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## Policy Analysis of Kentucky Senate Bill 192

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Sierra Nicole Dantzler, Student

Sarah Wackerbarth, PhD, Committee Chair

Dr. Linda Alexander, Director of Graduate Studies

# **Policy Analysis of Kentucky Senate Bill 192**

CAPSTONE PROJECT PAPER

A paper submitted in partial fulfillment of the  
requirements for the degree of  
Master of Public Health  
in the  
University of Kentucky College of Public Health  
By  
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Irvine, California

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**Abstract:** Needle sharing has become an important factor in the prevalence of HIV and viral hepatitis rates as injection drug use of illicit substances, such as heroin and prescription opioids, has increased across the United States. Kentucky, much like the rest of the nation, has also been devastated by the recent surge of injection drug use. In 2010, drug overdose rates ranked Kentucky as the third highest state in the nation. Hepatitis B (HBV) and Hepatitis C (HCV) rates within Kentucky have been consistently higher than the national rate since 2007 and 2003, respectively. Hospital discharge costs related to HCV infections have increased by \$167 million. In response to this public health problem, the Commonwealth of Kentucky passed Senate Bill 192 (KY SB 192), a comprehensive drug policy with a goals to mitigate the spread of HIV and viral hepatitis. Provisions of the bill include harsher penalties for heroin trafficking, additional allocation of funds for addiction treatment, legal immunity for reporting a drug overdose victim, an increase in the availability of Naloxone, and authorization of needle and syringe exchange programs (NSEP). KY SB 192 is a multifaceted drug policy, the needle exchange provision was highly debated and embodies the four characteristics of a morality policy: marked by controversy, symbolic nature, the policy attracts a diverse policy community, and enduring controversy. The implementation of NSEP in the state of Kentucky carries the following projections: An average decrease of 1 to 6 HIV cases per year and an approximate annual decline in rate by 0.04 to 0.50 per 100,000 (or 1.8 – 22.1 cases per 100,000) for HCV. This amounts to approximately \$2 million in cost savings for both HIV and HCV treatment.

## **I. Introduction**

Injection drug use (IDU) is an effective route of transmission for blood-borne pathogens, primarily HIV, Hepatitis B (HBV), and Hepatitis C (HCV). Transmission occurs when a person uses a contaminated syringe without sterilizing it. Needle sharing has become an important factor in the prevalence of HIV and viral hepatitis rates as injection drug use of illicit substances, such as heroin and prescription opioids, has increased across the United States. One third of people who inject drugs (PWID) share needles and account for approximately 9%–12% of new HIV cases and 50% of new hepatitis C cases in the country.<sup>1,2</sup> Kentucky, much like the rest of the nation, has also been devastated by the recent surge of injection drug use. In response to this public health problem, the Commonwealth of Kentucky passed Senate Bill 192, a comprehensive drug policy with a goals to mitigate the spread of HIV and viral hepatitis. A policy analysis of this legislation focusing on the communicable disease aspect will be conducted to develop an understanding of the bill, its health outcomes associated with injection drug use, and demand for harm reduction interventions within the state of Kentucky.

## **II. Severity of the Problem**

### Kentucky Drug Overdose Hospitalization and Death Rates

According to the CDC, “the risk for acquiring and transmitting infectious diseases in a population is a reflection of the prevalence of a given infection in the population, the efficiency of transmission of the organism, and the burden of infectious diseases and patterns of the risk behaviors in which that population engages.”<sup>1</sup> Therefore, trends related to drug use, HIV, HBV, and HCV rates will be examined to substantiate evidence of the problem within Kentucky. Overdose deaths and hospitalizations related to illicit drug injection use have steadily increased

over the last several years. Drug overdose rates (per 1,000) increased from 15.3 in 2005 to 23.6 in 2010, ranking Kentucky as the third highest state in the nation.<sup>3</sup> Heroin contributed to a 207% increase in overdose deaths and 197% increase in emergency department visits from 2011 to 2012.<sup>4</sup> Furthermore, a 900% increase in heroin-related overdose hospitalizations was reported for years 2002 to 2012.<sup>4</sup> As mentioned earlier, injection drug use is not exclusive to heroin; intravenous use of prescription opioids have contributed to Kentucky's problem just as much, if not more, than heroin has.

### HIV and Viral Hepatitis among PWID

New HIV diagnoses in Kentucky have remained fairly stable from 2009 to 2013 (see Figure 1). However, the highest concentration of infections are in three areas of the state: North/Central Kentucky (49%), Bluegrass/Central Kentucky (19%), and Northern Kentucky (8%).<sup>5</sup> The percent of diagnoses with injection drug use as the transmission route range between 5%-8%. The concentration of cases within age groups vary each year, but the age group 45-54 years is continually among the higher numbers (see Figure 2).

