APUS Library Capstone Submission Form

This Capstone has been approved for submission to and review and publication by the APUS Library.

Student Name [Last, First, MI] * Milbourne Ashlee F
Course Number [e.g. INTL699] * PADM697 Paper Date [See Title pg.] April 2018
Professor Name [Last, First, MI] * Schwebe, Stephen R
Program Name * Public Policy
Capstone Type * Capstone-Creative Project
Passed with Distinction * Y or N Y
Security Sensitive Information * Y or N N
IRB Review Required * Y or N N IF YES, include IRB documents in submission attachments.
Turnitin Check * Y or N Y All capstone papers must be checked via Turnitin.

* Required

Capstone Approval Document

The Capstone thesis/project for the master’s degree submitted by the student listed (above) under this title *

THE OPIOID EPIDEMIC IN WEST VIRGINIA RECOMMENDATIONS FOR BETTER CONTROL A

has been read by the undersigned. It is hereby recommended for acceptance by the faculty with credit to the amount of 3 semester hours.

<table>
<thead>
<tr>
<th>Program Representatives</th>
<th>Signatures</th>
<th>Date (mm/dd/yyyy)</th>
</tr>
</thead>
</table>
| Signed, 1st Reader * [Capstone professor] | Stephen R Schwebe | Digitally signed by Stephen R Schwebe Date: 2018.05.11 11:03:39 -07'00'
| Signed, 2nd Reader (if required by program) | Christi Bartman | Digitally signed by Christi Bartman Date: 2018.06.15 07:42:37 -04'00' 6/15/2018
| Recommendation accepted on behalf of the program director * | Mark T Riccardi | Digitally signed by Mark T Riccardi Date: 2018.12.31 11:46:17 -07'00'

* Required

Send Capstone submission to: ThesisCapstoneSubmission@apus.edu

Attachments must include:
- This completed form
- FINAL Capstone Thesis/Project document as Microsoft Word file
- IRB Review docs (if applicable)

If you have any questions about this form or the file attachments, please contact ThesisInfo@apus.edu.
This form does not work with older versions of Adobe Acrobat Reader. Download latest version: https://get.adobe.com/reader/
THE OPIOID EPIDEMIC IN WEST VIRGINIA

RECOMMENDATIONS FOR BETTER CONTROL AND PREVENTION

Capstone Project Capstone

Submitted to the Faculty

by

Ashlee Fairfax Milbourne

For Fulfillment of the

Requirements for the Degree

of

Master of Public Administration

April 2018

American Public University

Charles Town, WV
The author hereby grants the American Public University System the right to display these contents for educational purposes.

The author assumes total responsibility for meeting the requirements set by United States copyright law for the inclusion of any materials that are not the author’s creation or in the public domain.

© Copyright 2018 by Ashlee Fairfax Milbourne

All rights reserved.
DEDICATION

I dedicate this thesis and project to my husband and family for their continuous support throughout the entire program; also to my closest friends for pushing me when I needed it the most. I couldn’t have done it without all of you!
ABSTRACT OF THE THESIS

THE OPIOID EPIDEMIC IN WEST VIRGINIA

RECOMMENDATIONS FOR BETTER CONTROL AND PREVENTION

By

Ashlee Fairfax Milbourne

American Public University

Charles Town, West Virginia

West Virginia has had the highest opioid overdose rate in the United States for more than seven years, but this has been a problematic issue in the State since 2001. In 2015, West Virginia started to focus on the opioid epidemic. To improve the opioid epidemic in West Virginia, there must be better control and prevention techniques established.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. LITERATURE REVIEW</td>
<td>2</td>
</tr>
<tr>
<td>III. WEST VIRGINIA ANALYSIS</td>
<td>9</td>
</tr>
<tr>
<td>- West Virginia Laws</td>
<td>10</td>
</tr>
<tr>
<td>- West Virginia Criminal Justice System</td>
<td>14</td>
</tr>
<tr>
<td>- West Virginia Department of Education</td>
<td>16</td>
</tr>
<tr>
<td>- West Virginia Board of Pharmacy</td>
<td>19</td>
</tr>
<tr>
<td>- West Virginia Depart of Health and Human Resources</td>
<td>21</td>
</tr>
<tr>
<td>IV. STATE BENCHMARKS</td>
<td>22</td>
</tr>
<tr>
<td>- Virginia</td>
<td>24</td>
</tr>
<tr>
<td>- Ohio</td>
<td>25</td>
</tr>
<tr>
<td>- Maryland</td>
<td>26</td>
</tr>
<tr>
<td>- Pennsylvania</td>
<td>27</td>
</tr>
</tbody>
</table>
V. RECOMMENDATIONS................................................................. 30

Education................................................................. 31

Legislation............................................................... 32

Assistance................................................................. 33

VI. CONCLUSION................................................................. 34

VII. REFERENCES............................................................. 36

VIII. APPENDIX................................................................. 43

Presentation............................................................... 43
LIST OF FIGURES

FIGURE PAGE TABLE OF CONTENTS

1. Age-Adjusted Resident Drug Overdose Mortality Rate................................. 9

2. West Virginia 2017 Controlled Substance Doses........................................ 10

3. County-Level Opioid-Related Overdose Deaths......................................... 15

4. West Virginia Controlled Substance Monitoring Program Users................... 20

5. Number and Age-Adjusted Rates of Opioid Drug Overdose Deaths by State.... 23

6. Law Setting Limits on Certain Opioid Prescriptions.................................. 30
Introduction

The purpose of this project is to find the shortfalls within West Virginia that are causing the State to have the highest opioid overdose rate in America. In 2016, West Virginia had an opioid overdose rate of 52.0 per 100,000 people (State Opioid Overdose Statistics, 2017). This has continued to be a trend for the State for several years. I am working with several agencies within West Virginia, to include the Department of Health and Human Services, the State Police, the Board of Education, the Board of Pharmacy, the West Virginia Eastern Division United States Attorney, and many other State officials. By researching these agencies and State laws, I will compile the information to see where the shortfalls are within the West Virginia. I then plan to compare and contrast what makes West Virginia different from neighboring states, including laws and other factors dealing with the opioid epidemic. The states that I will compare to West Virginia are: Kentucky, Ohio, Maryland, Pennsylvania and Virginia. By comparing West Virginia’s information, I will then be able to determine the shortfalls in the West Virginia agencies and provide recommendations for better control and prevention efforts on its opioid epidemic.
Literature Review

