



## **The Opioid and Heroin Overdose Epidemic in Virginia**

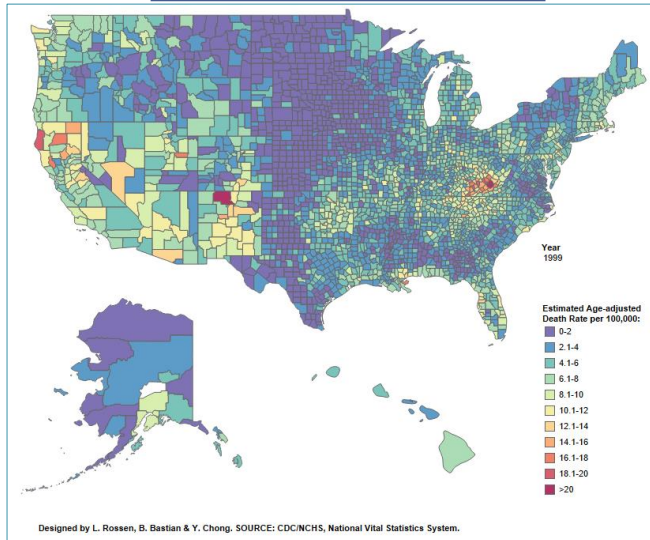
Jodi Manz, MSW  
Policy Advisor

Office of the Secretary of Health and Human Resources

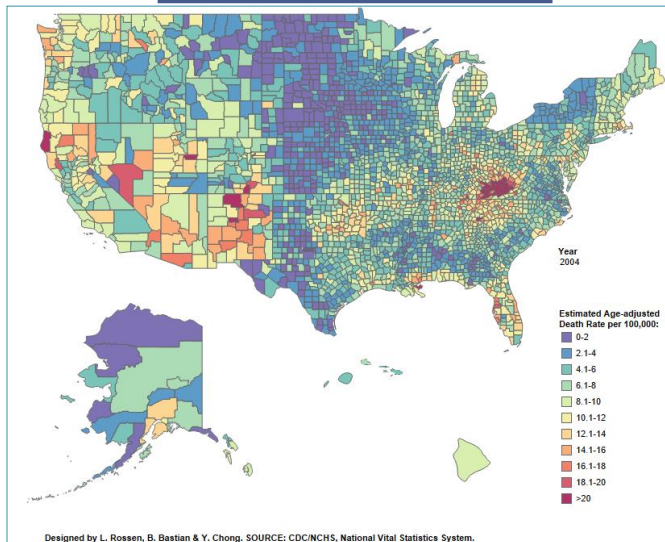
October 2, 2017



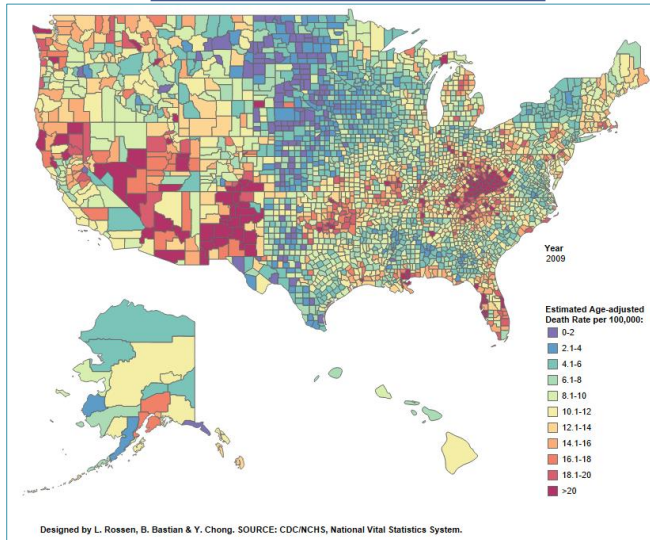
# 1999 - Estimated drug overdose deaths



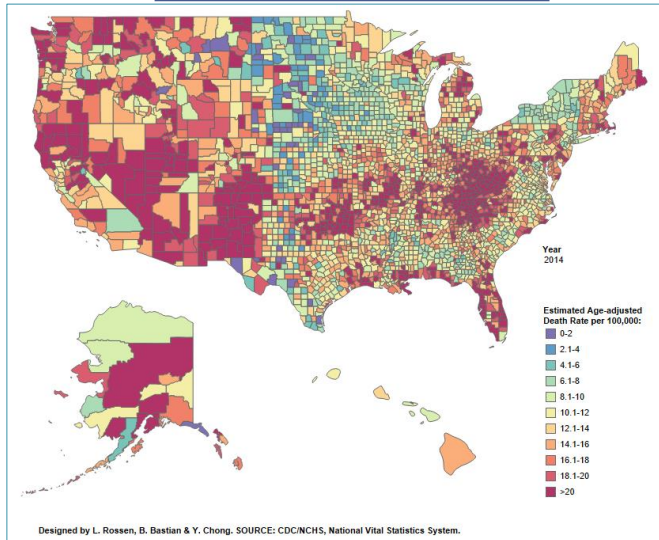
# 2004 - Estimated drug overdose deaths



# 2009 - Estimated drug overdose deaths



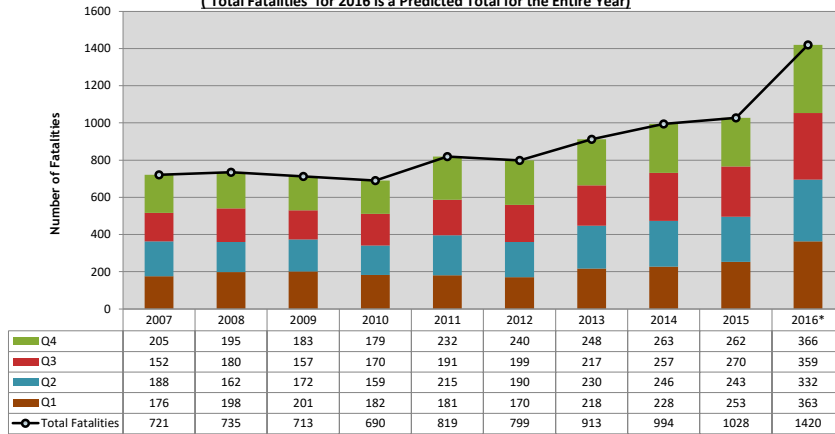
# 2014 - Estimated drug overdose deaths



# ALL DRUG OVERDOSE DEATHS IN VIRGINIA

The total number of fatal drug overdoses statewide have been increasing 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 38.1%.

**Total Number of Fatal Drug Overdoses by Quarter and Year of Death, 2007-2016**  
 ('Total Fatalities' for 2016 is a Predicted Total for the Entire Year)



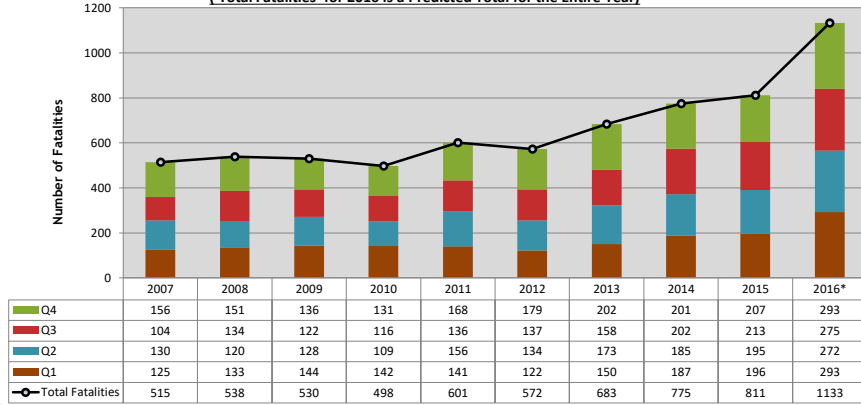
Data: Virginia Dept of Health, Office of the Chief Medical Examiner, 2017

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# ALL OPIOID OVERDOSE DEATHS IN VIRGINIA

From 2007-2015, opioids (fentanyl, heroin, 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 39.7% in 2016 when compared to 2015.

**Total Number of Fatal Opioid Overdoses by Quarter and Year of Death, 2007-2016**  
 (\*Total Fatalities\* for 2016 is a Predicted Total for the Entire Year)



<sup>1</sup> All Opioids include all versions of fentanyl, heroin, prescription opioids, and opioids unspecified

<sup>2</sup> 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.

<sup>3</sup> 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 tramadol to the list of prescription opioids.



## Opiate Versus Opioid



<b>Natural</b>	<b>Semi-synthetic</b>	<b>Synthetic</b>
codeine	hydrocodone	methadone
morphine	oxycodone	fentanyl
*heroin	meperidine	tramadol
	hydromorphone	
	oxymorphone	
	buprenorphine	