In regards to Viral Hepatitis B and C, increases in rates have been more significant. Hepatitis C rates within Kentucky have been consistently higher than the national rate since 2003; however, a more dramatic increase occurred from 2009 to 2013 as rates increased from 1.5 to 5.1 (see Fig. 3). Emergency room discharges for HCV increased from 3,821 cases in 2009 to 6,175 cases in 2012 and a \$12.5 million increase in associated costs; inpatient cases increased by 62% and discharge costs increased by over \$167 million.<sup>4</sup> Hepatitis B rates have been increasingly higher than the national rate since 2007 with a 133% increase from 2009 to 2013 (see Fig 4). The proportion of PWID and population specifics of this data set are unknown, but a

CDC Morbidity and Mortality Weekly Report (MMWR) from May 2015 showed trends of new HCV cases correlating with opioid injections and substance abuse treatment admissions in four states of the central Appalachian region that includes Kentucky. From 2006 to 2012, surveillance data for these states showed a 364% increase in HCV infections among people aged  $\leq 30$  years, with 76% of the cases being attributed to injection drug use from both heroin and prescription opioids.<sup>6</sup> Among all treatment admission in the four states, the proportion of patients reporting any opioid injections increased by 12.6%.<sup>6</sup> Although HIV rates in Kentucky are comparatively low, the increase of acute Hepatitis B and C raise concerns about the potential increase in HIV diagnoses, due to recent outbreak in neighboring state Indiana.<sup>7</sup>

### **III. Solution**

Kentucky Senate Bill 192 is a comprehensive bipartisan bill that covers many facets of drug addiction. Provisions of the bill include harsher penalties for heroin trafficking, additional allocation of funds for addiction treatment, legal immunity for reporting a drug overdose victim, an increase in the availability of Naloxone, and authorization of needle exchange programs.<sup>8</sup> The bill was introduced in state Senate on February 13, 2015 and signed into law by the governor on March 25, 2015. The bill contained an emergency clause that makes the law take effect immediate upon passage. While all of these provisions are intended to work together to protect public health, this policy analysis will focus on the solutions addressing the communicable disease problem via the needle exchange program and its projected impact. In addition to an overview of some provisions of the bill, the analytical dimensions in this analysis include projected outcomes and effects on the injection drug use population, associated costs, support and opposition, and any unintended consequences.

## Provisions of the Bill

### *Additional Funding for Addiction Treatment*

Additional funds will be available for drug treatment programs. Effective for FY 2015-2016, \$10M will be allocated from the General Fund Surplus Account or the Budget Reserve Trust Fund Account to substance abuse treatment, community mental health centers, and Kentucky Agency for Substance Abuse Policy (KY-ASAP) and programming.<sup>8</sup> Some of the KY-ASAP programs outlined in the bill are: substance abuse and behavioral health treatment in detention centers; residential treatment services to pregnant women to address neonatal abstinence syndrome; and purchase of FDA-approved extended release treatment to prevent relapse. Under this bill, this funding is referred to as necessary government expenses as its purpose is to make treatment more widely available for those who are seeking help. In addition to the immediate \$10 million funding, the addiction treatment system will receive \$24 million annually.

### *Good Samaritan and Naloxone Provisions*

The “Good Samaritan” provision of this policy is an important way to save lives by administering Naloxone to prevent opiate overdose. If someone is experiencing an overdose or is with someone who is, there will be no charge or prosecution for possession of a controlled substance and/or drug paraphernalia if emergency medical assistance is sought. There will be legal immunity to those who also stay with the person overdosing until medical assistance arrives. If available, contact information for the person who requested medical assistance shall be

reported to the local health department and the health department should use this information to offer referrals for substance abuse treatment.

Licensed health care providers, including pharmacists, can prescribe or dispense Naloxone. First responders, including an agency, peace officer, firefighter, paramedic, emergency medical technician, school employee, or family member of an addict may receive a prescription for Naloxone and administer for opiate-related overdoses. Any dispensing of this drug must be done only under physician-approved protocol and there will be immunity from civil and legal liability for the administration of Naloxone if done in good faith.

#### *Authorization of Needle Exchange Programs*

In effort prevent further HIV and viral hepatitis infections, the state has explicitly authorized health departments to implement a needle exchange program. A needle syringe exchange program (NSEP) is an evidence-based harm reduction strategy for PWID where they may exchange used, or potentially contaminated, needles for sterile ones. These programs promote safer injection practices, provide proper disposal of used needles, and reduce the spread of HIV, viral hepatitis, and other blood-borne infections. NSEP is not a new public health intervention. In the mid-1980s, nations worldwide determined that the promotion of safer injection practices for PWID could prove to be an HIV and Hepatitis B and C control factor. This led to the first needle exchange program being implemented in 1984 in Amsterdam. As this program became a cornerstone of HIV prevention in the country, NSEPs have globally expanded mainly through community-based nongovernmental organizations and help from international organizations such as World Health Organization (WHO) and Joint United Nations Program on HIV/AIDS (UNAIDS).<sup>9</sup> In the United States, federal funding for NSEPs are banned, but states

are able to implement legislation that allows needle exchange by decriminalizing free distribution of syringes from their drug paraphernalia laws and explicitly authorizing needle and syringe exchange programs.