In October of 2017, President Donald Trump declared the opioid crisis a public health emergency in America due to the rising death toll. The Department of Health and Human Resources has monitored this epidemic closely, and its research shows that the opioid epidemic is killing over a 100 people each day (and the numbers only continue to rise) (Assistant Secretary of Public Affairs, 2017). Researchers, like Johnson and Wager (2017) have claimed that by President Trump declaring this a public health emergency, it required federal agencies to use any emergency authorities that they have to help reduce the number of opioid overdose deaths in America (Johnson & Wagner, 2017). Johnson and Wagner’s (2017) research also noted that since President Trump declared a “public health” emergency and not a “national” emergency, it made no federal funding available, unless it is approved by Congress (Johnson & Wagner, 2017). Dupont’s (2016) studies showed that opioid overdose deaths in the United States have now surpassed the annual number of car wreck fatalities, more than doubled the annual number of murders nationwide, and are much higher than suicide deaths (DuPont, 2016, p. 128).

Haddy (2017) pointed out that while the opioid epidemic has hit the United States hard; West Virginia has had the highest opioid overdose rate in the country for more than seven years. The opioid epidemic has remained a problematic issue in the State, since 2001 (Haddy, 2017).
McCarthy (2017) stated that many scholars want to point the blame of the opioid epidemic at pharmaceutical companies for marketing prescription opioids for pain relief while stating that these drugs would have little-to-no addicting factors (McCarthy, 2017). McCarthy (2017) noted that starting in the late 1990s the medical world started heavily prescribing opioids for pain. It was not until the opioid crisis became very prominent that people started to realize just how addictive opioid drugs really are. Shepherd (2014) took on reviewing the sales of prescription opioids, and demonstrated that prescription painkiller sales increased by over 300% in the last decade. Shepherd (2014) states that sales of opioids increased from 1.75 kilograms per 10,000 people in 1999 to about 7.1 kilograms per 10,000 people in 2014 (Shepherd, 2014, p. 90).

Califf, Woodcock, and Ostroff (2016) stated that over 100 million people suffer from pain in the United States, and 2.1 million of those people are prescribed opioid pain relievers to treat it (Califf, Woodcock & Ostroff, 2016, p. 1480). The National Drug Abuse Commission found that over 20 percent of the people prescribed opioids misuse them and over 80 percent of the people, who now use heroin, first misused opioid prescription drugs (Opioid Overdose Crisis, 2018). Miller and Gold’s (2015) studies have proven that simply prescribing an individual a prescription for an opioid pain reliever will triple their risk of developing an addiction to the pain medicine (Miller & Gold, 2015, p. 516).
The National Conference of State Legislatures (NCSL) has reviewed the several different types of prescription opioids available in America. Blackman (2017), who works for the NCSL, has done extensive research on opioid analgesics, and showed that most people in the United States use opioids to treat moderate to severe pain (Blackman, 2017). The National Drug Abuse Commission has proven that opioids being used for pain management become addicting because they act on the central nervous system (Opioid Overdose Crisis, 2018). Blackman (2017) has also showed that prescription opioids can also be misused and lead to addiction, death, job loss, and a host of other problems. Opioids take a significant toll on financial obligations including individuals, families, communities and states (Blackman, 2017). Blackman (2017) also shown that the most popular and known opioids used in America are Oxycodone, Hydrocodone, Methadone, and Fentanyl (Blackman, 2017).

The Federal Drug Administration (FDA) has approved over 24 opioids to be marketed by drug companies (Information by Drug Class - Risk Evaluation and Mitigation Strategy for Opioid Analgesics). The FDA labels and monitors these opioids by a system known as the “Approved Risk Evaluation and Mitigation Strategies,” also known as “REMS” for short. The FDA stated that is has determined that REMS are necessary for opioid analgesics to ensure that the benefits of these drugs continue to outweigh the risks (Information by Drug Class - Risk Evaluation and Mitigation Strategy for Opioid Analgesics).
Sacco (2017) showed that the federal response to the opioid epidemic has included various attempts from major federal agencies, including the Drug Enforcement Administration (DEA), the Department of Justice (DOJ), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Department of Health and Human Services (DHHS), and the Office of National Drug Control Policy (ONDCP) (Sacco, 2017, p. 8). Penders’ (2013) research showed the federal response to the epidemic addresses the lack of education, monitoring, drug disposal, and enforcement in America (Penders, 2013, p. 10).

Blackman (2017) also pointed out that legislation has the power to limit opioid prescriptions, but only a few states are using this to their advantage. Laws setting limits on opioid prescriptions made their debut in the United States in 2016. While states have the ability to do so, Blackman (2017) claimed that only seven have passed laws limiting opioid prescriptions (Blackman, 2017). These seven states include: Washington, Oregon, Wisconsin, Vermont, New Hampshire, Ohio, and Virginia (Blackman, 2017). By the end of 2017, 24 states had passed laws in regards to guidance, prescribing, or limiting requirements for opioid prescriptions (Blackman, 2017). Currently, West Virginia is not included as one of those 24 states and has no prescribing limits on opioids. One of the leading factors of West Virginia’s opioid overdoses is due to not have prescribing limits like other states.
Haddy’s (2017) research also concluded that West Virginia’s drug overdose mortality rate of 35.5 per 100,000 people is more than twice the average United States mortality rate of 14.7 per 100,000 people, and it is over a third higher than the next highest state, Kentucky (Haddy, 2017, p. 4). The West Virginia Department of Health and Human Resources (WVDHHR) also reported that West Virginia's unintentional drug overdose deaths were 31.8 per 100,000 population almost three times the national average rate of 12.3 per 100,000 (Haddy, 2017, p. 5). The Chief Medical Examiners report for drug overdose-related deaths revealed the number one cause of death in West Virginia was opiates, which leads the United States (Haddy, 2017, p. 5).

