th>All Prescribers</th>
<th>Prescribers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribers</td>
<td></td>
</tr>
<tr>
<td>3 - Testprescriber, B</td>
<td></td>
</tr>
<tr>
<td>2 - Testprescriber, E</td>
<td></td>
</tr>
<tr>
<td>1 - Testprescriber, D</td>
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</table>

**Timeline**

<table>
<thead>
<tr>
<th>08/29</th>
<th>2m</th>
<th>5m</th>
<th>1y</th>
<th>2y</th>
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</table>
### Summary

<table>
<thead>
<tr>
<th>Narcotics* (excluding buprenorphine):</th>
<th>Sedatives*</th>
<th>Buprenorphine*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Prescriptions: 5</td>
<td>Current Qty: 0</td>
<td>Current Qty: 0</td>
</tr>
<tr>
<td>Total Prescribers: 3</td>
<td>Current MME/day: 0.00</td>
<td>Current MME/day: 0.00</td>
</tr>
<tr>
<td>Total Pharmacies: 2</td>
<td>30 Day Avg MME/day: 0.00</td>
<td>30 Day Avg MME/day: 0.00</td>
</tr>
</tbody>
</table>

### Rx Data

#### PRESCRIPTIONS

- **Total Prescriptions:** 5
- **Total Private Pay:** 5

<table>
<thead>
<tr>
<th>Fill Date</th>
<th>ID</th>
<th>Written Date</th>
<th>Drug</th>
<th>Qty</th>
<th>Days</th>
<th>Prescriber</th>
<th>Rx #</th>
<th>Pharmacy</th>
<th>Refill</th>
<th>Daily Dose*</th>
<th>Pymt Type</th>
<th>PMP</th>
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</thead>
<tbody>
<tr>
<td>12/12/2016</td>
<td>1</td>
<td>12/12/2016</td>
<td>OXYCODONE HCL 20 MG TABLET</td>
<td>60</td>
<td>30</td>
<td>DA TES</td>
<td>TP000009</td>
<td>Dav(0000)</td>
<td>0</td>
<td>60.00 MME Private Pay</td>
<td>VA</td>
<td></td>
</tr>
<tr>
<td>12/12/2016</td>
<td>1</td>
<td>12/12/2016</td>
<td>OXYCODONE HCL 20 MG TABLET</td>
<td>60</td>
<td>60</td>
<td>EO TES</td>
<td>TP000011</td>
<td>Dav(0000)</td>
<td>0</td>
<td>30.00 MME Private Pay</td>
<td>VA</td>
<td></td>
</tr>
<tr>
<td>12/08/2016</td>
<td>1</td>
<td>12/09/2016</td>
<td>OXYCODONE HCL 20 MG TABLET</td>
<td>60</td>
<td>25</td>
<td>BO TES</td>
<td>TP000002</td>
<td>Bob(1111)</td>
<td>0</td>
<td>72.00 MME Private Pay</td>
<td>VA</td>
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<tr>
<td>11/09/2016</td>
<td>1</td>
<td>11/09/2016</td>
<td>OXYCODONE HCL 20 MG TABLET</td>
<td>60</td>
<td>30</td>
<td>BO TES</td>
<td>TP000003</td>
<td>Bob(1111)</td>
<td>0</td>
<td>60.00 MME Private Pay</td>
<td>VA</td>
<td></td>
</tr>
<tr>
<td>10/09/2016</td>
<td>1</td>
<td>10/09/2016</td>
<td>OXYCODONE HCL 20 MG TABLET</td>
<td>60</td>
<td>30</td>
<td>BO TES</td>
<td>TP000004</td>
<td>Bob(1111)</td>
<td>0</td>
<td>60.00 MME Private Pay</td>
<td>VA</td>
<td></td>
</tr>
</tbody>
</table>

*Per CDC guidance, the MME conversion factors prescribed or provided as part of the medication-assisted treatment for opioid use disorder should not be used to benchmark against dosage thresholds meant for opioids prescribed for pain. Buprenorphine products have no agreed upon morphine equivalency, and as partial opioid agonists, are not expected to be associated with overdose risk in the same dose-dependent manner as doses for full agonist opioids. MME = morphine milligram equivalents. LME = Lorazepam milligram equivalents. mg = dose in milligrams.

