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HIV Harm Reduction Methods: A Comparison Between Switzerland and the United States

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HIV Harm Reduction Methods

A Comparison Between Switzerland and the United States

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Fall 2017

SIT: Global Health and Development Policy

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Public Health and Educational Policy

Abstract

This paper explores the connections between harm reduction methods and the prevalence of HIV/AIDS in Switzerland and the United States of America, focusing primarily on the harm reduction methods of needle exchange programs, safe drug consumption spaces, and sex education. While these two countries are largely similar in their culture and geopolitical approaches, there are some key differences in how HIV is approached in each. Switzerland's somewhat unique approach with relaxed drug policies and more pragmatic, harm reduction based response to the AIDS epidemic sets a model framework for other countries to follow, with comparatively widespread use of needle exchange programs and safe injection facilities. While the United States subscribes to certain aspects of this harm reduction framework, the "War on Drugs" response to the AIDS epidemic led to further ostracization of vulnerable populations that has left lasting impacts, including higher HIV prevalence rates. In addition to the puritanical response to drug use, the United States maintains a somewhat puritanical view of sex which impacts the comprehensiveness of sex education programs in certain areas, which also impacts the prevalence of HIV. When compared with the Swiss approach to both people who inject drugs and sex education, the US is lacking.

Preface

HIV/AIDS is a personal interest of mine for a multitude of reasons, with the primary one being that I have personal experience with a family member who suffers from this disease. This personal connection and first hand experience with HIV has spurred my interest in researching in this field, and helped narrow my focus to people who inject drugs and men who have sex with men. Because of this existing interest I was enticed by the opportunity to research how Switzerland approaches HIV and how it differs from the United States, given the difference in health care systems and the implementation of harm reduction techniques.

Furthermore, I am in the process of conducting research in the United States as well, relating to sex education curricula in North Carolina and examining how differences in curricula impact overall knowledge and later health outcomes. Sex education is something I am interested in and passionate about, particularly with relation to reproductive justice, and was thus curious how this sensitive topic is approached in a different country. Additionally, as a queer woman, I am always interested to see how inclusive these curricula are in regards to LGBTQ+ people. I was particularly interested to see how non-heterosexual sex is addressed in Switzerland given that same-sex marriage is not permitted, though registered partnerships are.

Because of these interests, I chose to focus on people who inject drugs (PWIDs) in Switzerland in a prior local case study and examine how this framework of harm reduction is approached. However, I wanted to expand this research to include the United States, and also examine more deeply how men who have sex with men are approached differently as well as how sex education varies; therefore I chose to expand this local case study into my independent

research project. I wanted to primarily investigate how the treatment of these two populations of PWID and MSM varies and how that impacts overall HIV prevalence.

HIV is a fascinating disease to study because not only is it complex to treat, it carries a social stigma with it that is somewhat unique. This makes it an even bigger challenge to tackle with many nuances that add to the complexity. Because of this, there are many factors that impact the prevalence of HIV. I chose to focus only on PWID and MSM because of my personal interests and experiences with these two populations.

Acknowledgements

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Glossary of Terms and Abbreviations

- AIDS: Acquired Immune Deficiency Syndrome
- amfAR: The Foundation for AIDS Research
- HIV: Human Immunodeficiency Virus
- HPV: Human Papillomavirus
- IDU: Injecting Drug User
- LTF: Low Threshold Facility
- MSM: Men who have Sex with Men
- NEP: Needle Exchange Program
- PrEP: Pre-Exposure Prophylaxis
- PWID: People Who Inject Drugs
- SAF: Swiss AIDS Federation
- SIF: Safe Injecting Facility
- SSI: Supplemental Security Income
- STI: Sexually Transmitted Infection
- UN: United Nations
- UNAIDS: Joint United Nations Program on HIV/AIDS
- USA, US: United States of America
- WHO: World Health Organization

Introduction

Human Immunodeficiency Virus (HIV) is an undoubtedly complex issue for any country that has resulted in a variety of approaches to address. Switzerland has taken an approach that centers around harm reduction. These policies have served as a progressive and successful example after which other countries can follow. Switzerland's harm reduction policies have been largely successful in reducing the spread of HIV. The implementation and use of needle exchange programs, safe drug consumption spaces, and other harm reduction methods have reduced the prevalence and spread of HIV to a great extent within Switzerland. This unique approach to harm reduction stemmed from the 1980s' Acquired Immune Deficiency Syndrome (AIDS) epidemic and growing drug scene, such as in Platzspitz Park in Zurich, and has continued through to today. Many countries have not followed suit, outlawing the methods of harm reduction that are considered by experts to be effective in reducing the spread of HIV.

In contrast, the United States of America has not followed this outline, instead maintaining more repressive policies regarding drugs and people who use drugs. The US response to the AIDS epidemic shows the deeply ingrained Puritanical roots.

The framework of harm reduction is a public health method that is directly opposed to the repression based policies practiced in many places. Repressive policies further marginalize already vulnerable populations, particularly the key populations of men who have sex with men, injecting drug users, and sex workers, who all face the criminalization of these behaviors, which in turn leads to decreased care seeking and treatment, as well as education surrounding these

areas. In contrast to these repressive policies is the Swiss approach of harm reduction, which has successfully reduced the spread of HIV.