Mullins’ (2017) research with the WVDHHR demonstrated multiple interactions with health systems of the population in West Virginia who have overdosed. Mullins (2017) proved that over 78 percent of males who overdosed in West Virginia interacted with three or more health systems before dying (Mullins, 2017, p. 5). Mullins (2017) also proved that over 87 percent of females in West Virginia also interacted with three or more health systems before dying from an opioid overdose (Mullins, 2017, p. 5). The WVDHHR averages an alarming rate of over 81 percent of West Virginia residents who died from an overdose had an interaction with a health system before their deaths (Mullins, 2017, p. 5). My research includes information as to what these health systems can do to assist patients and lower the death rate of residents who have interactions with them.
As stated above, West Virginia does not have many laws that help limit the opioid overdose rates when compared to other states. While West Virginia has established a few State codes and bills to help with the epidemic. After speaking with agency representatives, it seems that counties have the option to choose whether these are implemented. For example, the West Virginia Legislature established House Bill (HB) 2195 in 2017 to implement current curriculum relating to comprehensive drug awareness and prevention programs in all public schools in West Virginia (West Virginia Legislature, 2017). After reviewing this bill, the West Virginia Department of Education, concluded that the Department of Education will not select the curriculum to be studied throughout West Virginia public schools grades (K-12). Instead, it offers information and links through WVDHHR, and they have until 2019 to implement any opioid awareness curriculum into their studies (West Virginia Legislature, 2017).

After reviewing State information, it seemed to be a consensus that West Virginia’s agencies are not doing their part to assist in battling the epidemic. The officials in West Virginia believe a majority of the epidemic is coming from the lack of resources.

Other issues contributing to West Virginia’s high opioid overdose rate include the following: treatment facilities and assistance programs; drug task forces; pill destruction and drug take back days; and drug monitoring programs. While the opioid epidemic is being addressed at a federal level in some ways, it is lacking at the state level, and
especially in West Virginia. Every State agency that I have contacted so far has acknowledged a shortfall in opioid control and prevention.
West Virginia Analysis

Opioid overdoses are the number one cause of death for people under the age of 45 (Haddy, 2017). West Virginia has sought to address the opioid epidemic through various laws, programs, and attempts from State agencies, but so far, the overdose rate continues to rise. The table below shows how West Virginia has significantly led the United States for the past decade.

Figure 1

Below are the figures from the West Virginia Board of Pharmacy regarding how many opioids were dispensed in the State last year. This figure also shows the rank of the opioids dispensed throughout the state.

**Figure 2**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Drug Category</th>
<th>Schedule</th>
<th>No. Dispensed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hydrocodone Products</td>
<td>II</td>
<td>51.75 Million</td>
</tr>
<tr>
<td>2.</td>
<td>Tramadol Products</td>
<td>IV</td>
<td>31.86 Million</td>
</tr>
<tr>
<td>4.</td>
<td>Oxycodone Products</td>
<td>II</td>
<td>26.85 Million</td>
</tr>
<tr>
<td>7.</td>
<td>Buprenorphine Products</td>
<td>III</td>
<td>8.14 Million</td>
</tr>
<tr>
<td>11.</td>
<td>Codeine Products</td>
<td>III</td>
<td>4.32 Million</td>
</tr>
</tbody>
</table>

**Image Source:** West Virginia Board of Pharmacy Controlled Substance Monitoring Program, 2018.

**West Virginia Laws**

Currently, West Virginia is trying to pass stricter laws and regulations to reduce the overdose rates and fight the opioid epidemic. It was not until 2015, that West Virginia started to focus on the opioid epidemic. There were only three laws proposed in 2015, and none of them passed. The failing laws included things such as pain management clinic regulations and licensures for prescribing opioids in West Virginia (West Virginia Legislature, 2017).

There were 30 proposed bills in 2016, but only seven passed. The seven passed bills included the following: WV HR 3 (Prevention and Treatment of Substance Abuse), which established and allows a select committee to work on the prevention and treatment...
of substance abuse; WV S 195 (Administrative and Legislative Rules Promulgation) which allows administrative and legislative terms relating the opioid epidemic to be set by the Department of Health and Human Resources (DHHR), the Human Rights Commission and the Health Care Authority, as well as other administrative teams; WV S 431 (Opioid Antagonists) allowing pharmacists to dispense an opioid antagonist (reversal drug) without a prescription in the state; WV S 454 (Medication Assisted Treatment Program Treatment) established a medical-assisted treatment program for substance use disorders in the state; WV S 627 (Denial of Prescription Drugs) allowing physicians the ability to decline prescribing controlled substances to patients; WV H 4146 (Abuse Deterrent Opioid Analgesic Drug Coverage) requiring coverage from insurances and health care services for abuse-deterrent opioid analgesic drugs; and WV H 4537 (Regulation Of Chronic Pain Clinics) allowing the DHHR to regulate chronic pain management clinics in the State (National Conference of State Legislators, 2018).

The 23 laws voted against in 2016 included laws such as the following: allowing the DHHR to have opioid overdose prevention and treatment training programs, pain management licensures, State operational requirements for medication-assisted treatment programs, Board of Pharmacy reports, expanding access to the Controlled Substance Monitoring Program, allowing emergency personnel possession of opioid antagonist, the Ryan Brown Addiction Prevention and Recovery Fund Act which would provide funding
for drug addiction prevention not covered, reporting opioid overdoses, and local needle exchange programs (National Conference of State Legislators, 2018).