#### PROVIDERS

- **Total Providers:** 3

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zipcode</th>
<th>DEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TESTPREScriber, BOB</td>
<td>8888 NOWHERE ST</td>
<td>RESTON</td>
<td>VA</td>
<td>20190</td>
<td>XR111111</td>
</tr>
<tr>
<td>TESTPREScriber, DAVE</td>
<td>850 NO PLACE ST</td>
<td>RESTON</td>
<td>VA</td>
<td>20190</td>
<td>X0666666</td>
</tr>
<tr>
<td>TESTPREScriber, EVE</td>
<td>10110 TEST ST</td>
<td>RESTON</td>
<td>VA</td>
<td>20190</td>
<td>XE688888</td>
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#### PHARMACIES

- **Total Pharmacies:** 2

<table>
<thead>
<tr>
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<th>City</th>
<th>State</th>
<th>Zipcode</th>
<th>DEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob's PHARMACY</td>
<td>1234 NOT-A-REAL-PLACE DR</td>
<td>RESTON</td>
<td>VA</td>
<td>20190</td>
<td>ZB111111</td>
</tr>
<tr>
<td>Dave's PHARMACY CHAIN</td>
<td>7th TEST ST</td>
<td>RESTON</td>
<td>VA</td>
<td>20190</td>
<td>D0000000</td>
</tr>
</tbody>
</table>
Access to Treatment

Mat Providers
Find the 30 closest MAT providers for this patient. The patient's zip code is prep-populated if available. View more information about the treatment locator.

Search for providers near:
Zip Code

Submit

Educational Resources

INFORMATIONAL DOCUMENTS
Click the associated link and print. View more information about resources.

What You Need to Know

Opioids and Chronic Pain

Pregnancy and Opioids

www.dhp.virginia.gov
From the fourth quarter of 2016 to the first quarter of 2018 Pain Reliever Doses declined from 129,797,789 to 64,291,723 which represents a 49.53% decline. In that same time period, tranquilizer doses declined by 19.17% and sedatives declined by 12.59%. There was a 12.31% decline between the fourth quarter of 2016 & the first quarter of 2018 for stimulants but there was an increase from the fourth quarter of 2016 to peak in the first quarter of 2017.
The leading methods of unnatural death in Virginia since 2007 have been motor vehicle collisions, gun-related deaths, and fatal drug overdoses (these methods of death include all manners of death: accident, homicide, suicide, and undetermined). In 2013, fatal drug overdose became the leading method of unnatural death in the Commonwealth. This trend has continued to worsen at a greater magnitude due mainly to illicit opioids (heroin, illicit fentanyl, and fentanyl analogs).

Total Number of Motor Vehicle, Gun, and Drug Related Fatalities by Year of Death, 2007-2018
(Data for 2018 is a Predicted Total for the Entire Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor Vehicle Related</th>
<th>Gun Related</th>
<th>Fatal Drug Overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1124</td>
<td>836</td>
<td>721</td>
</tr>
<tr>
<td>2008</td>
<td>928</td>
<td>818</td>
<td>735</td>
</tr>
<tr>
<td>2009</td>
<td>841</td>
<td>843</td>
<td>713</td>
</tr>
<tr>
<td>2010</td>
<td>823</td>
<td>868</td>
<td>690</td>
</tr>
<tr>
<td>2011</td>
<td>878</td>
<td>863</td>
<td>819</td>
</tr>
<tr>
<td>2012</td>
<td>877</td>
<td>835</td>
<td>799</td>
</tr>
<tr>
<td>2013</td>
<td>832</td>
<td>852</td>
<td>914</td>
</tr>
<tr>
<td>2014</td>
<td>808</td>
<td>901</td>
<td>994</td>
</tr>
<tr>
<td>2015</td>
<td>879</td>
<td>940</td>
<td>1028</td>
</tr>
<tr>
<td>2016</td>
<td>890</td>
<td>1058</td>
<td>1428</td>
</tr>
<tr>
<td>2017</td>
<td>956</td>
<td>1028</td>
<td>1534</td>
</tr>
<tr>
<td>2018*</td>
<td>937</td>
<td>1030</td>
<td>1508</td>
</tr>
</tbody>
</table>

1 Top 3 methods of death (motor vehicles, guns, and drugs) include all manners of death (accident, homicide, suicide, and undetermined)
ALL DRUGS

The total number of fatal drug overdoses statewide has increased each year. In 2013, fatal drug overdose became the number one method of unnatural death in the Commonwealth, surpassing both motor vehicle-related fatalities and gun-related fatalities. In 2014, fatal drug overdose became the leading cause of accidental death in Virginia. The number of all fatal overdoses in 2016 compared to 2015 increased by 38.9%—a record setting statistic. In 2017 compared to 2016, fatal overdoses increased 7.4%.

