University of Nevada, Reno

HIV/AIDS Policies in Correctional Settings

A thesis submitted in partial fulfillment
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by

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Abstract

Public policy regarding health care in correctional facilities shapes how male inmates receive prevention and treatment for HIV/AIDS. This study will investigate and identify the ways in which specific legislation and judicial rulings on Federal level have impacted management of HIV/AIDS and access to antiretroviral (ARV) treatment in correctional facilities. It will also investigate the ways these policies have influenced the rates of HIV/AIDS in prisons in comparison to the rates within the general population. Evaluating the effectiveness and influences of these policies, both state and federal, with regards to management and treatment is critical for the future of correctional health care. Because most inmates who have contracted HIV will be leaving the correctional setting and be re-engaging in their communities, it is imperative to discover the effective ways of treating and managing HIV/AIDS in order to teach the imprisoned population the necessary prevention and management skills.

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Introduction

Historically, prisons and jails have been known as breeding grounds for communicable diseases such as HIV/AIDS. There were approximately 20,075 known men who were in state or federal correctional facilities living with HIV/AIDS in the United States by then end of 2008; this is 1.5% of the total prison population (Maruschak & Beavers 2009). HIV rates are five times greater and AIDS prevalence is four times greater among the imprisoned population than within the general population (Pearshouse & Csete, 2006). Among the non-imprisoned population in America, 0.05% is infected with HIV. Since the imprisoned HIV/AIDS rates are higher than the non-imprisoned population, HIV in prisons is a serious and dangerous issue that must be addressed. The imbalance between the imprisoned and general population rates needs to be managed, so that those living in prisons with HIV/AIDS have similar treatment and management opportunities as those who are infected with HIV/AIDS but not imprisoned. Those who are imprisoned are among the high risk groups for contraction due to unprotected sexual activity, tattooing with dirty needles, and intravenous drug use. Because this population lacks the freedom to access treatment for an HIV diagnosis, they are more vulnerable to the disease. If the prison staff do not advocate for imprisoned population living with HIV/AIDS, then they go without treatment which is in violation of the Eighth Amendment to the Constitution – prohibiting the federal government from imposing cruel and unusual punishment. Not only does this population have higher HIV/AIDS

rates than the non –imprisoned population, but they become more vulnerable to the disease.

The first landmark case regarding health care in correctional facilities was *Estelle v. Gamble* (429 US97 [1976]) in which the United States Supreme Court ruled that, "deliberate indifference to the serious medical needs of prisoners constitutes the unnecessary and wanton infliction of pain," which thus falls in violation of the Eighth Amendment. Other policies impacting health care within correctional facilities include the Anti-Drug Abuse Act of 1986 in which drug offenders were given mandatory minimum sentences. This specific policy led to an increase of the total inmate population, including an increase of intravenous drug users in the inmate population (Thorburn, 1995). It is likely that this policy has led to an increase in the transmission of HIV. With approximately 12 million inmates released from correctional facilities a year, it is certain that HIV is being carried out into the community (Rapposelli, 2002). Having a disproportionate number of people with HIV/AIDS in prisons serves as an incredible health concern for the nation and is one that needs to be addressed.

The disproportionate numbers of inmates diagnosed with HIV/AIDS coupled with the unique vulnerability of this population, an important area of research would be to examine specific legislation and compare them with prevalence rate data. It will also be important to investigate the ways these policies have influenced the rates of HIV/AIDS in prisons in comparison to the rates within the general population. Evaluating the

effectiveness and influences of these policies, both state and federal, with regards to management and treatment is critical for the future of correctional health care.

Mandatory antibody testing is a debated topic concerning HIV/AIDS management. Some researchers (ACLU, 2010, Andrus, Fleming, Knox, McAlister, Skeels, Conrad, Horan, & Foster, 1989) believe requiring testing could lead to segregation and poor treatment of the individuals who test positive. In contrast, Thorburn (1995) argues that to provide effective HIV/AIDS management, it is important to know who carries the virus. In the past, when several correctional facilities were requiring antibody testing for intake, the correctional staff saw the main goal of this was to segregate and quarantine those who tested positive. Although this may prevent transmission, it was ignoring treatment, prevention education and rehabilitation opportunities (Andrus, 1989).