In 2017, there were 14 bills introduced, but nine of those failed to pass to include important laws such as an Overdose Awareness Day in West Virginia, a Comprehensive Substance Use Reduction Act, limiting partial filling of opioid prescriptions, better access to the controlled substance monitoring, and limiting the length of time that opioid prescriptions may be filled (National Conference of State Legislators, 2018). The five laws that did pass in 2017 include the following: WV S 36 (School Nurses and Opioid Antagonists) allowing school nurses and other trained school personnel to use opioid antagonists in medical emergencies and allowing them to report the information; WV S 333 (Controlled Substances Monitoring Database) requiring the reporting of an overdose or a suspected overdose in the State by emergency medical personnel as well as hospitals and physicians; WV S 339 (Chronic Pain Management) that created a legislative coalition for chronic pain management; WV H 2195 (Drug Awareness and Prevention Program) that will require comprehensive drug awareness and prevention programs in all public schools; and WV H 2804 (Continuing Education Requirements) which requires continuing education requirements as a prerequisite to any medical license renewal (National Conference of State Legislators, 2018).
Currently, in 2018, the State has 13 pending bills pertaining to the epidemic. These bills include things to reduce the use of opioids, allow better access to the Controlled Substance Monitoring Program, limiting prescription filling times for opioids, establishing safeguards for treatments of pain, providing West Virginia first responders with an opioid antagonist at all times, drug control by law enforcement, hospitals and physicians to report suspected or confirmed overdoses, reducing the use of prescription drugs, and a Schedule II Drug Limitation that place a seven day supply limit on opioids in West Virginia (National Conference of State Legislators, 2018).

Other popular laws passed in West Virginia include Code 16-47-4 which is also known as the “911 Good Samaritan Law” that protects witnesses from arrest when they call 911 for an overdose; WV HB 4347 which prioritizes substance abuse treatment for pregnant women; and the Uniform Controlled Substance Act which prevents patients from withholding drug information from practitioners about other prescribed controlled substances and allows penalties if found guilty for a misdemeanor as well as jail time for not more than nine months, and/or a fine not more than $2,500 (West Virginia Legislature, 2017). Another part of this Act (§60A-4-416) punishes drug deliveries resulting in death by no less than three years but no more than 15 years; it also punishes any person who knowingly fails to seek medical assistance for another person that causes the death of the other person with imprisonment for not less than one year but no more than five years (West Virginia Legislature, 2017).
From the established laws above, you can see that West Virginia does not have strict laws or sentences for drug selling and trafficking in the State. The sentences are minimal for a person found guilty for the death of a person from overdosing by a drug sale. West Virginia does not have any laws set in regards to prescribing opioids; they are still pending approval in legislation. The Select Committee on Prevention and Treatment of Substance abuse in West Virginia was only created 2 years ago, in 2016 and was just made permanent last year in 2017.

**West Virginia Criminal Justice System**

The Department of Justice contains two separate divisions of the United States Attorney in West Virginia: the Northern and Southern Division. These United States Attorney Offices have developed specific drug task forces in certain counties across the State. The forces are made up of the West Virginia State Police, local police departments, county sheriff’s offices, as well as representatives of federal, State, and local law enforcement, such as the Federal Bureau of Investigations (FBI), Drug Enforcement Agency (DEA), and the Federal Bureau Alcohol, Tobacco, and Firearms (ATF) (The United States Attorney’s Office, 2017).

The Southern District Drug Task Forces are broken down by county. The Northern District is broken down by county, and some forces are only assigned to cities. Seventeen counties in West Virginia are not covered by a drug task force, while 13 counties are covered by multiple forces. This shows there is not only a disconnect
between the West Virginia attorney offices, but also in the Department of Justice with these State agencies. West Virginia should have drug task force coverage in all counties of the State. While drug task forces are not necessarily needed in every county of West Virginia, the coverage should be expanded to assist when it is needed.

West Virginia has 55 counties total. While some counties in the state experience more effects from the opioid epidemic and higher overdose rates, the entire State is still widely affected. The following map shows the most affected counties which are Berkeley, Cabell, Kanawha, Mercer, and Raleigh.

Figure 3

![County-Level Distribution of Opioid-Related Overdose Deaths, West Virginia Occurrences, 2001-2015](image_source)

**Image Source:** West Virginia Drug Overdose Deaths, Historic Overview, 2017.
Another problematic issue for West Virginia is the lack of presence of opioid antagonists (such as NarCan) for police and other first responders in the State. Since 2016, opioid antagonists have been available to buy over the counter at drug stores such as CVS and Walgreens in West Virginia. However, the cost ranges from the cheapest of $30 for one syringe dose, to $140 for a nasal spray. West Virginia currently does not have funding or approval to provide an opioid antagonist to law enforcement or all first responders. They, of course, are not going to pay out of their own pockets for this. Funding is currently left up to individual agencies and it is not promoted across the State. While this bill is pending approval in the House, it is unknown if the bill will pass this year, as it has failed in previous years. West Virginia has, however, established the “Good Samaritan Law” which encourages people to call emergency services when encountering a drug overdose. It would only make sense that all the agencies in West Virginia are equally prepared for these calls. New Mexico is currently the only state within the United States that requires and funds all law enforcement to carry an overdose reversal drug (National Conference of State Legislators, 2018).

