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Harm Reduction Programs: West Virginia vs. United States

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HARM REDUCTION PROGRAMS - WEST VIRGINIA VS. UNITED STATES

ABSTRACT

Introduction: Harm reduction has been a movement for social justice built on a belief in, and respect for, the rights of people who use drugs. It has been defined as a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. The U.S. has been experiencing an opioid/heroin epidemic, with significant increases in overdose death among drug users with more than 72,000 Americans having died from drug overdoses in 2017.

Methodology: The methodology for this study was a literature review with a semi structured interview with Tina Rameriz of the Kanawha-Charleston Health Department in Charleston, West Virginia. The electronic databases used included EBSCOhost, PubMed, Academic Search Premier, ProQuest, and Google Scholar. Government and medical websites were also used. A total of 47 sources were referenced.

Results: The results of the literature review showed that West Virginia had the highest age-adjusted rate of drug related overdose deaths in the nation in 2014. Overdoses claimed more than three out of every 100 fatalities and ranked #1 in drug overdose deaths with a rate of 41.5 deaths per 100,000 people in 2015. West Virginia had a statewide Harm Reduction Coalition that provided support and guidance for any agency interested. States such as Minnesota, North Carolina and Ohio have had better results in implementing harm reduction programs. An opportunity of harm reduction programs was the creation of the drug Naloxone.

Discussion/Conclusion: This research was not without its limitations. The review suggested that West Virginia has been in fact, behind other states in the U.S. By utilizing several harm reduction programs in the state of West Virginia, this would also create a substantial decrease in

the number of HIV and Hepatitis virus spread through needle sharing among injection drug users.

Key Words: harm reduction programs, hepatitis, program implementation, syringe exchange programs, United States, West Virginia.

INTRODUCTION

Harm reduction has been defined a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use (Harm Reduction Coalition, 2018a). Harm Reduction has been also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs (Advance Access & Delivery, 2018). Drug overdose death rates have increased steadily from 1999 to 2016, with more than 200,000 people having died in the United States, especially in parts of West Virginia (Wheeler, Davidson, Jones, & Irwin, 2012).

It was not until the late 1980's that syringe exchange programs began at the state and local level in the United States (U.S.), with funding primarily from state and local governments and the support of the North American Syringe Exchange Network. There were approximately 200 programs for syringe exchange in the U.S in 2015. (Des Jarlais, 2017). The programs have been shown to save \$738 million in health care costs for drug users because they do not need HIV treatment, and have also reduced the risk to the public of accidentally pricking themselves with a discarded needle (Vestal, 2016).

States have been responsible for creating their own laws regarding syringe access, and syringes that can currently be purchased over the counter without a prescription (Bonner, 2015). As of 2016, only 18 states have state laws that explicitly authorize syringe exchange (Shatter Proof, 2018).

The U.S. has been experiencing an opioid/heroin epidemic, with significant increases in overdose deaths among drug users with more than 72,000 Americans having died from drug overdoses in 2017 (NIH, 2018a). Much of this epidemic has been occurring in suburban and rural of the country without harm reduction services (Des Jarlais, 2017). Drug overdose has been the leading cause of accidental death in the U.S., with 52,404 lethal drug overdoses in 2015. Opioid addiction has been driving this epidemic, with 20,101 overdose deaths related to prescription pain relievers, and 12,990 overdose deaths related to heroin in 2015 (Advance Access & Delivery, 2018).

In 2018, a study conducted by the West Virginia Department of Health and Human Resources identified 28 counties in West Virginia as high risk for rapid dissemination of HIV and hepatitis C among people who have injected drugs (Bernardino, 2018). Increasing access to Harm Reduction Programs in high-risk areas have reduced new viral hepatitis and HIV cases by 5.8%, by decreasing the sharing of syringes and other injection equipment (WV DHHR, 2018).

Harm reductions have been proven to be expensive to run effectively. The costs of conducting harm reduction programs have continued to vary from health department to health department and state to state, estimated to range from \$23–71 per person per year, depending on factors such as the number of patients and the number of services provided beyond syringe exchange (WVALHD, 2016). Harm reduction interventions have been a good value for the funds invested and improved health outcomes for people who inject drugs, including the broader population; although scaling up has been costly (Wilson, Donald, Shattock, Wilson, & Fraser-Hunt, 2015).