Defining the Framework of Harm Reduction

Avert defines the term harm reduction as “[referring] to strategies that aim to reduce the harms associated with injecting drug use.”¹ This term was re-invented from its original definition of abstinence from drug use to center around providing clean syringes during the early 1980s in the midst of the HIV epidemic. The term has evolved over time, initially only focusing on adults with substance abuse disorders. The framework recognizes that abstinence is not necessarily a “realistic goal for those with addictions”.²

The Harm Reduction Coalition further defines harm reduction as “a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs”.³ It is a framework that accepts the fact that drug use will occur and works to minimize the harmful effects “rather than simply ignore or condemn them”.⁴ It also recognizes the social, cultural, and economic factors at play that impact drug use, including

¹ Harm reduction for HIV prevention. (2017, June 12). Retrieved October 23, 2017, from <https://www.avert.org/professionals/hiv-programming/prevention/harm-reduction>

² Harm reduction: An approach to reducing risky health behaviours in adolescents. (2008). *Paediatrics & Child Health*, 13(1), 53-56. doi:10.1093/pch/13.1.53

³ Principles of Harm Reduction. (n.d.). Retrieved October 26, 2017, from <http://harmreduction.org/about-us/principles-of-harm-reduction/>

⁴ Principles of Harm Reduction. (n.d.). Retrieved October 26, 2017, from <http://harmreduction.org/about-us/principles-of-harm-reduction/>

“poverty, class, racism, social isolation, past trauma, sex-based discrimination, and other social inequalities” that impact drug use and treatment.⁵

This term now encompasses other harm reduction strategies beyond abstinence, including needle exchange programs (NEPs) and safe drug consumption spaces. NEPs and safe consumption spaces are highly controversial and contested, and are outlawed in many countries despite their proven success when implemented effectively, such as in Switzerland.

In a further expansion of this definition, sex education may be included. Though “harm reduction” has historically been a term that addresses only drug use, sex education is beginning to be considered a method of harm reduction in that sex is one of the primary pathways of HIV transmission and that a more comprehensive education on safe sex practices can serve as a preventative measure. Harm reduction methodology has been successfully applied to sex education as a way to reduce teen pregnancies and sexually transmitted infections (STIs), including HIV.⁶

Literature Review

NEPs have been supported by the WHO, which asserts that “providing access to and encouraging utilization of sterile needles and syringes for [people who inject drugs] is now generally considered to be a fundamental component of any comprehensive and effective HIV-prevention programme.”⁷ In a comprehensive report of NEPs published by the WHO in

⁵ Principles of Harm Reduction. (n.d.). Retrieved October 26, 2017, from <http://harmreduction.org/about-us/principles-of-harm-reduction/>

⁶ Harm reduction: An approach to reducing risky health behaviours in adolescents. (2008). *Paediatrics & Child Health*, 13(1), 53-56. doi:10.1093/pch/13.1.53

⁷ Cooney, A., & Wodak, A. (2004). *Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS Among Injecting Drug Users*(Tech.). Geneva: WHO.

2004, NEPs are described as not only cost-effective and cost-saving, but the WHO also reported that there was no convincing evidence of any of the consequences many fear about the implementation of NEPs, including increases in drug use and discarded syringes and the support of drug habits.⁸ Despite this, the United States does not implement this harm reduction method. There are no safe injection facilities (SIFs) and very limited needle exchange programs. Furthermore, the criminalization of drug use and sex work further ostracizes already vulnerable populations.

In a 1997 ecological study comparing changes over time in HIV seroprevalence in people who inject drugs (PWID) worldwide in cities with and without NEPs by Hurley et al, they found that on average, seroprevalence increased by 5.9% per year in 52 cities without NEPs. In contrast, in the 29 cities with NEPs, seroprevalence decreased by 5.8% per year. From this data, they concluded that NEPs led to a reduction in HIV incidence among PWIDs, supporting the notion that NEPs are effective.⁹ This conclusion has been reaffirmed in multiple other studies.

Despite the proof of NEPs potential to reduce the transmission of HIV and other bloodborne diseases, their implementation has “been limited by the uncertainty about their effectiveness.”¹⁰ Though evidence indicates that NEPs are effective in slowing the spread of HIV in PWID, “socially conservative American politicians have embraced contrary evidence from two Canadian cities to assert that syringe exchanges are not only immoral because they

⁸ Cooney, A., & Wodak, A. (2004). *Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS Among Injecting Drug Users*(Tech.). Geneva: WHO.

⁹Hurley, S. F., Jolley, D. J., & Kaldor, J. M. (1997). Effectiveness of needle-exchange programmes for prevention of HIV infection. *The Lancet*, 349(9068), 1797-1800.
doi:[https://doi.org/10.1016/S0140-6736\(96\)11380-5](https://doi.org/10.1016/S0140-6736(96)11380-5)

¹⁰Hurley, S. F., Jolley, D. J., & Kaldor, J. M. (1997). Effectiveness of needle-exchange programmes for prevention of HIV infection. *The Lancet*, 349(9068), 1797-1800.
doi:[https://doi.org/10.1016/S0140-6736\(96\)11380-5](https://doi.org/10.1016/S0140-6736(96)11380-5)

encourage drug use, but may also actively spread HIV.”¹¹ However, Gibson et al contend that the results of these studies, which state that NEPs are either not effective or even potentially harmful, did not account for confounding variables, such as the existing availability of legally accessible sterile needles and the frequency with which clients used the NEPs.¹² Those who visited the NEP more regularly had a lower prevalence of HIV seroconversion when confounding variables were controlled for. Despite these studies’ misrepresentations of NEPs’ effectiveness, they continued to be cited as evidence for the dangers or impracticalities of implementing NEPs.