**West Virginia Department of Education**

The West Virginia Department of Education coordinates and implements the content for standards and objectives in health education for the entire State. This content is broken down from grades Pre-K through fourth and grades fifth through twelfth.
The Pre-K through fourth grade implemented health education includes the following: wellness promotion and disease prevention, wellness information and services, wellness behaviors, responsible personal and social behaviors, and movement forms and motor skills (21st Century Wellness PreK-4 Content Standards and Objectives for West Virginia Schools, 2015). In wellness behaviors, drugs are identified in kindergarten by teaching the children to “identify and recall household poisons and their symbols, and drugs and medicines to avoid without supervised use (21st Century Wellness PreK-4 Content Standards and Objectives for West Virginia Schools 2015, p. 7).” They are also discussed in fourth grade in the same category of wellness behaviors by teaching the children to “cite examples of improper use, misuse and abuse of drugs (21st Century Wellness PreK-4 Content Standards and Objectives for West Virginia Schools, p. 33).” This leaves Pre-K, first, second, and third grades uninformed about drugs.

The fifth through twelfth grades implemented health education that includes the following: health promotion and disease prevention, culture, media and technology, health information and services, communication, decision making, goal setting, and health behaviors and advocacy (Next Generation health Education 5-12 Content Standards and Objectives for West Virginia Schools, 2015). In fifth grades students are taught to “identify legal and illegal drugs (Next Generation health Education 5-12 Content Standards and Objectives for West Virginia Schools, 2015, p. 11).” In sixth grade students are taught the “short-term and long-term effects of alcohol, drugs, and
tobacco (Next Generation health Education 5-12 Content Standards and Objectives for West Virginia Schools, 2015, p. 18).” In seventh grade students are taught how to “analyze media messages about alcohol, tobacco, and other drugs (Next Generation health Education 5-12 Content Standards and Objectives for West Virginia Schools, 2015, p. 28).” In eighth grade students are taught to “illustrate situations and practice skills requiring decisions with alcohol, tobacco and other drugs (Next Generation health Education 5-12 Content Standards and Objectives for West Virginia Schools, 2015, p. 32).” In ninth through twelfth grade students are taught how to “apply a decision-making process for various life situations (e.g., alcohol, tobacco, and other drugs, food choices, weight control, relationships, health care providers, making purchases, education and career options)” and “the effect these decisions have on family, community and self (alcohol, tobacco, and other drugs use, STD transmission, pregnancy prevention, teen parenting) (Next Generation health Education 5-12 Content Standards and Objectives for West Virginia Schools, 2015, p. 50).” These are covered in the categories of health information and services, health promotion and disease prevention, goal setting, culture, media and technology, decision making, and communication.

While these topics are being covered briefly in Pre-K through twelfth grades throughout West Virginia schools, they are being combined with several other situations and are not a main focus. West Virginia has implemented HB 2195 which implements current curriculum relating to comprehensive drug awareness and prevention programs
throughout all public schools in West Virginia for the 2018-2019 school year (West Virginia Legislature, 2017). However, that curriculum is left up to each county’s school board officials and is not recognized by the Board of Education’s standards and objectives. This prevents all students in West Virginia from having the same learning objectives and outcomes to understand dangerous drugs such as opioids. If this curriculum was implemented at a State level instead of county, the Department of Education could make sure that students are getting the information that is needed regarding the opioid epidemic.

**West Virginia Board of Pharmacy**

The West Virginia Board of Pharmacy maintains the Controlled Substance Monitoring Program (CSMP) for the State. Unfortunately, there are only three members of the West Virginia Board of Pharmacy who maintain and manage the CSMP. This monitoring program is for Class 2 (drugs that have a high potential for abuse such as opioids and narcotics), Class 3 (drugs that have a low potential for abuse relative to substances) and Class 4 (drugs that have an even lower potential for abuse than class 3). The West Virginia Controlled Substance Monitoring Programs states that “all licensees who dispense Schedule II, III, and IV controlled substances to residents of West Virginia must provide the dispensing information to the West Virginia Board of Pharmacy each 24-hour period (West Virginia Board of Pharmacy Controlled Substance Monitoring Program).” Physicians, pharmacists, dentists, veterinarians, physician assistants,
advanced practice nurses and other prescribers and dispensers, as well as WV State Police, federal drug enforcement agencies, agent of the Bureau for Medical Services, and the Office of Chief Medical Examiners have access to the CSMP (Goff, 2017). The main basis is for the CMSP is for the purposes of patient treatment by physicians and other prescribers. CSMP allows data sharing between Maryland, Ohio, Kentucky, Virginia, Connecticut, Indiana, Arizona, Kansas, Nevada, New Mexico, and Washington, D.C. (Goff, 2017).

There are still many prescribers that are not registered in the West Virginia CSMP. There are also several other prescribers who do not yet have access to review the information in the CSMP. The table below gives the statistics for the past 4 years showing that while numbers increase yearly, there are still not nearly enough people are using the CSMP throughout the State. Stricter laws should be established in West Virginia to mandate enforcement of using the CSMP for all in contact with opioids.

Figure 4: West Virginia Controlled Substance Monitoring Program Users

<table>
<thead>
<tr>
<th>CSMP USER TYPE</th>
<th>2014 Active Users</th>
<th>2015 Active Users</th>
<th>2016 Active Users</th>
<th>2017 Active Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribers</td>
<td>2,537</td>
<td>3,814</td>
<td>6,618</td>
<td>9,100</td>
</tr>
<tr>
<td>Dispensers</td>
<td>1,515</td>
<td>2,214</td>
<td>3,359</td>
<td>3,861</td>
</tr>
<tr>
<td>Dispensing Prescribers</td>
<td>93</td>
<td>153</td>
<td>253</td>
<td>269</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>43</td>
<td>51</td>
<td>71</td>
<td>101</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>107</td>
<td>52</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>4,210</td>
<td>6,339</td>
<td>10,353</td>
<td>13,388</td>
</tr>
</tbody>
</table>
The West Virginia Board of Pharmacy also has inspectors who assist with making sure pharmacies and pharmacists are compliant with West Virginia rules and regulations. Inspectors review prescription records and look for large numbers of filled prescriptions such as opioids or reoccurring patients; however it is the pharmacist’s responsibility to look for things such as ensuring that the prescriptions filled are real and to legitimate patients from licensed physicians. There are only five inspectors doing this for the State of West Virginia.