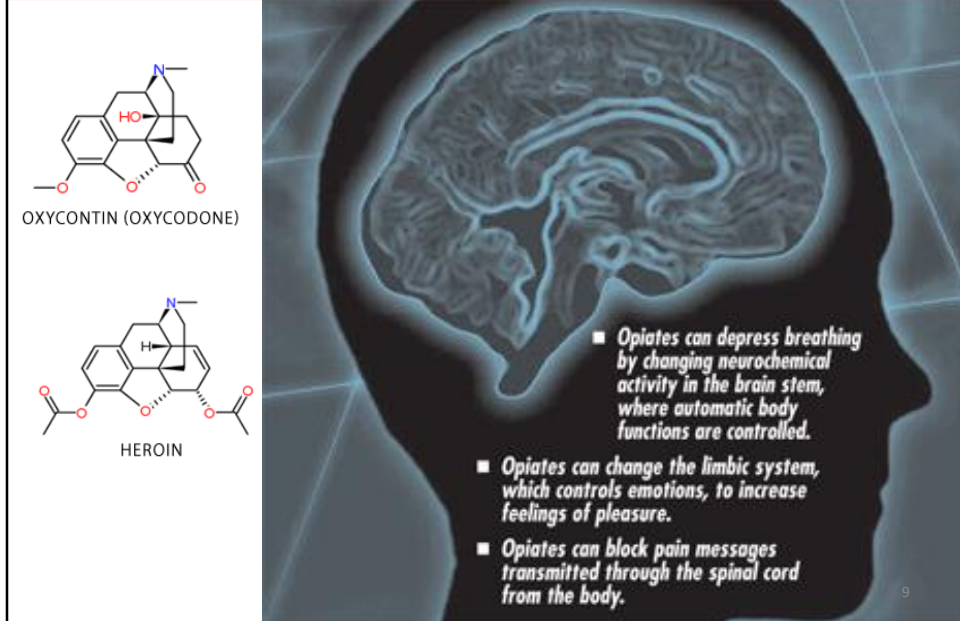
Your body makes its own opioids, which are called  
“endorphins.”

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Opiates are natural poppy derivatives, opioids are morphine derivatives. FENTANYL



## Similarities between Heroin and Prescription Opioids



The image displays the chemical structures of Oxycodone and Heroin on the left, and a sagittal cross-section of a human brain on the right. The Oxycodone structure is a pentacyclic morphine derivative with a hydroxyl group at C3 and a methoxy group at C6. The Heroin structure is a pentacyclic morphine derivative with two acetyl groups at C3 and C6. The brain diagram highlights the brain stem and limbic system, with text explaining the effects of opiates.

OXYCONTIN (OXYCODONE)

HEROIN

- Opiates can depress breathing by changing neurochemical activity in the brain stem, where automatic body functions are controlled.
- Opiates can change the limbic system, which controls emotions, to increase feelings of pleasure.
- Opiates can block pain messages transmitted through the spinal cord from the body.

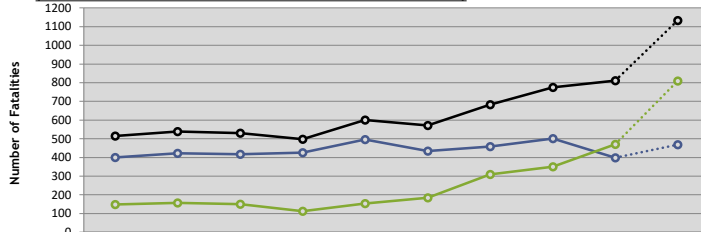
Why do we talk about these things together? Molecularly, it's like Coke v Pepsi. Heroin is cheaper, and with protective policies put into place around pharmaceuticals, often easier to obtain.

# OPIOIDS- A DIFFERENT PERSPECTIVE

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 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, 2007-2016**

(\*Total Fatalities\* for 2016 is a Predicted Total for the Entire Year)



Year	All Opioids	Prescription Opioids (excluding fentanyl)	Fentanyl and/or Heroin
2007	515	400	148
2008	538	422	157
2009	530	417	150
2010	498	426	112
2011	601	496	153
2012	572	435	185
2013	683	459	309
2014	775	501	351
2015	811	398	471
2016*	1133	469	810

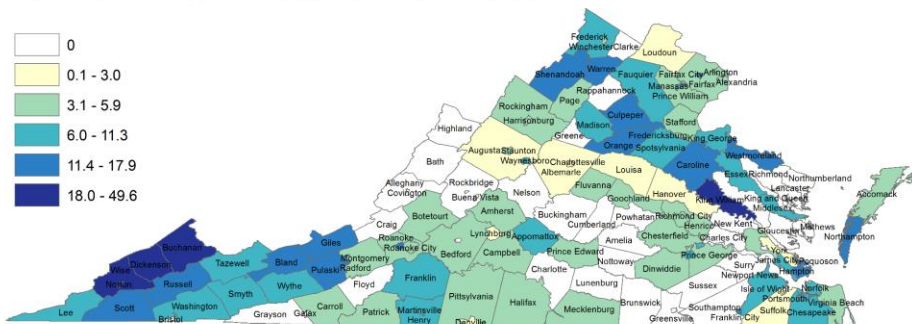
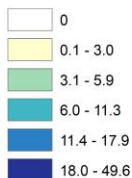
<sup>1</sup> All Opioids\* include all versions of fentanyl, heroin, prescription opioids, and opioids unspecified  
<sup>2</sup> Illicit and pharmaceutically produced fatal fentanyl overdoses are represented in this analysis. This includes all different types of fentanyl analogs (acetyl fentanyl, furanyl fentanyl, etc.)  
<sup>3</sup> 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 prescriptions 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 (oxycodone, methadone, etc.) from the analysis and would thereby undercount the actual number of fatalities due to these true prescription opioids.  
<sup>4</sup> 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.