Condom distribution and needle exchange programs are two correctional policies which might reduce the transmission rates of HIV/AIDS rates within prisons. While both sexual activity and drug use are not allowed in prisons, many inmates participate in one or both activities, allowing for high risk contraction situations (May & Williams, 2002). Although these two policies may be controversial, they may also prove to lower HIV transmission rates among men imprisoned. It is imperative for correctional facilities to find an appropriate response to prevention and prevention education.

Literature Review

Four variables were found in the literature involving the possible reduction rates of HIV/AIDS within prisons. Sexual activity is present in all forms of correctional settings and it has been found to be in consensual manners and rape. Tattooing with used needles and intravenous drug use with dirty needles is also prevalent in prisons and jails and needs to be addressed and managed. The final variable essential to this issue is incarceration. Because of the nature of this issue and research, correctional facilities and settings refers to state prisons housing men, excluding federal prisons and women.

Mandatory HIV Testing

Mandatory Testing is the procedure that mandates all new inmates must be tested for HIV, Hepatitis and other diseases before being designated housing within the prison. Because there is no federal standard protocol for the management of HIV in prisons, correctional facilities and their specific jurisdictions have decided for themselves whether or not to enact mandatory antibody testing. Different studies (ACLU, 2010 & Andrus et. al, 1989) have presented arguments in favor of and against potential legislation calling for mandatory testing. For example, in the arguments for category, mandatory testing of all new inmates in Rhode Island has resulted in finding of one third of the entire state's annual HIV cases (Springer & Altice 2005). This same argument, presented by Sandra Springer, MD and Frederick Altice, MD, for mandatory testing explains that identifying people who are HIV positive and residing in correctional treatment serves both the individual and the community well because it allows for intervention and prevention on

an immediate and specific case basis (Springer & Altice, 2005). This argument fails to identify the potential costs of mandatory testing including potential segregation of those identified as HIV positive, and the actual significant monetary costs associated with antibody testing every new inmate. With high population rates in American correctional facilities, the costs could certainly outweigh those benefits.

According to a study conducted by the ACLU (2010), prisons and jails in Alabama and South Carolina that enacted mandatory antibody testing also engaged in segregation of those who tested positive. Facilities in these jurisdictions separated those individuals who tested positive in different cafeterias and recreational areas. It was found that staff would even place those who were sentenced to short term stays, sometimes as little as thirty days, into maximum security prisons, housed with others sentenced to death row (ACLU, 2010). Those who tested positive were also denied important opportunities for career or job placement once they were engaged back into their communities and they received prejudicial and hostile treatment from correctional staff (ACLU, 2010). The occurrence of segregation signifies that mandatory testing can lead to inhumane and unconstitutional treatment of people in jails and prisons which is in violation of the Eighth Amendment.

One study's findings concluded that, instead of mandatory testing, treatment of HIV/AIDS seemed more effective when testing was voluntary and emphasis was put in prevention and education rather than putting an emphasis on simply identifying those individuals who test positive (Andrus et. al., 1989). A prison in Oregon surveyed all

inmates about their HIV status. The prison then offered voluntary testing. The majority of those who identified themselves as HIV positive stepped forward for testing and treatment (Andrus, 1989). Voluntary HIV/AIDS testing can also be related to social work's strength-based approach, because voluntary programming is taking a potentially negative aspect of the individual's life and creating an opportunity to manage it and do positive things with it, like treatment and prevention education.

Condom Distribution

Condom distribution programs in prisons involve allowing men who are imprisoned to obtain a condom for safe consensual sex. Sexual activity in correctional setting occurs in two forms: consensual sex and rape. Rape occurs among approximately five percent of men imprisoned (Knowles, 1999). Consensual sex occurs among approximately forty-five percent of men imprisoned (Krebs, 2002). When there is no condom distribution in prisons, unprotected sexual activity in prisons is high-risk for HIV transmission.