The purpose of this research was to analyze the success of harm reduction programs in West Virginia in relation to the population of the United States as a whole and to determine if there has been a HIV and Hepatitis reduction.

METHODOLOGY

The primary hypothesis of this study was that West Virginia did not have a successful harm reduction program in comparison to other states in the United States. The mixed methodology for this qualitative study was a literature review, complemented with a semi structured interview through electronic communication (e-mail), after an Institutional Review Board (IRB) approval. Tina Rameriz of the Kanawha-Charleston Health Department in Charleston, West Virginia was consulted as an expert in harm reduction (Appendix). The literature that was utilized in this study encompassed primary and secondary data. The literature review was conducted in three individual stages involving: (1) developing a search strategy and gathering data for the case study; (2) determining and analyzing the relevant literature; (3) categorizing literature.

Step 1: Literature Identification and Collection

The electronic databases used include EBSCOhost, PubMed, Academic Search Premier, ProQuest, and Google Scholar. The terms searched within each database were: “harm reduction programs” OR “syringe exchange programs,” AND “West Virginia” AND “United States,” OR “program implementation” OR “hepatitis”. Journals cited included but were not limited to: Harm Reduction Journal, North Carolina Medical Journal, Substance Use and Misuse, and other reliable medical and government websites. Following a PRISMA approach, the search identified relevant citations and articles were excluded (N=142) if they did not meet inclusion principles. Articles were included (N=47) if they described harm reduction programs in the United States and/or West Virginia: articles from other sources (N=19) were also included in this search. These

references were subject to full-text review, and these citations were included in the data abstraction and analysis. Only references were used in results section (see Figure 3).

Step 2: Literature Analysis

In attempt to collect the most recent data, sources older than 10 years, 2008 or earlier, were removed from the search and only sources written in English were used. Primary and secondary data from articles, literature reviews, research studies, and reports written in the U.S. were included in this research. The literature review included 47 references, which were assessed for information pertaining to this research project. The literature search conducted by MB, HS, and validated by AC, who acted as second reader and double checked to ensure that references met the inclusion criteria. A conceptual framework for the success of harm reduction programs was created by the authors based on trends, efficiency, barriers, and opportunities.

Step 3: Literature Categorization

The following subheadings were categorized into results: *West Virginia Harm Reduction Programs, Harm Reduction Programs in the United States, and Barriers and Opportunities of Harm Reduction Programs.*

RESULTS

West Virginia Harm Reduction Programs

According to the U.S. Census Bureau, West Virginia had the highest age-adjusted rate of drug related overdose deaths in the nation in 2014; 35.5 per 2,000 (CDC, 2018). In 2015 in West Virginia, overdoses claimed more than three out of every 100 fatalities and ranked #1 in drug overdose deaths with a rate of 41.5 deaths per 100,000 people (Ingraham, 2017). Among certain demographic groups, which included white males age 15 to 34, the likelihood of overdose was much higher at 28%, with overdoses typically occurring with younger individuals, ages 20-29

(Ingraham, 2017). Since March 2018, the West Virginia Bureau for Public Health has reported an increase in the number of confirmed cases of acute Hepatitis A virus. Figure 1 and Figure 2 showed the state of West Virginia with cases reported and the demographics of the individuals affected. 1225 cases which were 59.8% male were reported in Figure 1. This increase in cases has primarily been reported among injection and non-injection drug users, homeless or mobile individuals, and those who have been recently incarcerated; viral sequencing has linked cases from Kentucky and California as well (Fleming, 2018).

The locations of syringe exchange programs that have been listed on the North American Syringe Exchange Network reported ten syringe exchange programs for the state of West Virginia (NASEN, 2018). According to NASEN, the programs listed included but were not limited to; Charleston, Clarksburg, Fayetteville, Huntington, Brooke and Hancock Counties, Morgantown, Vienna, Weston, and Wheeling. The counties have shown the need for even more harm reduction and syringe exchange programs in the state to serve the vulnerable population. The Wheeling-Ohio County program has limited the number of needles to 20 per visit and has also provided limited additional supplies such as condoms and alcohol prep pads to help prevent additional issues (Comins, 2018). There is a West Virginia statewide Harm Reduction Coalition that provides support and guidance for any agency that is interested in harm reduction (T. Rameriz, interview, 2018).