While NEPs have been demonstrated to decrease rates of HIV drug risk behavior, there is no association with decreased rates of HIV sex risk behavior.¹³ There is a similar pushback towards comprehensive sex education that is founded in moral arguments, as seen with NEPs. In the United States for instance, many contend the implementation of sex education programs that teach students anything beyond abstinence for religious reasons, as they believe that sex should only occur after marriage, and teaching about sex prior to that encourages adolescents to engage in sexual activity. In a 2007 study by Kirby et al, they found that “[sex education] programs do not hasten or increase sexual behavior but, instead, some programs delay or decrease sexual

¹¹ Gibson, D. R., Flynn, N. M., & Perales, D. (2001). Effectiveness of syringe exchange programs in reducing HIV risk behavior and HIV seroconversion among injecting drug users. *Aids*, 15(11), 1329-1341. doi:10.1097/00002030-200107270-00002

¹² Gibson, D. R., Flynn, N. M., & Perales, D. (2001). Effectiveness of syringe exchange programs in reducing HIV risk behavior and HIV seroconversion among injecting drug users. *Aids*, 15(11), 1329-1341. doi:10.1097/00002030-200107270-00002

¹³ Lurie, P., Reingold, A. L., Bowser, B., Chen, D., Foley, J., Guydish, J., . . . Sorensen, J. (1993). Public Health Impact of Needle Exchange Programs in the United States and Abroad: Summary, Conclusions, and Recommendations. *NCJRS*, 1-52. Retrieved November 8, 2017, from <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=165664>.

behaviors or increase condom or contraceptive use.”¹⁴ In their review of eighty-three studies conducted on youth (under 25 years of age) worldwide, they found that over two thirds of curriculum-based sex and HIV education programs “significantly improved one or more sexual behaviors.”¹⁵ Thus, sex education can be considered an effective method for preventing the spread of HIV, as it educates students on how HIV is spread and promotes safe sex behaviors.

Research Questions and Rationale

To better contextualize the research questions posed, it’s important to note that there are some disparities between the United States and Switzerland. In the United States, HIV/AIDS accounted for 0.45% of disability adjusted life years (DALYs) for people of all ages and sexes in 2016, with an annual percent change of -5.63%. HIV/AIDS accounted for only 0.18% of DALYs in 2016 with an annual percent change of -4.04% in Switzerland.¹⁶ In other terms, HIV accounts for 111.52 DALYs per 100,000 in the United States, while it only accounts for 32.44 DALYs per 100,000 in Switzerland.¹⁷ The burden of disease between these two countries is extremely similar. Yet, HIV accounts for 0.199% more of total deaths in the United States than in Switzerland, which may seem like an insignificant proportion, but given how similar these countries are in terms of development and economic standing, and considering the crude numbers that those proportions translate to, that is a significant difference.¹⁸

¹⁴ Kirby, D. B., Laris, B., & Roller, L. A. (2007). Sex and HIV Education Programs: Their Impact on Sexual Behaviors of Young People Throughout the World. *Journal of Adolescent Health, 40*(3), 206-217. doi:10.1016/j.jadohealth.2006.11.143

¹⁵ Kirby, D. B., Laris, B., & Roller, L. A. (2007). Sex and HIV Education Programs: Their Impact on Sexual Behaviors of Young People Throughout the World. *Journal of Adolescent Health, 40*(3), 206-217. doi:10.1016/j.jadohealth.2006.11.143

¹⁶ GBD Compare. (n.d.). Retrieved September 11, 2017, from <https://vizhub.healthdata.org/gbd-compare/>

¹⁷ GBD Compare. (n.d.). Retrieved September 11, 2017, from https://vizhub.healthdata.org/gbd-compare

¹⁸ GBD Compare. (n.d.). Retrieved September 11, 2017, from https://vizhub.healthdata.org/gbd-compare

The primary purpose of this paper is to identify factors that may contribute to this difference in HIV prevalence between these two seemingly similar countries. It will delve into the ways in which Switzerland has historically and currently addresses HIV harm reduction and prevention and how this approach differs from the methods of the United States. A large focus will be placed on the differences in how drug use and sex education are approached in each of these countries and how these factors impact later outcomes. Though there are many facets of the harm reduction framework, this paper will focus primarily on needle exchange programs, safe drug consumption spaces, and more lenient drug laws, as well as sex education as an additional possibility to this harm reduction framework.

Switzerland has implemented more comprehensive harm reduction programs, with more widespread use of tactics like needle exchange programs and safe drug consumption facilities. Additionally the differences in how sex education is approached may have an impact. Both of these countries' school systems have a somewhat school-by-school or town-by-town approach, with each school having some level of choice in how to approach this subject, which may impact the level of knowledge imparted. However, there are some significant disparities in how sex is perceived. For instance, abstinence is taught as the primary method in the United States, with curricula being either abstinence plus (comprehensive sex education) or abstinence only, with abstinence being central to the lesson regardless of the other content. In Switzerland, the approach tends to be more sex positive and less centered on abstinence.

Furthermore, these countries also approach people who use drugs differently. Switzerland has more relaxed drug laws, provides safe and monitored injecting and consumption rooms, and has more needle exchange programs than the US and this paper investigates how this impacts the

overall outcome of HIV prevalence. On the other hand, due to the legalization of same-sex marriage and wider more general acceptance of LGBTQ+ people in certain areas of the United States, that may impact perceptions of HIV and treatment seeking. This paper seeks to investigate all of these differences and their intersections.