Although sexual violence, such as rape, is an important issue to address, consensual sex, which is at a higher rate, is a bigger concern when it comes to high risk transmission activities (Saum et. al, 1995). Because consensual sex occurs at a higher rate than rape, there is a greater opportunity for prevention policies, such as condom distribution.

After reviewing the literature, a proper and effective response to this concern would be for the allowance of distribution of condoms within prisons and jails. This response is divisive because it may actually encourage and accept sexual activity (May & Williams, 2002). Condom distribution encouraging sexual activity is a concern that has not been fully addressed. Research has shown sexual activity is going to occur in correctional facilities regardless of condom availability (Saum et. al,1995).

Condom distribution has been found to be widely accepted by correctional staff and inmates, primarily because condom distribution will prevent the spread of disease including HIV (May & Williams, 2002). There is no reason not to explore the option of condom distribution further. It could serve as an effective way of managing and preventing HIV transmission.

Needle Exchange

Needle exchange programs allow people who are using drugs intravenously to turn in their dirty needles to an agency offering clean needles in exchange.

It was found that 53% of men in state prisons were engaging in tattooing with dirty needles (Krebs, 2002). Tattooing with dirty needles is considered a high-risk HIV transmission activity. Intravenous drug use, another high-risk activity, was practiced among 19% of their incarcerated men. (Krebs, 2002). Although these numbers represent perceptions of activity within the prison, they provide evidence that there is a needed

intervention. These high-risk transmission activities need to be addressed if there is to eventually be a holistic approach to HIV/AIDS care in correctional settings.

Needle exchange for tattooing has appeared to be less controversial than needle exchange for intravenous drug use because although tattooing is prohibited in prisons and jails, it is less frowned upon than intravenous drug use (Krebs, 2002). It would be much easier to implement a needle exchange program for tattooing needles than for drug use needles because of a lack of stigma.

Needle exchange programs (NEPs) for intravenous drug use may prove to be an effective method for prevention of HIV transmission within correctional settings. Two studies (Canadian Public Health Agency 2006; & Hammett, 2006) have provided evidence stating that NEPs in prison and jails have not led to an increase in drug use, which is a major concern for those debating this topic. It has also been shown that NEPs in prisons allow for identification of intravenous drug users and also allow staff to make referrals to drug treatment and may actually decrease drug use in prisons in the long run (Canadian Public Health Agency, 2006 & Hammett, 2006). NEPs may, in fact, significantly lower HIV transmission rates within prisons.

Intervention and Prevention

With all of these factors put together, including the fact that jails and prisons have been long standing breeding grounds for HIV transmission, there are political and legal actions that will need to be explored for the management of HIV/AIDS in correctional

settings. Based on the Eighth Amendment, which does not allow for cruel and unusual punishment, there should be intervention and treatment plans.

Correctional settings in America have been places of segregation and punishment, while in facilities for medical care have been places of a compassionate desire to help; these two different atmospheres have intertwined themselves into each other. Even though many correctional settings are evolving to implement programs for HIV/AIDS awareness among staff and inmates, one study offers that in future political action current and past inmates who are infected with HIV need to be heavily involved in the policy making process; their experience will be incredibly important in this process (Hogan, 1997).

Beyond Fear is a program that seeks to increase staff and inmate awareness of HIV/AIDS (Bryan et. al., 2006). The program sought to educate those who were not infected with HIV to become peer advocates. The program educated all staff and inmates about HIV/AIDS prevention and management. Programs and policies like Beyond Fear are incredibly important to the future of HIV/AIDS health care in correctional settings; they help to diminish and eliminate stigma surrounding men infected with HIV/AIDS in prisons, and even in the broader, non-imprisoned population.