Data: Virginia  
 Dept of Health,  
 Office of the  
 Chief Medical  
 Examiner, 2017

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# Va Rx Overdose Rate

Rate of fatal prescription opioid overdose (per 100,000)



\*Fatal prescription opioid (excluding fentanyl) overdoses reported to OCME (July 2015 - June 2016).

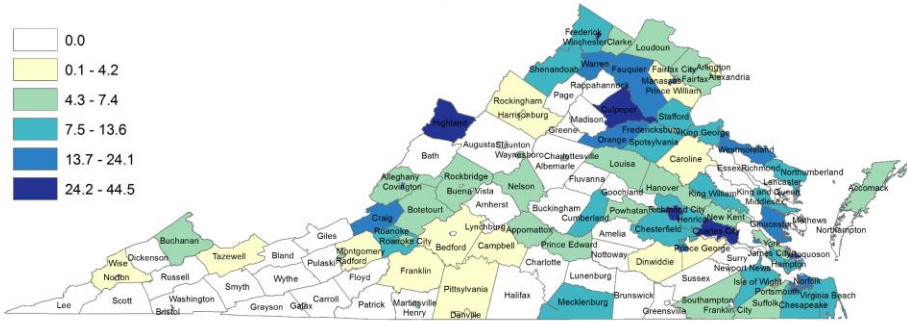
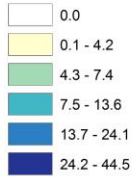
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Socioeconomics, area flooded with pain pills, some unscrupulous docs, lots of legitimate pain because of manual labor, coal.

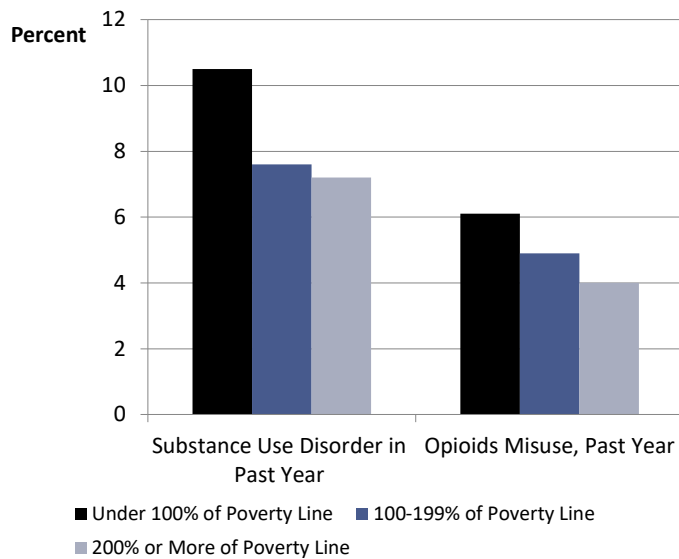
# Va Heroin/Fentanyl Overdose Rate

Rate of fatal heroin and/or fentanyl overdose (per 100,000)



\*Fatal heroin and/or fentanyl overdoses reported to OCME (July 2015 - June 2016).

## Past year Substance Use Disorder and Opioid Misuse by Poverty Status, 2016



Source: 2016 NSDUH

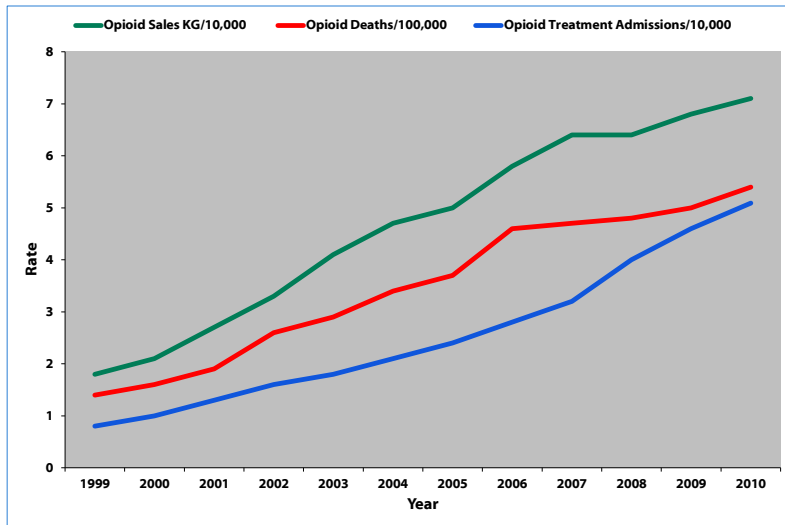
## How did we get here?