Prescription drug take back is also a lacking resource in West Virginia (as well as the nation). Prescription drug take back is set up at a federal level by the Drug Enforcement Agency and is necessary for people to dispose of unwanted prescriptions safely, such as opioids. There were only two drug take back days in the entire year for the past two years. There are also only two scheduled for 2018. These dates are currently scheduled in April and October. If more drug take back days were offered throughout the nation, especially in West Virginia, people might be more likely to dispose of their opioids.

**Department of Health and Human Resources**

The West Virginia Department of Health and Human Resources has been brought on by the governor of West Virginia to help combat the opioid epidemic in the State.
House Bill 2620 was created in 2017 to allow an Office of Drug Control Policy under the direction of DHHR and DHHR’s Bureau for Public Health, but this office is yet to be set up and running. The DHHR recently released an Opioid Response Plan in January of 2018. The response plan focuses on prevention, early intervention, treatment, overdose reversal, supporting families with substance use disorder, and recovery. The DHHR states that “there are no quick fixes to the opioid epidemic, but adopting these 12 recommendations, however, will put West Virginia on a path to reduce the tragic impact of this epidemic (Gupta, 2018, p. 4).”

There are several alarming rates that the DHHR has published with the response plan. One rate is that the majority of overdose decedents interacted with at least one of the health systems in West Virginia (Gupta, 2018, p. 5). Over 81 percent of individuals who have died in an overdose in West Virginia have come into medical contact before their death. Ninety-one percent of all decedents had a documented history within the Controlled Substance Monitoring Program, and over half (56%) of all decedents had been previously incarcerated (Gupta, 2018, p. 5).

**State Benchmarks**

In order to show the lack of resources in West Virginia, I will now compare overall information of the opioid epidemic to the surrounding states. The states for
compare will include the following: Virginia, Ohio, Maryland, Pennsylvania, and Kentucky.

**Figure 5: Number and Age-Adjusted Rates of Opioid Drug Overdose Deaths by State**

*Image Source: Center for Disease Control, 2017.*
Virginia

The State of Virginia’s opioid overdose rate for 2016 was 16.7 per 100,000 people (State Opioid Overdose Statistics, 2017). This is drastically lower compared to West Virginia’s rate of 52.0 per 100,000 people (State Opioid Overdose Statistics, 2017). Virginia has 25 drug task forces compared to West Virginia’s 17 (Virginia's Legislative Information System, 2018).

There are several Virginia laws that are making big differences in the opioid overdose rate of the State. For example, §54.1-3408 requires an opioid antagonist such as Narcan, to be prescribed to anyone who is prescribed an opioid (Virginia's Legislative Information System, 2018). They also require them to be educated on how to use the opioid antagonist if substance abuse is a risk factor. Virginia does not have an opioid prescription limit in State legislation, but it does authorize other entities to set the limits (Blackman, 2017).

House Bill 1786 of Virginia initiates a family assessment and plan of care from social services if a child is found to have been exposed to any substance in utero (Virginia's Legislative Information System, 2018). This allows the mother to be connected to treatment and provides services to ensure the safety of the child. House Bill 2317 allows health departments in Virginia to administer harm reduction programs (Virginia's Legislative Information System, 2018). These programs exchange dirty syringes for clean ones, offer testing for hepatitis C and HIV, and connect people to
addiction treatment. House Bill 1532 requires the Virginia Board of Education to cover 
prescription drugs in health education programs (Virginia's Legislative Information 
System, 2018). The curriculum covers the instruction on the safe use of prescription 
Drugs as well as the risks of abuse of prescription drugs. This curriculum must be 
consistent with guidelines developed by the Board of Education and approved by the
State Board of Health (Virginia's Legislative Information System, 2018).

Virginia is one of the first states to use NarxCare Appriss. NarxCare Appriss is a
“robust analytics tool and care management platform that helps prescribers and 
dispensers analyze real-time controlled substance data from Prescription Drug 
Monitoring Programs (PDMPs) and manage substance use disorder (NarxCare, 2018).”
While it is not yet a State-wide program, University of Virginia Health System (UVA),
one of Virginia’s largest health care providers, has hopefully started a trend.

Ohio

Ohio’s opioid overdose rate for 2016 was 39.1 per 100,000 people (State Opioid 
Overdose Statistics, 2017). Ohio is the next state behind West Virginia in opioid 
overdoses, but it is till over 10 percent lower. Ohio currently has 27 drug task forces for 
the entire state, more than West Virginia (Ohio's Drug Task Forces).

Like Virginia, Ohio also has requirements for their education system to learn 
about opioids. House Bill 367 in Ohio requires the board of education for each school
district to select a health curriculum that includes instruction on the dangers of prescription opioid abuse (The Ohio Legislature). This curriculum must emphasize the opioid epidemic and the connection between prescription opioid abuse and addiction to other drugs such as heroin (The Ohio Legislature).

Ohio also mandates physicians to review their statewide prescription drug monitoring program (PDMP) data before dispensing opioids, and the regulation of pain management clinics (Opioid Overdose, 2017). Ohio has the same prescribing regulations as Virginia and also does not have an opioid prescription limit in statute. It does direct or authorize other entities to set the limits (Blackman, 2017).