Research Methodology

This paper uses a combination of both primary and secondary research, including interviews with experts and those with personal experience in the realm of harm reduction, literature review, and analysis of other studies. Those interviewed work for organizations that work with safe consumption spaces and AIDS support in Switzerland, or have personal experience with sex education or the AIDS epidemic in the United States. Those in Switzerland were identified via their organizations websites and initially contacts via email, either directly or indirectly via their organization's email. Interviews were conducted in English and were recorded with the consent of the participating expert for later review by the interviewer. If requested, the interviewee's identity was kept anonymous and recordings were destroyed following the transcription of relevant quotes. Questions were tailored to the interviewee's field and job to be as specific as possible and to draw on their personal experiences and expertise. There were some issues with language barriers in that the interviewer only speaks English and those interviewed speak French or German as their primary language, but through clarifying questions and the recording of these interviews, these barriers were mitigated to the fullest extent possible. Those interviewed provided their own perspectives and opinions that in no way reflect the official positions of the organizations with which they work.

The secondary research helped to provide historical context and information beyond what those interviewed were able to provide. These resources were largely located via online databases provided through Davidson College using key terms including needle exchange programs, Switzerland, United States, harm reduction, HIV, safe consumption spaces, and sex education. Articles were picked based on their relevancy, including location and date. Though many of these methods of harm reduction prevent the spread of other sexually transmitted infections and diseases, this paper will focus primarily on HIV and AIDS and programs specific to its reduction and treatment. Furthermore, though there are many methods of harm reduction, this paper will primarily focus on NEPs and safe consumption spaces to investigate their use and success in Switzerland and examine the differences in the United States, as well as the differences present in sex education.

Historical Context of HIV in Switzerland

Switzerland has a complex history regarding HIV. In the 1980s, Switzerland “was an epicenter of HIV as open drug injection became part of the urban scene, especially in Zurich.”¹⁹ Platzspitz Park in Zurich became dubbed as “Needle Park” due to the prevalence of open drug use. The country had rigorous drug policing like most of Europe that had the ultimate goal of a drug-free society. Despite these strict drug laws and policing, drug use grew. By 1985, “there were an estimated 10,000 people who injected drugs in Switzerland, which rose to about 20,000 in 1988 and 30,000 by 1992.”²⁰ In Platzspitz Park, there were often over 2,000 people gathering

¹⁹ Csete, J., & Grob, P. J. (2012). Switzerland, HIV and the power of pragmatism: Lessons for drug policy development. *International Journal of Drug Policy*, 23(1), 82-86. doi:10.1016/j.drugpo.2011.07.011

²⁰ Csete, J., & Grob, P. J. (2012). Switzerland, HIV and the power of pragmatism: Lessons for drug policy development. *International Journal of Drug Policy*, 23(1), 82-86. doi:10.1016/j.drugpo.2011.07.011

daily to inject drugs.²¹ Because of the government's inability to control this illegal drug use, it was decided that IV drug use within Platzspitz Park would be tolerated. This was a first step moving towards a harm-reduction based policy from a repression based policy.

At the same time that injection drug use was rapidly increasing, so was the prevalence of HIV and AIDS. The first diagnosis of AIDS in Switzerland came in 1982. HIV spread rapidly within Switzerland. The country "had the highest rate of newly diagnosed HIV infections in Europe in the late 1980s," with the epidemic concentrated in people who inject drugs and men who have sex with men (MSM).²² In Switzerland at this time, the use of shared needles between PWID "was the most significant pathway in the transmission of HIV," with PWID having an extremely high HIV infection rate at 40%.²³

Following this epidemic, many harm reduction services and treatment options specifically for PWID were developed, including low threshold facilities (LTFs) with needle exchange programs and supervised drug consumption rooms, sale of injection equipment in pharmacies, and vaccination programs against hepatitis B, methadone substitution, and treatments with medically prescribed heroin.²⁴

This pragmatic response to the AIDS epidemic contrasts with the United States' response. In the United States, there was much denial and misinformation surrounding the

²¹ Csete, J., & Grob, P. J. (2012). Switzerland, HIV and the power of pragmatism: Lessons for drug policy development. *International Journal of Drug Policy*, 23(1), 82-86. doi:10.1016/j.drugpo.2011.07.011

²² Dubois-Arber, F., Balthasar, H., Huissoud, T., Zobel, F., Arnaud, S., Samitca, S., . . . Gervasoni, J. P. (2008). Trends in drug consumption and risk of transmission of HIV and hepatitis C virus among injecting drug users in Switzerland, 1993-2006. *Eurosurveillance*, 13(21). doi:10.2807/ese.13.21.18881-en

²³ Somaini, B., & Grob, P. (2012). How and why AIDS changed drug policy in Switzerland. *Journal of Public Health Policy*, 33(3), 317-324. doi:https://doi.org/10.1057/jphp.2012.20

²⁴ Dubois-Arber, F., Balthasar, H., Huissoud, T., Zobel, F., Arnaud, S., Samitca, S., . . . Gervasoni, J. P. (2008). Trends in drug consumption and risk of transmission of HIV and hepatitis C virus among injecting drug users in Switzerland, 1993-2006. *Eurosurveillance*, 13(21). doi:10.2807/ese.13.21.18881-en

epidemic, which created an overarching sense of fear. Already repressive drug laws became even stricter, and already stigmatized populations became even more vulnerable and ostracized. As a result, the United States has not had the same success with limiting the spread of HIV to the same extent as seen in Switzerland, particularly in PWID.

The Current State of HIV in Switzerland

NEPs began as an illegal practice in the country, but existed without interference from the government. These networks grew and were able to support a large number of people from vulnerable populations. The Swiss government has steadily increased its acceptance of these programs and moved towards a harm reduction centered approach. More and more NEPs have opened throughout the country and are relatively easy to access. Through reducing the sharing of injection materials via safe consumption spaces, needle exchange programs, and the sale of clean injection materials, Switzerland has essentially halted the transmission of HIV among PWID.