In March 2018, Brenda Isaac, president of the Kanawha-Charleston Board of Health, announced that the Kanawha-Charleston Health Department was suspending the needle exchange portion of its harm reduction program, due to failure to build and maintain community support and lack of data informing of other harm reduction services, which was effective immediately (Kersey & Beck, 2018). As shown in Figure 1, Kanawha County who according to

statistics had a population of 193,063 in 2017, had over 350 confirmed cases of hepatitis related to drug use (Suburban Stats, 2018). According to the WVDHHR, five counties; Cabell, Kanawha, Putnam, Raleigh, and Wood, accounted for 55% of state's acute Hepatitis case burden. Unfortunately, the syringe exchange program for the Kanawha-Charleston Health Department has no plans of being reinstated (Kersey, 2018).

WV Health Right, Inc. located in Charleston, West Virginia, has offered a full range of substance abuse disorder treatment services. These services have included; full harm reduction services such as physical exams, vaccines, testing for Hepatitis A,B, C and HIV, Naloxone education and training, syringe exchange program, therapy, a psychiatrist on-site as needed, as well as referral for Medication-Assisted Treatment (West Virginia Health Right, 2018).

Harm Reduction Programs in the United States

States such as Minnesota, North Carolina, and Ohio, have had better results in relation to the implementation of harm reduction programs (Corso & Townley, 2016). The state of North Carolina have adopted several techniques and programs relating to harm reduction (Bartlett, Brown, Shattell, Wright, Lewallen, 2013). These techniques have included but were not limited to; medication-assisted treatment, overdose prevention training for people impacted by drug use and first responders, pre-arrest diversion programs, HIV and Hepatitis C testing, laws that protect people who call 911 to report an overdose, and expansion of substance use treatment programs (Castillo, 2018). As of February 2018, North Carolina had 26 syringe exchange programs throughout the state in diverse locations such as bookstores, pawn shops, churches, fire departments, health departments, AIDS services organizations, and drug user unions (Castillo, 2018).

Minnesota had syringe access and disposal via pharmacies and syringe services programs (Just Us Health, 2018). The needle exchange program in Minnesota, which started with Women With a Point, has continued on to a home delivery service, passing out 10,000 syringes in the first year and 200,000 in the next four years (MN Department of Health, 2018). The Ohio legislature approved needle exchanges in a 2015 budget bill, which has allowed local health departments to make decisions without going to the state (DeVito, 2018). Syringe Exchange Programs have repeatedly been shown to be cost-effective and according to a 2005 Centers for Disease Control and Prevention study, the cost to prevent one HIV infection by SEPs has been calculated at \$4,000–\$12,000 (AIDS Watch, 2014).

Since 2015, safer drug use consumption services (SCS) participants have gained access to other medical and social services and entry into drug treatment (Hodel, 2017). There had not been a single overdose death involving SCS participants in any of these programs over 10 years of operation and millions of supervised injections (Drug Policy Alliance, 2018). SCS did not increase drug use in the area, nor did they encourage young people to initiate drug use; and crime and public nuisance decreased in the areas around these programs (Raymond, 2017).

Barriers and Opportunities of Harm Reduction Programs

There have been both barriers and opportunities of harm reduction programs. Barriers have included: anticipated negative community reaction to needle exchange, methadone treatment, free condoms, lack of staff and funding, and anticipated staff resistance (Hunt, 2010). Qualitative interviews with people who injected drugs found a number of reported barriers to safer risk reduction which included withdrawal, craving, limited access to sterile injection equipment, cost associated with injection equipment, time pressures, not being organized in

advance, legal reasons, and fear of rejection from fellow injectors if sharing (Phillips, Altman, Corsi, & Stein, 2012).

Some places in various states that have established syringe exchanges have now reconsidered it, worried that syringe exchange programs may bring crime into their communities or that local efforts have helped people from other counties or states (Meehan, 2018). Some programs have only wanted to distribute retractable needles, but communities have been concerned that this was potentially not the best practice (Harris, 2016). Retractable needles have meant to be used one time, once the needle is retracted, it cannot be used again. That practice often has been not realistic for drug users who shoot up several times per day because without ready access to multiple needles, they were likely to use the same one more than once (Lilly, 2018).