Maryland

Maryland’s 2016 opioid overdose rate was 33.2 per 100,000 people (State Opioid Overdose Statistics, 2017). Maryland does not have any set prescribing laws; however it does require the lowest effective dose to be prescribed so it does not exceed the expected amount of pain (Blackman, 2017). Maryland also uses a Prescription Drug Monitoring Program (PDMP), but it allows reporting up to three business days after the drug was dispensed (PDMP, 2017). Maryland has a PDMP Technical Advisory Committee that “reviews requests for prescription information from investigators and other states’ PDMP and provides clinical guidance and interpretation of the data requested to the Department and the data recipient in Maryland (PDMP, 2017).”
Maryland has a specific Heroin and Opioid Emergency Task Force set in place for the entire State. This task force focuses on the best ways to fight the epidemic and implements laws focusing on the epidemic as well as the curriculum taught throughout public schools (Maryland Legislature, 2018). Maryland also has drug task forces in every county of the State led by area police. Other task forces in Maryland include Drug-Addicted Offenders, Drunk and Drugged Driving, Drug and Alcohol Abuse, and a Drug and Alcohol Council (Maryland Legislature, 2018). There is even a Federal High Intensity Drug Trafficking Area Headquarters (HIDTA) task force in Baltimore.

Maryland is also working hard to get people treatment and help instead of punishment. In 2016, the State passed the Justice Reinvestment Act, to decrease the State’s incarcerated population and get the offenders into treatment facilities (Maryland Legislature, 2018).

Pennsylvania

Pennsylvania’s 2016 opioid overdose rate was 37.9 per 100,000 people (State Opioid Overdose Statistics, 2017). The Pennsylvania Drug Monitoring Program (PDMP) requires all opioids dispensed to be reported no later than the close of the subsequent business day (Pennsylvania Department of Health, 2018). The Pennsylvania Department of Health is integrating its PDMP into electronic healthcare and pharmacy records. The goal is to “minimize any workflow disruption by providing near-instant and seamless access to critical prescription history information to both prescribers and pharmacists.
They are waiving the cost of registration into the integrated system for any subscribers until August 31, 2019 (Pennsylvania Department of Health, 2018).

Pennsylvania also has a prescribing limit set by the State for opioids. The State has a limit of prescribing an opioid prescription for 7 days maximum (Blackman, 2017). The State also has 681 drug take-back boxes placed across all 67 counties as of September 2017 (The Department's Focus on Addressing Overdose, 2017). This mitigates the possibility of prescription drugs getting into someone else’s possession.

David's Law also known as the Opioid Overdose Reversal Act 139 was put into effect in December of 2014 (Opioid/Heroin Reversal, 2018). This law is similar to West Virginia’s “Good Samaritan” Law, and gives immunity to anyone that reports an overdose in Pennsylvania. This law also goes further to allow the emergency services personnel of the State (police, fire, medical or Armed Forces) to be willingly trained to administer lifesaving drug overdose reversal drugs (Opioid/Heroin Reversal, 2018).

Pennsylvania has established a Department of Drug and Alcohol Programs (DDAP) that focuses on addressing the overdose problem in Pennsylvania, while ensuring prevention programs with treatment and recovery support (The Department's Focus on Addressing Overdose, 2017). This Department is a part of the Pennsylvania Department of Health. The DDAP has established a “warm hand-off” program to assist
overdose survivors in the state who come in contact with an emergency department (The Department's Focus on Addressing Overdose, 2017). The Emergency Department (ED) gives counseling and a referral to be transferred directly from the ED to a drug treatment facility. This protocol for ED doctors in Pennsylvania was established in February 2017 (The Department's Focus on Addressing Overdose, 2017).

**Kentucky**

Kentucky’s 2016 opioid overdose rate was 33.5 per 100,000 people (State Opioid Overdose Statistics, 2017). This State has an opioid prescription limit of a 3-4 day limit (Blackman, 2017). Kentucky launched an opioid disposal program in August of 2017 that allows residents to dispose of opioids at home safely in a drug deactivated pouch (Kentucky Opioid Disposal Program, 2017). These pouches can be picked up at local sheriff’s county departments in the State.

Kentucky has established an Office of Drug Control Policy (ODCP) to combat the opioid epidemic. The ODCP coordinates education, treatment, and law enforcement by working with State and local agencies to assist (The Kentucky Office of Drug Control Policy, 2018).

Kentucky is currently the first state pushing for an opioid tax to fight the epidemic. This tax would have a 25 cent fee for every dose identified to the State by pharmaceutical distributors (Sebastian, 2018). It is also in the process of suing a major
pharmaceutical distributor, McKesson, for “violating state law and directly contributing to the state’s drug epidemic by flooding Kentucky with massive amounts of opioids” according to the Attorney General (Sebastian, 2018).

Figure 6

![Diagram of Laws Setting Limits on Certain Opioid Prescriptions](image-source)


**Recommendations**

There are many changes that West Virginia can make to combat the opioid epidemic and reduce overdoses in the State.
Education

Education and training is an important way to help West Virginia fight the opioid epidemic. Education and training can start as young as elementary school children and range from the State residents to the State agencies. There are several recommendations for better control and prevention that can be established around education.

The Department of Education in West Virginia does not implement a statewide opioid awareness program. This is currently left up to each county within the State. A statewide opioid awareness program should be integrated into the current health curriculum. Making this a statewide mandated learning experience would ensure that all students in the West Virginia Education System receive some type of education on opioids and the opioid epidemic.

Educating the communities within the entire State would also ensure that the population of West Virginia understands the severity of the opioid epidemic, as well as how addictive opioid drugs are. Public awareness is a major factor in reducing the opioid epidemic of the State. If educated, many people may be deterred from taking opioids. Health departments could offer trainings and education on opioids, as well as assistance with clean needle exchange programs, blood testing for diseases, and overdose reversal drugs.
Providing education as well as training and medical protocols for all physicians and medical facilities for overdose patients and known opioid addicts would help ensure patients are getting the help that is needed. As stated previously, over 81 percent of people who have died in an overdose in West Virginia have come into medical contact before their death (Gupta, 2018, p. 5). This would provide the assistance needed and allow users to get help before overdosing.

Education and training should also be mandated for all law enforcement and first responders in West Virginia. The epidemic is well known and these agencies should be equipped and ready to handle the situation and reduce overdoses with an opioid antagonist. Also mandating education and training for the State’s Controlled Substance Monitoring Program (CSMP) to all users would also ensure that the system is being used correctly and efficiently. If prescribers are correctly documenting opioid dispenses, as well as checking recent dispenses that a patient has already had, this would help limit opioids going to addicts.