However, despite these significant improvements, there are still large social stigmas facing the most vulnerable population: men who have sex with men (MSM). Andreas Lehner, the Executive Director and Program Manager of the Swiss AIDS Federation's (SAF) MSM program indicates that there is still a stigma faced by this population. Same-sex marriage is illegal in Switzerland, which, according to Mr. Lehner, is evidence of this lasting stigma and may contribute to MSMs discomfort in seeking care from physicians for same-sex related health concerns for fear of discrimination.²⁵ He explains that Switzerland is “not homophobic, [the country] just needs more time,” and that though there may be a stigma, it is not largely prevalent,

²⁵ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

attesting that he personally, as a gay man, has never encountered blatant discrimination, though increasing queer representation is always important.²⁶

However, despite these complex, multi-faceted, and lasting stigmas surrounding the issue, the spread of HIV in PWIDs has “been essentially halted in Switzerland.”²⁷ Mr. Lehner considers MSM to be the most vulnerable population in regards to HIV, though migrants and sex workers are still a large concern as well. PWID “are no longer a problem,” with only three or four new cases of HIV in this population per year.²⁸ Two-thirds of SAF’s funding goes towards the MSM program, with most of the other funds being directed at migrants and non-MSM people and limited focus on PWID. In comparison with the three or four new PWID HIV cases per year, there are between 500 and 600 new cases total in Switzerland per year, with about half of those being in MSM. For this reason, SAF’s main focus is on MSM.²⁹

According to Mr. Lehner, the most important thing at this time regarding HIV/AIDS in Switzerland is testing. Testing is prevalent within the MSM community. SAF provides free STI testing twice a year and free HIV testing once a year with a program that was started four years ago and has led to more and more testing.³⁰ HIV testing is expensive, which prevents many from being tested, so by providing free testing, SAF greatly increases the number of people to whom these tests are available. The largest focus is still on Zurich because 70% of new HIV infections in MSM occur there.³¹

²⁶ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

²⁷ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

²⁸ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

²⁹ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

³⁰ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

³¹ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

While the overall state of HIV in Switzerland has improved tremendously, Mr. Lehner explains that there is a problem with the current insurance model in that it does not cover preventative care. This system is “great for treatment, but insurance won’t cover PrEP or contraceptives,” which is a problem because it’s easier to prevent HIV rather than treat it later.³² Mr. Lehner recommends a shift in the system that allows for preventative care.

Sex Education as a Form of Harm Reduction

Though there is not much in the way of explicit data to support this hypothesis, it is also likely that the approach taken regarding sex education in Switzerland contributes to the lower HIV prevalence in the country. There is a more sex-positive approach taken in Switzerland that provides more information when compared to the majority of American sex education programs.

Because of the complexity of HIV and the many factors that influence a person’s likelihood of contracting the virus, the prevalence of HIV alone cannot be used for a comparative value to describe the effectiveness of different sex education programs. However, other statistics, including STI rates, contraceptive use, and teen pregnancy rates can give a better insight into their effectiveness. According to the World Bank, the adolescent fertility rate (births per 1,000 women aged 15-19) differs by 18.31, with the US having a rate of 21.154 births and Switzerland having a rate of 2.84 births.³³ That is a significant difference that can be at least partially attributable to differences in sex education, although cultural differences and availability of abortion services impact these rates as well.

³² Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

³³ Adolescent fertility rate (births per 1,000 women ages 15-19). (n.d.). Retrieved September 11, 2017, from <https://data.worldbank.org/indicator/SP.ADO.TFRT?view=map>

Contraceptive use is another area in which these differences are uncovered. In one study conducted in Switzerland in 2000, at first sexual intercourse 86.5% of respondents aged 16 to 20 years reported using a condom or oral contraceptive.³⁴ In a similar study conducted in American teenagers aged 15 to 19 years, in 2002, female teenagers use of a method of contraception at first sex was 74.5%.³⁵ Though this increased to 81.0% by 2011, this is a significant difference when compared to the rate of contraceptive use in Switzerland. Though there are other factors at play that may limit contraceptive use in America, such as religion or accessibility, particularly accessibility of an oral contraceptive due to the insurance costs and parental consent that may be necessary, this can also be at least partially attributed to sex education. If adolescents are not educated on sex, and more importantly, safe sex, then they will not understand the risks associated with sex, the importance of using protection, or how STIs and HIV are contracted.

As aforementioned, sex education in the United States is largely abstinence based. Kate Bock, an American student, gave insight into her sex education experience in a public school in Virginia. In her experience, abstinence was promoted as the only way to prevent pregnancy and STIs completely. Some information was given about HIV, but her education was largely centered around STIs. “Scare tactics” were used to make students afraid to have sex for fear of STIs or pregnancy, creating a sex-negative perspective instead of a sex-positive one.³⁶ This is a very common American experience with sex education - fear-based tactics to prevent sex rather than educate about sex. This prevents open discourse, which Mr. Lehner insists is key to

³⁴ Narring, F., Michaud, P., & Wydler, H. (2002). First sexual intercourse and contraception: a cross-sectional survey on the sexuality of 16–20-year-olds in Switzerland. *Schweizerische medizinische Wochenschrift*. Retrieved November 13, 2017.

³⁵ Abma, J. C., & Martinez, G. M. (2002). *Sexual Activity and Contraceptive Use Among Teenagers in the United States, 2011–2015*(Rep. No. 104). Hyattsville, MD: National Center for Health Statistics.