There have been also multiple opportunities that were present in harm reduction programs. Multiple opportunities for harm reduction strategies to minimize the morbidity and mortality associated with opioid abuse and dependence, have included; targeted overdose education, naloxone distribution, and policies to increase bystander assistance in the case of an overdose (Hawk, Vaca, & D'Onofrio, 2015). Collaboration on opioid overdose prevention gave prevention and harm reduction fields and workers opportunities to develop that common vocabulary and have a better understanding of activities, priorities, and knowledge (Stancliff & Raymond, 2017). The syringe exchange program has been a way for clinics to meet with people and try to help them be safer by not sharing needles (Dean, 2018).

A huge opportunity of harm reduction programs was the creation of the drug Naloxone. Naloxone has been a medication designed to reverse opioid overdose quickly; it is an antagonist, meaning it binds to opioid receptors and can reverse and block the effects of other opioids (NIH,

2018b). Naloxone, also known as Narcan only worked if a person has opioids in their system. It is traditionally administered by emergency response personnel, but also minimally trained lay-people, which makes it ideal for treating overdose in people who have been prescribed opioid pain medication and those who use heroin, and other drugs. There is no potential abuse for this drug (Harm Reduction Coalition, 2018c).

The distribution of Naloxone began at syringe exchanges, but have expanded to other programs including substance use treatment facilities, Veterans Administration health care systems, primary care clinics, and pharmacies had all started providing Naloxone to laypersons (Dunne, 2018). There are 20 states that had no opioid overdose prevention programs that have been distributed Naloxone and most that who performed overdose reversals were those who used drugs (Harm Reduction Coalition, 2018c). Providing Naloxone kits to addicts in need reduced overdose deaths, have been safe, and have been labeled as cost-effective. U.S. and international health organizations have recommended providing Naloxone kits to individuals who might witness an opioid overdose (Wheeler, Davidson, Jones, & Irwin, 2015).

DISCUSSION

The purpose of this research paper was to analyze the success of harm reduction programs in West Virginia in relation to the population of the United States as a whole and to determine if there has been a HIV and Hepatitis reduction. The primary hypothesis of this study was that West Virginia did not have a successful harm reduction program in comparison to other states in the United States. The review suggested that West Virginia has been in fact, behind other states in the U.S. It was taken into consideration that some states had been working with a harm reduction program for a longer period of time and also that overdose deaths per capita have been

higher in West Virginia. Harm reduction programs are sometimes thought of a way to achieve drug law reform and promote the legalization of drugs, which is not the case.

Utilizing multiple harm reduction programs in West Virginia would also create a substantial decrease in the number of HIV and Hepatitis virus spread through needle sharing among injection drug users.

The results of the literature review and the interview with an expert in the field have suggested that West Virginia falls behind with the success of harm reduction programs in comparison to other states. The syringe services programs are usually limited to half a day one day a week at the community health clinics and have caused logistics issues for patients to attend these locations (Harm Reduction Coalition, 2018d). The literature review supports that harm reduction programs are a positive thing and should be implemented successfully in states that have a need for them. There have been several programs throughout West Virginia but the majority of the population has the mentality that drug use does not happen where they live. West Virginia's program was modeled after successful programs in New York, California, and North Carolina. These states offered an intake and assessment, completed jointly by a harm reduction specialist and the person who used drugs, to identify the individual's service needs related to their use of substances to identify supportive services that can help improve their quality of life (New York State Department of Health, 2018).

Limitations

This research study was not without its limitations. One barrier was that West Virginia as a whole does not have support within the state and the counties who have been interested in this program have been very cautious to implement one, therefore putting up too many barriers to serve users. Another limitation was that West Virginia's harm reduction program have been

relatively new, only existing since 2015, therefore have posed difficulty finding current data and statistics on the effectiveness of the program. This literature review was restricted due to a small amount of available articles, which may have affected the quality of the information found during research. Also, limitations were research and publication bias.