Total Number of Fatal Drug Overdoses by Quarter and Year of Death, 2007-2018

(‘Total Fatalities’ for 2018 is a Predicted Total for the Entire Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>176</td>
<td>188</td>
<td>152</td>
<td>205</td>
<td>721</td>
</tr>
<tr>
<td>2008</td>
<td>198</td>
<td>162</td>
<td>180</td>
<td>195</td>
<td>735</td>
</tr>
<tr>
<td>2009</td>
<td>201</td>
<td>172</td>
<td>183</td>
<td>183</td>
<td>713</td>
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<td>2010</td>
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<td>159</td>
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<td>179</td>
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<td>2011</td>
<td>181</td>
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<tr>
<td>2012</td>
<td>170</td>
<td>190</td>
<td>199</td>
<td>240</td>
<td>799</td>
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<td>2013</td>
<td>179</td>
<td>230</td>
<td>217</td>
<td>248</td>
<td>914</td>
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<tr>
<td>2014</td>
<td>182</td>
<td>230</td>
<td>219</td>
<td>263</td>
<td>994</td>
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<tr>
<td>2015</td>
<td>181</td>
<td>230</td>
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<td>2016</td>
<td>182</td>
<td>230</td>
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<td>2017</td>
<td>182</td>
<td>230</td>
<td>217</td>
<td>392</td>
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<tr>
<td>2018*</td>
<td>182</td>
<td>230</td>
<td>217</td>
<td>396</td>
<td>1508</td>
</tr>
</tbody>
</table>
ALL OPIOIDS

From 2007-2015, opioids (fentanyl, heroin, U-47700, and/or one or more prescription opioids) made up approximately 75% of all fatal drug overdoses annually in Virginia. However, this percentage is increasing each year due to the significant increase in fatal fentanyl and/or heroin overdoses which began in late 2013 and early 2014. Fatal opioid overdoses increased by 8.0% in 2017 when compared to 2016.

Total Number of Fatal Opioid Overdoses by Quarter and Year of Death, 2007-2018

('Total Fatalities' for 2018 is a Predicted Total for the Entire Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>126</td>
<td>130</td>
<td>104</td>
<td>156</td>
<td>516</td>
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<tr>
<td>2008</td>
<td>133</td>
<td>128</td>
<td>134</td>
<td>151</td>
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<tr>
<td>2009</td>
<td>144</td>
<td>128</td>
<td>136</td>
<td>136</td>
<td>530</td>
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<tr>
<td>2010</td>
<td>142</td>
<td>109</td>
<td>122</td>
<td>131</td>
<td>498</td>
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<tr>
<td>2011</td>
<td>141</td>
<td>156</td>
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<td>168</td>
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<td>2012</td>
<td>122</td>
<td>134</td>
<td>137</td>
<td>179</td>
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<tr>
<td>2013</td>
<td>151</td>
<td>134</td>
<td>158</td>
<td>202</td>
<td>684</td>
</tr>
<tr>
<td>2014</td>
<td>187</td>
<td>173</td>
<td>201</td>
<td>201</td>
<td>775</td>
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<tr>
<td>2015</td>
<td>196</td>
<td>185</td>
<td>208</td>
<td>208</td>
<td>812</td>
</tr>
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<td>2016</td>
<td>293</td>
<td>213</td>
<td>298</td>
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</tr>
<tr>
<td>2017</td>
<td>321</td>
<td>275</td>
<td>312</td>
<td>351</td>
<td>1229</td>
</tr>
<tr>
<td>2018*</td>
<td>280</td>
<td>284</td>
<td>329</td>
<td>351</td>
<td>1229</td>
</tr>
</tbody>
</table>

1. All Opioids include all versions of fentanyl, heroin, prescription opioids, U-47700, and opioids unspecified.
2. Opioids Unspecified are a small category of deaths in which the determination of heroin and/or one or more prescription opioids cannot be made due to specific circumstances of the death. Most commonly, these circumstances are a result of death several days after an overdose, in which the OCME cannot test for toxicology because the substances have been metabolized out of the decedent’s system.
3. Fatal opioid numbers have changed slightly from past reports due to the removal of fentanyl from the category of prescription opioids, as well as the addition of buprenorphine, levorphanol, meperidine, pentazocine, propoxyphene, and tapentadol added to the list of prescription opioids.
Prescription opioids are a group of drugs that are commercially made by pharmaceutical companies in certified laboratories that act upon the opioid receptors in the brain. Historically, fentanyl has been one of these drugs. However, in late 2013, early 2014, illicitly made fentanyl began showing up in Virginia and by 2016, most fatal fentanyl overdoses were of illicit production of the drug. Separating fentanyl from the grouping of prescription opioids for this reason demonstrates a slight decrease in fatal prescription opioid overdoses in 2015 and a dramatic increase in the number of fatal fentanyl and/or heroin overdoses. This has caused the significant rise in all fatal opioid overdoses in the Commonwealth since 2012.