- **1996**, Purdue Pharma released OxyContin, a controlled-release formulation of oxycodone
- **1996**, Purdue mounted an aggressive marketing campaign to prescribers, claiming (based on one very small, very old study) that OxyContin was not addictive
- **1997**, FDA relaxed guidelines for direct-to-consumer advertising
- **2007**, Purdue pled guilty to misleading public about risk of addiction (\$600 M settlement)
- **2007**, Kentucky sued Purdue for the impact on abuse in Appalachia (\$24 M settlement in 2015)
- **2010**, Purdue released abuse deterrent formulation
- **2017**, Everett, Washington files suit accusing Purdue of complicity in criminal distribution
- **2017**, Missouri, Mississippi, Ohio, and Oklahoma AGs have filed suits alleging misrepresentation of safety in marketing practices

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the FDA released its draft guidance effectively enabling broadcast ads by allowing advertisers to forgo the requirement that they scroll or read the entire brief summary, provided they met an “adequate provision” standard for risk information.

## Rates of Opioid Overdose Deaths, Sales, and Treatment Admissions, United States, 1999–2010



CDC. MMWR 2011. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e1101a1.htm?s\\_cid=mm60e1101a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e1101a1.htm?s_cid=mm60e1101a1_w). Updated with 2009 mortality and 2010 treatment admission data.

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In May 2007, the company pleaded guilty to misleading the public about Oxycontin's risk of addiction, and agreed to pay \$600 million in one of the [largest pharmaceutical settlements in U.S. history](#). Its president, top lawyer, and former chief medical officer pleaded guilty as individuals to [misbranding](#) charges, a criminal violation, and agreed to pay a total of \$34.5 million in fines

On October 4, 2007, Kentucky officials sued Purdue because of widespread Oxycontin abuse in Appalachia. A lawsuit filed by Kentucky then-Attorney General Greg Stumbo and Pike County officials demanded millions in compensation.<sup>[14]</sup> Eight years later, on December 23, 2015, Kentucky settled with Purdue for \$24 million.<sup>[15]</sup>

A primary contributor to the increase in opioid overdose deaths is an abundance of supply of these very powerful drugs. The more of these drugs that make their way onto the market, the more people get addicted and the more people die.

## Understanding Addiction

- Addiction is not substance specific, but some substances are more addictive (like opioids).
- Biopsychosocial risk factors contribute to development.
- Trauma relationship

Predisposition + exposure (certain social determinants make both of these more or less likely)

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Abuse and misuse are symptoms of addiction




## DSM-V Diagnostic Criteria for Addiction

- Taking the substance in larger amounts or for longer than the you meant to
- Wanting to cut down or stop using the substance but not managing to
- Spending a lot of time getting, using, or recovering from use of the substance
- Cravings and urges to use the substance
- Not managing to do what you should at work, home or school, because of substance use
- Continuing to use, even when it causes problems in relationships
- Giving up important social, occupational or recreational activities because of substance use
- Using substances again and again, even when it puts the you in danger
- Continuing to use, even when the you know you have a physical or psychological problem that could have been caused or made worse by the substance
- Needing more of the substance to get the effect you want (tolerance)
- Development of withdrawal symptoms, which can be relieved by taking more of the substance.

3 or more of these indicate addiction diagnosis

## Societal Implications

- Crime/Incarceration
- Unemployment/local economies
- Neonatal Abstinence Syndrome
- Family disruption
- Childhood trauma
- Death



What is the  
cost of  
doing  
nothing?

The mark of addiction is that these consequences are not always enough to create behavior change that will end the cycle permanently.

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Disruptive to normal human behavior patterns. Opioids have a particular rewiring effect that has changed how we view substance abuse treatment.