KY SB 192 explicitly authorizes local health departments to operate NSEPs as substance abuse treatment outreach programs by amending KRS 218A.51, a statute that deems syringes and needles as drug paraphernalia. This makes Kentucky one of the fourteen states to have removed syringes from their definition of drug paraphernalia and one of the 17 states to authorize needle exchange programs to date.<sup>10</sup> Under this legislation, the program is named Harm Reduction and Syringe Exchange Program (HRSEP). Local health departments must have the consent from the board of health, the legislative body of the city in which the program would operate, and the legislative body of the relative county. Permission from the board of health may be revoked at any time.<sup>8</sup> In addition to state and local authorization, health departments must first conduct a community needs assessment before presenting request to board of health. Due to the amendment, needles and syringes exchanged at the program will not be considered as drug paraphernalia.

### Efficacy

Because this legislation is less than a year old at the time of this paper, efficacy of NSEPs and projected outcomes for the Kentucky population will be discussed. A large body of research associates NSEPs with the reduction in HIV transmission among PWID, both internationally and within the United States.

A study that examining the global context of NSEPs reported the reduction of HIV infections in a variety of forms. For example, India experienced an HIV prevalence reduction

among PWID who participated in NSEPs from 80.7% to 58% over a three year period. It's important to note that Asia has the largest injection drug use in the world and India's experience with NSEPs is a great example of the program's potential. Another example included in the study is the implementation of New Zealand's first NSEP in 1987. HIV infection rates fell by 18.6% annually and cities without NSEP had an HCV prevalence of 75% among injection drug users, while cities with NSEP had prevalence of 60%. Additionally, a government report concluded that NSEP aided in preventing 25,000 HIV infections and 21,000 HCV infections by 2001; this saved New Zealand \$35 million in treatment costs.<sup>9</sup>

The effectiveness of needle and syringe exchange programs have been evaluated on a national level as well. The first legal needle exchange program in the U.S. was operated in Tacoma, Washington. Initially, the exchange program was operated by a former drug counselor whose main concern was the risk of transmission of HIV among PWID. Two months later, an evaluation was performed on the exchange program that led to funding from the Tacoma-Pierce County Health Department in 1989. In November of 1992, the Washington State Supreme Court deemed syringe exchange as legal; while not a comprehensive drug policy per se, the court elected it to be an HIV prevention measure.<sup>11</sup>

An interview study was done on the Tacoma needle exchange participants to report on the operations and potential effectiveness of the program. The study was done over a span of fourteen months from October 1988 to December 1989 and involved 204 participants. The results of the questionnaire showed a significant reduction (-11 to -38 mean change) in average number in injection practices per month for those who borrowed and/or rented syringes, loaned syringes to other IDUs, and an increase (+36 mean change) in those who used bleach to disinfect

syringes; furthermore, these results were not significantly associated with gender, race, or most frequently injected drug.<sup>11</sup>

A study conducted by Beth Israel Medical Center on New York City injection drug users found a 41% decline in HIV prevalence from between 1990 and 2001.<sup>12</sup> Additionally, the Hepatitis C prevalence fell by 27% during the same period. In this time period, there was exceptional coverage by NSEPs that were widely expanded throughout the area. Approximately 250,000 to 3 million needles were exchanged annually. This decline in HIV rates led to an overall decrease in injection drug use as a risk factor for HIV in New York State.<sup>12</sup>

It is important to note that the passing of this bill comes at the heel of an HIV outbreak in Scott County, Indiana. Scott County is a rural community in southeast Indiana approximately 30 miles outside of Kentucky. Like Kentucky, Indiana declared a state of emergency after the largest-ever HIV outbreak in the state. From November 16, 2014 to March 16, 2015 there were 75 new cases of HIV infection, many of whom were co-infected with HCV.<sup>7,13</sup> These diagnoses were associated with the intravenous use of prescription opioid Opana. Although NSEPs are illegal in the state of Indiana, Governor Mike Pence authorized a short-term, 30-day, needle exchange program that began operation in April, 2015. Since then, over half of PWID have used the service and the spread of disease has been contained as HIV rates decreased and remained non-existent during the month of July, 2015.

Based on model projections from a study done by Degenhardt et al., efficacy is dependent upon recruitment rates of participation in NSEP. Using the model, if there is a 50% percent yearly recruitment rate, leading to 51% of PWID participating in NSEPs, then this could lead to a 20% decrease in HIV incidence after five years.<sup>14</sup>

Cost

There are many costs and resources associated with NSEPs. Of course, cost per unit of service will vary depending on where and how the needle exchanges operate (mobile, stationary, etc.). Costs associated with staffing and supplies must be taken into account as well. Due to the federal ban on syringe exchange programs, staff members who are fully or partially funded by the federal government may not participate in the needle exchange portion of the program. Yet, this does not prevent them from participation in HIV/STD screening and other referrals to healthcare. Other expenses that should be considered are staff hours to perform the needs assessment, the hiring of new staff if necessary, and the training.