**Total Number of Prescription Opioid (Excluding Fentanyl), Fentanyl and/or Heroin, and All Opioid Overdoses by Year of Death, 2007-2018**

(*Total Fatalities* for 2018 is a Predicted Total for the Entire Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>All Opioids</th>
<th>Prescription Opioids (excluding fentanyl)</th>
<th>Fentanyl and/or Heroin</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>516</td>
<td>401</td>
<td>148</td>
</tr>
<tr>
<td>2008</td>
<td>538</td>
<td>422</td>
<td>157</td>
</tr>
<tr>
<td>2009</td>
<td>530</td>
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<td>2016</td>
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<td>507</td>
<td>814</td>
</tr>
<tr>
<td>2017</td>
<td>1229</td>
<td>547</td>
<td>940</td>
</tr>
<tr>
<td>2018*</td>
<td>1229</td>
<td>457</td>
<td>977</td>
</tr>
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</table>

1. *All Opioids* include all versions of fentanyl, heroin, prescription opioids, and opioids unspecified.
2. Illicit and pharmaceutically produced fatal fentanyl overdoses are represented in this analysis. This includes all different types of fentanyl analogs (acetyl fentanyl, furanyl fentanyl, etc.).
3. *Prescription Opioids (excluding fentanyl)* calculates all deaths in which one or more prescription opioids caused or contributed to death, but excludes fentanyl from the required list of prescription opioid drugs used to calculate the numbers. However, given that some of these deaths have multiple drugs on board, some deaths may have fentanyl in addition to other prescription opioids, and are therefore counted in the total number. Analysis must be done this way because by excluding all deaths in which fentanyl caused or contributed to death, the calculation would also exclude other prescription opioid deaths (oxycodeone, methadone, etc.) from the analysis and would thereby undercount the actual number of fatalities due to these true prescription opioids.
Addiction occurs when a person cannot control the impulse to use drugs even when there are negative consequences.

Behavioral changes are accompanied by changes in brain functioning, especially in the brain’s natural inhibition and reward centers.
Primary, chronic disease of brain: reward, motivation, memory and related circuitry

Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations

Individual pathologically pursues reward and/or relief by substance use and/or other behaviors
ASAM Definition of Addiction (2011)

- Inability to consistently abstain
- Impairment in behavioral control
- Craving
- Diminished insight in significant problems with behavior and relationships
- Dysfunctional emotional response
- Cycles of relapse and remission
- Progressive in nature
ASAM Definition of Addiction (2011)

- Can result in **DISABILITY** and/or **DEATH**
- Treatment and/or engagement in **RECOVERY** activities can **PREVENT** disability and/or premature death
- Full definition available at www.asam.org
## Substance Use Disorders

*(Diagnostic and Statistical Manual of Mental Disorders)*

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>DSM-IV Abuse&lt;sup&gt;a&lt;/sup&gt;</th>
<th>DSM-IV Dependence&lt;sup&gt;b&lt;/sup&gt;</th>
<th>DSM-5 Substance Use Disorders&lt;sup&gt;c&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>Hazardous use</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>Social/interpersonal problems related to use</td>
<td>X</td>
<td>-</td>
<td>X</td>
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<tr>
<td>Neglected major roles to use</td>
<td>X</td>
<td>-</td>
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</tr>
<tr>
<td>Legal problems</td>
<td>X</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Withdrawal&lt;sup&gt;d&lt;/sup&gt;</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tolerance</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Used larger amounts/longer</td>
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<td>X</td>
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<tr>
<td>Repeated attempts to quit/control use</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Much time spent using</td>
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<tr>
<td>Physical/psychological problems related to use</td>
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<tr>
<td>Activities given up to use</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Craving</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

<sup>a</sup> One or more abuse criteria within a 12-month period *and* no dependence diagnosis; applicable to all substances except nicotine, for which DSM-IV abuse criteria were not given.