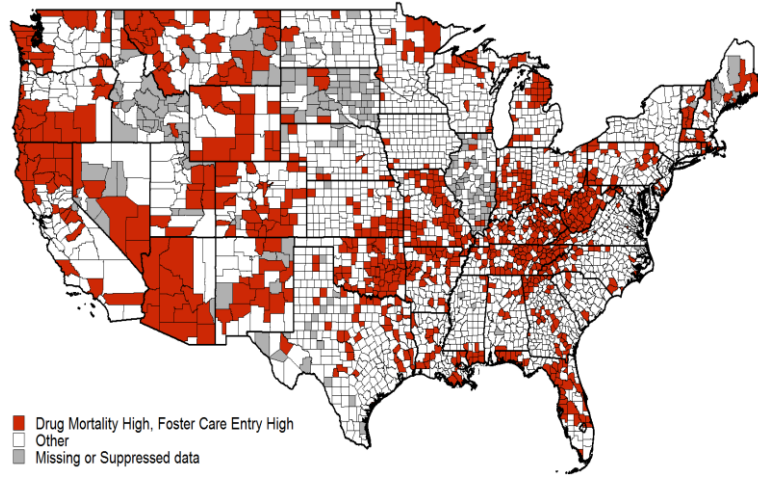
## Yearly Economic Impacts

- \$78.5 billion costs for prescription opioid abuse, dependence, and overdose (2013 dollars)
- \$20.4 billion for Rx and illicit opioid poisonings (2009 dollars)
- \$15 billion for hospitalizations related to Rx and illicit opioid abuse/dependence and \$700 million for serious injection-related infections
- Neonatal abstinence syndrome costs increased from \$61 million in 2003 to \$316 million in 2012



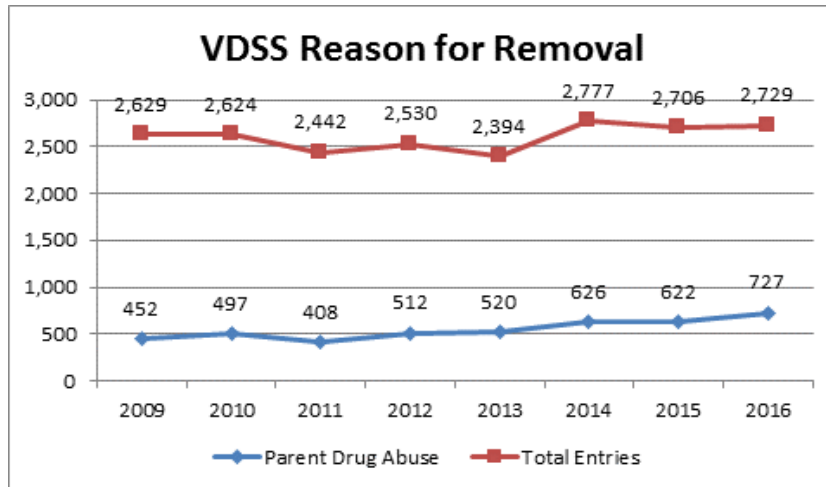
Source: Florence CS, et al., 2016, Medical Care; Inocencio et al, 2013, Pain Medicine; Ronan et al., 2016, Health Affairs; Corr et al., 2017, Ad

## County Drug Mortality and Foster Care Entries, 2015



Source: CDC NVSS, ACF AFCARS

## DSS removal for parental drug abuse



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## What is Virginia doing?

- Organization
  - Sept 26, 2014: ED29 as part of Healthy Virginia Plan
  - December 12, 2016: EO (Current Executive Leadership Team (HHR & PSHS))
- Development of policy framework
- Legislation (2015, 2016, 2017)
- Prescribing regulations
- Treatment regulations
- Budget – treatment funding and Medicaid benefit

## Governor's Task Force on Rx Drug and Opioid Abuse: Establishment and Structure

- *Healthy VA Plan*: Executive Order 29
- Co-chaired by Secretary Hazel & Secretary Moran; 32 multi-disciplinary members, 5 workgroups

- ❖ Education
- ❖ Treatment
- ❖ Storage & Disposal
- ❖ Data & Monitoring
- ❖ Law Enforcement