Practical Implications

Continual participation in harm reduction programs in West Virginia and the United States will continue to save funds, reduce harm in substance use disorder clients, and provide them with clean injection equipment, linkage to care, and peer recovery coaches (T. Rameriz, interview, 2018). Support at a state and government level is imperative for a successful harm reduction program. Utilizing this asset would be favorable for the state moving forward. Rameriz stated that harm reduction most likely will never return to Kanawha-Charleston Health Department due to the staff being too overworked to be able to collect accurate data, also more money and better training would be needed for these types of programs to work efficiently. There are other entities in the county of Kanawha that are interested in pursuing a similar program.

CONCLUSION

The benefits of harm reduction programs have continued to address the opioid crisis, overdose crisis, HIV, and Hepatitis rates, and cannot be overestimated. The United States and West Virginia need to continue to move forward to fight the drug epidemic taking place. Programs need to continue to be available to the public, especially in the counties of West Virginia addressed in this research. Thus, the primary hypothesis and purpose was supported by this research.

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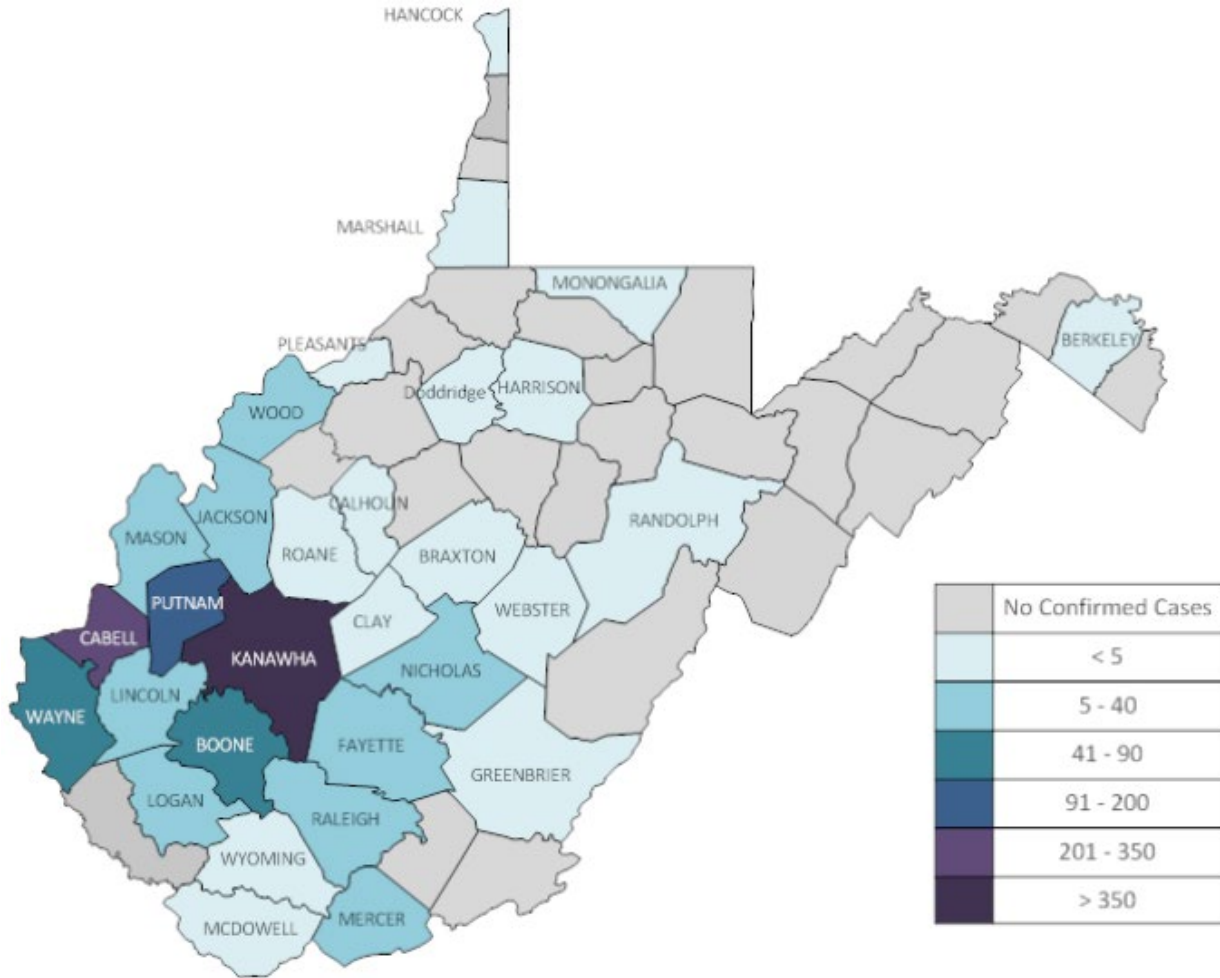
Number of Cases	1225
DEMOGRAPHICS	
Age Range	12-82
Median Age	37
Male	733 (59.8%)
Hospitalizations	646 (52.7%)
Deaths	2
RISK FACTORS	
Co-infection with Hepatitis C	620 (62.2%)
Co-infection with Hepatitis B	116 (11.6%)
Reports Illicit Drug Use	832 (78.4%)
Homeless	143 (11.7%)
Table does not include all reported Hepatitis A cases in the outbreak region; only those cases that are identified as outbreak-related. Data are provisional and subject to change.	