³⁶ Bock, K. (2017, November 14). Interview about sex education in America [In-person interview].

promoting sex positivity and thus the reduction of stigma of things like seeking out testing facilities or condoms.³⁷ Furthermore, this outlook leads to mental health problems according to Mr. Lehner. Instead, sexuality needs to be approached in a way that fosters curiosity and acceptance.³⁸ In Switzerland, a generally more sex-positive approach is taken regarding sex education, but there is still room for improvement, particularly in addressing non-heterosexual relationships.

Fears and Controversies of Harm Reduction

Despite the great progress in Switzerland, there are many fears and much misinformation surrounding harm reduction programs, particularly NEPs and supervised drug consumption rooms. Many insist that the implementation of these programs will lead to increased drug consumption, increased needles discarded in surrounding communities, and the maintenance of addiction. These concerns leads to the implementation of safe consumption spaces and NEPs being controversial and contested by many in different places, including the United States.

Safe Consumption Spaces

According to an employee (who prefers to remain anonymous) of Quai9, a space for safe drug consumption run by Première Ligne, these claims are unfounded. Première Ligne is an association for the reduction of risks associated with drugs, particularly HIV, and oversees Quai9, which is a safe consumption space for PWID and other drug users to use drugs in a safe, monitored environment. The employee of Quai9 attributes these concerns to the fear and

³⁷ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

³⁸ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

stigmatization of people who use drugs and drugs themselves. He reports that the vast majority, upwards of 95%, of needles distributed by their facility are returned to them either through the users themselves bringing them back or through their teams that work to collect them from the streets.³⁹ Furthermore, they have not seen an increase in drug users. In fact, less and less new people have been coming to their facilities, which they attribute to a decrease in overall drug use.⁴⁰

At Quai9, they aid users who inject, smoke, or snort drugs and have various facilities that address all of these methods. Supervised drug consumption facilities are places where illicit drugs can be used under the supervision of trained staff, and have been operating in Europe for about four decades.⁴¹ Their primary aim is “to reduce the acute risks of disease transmission through unhygienic injecting, prevent drug-related overdose deaths, and connect high-risk drug users with addiction treatment and other health and social services.”⁴² The Quai9 employee added that another important aspect of these facilities is reducing drug use in open, public spaces, which helps reduce the presence of discarded needles. At Quai9, users are provided sterile injecting equipment, counseling, and emergency care, among other services.

In 2016, Quai9 helped 940 different people over a total of 54,181 visits to their various safe consumption spaces. They now have twelve different facilities, that in 2016 averaged just shy of 150 visits per day. The most commonly used drug in their facilities is heroin with 60.76%

³⁹ Anonymous. (2017, October 23). Formal Interview with Quai9 Employee [Personal interview].

⁴⁰ Anonymous. (2017, October 23). Formal Interview with Quai9 Employee [Personal interview].

⁴¹ Anonymous. (2017, October 23). Formal Interview with Quai9 Employee [Personal interview].

⁴² *Drug consumption rooms: an overview of provision and evidence* (Rep.). (2017). European Monitoring Centre for Drugs and Drug Addictions.

of PWID, 77.50% of those who consume drugs via smoking, and 53.62% of those who consume drugs via snorting ingesting this drug.⁴³

The employee asserts that these facilities are essential to reducing the spread of HIV and other diseases, as well as aiding drug users in other ways. This particular employee had personal experience on the other side of the situation as a former drug user, and insists that spaces like Quai9 was what helped him get clean. He asserts: “Safe consumption rooms saved my life. Without these places, I would have continued using drugs, and probably would have overdosed at some point, realistically. When I first came to a place like [Quai9], I came for the materials I needed to use my drugs, which they gave me, but they also gave me help and they gave me hope”.⁴⁴ He insists that for him personally, the counseling provided in these spaces was the most important aspect. Without the support provided by this facility, he asserts that he never would have gotten clean, and that these spaces provide invaluable support to those who use them.

The employee’s assertions are contradictory to the claims made about safe consumption spaces, which he says stem from fear instead of reality. The reality is that they are a huge contributor in reducing the spread of disease and the use of drugs, despite the somewhat widespread fear of NEPs role in increasing drug use.

Morality-based Fears

In addition to this fear of NEPs and safe consumption spaces, there are many fears surrounding HIV that are moral-based. As both sex and drugs are issues that are intertwined with different moral opinions, so are their treatment and preventative measures. As seen with the

⁴³ Anonymous. (2017, October 23). Formal Interview with Quai9 Employee [Personal interview].

⁴⁴ Anonymous. (2017, October 23). Formal Interview with Quai9 Employee [Personal interview].

moral opposition to safe consumption facilities, there is a moral opposition in many places to sex education, the provision of free condoms, and the availability of other preventative measures, such as pre-exposure prophylaxis (PrEP). According to Mr. Lehner, there is “an issue with the morality around PrEP because people think that if you take PrEP you’ll have more sex and get more STIs.”⁴⁵ While people who have taken PrEP may have a correlation with a higher rate of STIs, Mr. Lehner insists that this is due to these people visiting the doctor more frequently, which results in a seemingly higher rate of STIs in this population, but in actuality, it is due to their being a higher rate of STI testing within this population.⁴⁶

This same issue with morality is what leads to a non-comprehensive sex education that is not sex-positive and centered around abstinence. Sex is seen as a moral issue and is approached as such. America’s puritanical roots are exposed when these issues of sex and drugs are investigated. Mr. Lehner hypothesized that religion is still too important within the United States, and that the country is in need of better separation from religion in order to better approach HIV.⁴⁷

What America Can Learn

The “War on Drugs”

Despite the similarity of these two countries, there are vast differences between the Swiss approach to harm reduction and the American approach. America’s strict “War on Drugs” approach to policing the use of drugs contrasts drastically with Switzerland’s use of NEPs, safe

⁴⁵ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

⁴⁶ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

⁴⁷ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

consumption spaces, and more relaxed laws on drug use. As aforementioned, the American response to the AIDS epidemic was one based on fear, and as a result, America continues to stigmatize drug users. As indicated by the term “war”, the response to drug use has become a somewhat militarized movement with emergency-style legislation used to address the issue of drug use that results in more incarcerations. This results in the further marginalization of drug users and discourages care-seeking.