The recommended resources needed to implement a syringe exchange program are:

- Different sized needles (at least two)
- Needle cleaning kit (bottle cap, cotton/filter, clean water bottle, alcohol pads, bleach bottle, Band-Aids, and instruction manual)
- Hazardous waste container for sharp objects (also called a “sharps container”)
- Puncture-proof gloves
- Condoms and lubricant
- Paper bag to hold supplies
- Disinfectant solution or spray
- Educational materials
  - Safe and proper injection techniques
  - Information regarding HIV, Viral Hepatitis (HBV, HCV), and other sexually transmitted infections

It is not uncommon for syringe exchange programs to have these particular resources donated to them from local businesses and/or community organizations.

The optimal prevention strategy is to use a sterile syringe for every injection. Sterile syringes are approximately \$0.97 to \$0.99 and even less when purchased in bulk or at a discounted/contract rate. It is estimated that an individual IDU injects about 1,000 times per year and the cost of preventing one HIV case is estimated between \$4,000 and \$12,000.<sup>15, 16</sup> Lifetime costs for new diagnoses of HIV in Kentucky is over \$368,000 per person in 2009.<sup>17</sup> For Hepatitis C, cost is approximately \$94,500 for 12 weeks of treatment, not including lab testing and physician and/or specialist visits.<sup>18</sup>

### Impact

So far in this analysis, Kentucky's injection drug use problem and severity have been defined and the solution has been examined with international and domestic research supporting NSEP efficacy. Yet, the question remains: how will the implementation of needle exchange programs affect Kentucky?

According to a report by the University of Kentucky Center on Drug and Alcohol Research, 0.9% of adults 18 years of age and older have used intravenous drugs in their lifetime.<sup>19</sup> As of 2014, approximately 3,402,775 people, or 77%, of the Kentucky population are age 18 years and older; this provides a number of almost 30,624 injection drug users in the state.<sup>20</sup> Because one third of PWID share needles, this means 10,208 people are at risk for HIV and viral hepatitis in Kentucky. Using the data from Figure 1, Kentucky has an average number of 27 HIV cases with IDU as transmission route per year. For HCV, data from 2008 to 2013 (Figure 3) will be used since that is the time period when Kentucky rates dramatically increased and were consistently above the national rate. As a result, the average rate of HCV infections per year is 3 per 100,000.

To move forward with Kentucky efficacy projections for impact, let's take another look at the data observed in India, New Zealand, and New York City as previously discussed in the "Efficacy" section. The numbers used for these projections reflect a population that do not completely mirror Kentucky. These populations potentially differ in race, gender participation, socioeconomic status, and geography. However, as previously mentioned, the study in Tacoma noted the results of their study were not significantly associated with gender, race, or most frequently injected drug.

Using the total percentage decrease over the number of years indicated in the study, we get an average percent decrease per year. Applying the data from each study resulted in averages 3.7% and 7.6% decrease in HIV prevalence per year in New York and India, respectively. Hepatitis C prevalence decreased by an average of 1.3% in New York City and 15% per year in New Zealand.<sup>9</sup> If we apply these findings to project the annual decrease in HIV and HCV prevalence in Kentucky, we can expect to see an average decrease of 1 to 6 HIV cases per year and an approximate annual decline in rate by 0.04 to 0.50 per 100,000 (or 1.8 – 22.1 cases per 100,000) for HCV.

With the estimated reduction in disease prevalence comes cost savings projections. After applying lifetime treatment costs HIV, savings range from \$368,000 to \$2.2 million per year. Savings associated with Hepatitis C treatment range from \$170,100 to approximately \$2 million per year. With 10,208 people sharing needles, the financial risk for HCV costs amount to approximately \$964 million and almost \$3.8 billion for HIV. However, if one sterile syringe is supplied for each injection per user, the annual cost would be approximately \$30.6 million, which is far less than the financial risk. The cost of prevention outweighs the cost of HIV and HCV diagnoses and prevents a heavier burden on Kentucky's health care system.

In addition to sterile syringes, NSEPs provide: sexually transmitted infection (STI) prevention supplies (condoms, lubricant, etc.); educational material pertaining to overdose prevention, safe injection practices, and information about HIV and viral hepatitis; HIV and viral hepatitis testing and counseling; referrals for substance abuse treatment and human resources (housing, food, etc.); and other ancillary medical services, depending on the program.

Needle and syringe exchange programs also serve as a pathway for treatment for those who seek it. To reference the Tacoma study, almost half of the people admitted to the methadone treatment program were referred from the needle exchange service. The Affordable Care Act requires health insurance policies to provide adequate mental health coverage that include substance abuse treatment. This becomes an advantage for NSEP participants whom wish to begin treatment.