Table 1: West Virginia Hepatitis A Outbreak Cases* as of September 14, 2018

Source: West Virginia Department of Health and Human Resources [WV DHHR]. (2018b).

Multistate Outbreak of Hepatitis A. Retrieved from

https://dhhr.wv.gov/oeps/disease/viral-hepatitis/pages/hepA_outbreak.aspx



Epidemiological data will be updated weekly and posted each Friday.

Figure 1

Source: West Virginia Department of Health and Human Resources [WV DHHR]. (2018b).

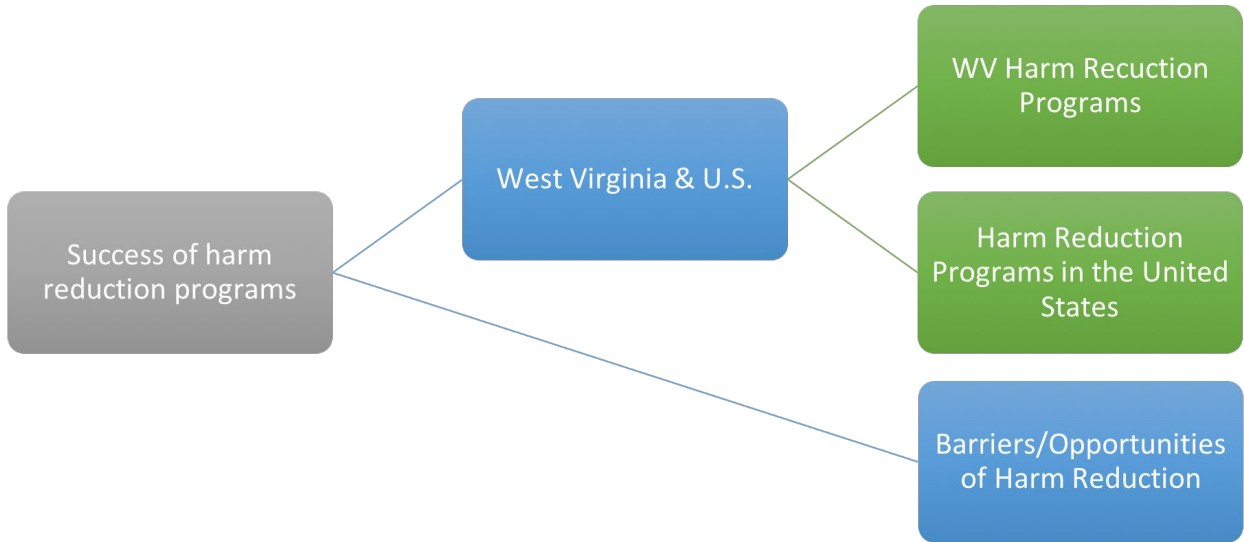


Figure 2: Conceptual Framework

Source: Michels, I.I., Stover, H. (2012).