Included in this War on Drugs were policies criminalizing syringes and disqualifying drug users from the Supplemental Security Income (SSI) program. This criminalization of syringes and paraphernalia led to an increased fear of arrest. One study found that PWID who were concerned about arrest were over one and half times more likely to share syringes than those not concerned.⁴⁸ In the same study, they interviewed people addicted to drugs and/or alcohol before (1996) and after (1997) they were disqualified from SSI. They found that 60% of baseline SSI recipients lost benefits before their follow up interview in 1997. This loss in benefits correlated with an increase in their likelihood to participate in illegal activities and share syringes, as well as an increase in the frequency of their drug use compared with those who retained benefits. Ultimately, this study concludes that War on Drugs policies that deny injection equipment and federal income support to PWID also increased their risk for HIV infection, and advocates for reevaluation of these laws.⁴⁹

⁴⁸Bluthenthal, R., Lorvick, J., Kral, A., Erringer, E., & Kahn, J. (1999). Collateral damage in the war on drugs: HIV risk behaviors among injection drug users. *International Journal of Drug Policy*, 10(1), 25-38. doi:10.1016/s0955-3959(98)00076-0

⁴⁹Bluthenthal, R., Lorvick, J., Kral, A., Erringer, E., & Kahn, J. (1999). Collateral damage in the war on drugs: HIV risk behaviors among injection drug users. *International Journal of Drug Policy*, 10(1), 25-38. doi:10.1016/s0955-3959(98)00076-0

Dr. Dave Wessner, a professor at Davidson College who specializes in microbiology and HIV/AIDS included bans placed on MSM donating blood and on bathhouses in New York and San Francisco in “war on drugs”-style policies that, though effective in slowing the spread of the virus, at least for a short period, greatly increased the stigma against MSM.⁵⁰ These laws had a similar effect to the drug laws in that they targeted vulnerable populations but further marginalized them. Dr. Wessner further characterized the American response to the AIDS epidemic as “too narrow and myopic,” that “to a large extent, was reactive and not proactive.”⁵¹ He explains that first, MSM were the focus. Then mother-to-child transmission was the focus. Now, the focus is on people of color. America has been responding to “specific at risk groups and not [...] holistically,” something that must be worked towards.⁵²

Drugs in America Now

Though not to the same extent as in Switzerland, NEPs are in use in the in United States. As of 2016, federal funds provided through the Department of Health and Human Services can support certain components of NEPs, including personnel, testing kits, syringe disposal services, naloxone, educational materials, condoms, communication activities, and treatment and care services including antiretroviral therapy and PrEP.⁵³ However, federal funding cannot be used to purchase sterile needles for the purpose of illicit drug use. Though these drugs are also illegal in Switzerland, federal money can still be used to purchase sterile needles.⁵⁴

⁵⁰ Wessner, D. (2017, November 20). Informal Interview with Dr. Dave Wessner [E-mail interview].

⁵¹ Wessner, D. (2017, November 20). Informal Interview with Dr. Dave Wessner [E-mail interview].

⁵² Wessner, D. (2017, November 20). Informal Interview with Dr. Dave Wessner [E-mail interview].

⁵³ HIV/AIDS. (2017, September 28). Retrieved October 25, 2017, from <https://www.cdc.gov/hiv/risk/ssps.html>

⁵⁴ Anonymous. (2017, October 23). Formal Interview with Quai9 Employee [Personal interview].

Currently, there is a major ongoing drug epidemic in the United States with opioids that is reported to kill 142 Americans per day.⁵⁵ This epidemic is largely centered in rural areas with less access to treatment and NEPs and is leading to an increase in HIV and HPV. There has been growing bipartisan support for NEPs and other prevention programs among American senators but little action in putting these programs in place. In the United States, only 221 syringe exchange programs nationwide according to amfAR, the Foundation for AIDS Research that is focused on harm reduction in the United States.⁵⁶ This is insufficient to access the growing number of PWID in need.

Furthermore, safe consumption sites are not used in the United States, despite their success in Switzerland. As of early 2017, there was only one official safe injection facility (SIF) in all of North America, located in Vancouver, Canada, though there are reports of other facilities being run in secret. Despite SIFs proven success in reducing overdose deaths, improving access to care, and saving financial resources in Europe and in Canada, the US has rejected this option, largely due to the aforementioned fears associated with the implementation of these facilities.⁵⁷ In the area surrounding the SIF in Vancouver, fatal drug overdoses decreased

⁵⁵ Ehley, B. (2017, October 21). From opioids to HIV — a public health threat in Trump country. Retrieved October 25, 2017, from <http://www.politico.com/story/2017/10/21/opioids-hiv-public-health-threat-red-states-trump-243999>

⁵⁶ AmfAR :: Home :: The Foundation for AIDS Research :: HIV / AIDS Research. (n.d.). Retrieved October 25, 2017, from <http://www.amfar.org/>

⁵⁷ Mulder, E. (2017, April 11). Seattle plans first safe drug-injection sites in the US. Retrieved October 25, 2017, from <http://www.aljazeera.com/indepth/features/2017/03/seattle-plans-safe-drug-injection-sites-170329085008446.html>

by 35%.⁵⁸ There is a current push in various cities in the United States, including Los Angeles and Seattle to try pilot programs, but at this time none are in action.⁵⁹

Harm Reduction in the United States

America has not followed the harm reduction framework to the same extent as Switzerland. If the US were to adopt this framework, the spread of HIV would more than likely be greatly reduced, and that would be only one of many benefits. Safe consumption facilities would likely reduce other blood borne diseases, improve treatment for PWID, and reduce overdose deaths, among other positive impacts, as would NEPs.