#### Support and Opposition – NSEP as Morality Policy

According to Elizabeth Bowen, NSEP policy is a morality policy that is fueled by controversy and morality. While KY SB 192 is a multifaceted drug policy, the needle exchange provision was highly debated and embodies the four characteristics of a morality policy: marked by controversy, symbolic nature, the policy attracts a diverse policy community, and enduring controversy.<sup>21</sup> The controversy of NSEPs have been evident in the United States as debates have been based on the morality of drug use behavior and scientific evidence and Kentucky is no different.

#### *NSEP Policy Marked by Controversy*

In morality policies, the importance of scientific evidence is minimized by arguments that are based on value, whether it be “good vs. bad,” financial, or convenience. Reports from the Kentucky Office of Drug Control Policy have fueled support in the bill as they reflect the severity of Kentucky’s current heroin and prescription opioid problem. Despite the need and research findings from NSEP program evaluations, state senators believed the exchange of free needles would enable addicts and convey a poor message to youth.

### *The Symbolic Nature of KY SB 192*

The symbolic nature of this bill weighs heavier than the consequences and consideration of various means to achieve the goals behind it. Politicians believe for this bill to be a “message” to addicts and dealers in hopes for it to be effective in the battle against heroin. Jessica Padgett, a supporter who has been arguing for the bill, believed this legislation will take the stigma away from heroin use and provide families with hope. The primary sponsor of the bill, Senator Paul Hornback, R-Shelbyville, voted against S.B. 192 due to the needle exchange provision that was included in the bill. He believed the provision is an enabling factor for addicts.<sup>22, 23</sup>

### *Policy Community Roles*

Morality policies attract a diverse policy community. Advocacy groups such as People Advocating Recovery in Northern Kentucky and North Kentucky Hates Heroin have displayed strong support for NSEP by producing community events for awareness, creating legislative committees, and public marches at the state capital. Families and loved ones of heroin addicts have written numerous letters in support. Policymakers’ support for the needle exchange provision is based on the HIV outbreak in Indiana, and the recent surge in HCV infections within

Kentucky. Support is fueled by the belief that needle exchange programs would not only serve as a first line of defense against HIV and viral hepatitis, but also as a first point in contact between addicts and professionals who can offer assistance in recovery. Other community organizations have mobilized in opposition of the bill. Tennessee faith-based group “Stand in the Gap” has held several anti-drug rallies in northern Tennessee, Kentucky, and Virginia. This groups supports the bill, except for the needle exchange provision, concerned that it could do more harm than good by promoting drugs.

### *The Enduring Controversy*

The passing of this bill has not ended debate. Morality policies, such as this one, often remain controversial. After Governor Steve Beshear signed the bill into action, doubts remained among Kentucky residents and policymakers. The arguments and concerns expressed in opposition of the bill are the same in the aftermath. There are some who believe the NSEP provision serves as an enabling factor, despite its potential to prevent blood-borne infections. Louisville-Metro NSEP does not require injection drug users to exchange used needles. State Sen. Whitney Westerfield, R-Hopkinsville believes this undermines the law’s intention because it promotes intravenous drug usage. In Louisville-Metro’s defense, exchange is encouraged in the program; but because the goal is to prevent infections by distributing sterile syringes, free needles need to be handed out since many addicts share one needle and the requirement of an exchange may deter participation.<sup>24, 25</sup>

### *Social Construction of People Who Inject Drugs*

Another factor causing debate is the social construction of the target population addressed in this policy. According to Schneider and Ingram, the social construction of a target population has an influence on policy agenda and reasons that constitute policy choices.<sup>26</sup> There are four social constructions in policy: Advantaged, Contenders, Dependents, and Deviants. Groups who are considered Advantaged are viewed as good and intelligent and are respected. Contenders are suspicious and vigilant towards government and should be treated with caution. Those who are Dependents are pitied, helpless and have responsibilities that should be of private interest. As for injection drug users, they are categorized under the Deviant category. This is a negatively constructed group that is powerless and should not be treated with respect. Because this group is viewed as bad people who are responsible for their own difficulties and whose behaviors create problem for others, policies catered toward this target population typically lack support and/or endure more resistance to acceptance. Because NSEPs in Kentucky are only authorized if implemented by public health departments, majority of funding comes from tax payer revenue. Some concerned citizens believe this conveys a message that the government condones drug use.

### Potential Barriers

Accessibility, the covert nature of PWID, and lack of federal funding are some of the potential barriers of this policy. Adequate needle coverage is essential to the efficacy of this program and other provisions of the policy. Without adequate access, there are missed opportunities to provide PWIDs with sterile syringe, link them to substance abuse treatment, or educate them about the increased availability of Naloxone. Facility and hours of operations play a major role in coverage, access, and PWID participation.