**Legislation**

There are also several ways to prevent and control the opioid epidemic in West Virginia through the State Legislature. Increasing penalties of current laws dealing with opioids would make for more severe punishment. For example, law 60A-4-416 that punishes any person who causes the death of another person with imprisonment for not
less than 1 year but no more than 5 years (West Virginia Legislature, 2017). Causing death by opioid should be tried and have more severe consequences than 1 to 5 years.

West Virginia is also one of the few states that have no prescribing laws set for opioids. Several states within the United States (such as the surrounding states of West Virginia) have started this trend and have seen great results. If West Virginia were to set a law for prescribing opioids, this could potentially lower overdose rates, as well as stop addiction to opioids before it even starts.

Drug disposal in West Virginia is currently led by the Drug Enforcement Agency (DEA) and is only offered twice a year on specific dates. If West Virginia were to offer a drug disposal program more than twice a year, this would promote more people to dispose of opioids that are no longer needed. Offering several dates would make it easier for people to dispose of their drugs, including opioids.

**Assistance**

Promoting opioid assistance in West Virginia is basically non-existent. Many people do not know where to seek help or treatment for opioid addiction or overdose. If West Virginia were to promote its resources, such as treatment facilities, resource centers, websites, and hotlines, this would help people find the assistance that is needed to limit overdoses and help fight the opioid epidemic.
Treatment facilities in West Virginia are also few and far between. For example, there is not one opioid treatment facility in Berkeley County, West Virginia, which has one of the State’s highest overdose rates. These residents have to travel to the closest facility (which is in Morgantown, West Virginia) three hours away. The distance also deters people from seeking assistance due to having to leave the area and their families. Establishing more treatment facilities throughout the State would provide better access to users.

There are currently only three drug resource centers in West Virginia. These resource centers are located in Berkeley, Cabell, and Marshall Counties. Resource centers should be (at the very least) established in all counties that have the highest opioid overdose rates across the state. This would ensure prevention was available to State residents. West Virginia should implement the opioid tax to establish more funding for treatment facilities and resource centers across the State.

Conclusion

It is obvious that the opioid epidemic is affecting the entire United States. West Virginia has been one of the hardest hit states and has remained the State with the highest opioid overdose rate for years. In order to better control and prevent the opioid epidemic, West Virginia needs to take several steps to provide education, laws, and assistance to the residents. If West Virginia State agencies would work together to support these efforts,
the opioid epidemic could be reduced. By providing better control and prevention for the entire State, the opioid epidemic could be mitigated.
References


http://msa.maryland.gov/msa/mdmanual/26excom/html/00list.html

Maryland PDMP. (2017, November 9). Retrieved March 23, 2018, from

https://bha.health.maryland.gov/pdmp/Pages/-PDMP_FAQs.aspx


https://apprisshealth.com/solutions/narxcare/


West Virginia Board of Pharmacy Controlled Substance Monitoring Program. (n.d.). Retrieved March 19, 2018, from

http://www.wvlegislature.gov/bill_status/bills_text.cfm?billdoc=hb2195intr.htm&yr=2017&sesstype=RS&i=2195

Appendix

The following slides will be used as a PowerPoint presentation to present to the West Virginia State agencies that showed interest in this thesis project on the opioid epidemic in West Virginia.

PowerPoint Presentation
BACKGROUND

West Virginia and United States, 2001-2014

RESULTS

West Virginia Laws

• 2015 – 0 out of 3
• 2016 – 7 out of 30
• 2017 – 9 out of 14
• 13 pending for 2018

Popular passed laws: “911 Good Samaritan” Law and Uniform Controlled Substance Act
RESULTS

West Virginia Criminal Justice System

• Drug Task Forces
• Opioid Antagonist (drug reversals)

RESULTS

West Virginia Department of Education

• Implements content for standards and objectives in health education for the entire
• HB 2195
RESULTS

West Virginia Board of Pharmacy
• Controlled Substance Monitoring Program
• West Virginia Board of Pharmacy Inspectors
• Prescription drug take back

RESULTS

WV Department of Health and Human Resources
• HB 2620 (Opioid Response Plan)
• Released Statistics of Overdose Deaths

81% come into medical contact before their death.
91% had a documented history within the Controlled Substance Monitoring Program.
56% had been previously incarcerated.
STATE COMPARISONS

Virginia
• Overdose reversal drug prescribed and education with prescription opioids
• Family assessment from social services if fetus exposed to in utero
• Clean needle exchange and education through health departments
• Statewide education on opioids
• NarcoCare

Ohio
• Statewide education on opioids
• PDMP mandated by state to physicians
• Pain management clinic regulations

Maryland
• Requires the lowest effective dose to be prescribed
• PDMP Technical Advisory Committee
• Heroin and Opioid Emergency Task Force
• Drug Task Forces County Wide
• Focuses on treatment instead of punishment

Pennsylvania
• PDMP by close of business day and electronic integrate system, waiving costs
• 7 days maximum opioid prescribing law
• Drug take back boxes in all counties
• The Opioid Overdose Reversal Act 119
• Department of Drug and Alcohol Programs
• Warm Hand-Off Program

Kentucky
• 2/4 Day Opioid Prescribing Limit
• Opioid Disposal Program
• Office of Drug Control Policy
• Opioid Tax

RECOMMENDATIONS

Education
• Statewide opioid awareness program through department of education
• West Virginia Residents
• Medical protocols
• Training for all emergency medical services, law enforcement, and first responders
• Controlled Substance Monitoring Program (CSMP)

Legislation
• Increase sentencing time
• Prescribing laws
• Drug disposal program

Assistance
• Promoting resources
• Treatment facilities
• Resource centers
ANY QUESTIONS?