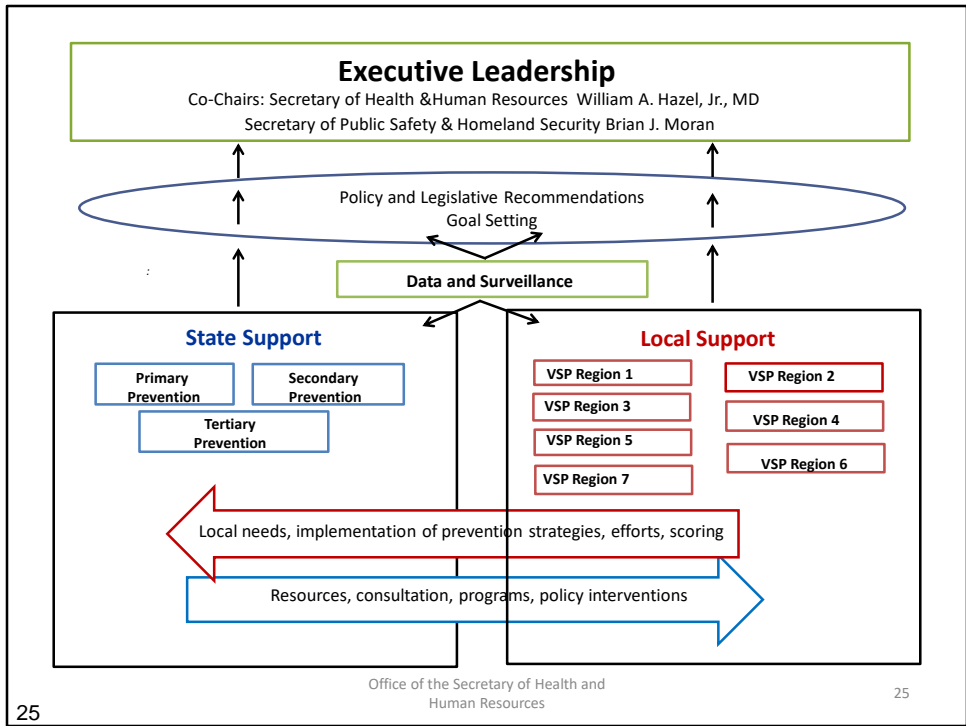


# Executive Directive 9 “Key Objectives”

## **The Executive Leadership Team shall**

1. Provide guidance and assistance in the implementation and oversight of the Task Force recommendations.
2. Identify and support implementation of new initiatives in the areas of public safety and health response to the shifting nature of Virginia’s opioid and addiction epidemic.
3. Collaborate with local entities, task forces and agencies to develop a coordinated and consistent state, regional, and local responses.
4. Work with Federal, state and private entities to leverage existing resources, identify grant opportunities that will support and improve Virginia’s response to the complex public safety and health challenges of licit and illicit opioid and drug addiction problems in the Commonwealth.
5. Integrate and analyze data from healthcare, law enforcement, and other sources to increase understanding of and improve response to this dynamic challenge.





## Addiction Policy Framework

- 1) **Prevention** through reducing the supply of legal opiates
- 2) **Prevention** through tracking and reducing the supply of illegal opiates
- 3) **Harm reduction** until treatment is available and accepted
- 4) **Treatment** for those who are addicted
- 5) **Culture** changes in 3 areas

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Hazel

1) **Harm reduction** until treatment is available and accepted.

Elements include saving lives with Naloxone, preventing infectious diseases that can be spread (HIV and Hepatitis) through targeted needle exchange, preventing neonatal abstinence syndrome by removing barriers to pregnant women entering treatment (fear of losing the baby to social services), working to keep families together and addressing the trauma to the children, and trying to reduce drug related crime.

Surveillance is also part of this since the drugs have changed and will continue to do so. We can also look at Suboxone as harm reduction, particularly diverted Suboxone, as people are often purchasing on the street not as a means to get high, but a means to stave off painful detox.

2) **Treatment for those who are addicted.** We need these folks to be stable, self-sufficient members of society. This is where the MAT and treatment courts come in. Also the peer community etc. Medicaid expansion is an issue. Treatment is the only means to recovery, and recovery is the only alternative to the misery of addiction, or the other option, which is death.

3) **Prevention through reducing the supply of legal opiates.** Better pain management, proper storage and disposal, use of the PMP etc. Perhaps reformulating the meds to reduce abuse potential can help (ADFs). The fewer prescription opioids we have in the community, the fewer can be diverted.

4) **Prevention through tracking and reducing the supply of illegal opiates.** This is law enforcement function primarily. The real trick will be to figure out how addicts can

know what they are getting. Data plays a big part.

5) **Culture changes in 3 areas.** For prevention, we need to find ways to keep kids from putting this stuff in their bodies. Perhaps the asset building approach has merit. Need to engage the schools on this. Next, the culture of pain and suffering has to change. It took a turn for the worse in the 90's and we need to help the pendulum swing back. The third cultural issue is removing the stigma. So long as these folks are judged to be weak or bad, there will not be the social supports (either natural or organized), housing, and the means to support oneself

## Actions: 2017 Legislative Changes

- Governor's bills
  - Mandated e-prescribing, SB1230/HB2165 (Dunnavant/Pillion)
  - Naloxone dispensing, SB848 (Wexton)
  - Peer recovery registration, SB1020/HB2095 (Barker/Price)
  - Substance exposed infants, SB1086/HB1786 (Wexton/Stolle/Herring)
  - Harm reduction pilot programs, HB2317 (O'Bannon)
  - PMP initial opioid Rx reduction HB1885/SB1232 (Hugo/Dunnavant)

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Mandated e-prescribing to ensure that all opioid Rx are transmitted electronically by 2020

Peer recovery registration for Medicaid reimbursement

Naloxone dispensing by community organizations

Reports of substance-exposed infants to ensure treatment for mother and child if necessary