Louisville-Metro implemented Kentucky's first HRSEP in June 2015 and within one month of operation, there have been approximately 300 participants. Twenty percent were tested for HIV and all had negative results. The number of participants increased to 800 by October with over 50 people being referred to substance abuse treatment programs.<sup>27</sup> Some reasons why the Louisville-Metro exchange program has a large number of participants is because the program operates in a mobile unit outside of the health department building six days of the week.<sup>28</sup> First, separating the exchange program from the health department building increases comfort and decreases stigma. Second, having a fair amount of days and hours of operation increases the probability of participation. When public health interventions make the service more accessible, it is more likely to be utilized. Fortunately, Louisville-Metro had the necessary funds, resources, and staffing to accomplish this. However, other health departments in Kentucky may not be so lucky. Health departments located in rural areas and/or with smaller budgets may face difficulty recruiting and retaining participants. Health departments that can only manage to operate one day a week miss out on outreach and intervention opportunities because coverage is limited. Another example is the Lexington-Fayette County Health Department needle exchange program. This program operates within the health department clinic for three hours once a week. This health department belongs to the second largest city in Kentucky, yet, participation is not nearly as much as what has been seen in Louisville.

An additional barrier that contributes to the possible shortcomings of other health departments within Kentucky is the ban on federal funding of NSEPs. On November 4, 1988, under 42 U.S. Code § 300ee-5, the United States implemented a ban on federal funding of needle exchange programs. The law states, "None of the funds provided under this Act or an amendment made by this Act shall be used to provide individuals with hypodermic needles or

syringes so that such individuals may use illegal drugs, unless the Surgeon General of the Public Health Service determines that a demonstration needle exchange program would be effective in reducing drug abuse and the risk that the public will become infected with the etiologic agent for acquired immune deficiency syndrome.”<sup>29</sup> Despite five government-commissioned reports between 1997 and 1997 that provided evidence of NEPs association with preventing HIV transmission among injection drug users, the ban was upheld, except for a brief lift from 2009 to 2011.<sup>30</sup> Not only would lifting the ban allow more funds to be allocated towards NSEPs, but it could save money by allowing staff whose salary is federally funded to participate in exchange programs instead of acquiring additional personnel. Without federal funding, it is difficult for needle and syringe exchange programs to reach their full potential.

According to Kentucky HRSEP guidelines, a unique identifier card is required for participation. While these cards are for patient tracking and ensuring legal immunity, they are not meant to be revealing of anyone’s identity. However, out of fear of being identified, this can make some PWID feel uncomfortable and unwilling to use the available services.

Kentucky S.B. 192 as a morality policy can be perceived as a barrier. The ongoing controversy of NSEP could prevent adequate expansion of programs. Value-based arguments and beliefs could prevent legislative bodies from approving health department proposals for a program. Furthermore, these same arguments may call for appeals and amendments of the NSEP provision.

### Unintended Consequences

There is no evidence of unintended consequences within the United States, such as increase in drug users, more used needles discarded in the community, and spike in crime rates.

However, this does not negate that unintended consequences can't occur. As seen in Montreal, NEPs were associated with higher HIV rates due to a formation of new social networks.<sup>31</sup> While the probability of this happening in Kentucky is small, these inadvertent consequences shan't be ignored.

#### **IV. Conclusion**

Kentucky Senate Bill 192 is a comprehensive drug policy that tackles the many faces of substance abuse. Needle and syringe exchange programs are essential for infectious disease prevention among the injection drug use population. However, no intervention is “one size fits all.” Every policy and intervention has its advantages and barriers. While there are potential barriers, there are advantages working in favor of this policy. Exchange programs are an effective way to link the target population to the healthcare system and other resources. The explicit authorization of NSEPs through health departments has potential to gain additional trust of the hidden injection drug use population. This trust in the healthcare system is important because it increases the likelihood of service utilization.

The increase of heroin and opioid overdose deaths and Hepatitis B and C rates in Kentucky are indicative of the increase in injection drug use in the state and mirrors the epidemic across the country. As a result of the NSEP provision, Kentucky can expect HIV prevalence to decrease by 1 to 6 cases with cost savings up to \$2.2 million a year. The state will save a projected annual \$2 million in associated HCV treatment costs and experience a drop in prevalence by 1.8 – 22.1 cases per 100,000. In order for these projections to become reality, it is imperative for health departments to provide adequate coverage to reach the target population.

This means state-wide expansion, accessible location and hours, and providing on-site ancillary services.

There will never be a complete elimination of substance abuse. The combination of syringe exchange programs, additional substance abuse treatment program funding, and increased availability of Naloxone is a step in the right direction in controlling the drug problem within the state of Kentucky.

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## **Biographical Sketch**

This capstone was completed by Sierra Nicole Dantzler. She has earned a Bachelor of Arts in Public Health Policy from the University of California, Irvine. Sierra is provisionally certified in public health (CPH) by National Board of Public Health Examiners and will gain full certification upon completion of her Master of Public Health degree from the University of Kentucky in 2015. Sierra will be a Peace Corps Volunteer in Mozambique, starting in 2016. Her work will focus on HIV outreach and improving the capacity of local organizations to provide health and social services. If you would like to contact her, you may use the following information:

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Figure 1: HIV cases in Kentucky. All transmission routes vs IDU transmission. Data collected from CDC NCHHSTP Atlas.