When asked about his own personal opinion and perspective on the current approach to HIV in America, Mr. Lehner compared the situation to that of Russia, where he has done work frequently. He said: “The US is a little bit like Russia - no one cares. Everyone is crying ‘We have a problem!’ but no one is doing anything.”⁶⁰ Without needle exchange programs or safe injection facilities and with an unequitable healthcare system that provides limited to no access for people with low socioeconomic status, plus a strong moral and/or religious framework impacting how these issues are approached, Mr. Lehner contends that the United States is, at least on some level, similar to Russia in its approach to HIV.

⁵⁸ Marshall, B. D., Milloy, M., Wood, E., Montaner, J. S., & Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *The Lancet*, 377(9775), 1429-1437. [http://dx.doi.org/10.1016/S0140-6736\(10\)62353-7](http://dx.doi.org/10.1016/S0140-6736(10)62353-7)

⁵⁹Mulder, E. (2017, April 11). Seattle plans first safe drug-injection sites in the US. Retrieved October 25, 2017, from <http://www.aljazeera.com/indepth/features/2017/03/seattle-plans-safe-drug-injection-sites-170329085008446.html>

⁶⁰ Lehner, A. (2017, November 16). Interview with SAF [In-person interview].

As aforementioned, America can also improve regarding sex education. This sex-negative, moral stance that is taken is not effective. In states with abstinence-only education, there are higher rates of teen pregnancies. Those who receive comprehensive sex education were “significantly less likely to report teen pregnancy.”⁶¹ Though there is not information available regarding a direct correlation between comprehensive sex education and HIV prevalence, logic would dictate that better sex education regarding condom usage, how HIV is transmitted, and the risks associated with sex would lead to a decrease in HIV prevalence to some extent.

Conclusion

After an examination of the Swiss approach to harm reduction and a comparison American approach, it is clear that the United States can learn from the Swiss in this area. The spread of HIV has been essentially halted within Switzerland within PWID and has been greatly reduced within MSM. In contrast, there is a fear of growth within the United States, primarily due to the growing opioid crisis, and a baseline higher prevalence among the general population. Despite this fear, there has been little done to increase the number of harm reduction techniques in place, including needle exchange programs and safe consumption spaces, especially safe injection facilities, to reduce this spread and improve treatment for PWID. In considering how the initial response to the AIDS epidemic was approached, it is clear from where these divergences between these two countries stem and how they continue to diverge. The United States’ repressive moral stance on drugs and subsequent “War on Drugs” approach with strict laws

⁶¹ Kohler, P. K., Manhart, L. E., & Lafferty, W. E. (2008). Abstinence-Only and Comprehensive Sex Education and the Initiation of Sexual Activity and Teen Pregnancy. *Journal of Adolescent Health*,42(4), 344-351. doi:10.1016/j.jadohealth.2007.08.026

preventing needle exchange programs from being implemented has not worked to eliminate drug use or the transmission of HIV between PWID. Though there is a current push to move towards a more harm reduction centered approach with the possibility of some SIFs, at this current point in time, the United States is largely holding on to these repressive policies.

The Swiss have seen major improvements over the past few decades in reducing the spread of HIV and improving treatment and care of PWID, an example which the United States should follow. Through the reduction of shared injection materials among PWID and increased support for this population, this pathway of HIV transmission has been essentially eliminated.

However, despite these incredible improvements, Switzerland is not perfect. There are still marginalized populations where HIV continues to be transmitted, including men who have sex with men and sex workers, and work needs to be done to ensure that these populations are equally protected and that their needs are met.

Furthermore, it appears that the approach taken with sex education may be more effective within Switzerland as well regarding HIV and other STIs, or at the very least, regarding sex positivity. Dr. Wessner explains that “sex [education] can be an effective form of harm reduction [but] if done poorly, sex ed also can spread false information and increase stigma,” and thus it is important for this education to be comprehensive and accurate.⁶² Both the US and Switzerland have widely variant approaches to this topic, but generally, America’s puritanical roots prevent sex education from being wholly comprehensive, or in some places, taught at all.

Overall, it seems that if the United States follows Switzerland in regards to harm reduction, despite their imperfect approach, the country will see a decrease in HIV prevalence.

⁶² Wessner, D. (2017, November 20). Informal Interview with Dr. Dave Wessner [E-mail interview].

Potential Future Research

To further this research, a deeper investigation of the direct impacts of sex education would provide better context. A study investigating the correlation between comprehensive sex education and HIV prevalence would provide evidence for sex education being definitively part of the harm reduction framework.

Furthermore, additional research into the stigmatization of vulnerable populations and how this impacts aid and treatment seeking is necessary. The stigmatization of key populations, including men who have sex with men, sex workers, and injecting drug users, varies between the United States and Switzerland and it is necessary to consider these differences and how they can impact health outcomes and the spread of HIV.

Additionally, an investigation into sex workers and the differences between how Switzerland and the United States approach this vulnerable population would be beneficial. There are similar impacts of the criminalization of sex work in the United States to the criminalization of drug use, and it would be interesting to see how the legalization of sex work in Switzerland impacts sex workers and the HIV prevalence and treatment seeking within this population.

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