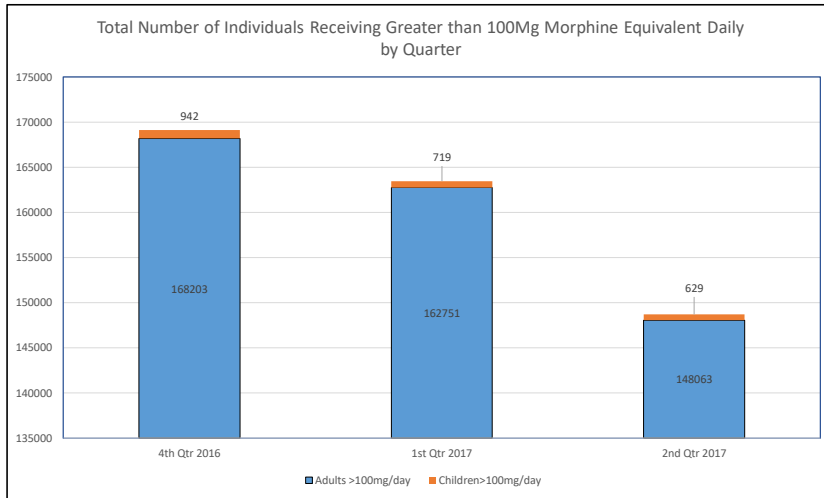
Harm reduction pilot programs at local health departments

Mandate to check the PMP for initial opioid Rx over 7 days

## Actions: Boards of Medicine and Dentistry Regulations – Pain Management

- Initial acute pain opioid prescriptions not to exceed 7 days
- Document reasons to exceed 50 MME/day, refer to pain specialist over 120 and co-prescribe naloxone
- Limit co-prescribing of benzos, sedative hypnotics, carisoprodol, and tramadol
- Buprenorphine primarily indicated for addiction
- Requirement of patient history and risk prior to Rx
- Consider non-opioid treatment first
- Document rationale to continue opioids every 3 mos
- Regular opioid use disorder screens and referral to Tx

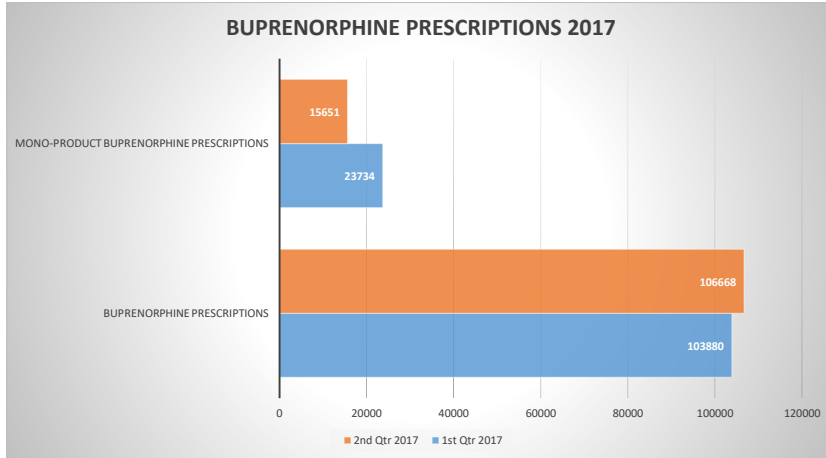
# IMPACT: Morphine Milligram Equivalents



## Actions: Board of Medicine Regulations – Addiction Treatment

- Require MAT be prescribed alongside counseling
- Require use of less-abusable/divertable suboxone as opposed to subutex
- Subutex (monoproduct) for pregnant women only

# IMPACT: BUPRENORPHINE PRESCRIBING





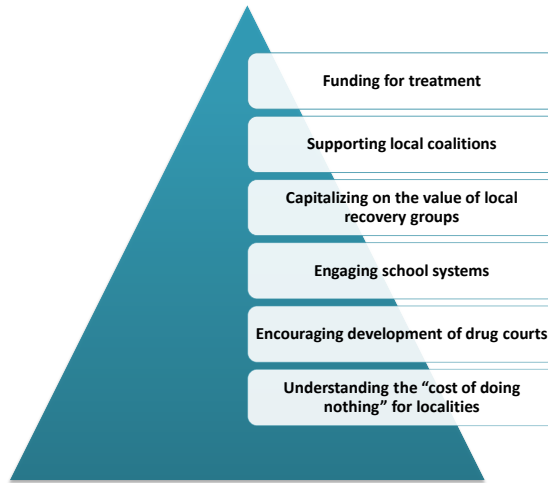
## Current Focus



***Set the new Administration up for success!***

- Local Resources
- Data Integration and Governance
- Institutionalization to continue fostering agency collaboration

# Local Resources



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# Data Integration and Governance



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# Institutionalization of State-Level Leadership

## Using established framework:

- Continue fostering agency and secretariat collaboration
- Establish state-local communication that informs legislation and policy
- Resource allocation/grant funding

## Questions & Contact Info

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(804) 663-7447

Task Force Website

<http://www.dhp.virginia.gov/taskforce/default.htm>

State Opioid and Heroin Resource Website

<http://vaaware.com/>