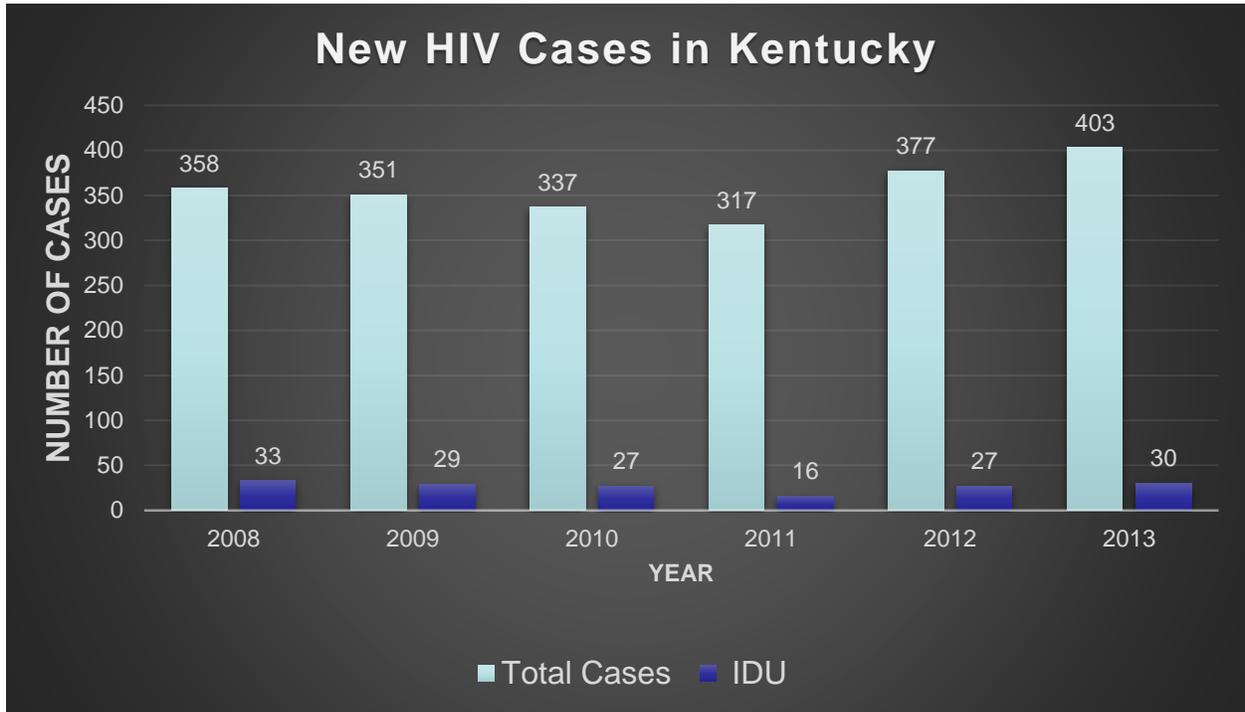


Figure 1: HIV transmission via injection drug use for years 2009-2013. By age. Data collected from CDC NCHHSTP Atlas