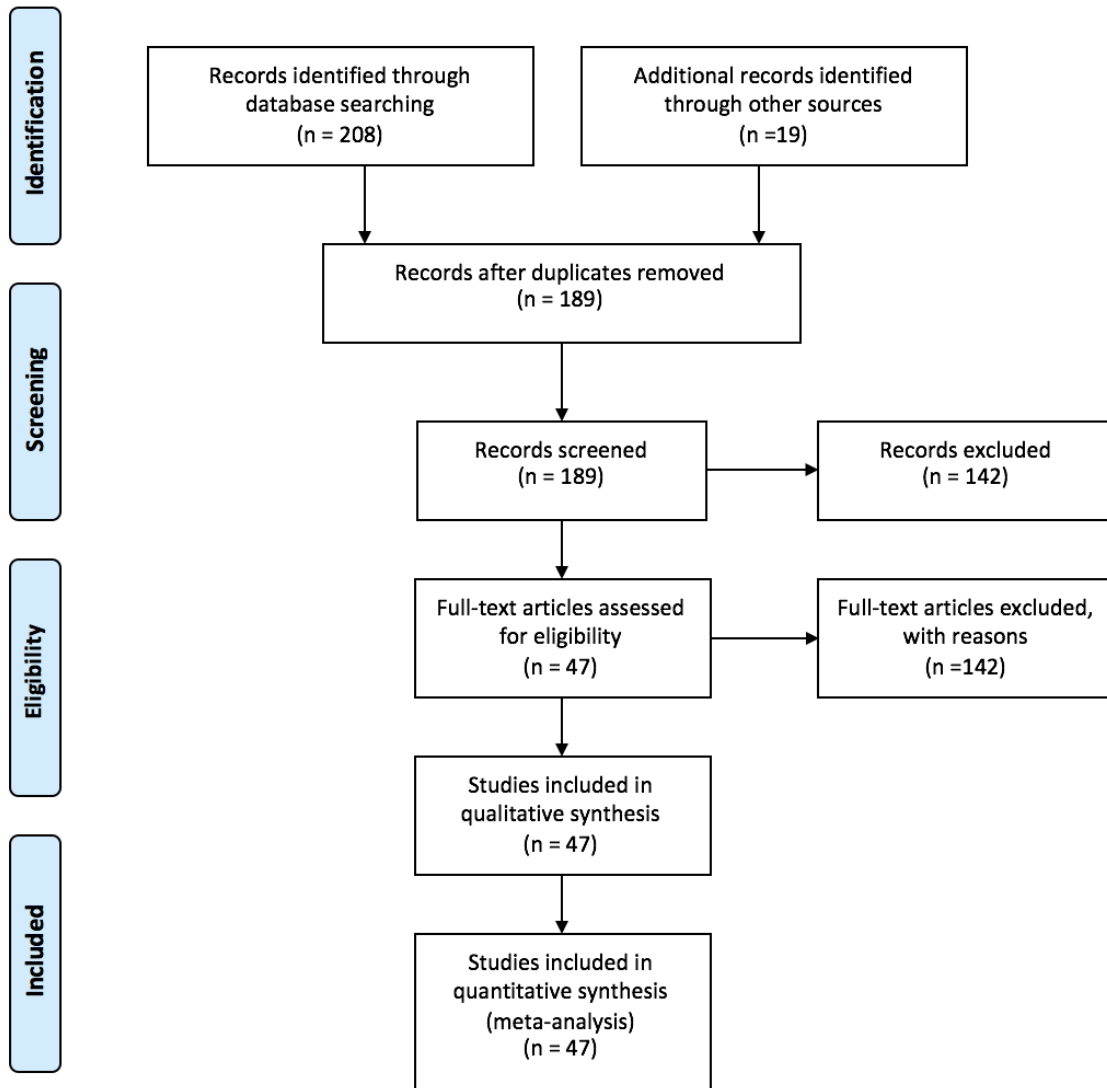


Figure 3: Overview of Literature Evaluation

APPENDIX

Interview Questions

1. Do you feel that West Virginia is up to speed with their harm reduction programs compared to other states?
2. Did suspending the syringe exchange program in Kanawha County hurt the harm reduction program and the individuals it served?
3. How should the program be changed to be more effective?
4. What are/were the strengths and weaknesses of the program?
5. What other states in the United States should be a role model for planning or revamping a harm reduction program?
6. What is harm reduction to you?
7. What does the future of the harm reduction program in this area and state look like going forward?
8. How did you get involved with the Kanawha-Charleston Health Department?
9. Does enough support exist in West Virginia for this program?
10. Does the program get support from other states such as question and answer sessions, meetings, etc?