<sup>b</sup> Three or more dependence criteria within a 12-month period.

<sup>c</sup> Two or more substance use disorder criteria within a 12-month period.

<sup>d</sup> Withdrawal not included for cannabis, inhalant, and hallucinogen disorders in DSM-IV. Cannabis withdrawal added in DSM-5.
Diagnosing SUD in DSM-5

- 11 criteria
- Criterion eliminated: recurrent legal problems
- Criterion added: craving or strong desire to use
- Severity
  - Mild: 2-3 symptoms
  - Moderate: 4-5 symptoms
  - Severe: 6 or more symptoms
Management of Addiction

- Identify (Screening)
- Intervene (Brief Intervention)
- Evaluate (Referral)
- Detoxification (if indicated)
- Treatment
- Continuing Care
- Monitoring and Accountability
Management of Chronic Disease

- Lifestyle modifications
- Monitoring (UDS, blood sugars, fluid status)
- Psychosocial treatments
- Medications
- Relapse prevention
- Mutual help groups
What about Narcotics Anonymous?

- Paucity of attention to Narcotics Anonymous in current public, professional, and policy responses to rising opioid addiction (White, Galanter et al., 2016)
- Since the 1950s, NA has provided mutual support for members with opioid/drug addiction
- 12-step facilitation is effective, accessible, and enhances cognitive and behavioral changes necessary for recovery (NIDA, 2012)
1. Save lives
2. Treat, don’t arrest
3. Fund treatment
4. Combat stigma
5. Enforce mental health parity
6. Teach pain management
7. Start young with prevention
8. Support medication-assisted treatment (MAT)
Medication-Assisted Treatment (MAT)

FDA Approved Medications for Opioid Use Disorder

- Naltrexone (opioid antagonist)
- Buprenorphine (partial opioid agonist)
- Methadone (full opioid agonist)
President’s Commission on Combating Drug Addiction and Opioid Crisis (Christie et al., 11/1/17)

- Invest in programs that achieve quantifiable goals
- Accountability by Office of National Drug Control Policy
- Streamline funding to states by using block grants
- Establish drug courts in all 93 federal judicial districts
- Naloxone for first responders
- Training healthcare providers
- Penalize insurers for not covering addiction treatment
- Remove questions about pain in hospital performance satisfaction surveys by the CMS
Ten Steps the Federal Government Should Take Now to Reverse the Opioid Addiction Epidemic (JAMA, 2017)

Preventing Opioid Addiction and Overdoses
1. Improve surveillance of possible opioid addiction
2. Improve reporting of and respond to opioid-related overdoses and fatalities
3. Promote more cautious prescribing for acute pain
4. Change labeling for chronic pain and greatly restrict or eliminate marketing of opioids for chronic pain
5. Increase insurance coverage of and access to non-opioid and non-pharmacological management of pain
Ten Steps the Federal Government Should Take Now to Reverse the Opioid Addiction Epidemic (JAMA, 2017)

Treatment and Harm Reduction for Current Users

6. Interrupt supply of heroin and illicit synthetic opioids and improve coordination between legal and public health

7. Identify possible opioid addiction early and link individuals to treatment

8. Expand low-threshold access to MAT

9. Implement harm reduction for current users with access to clean syringes and naloxone

10. Remove ultra-high-dosage-unit opioid analgesics from the market
Funding to Fight Opioid Crisis
(The Hill, 9/19/18)

Dept. of HHS awarded >$1 billion in grants

- $930 million to support states’ treatment and prevention services
- $352 million to community health centers to increase access to services for SUD and mental health
- $194 million to conduct research
Artificial Intelligence Scans Twitter for Signs of Opioid Abuse (Scientific American, 10/30/17)

• Geotagged tweets using drug handles
  – Dummies (fentanyl)
  – Captain Cody (Robitussin with codeine)

• Pinpoint clusters of opioid problems more quickly than National Survey on Drug Usage and Health

• Social media can be a reliable source of epidemiological data regarding substance use
Innovative engagement strategies

- Community care coordinators
- Telephonic recovery coaching
- Digital apps on smart devices
Patient Engagement is Key

➢ Attract patients to care
➢ Develop trust
➢ Form partnerships
➢ Support long-term recovery
“We must stop treating addiction as a moral failing, and start seeing it for what it is: a chronic disease that must be treated with urgency and compassion.”

Vivek H. Murthy, MD, MBA
19th Surgeon General of the US
References