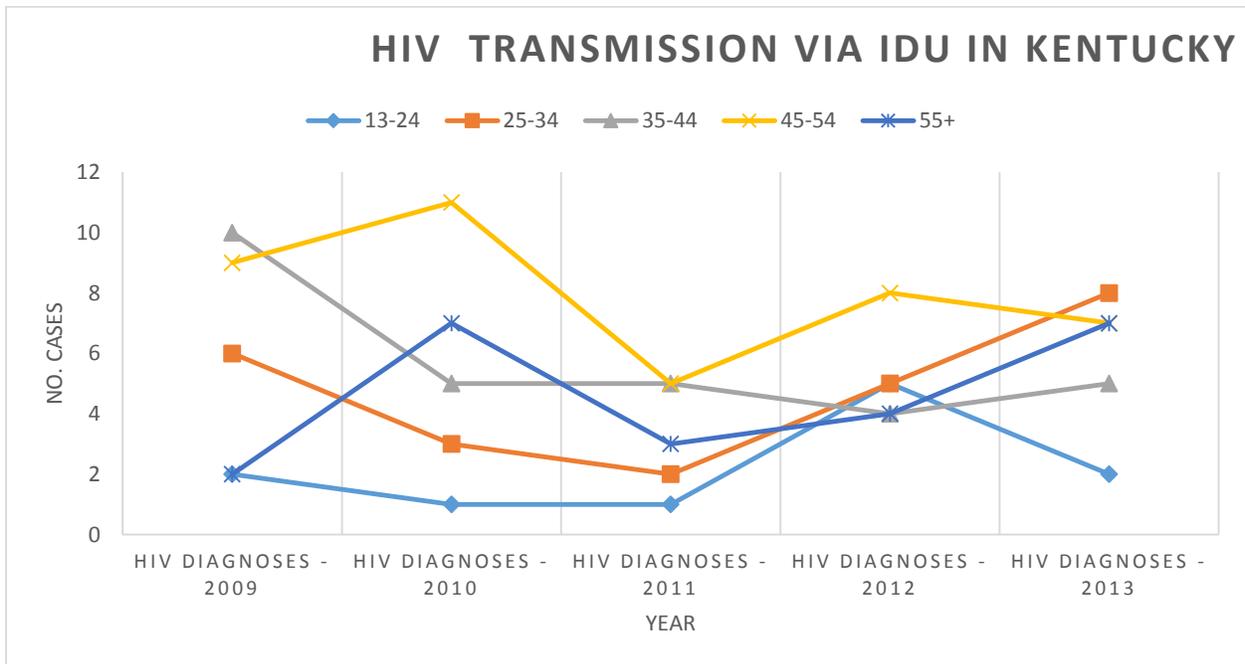


Figure 2. Hepatitis C rates in the United States vs. rates in Kentucky. Years 2000-2013. Data collected from CDC NCHHSTP Atlas

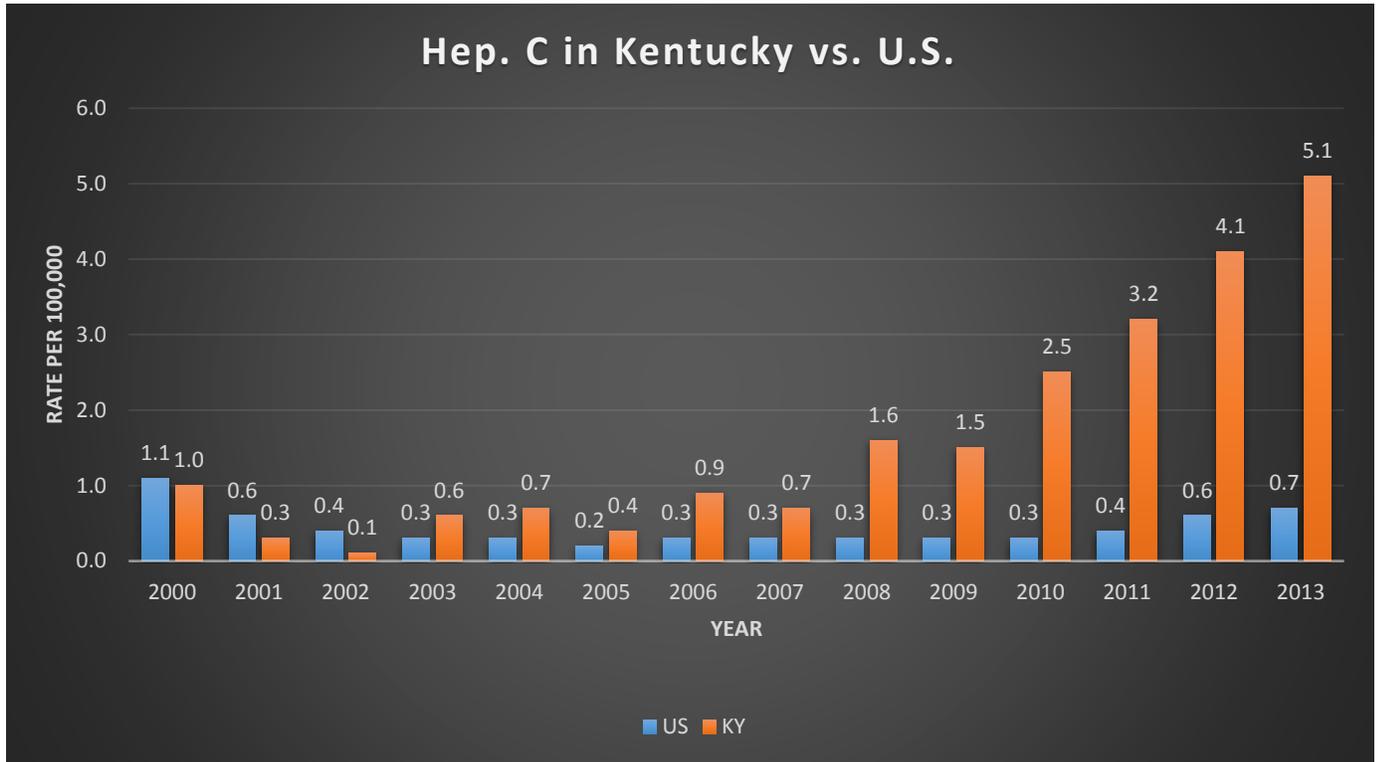


Figure 3. Hepatitis B rates in the United States vs. rates in Kentucky. Years 2000-2013. Data collected from CDC NCHHSTP Atlas