HIV/AIDS care in prison has proven to be a problem internationally. Rick Lines and Heino Stöver were asked by the United Nations' Office on Drugs and Crime to develop a framework that would eventually help guide program implementation for

prevention of transmission of HIV in prisons and jails (Lines and Stöver, 2006). The framework has three main objectives: 1) To provide those in prison with the same level of care as those not incarcerated; 2) To prevent the transmission of HIV among prisoners and the broader community and; 3) Promote an integrated approach to improving health care in prisons as well as general well-being in correctional facilities. These objectives should be considered when writing national and international policies on HIV/AIDS healthcare among prisoners. Once prisons begin to treat those who are imprisoned similar to those who are not imprisoned in areas such as health care, prisons will no longer be in violation of the Eighth Amendment.

Of the studies reviewed, there is a concurrence that there is a lack of effort and care put into the management of HIV/AIDS healthcare in prisons. With major factors of inter-prison transmission being sexual activity and dirty needle use, several studies have presented evidence showing programs that have proven to be effective in preventing transmission such as condom distribution and needle exchange programs. While mandatory antibody testing can be important, if it does become a standard protocol, it would be imperative to engage in confidentiality and to not practice segregation and stigmatization. Finally, all this evidence will hopefully lead to the enactment of effective programs that allow for proper education, prevention, management and health care of HIV/AIDS in prisons.

This study's goal is to see if HIV/AIDS rates in male state prisons are correlated to the implementation of mandatory testing, condom distribution, and needle exchange.

Methodology

The main objective of this research is to qualitatively and quantitatively investigate how public policies regarding health care in correctional facilities (and how they are executed) affect the rates and management of HIV/AIDS in correctional facilities. This will be conducted by looking at specific state and federal policies for correctional health care and for the management of HIV/AIDS and comparing them to prevalence rates of HIV/AIDS in those specific jurisdictions. This will allow for a critical evaluation and assessment of the policies in place to identify their effectiveness and lead to evidence based conclusions on where HIV/AIDS management in correctional settings should be going.

In order to discover whether the state prisons practice mandatory testing, needle exchange, and condom distribution, I went to every state's Department of Corrections website (Appendix A) to retrieve a phone number (Appendix B) and called every state Department of Corrections. I then used the survey in Figure 1 to obtain the policy data. I was able to contact of all the states' Department of Corrections offices. In some states, I would talk to secretaries, prison staff, booking staff, Wardens, and Department Chiefs. All, also, allowed me to use their answers as research necessary to complete this study. Most were excited to help me, like New York and Rhode Island, but some states were more hesitant to provide answers (Arizona, specifically). Many times I was told to call at a different time or I was given a different number. The Bureau of Justice Statistics provided the HIV/AIDS rates for people who were imprisoned in 2008 (the most recent

Figure 1: Survey

Hello,

My name is Sara Thompson and I am conducting an undergraduate research project for the University of Nevada, Reno's Department of Social Work and Honors Program. I would like to ask a few questions regarding your state's prison practices.

1. Does this state's prison system use mandatory HIV/AIDS of inmates testing upon entry?
2. Does this state's prison system use condom distribution to inmates?
3. Does this state's prison system use a needle exchange program for inmates?
4. Would it be acceptable to print your answers in my thesis write-up?

Thank you for your time.

data available) and in 1999. The Census Bureau and Center for Disease Control provided the general HIV/AIDS rates among individual state populations.

The data were entered into SPSS. If states answered no (they do not practice) to the questions for mandatory testing, condom distribution, and needle exchange programs they were given a 0 value, and if they answered yes (they do practice) they were given a value of 1. The HIV/AIDS rates for those imprisoned in 1999 and 2008 were entered in as percentages of the whole state's imprisoned population. The HIV/AIDS rates for the general state's non-imprisoned

population from 2008 were also entered as percentages of the entire state's non-imprisoned population. These years were used because the most recent report the Bureau of Justice Statistics only shows the data from 2006 to 2008. The report for 2009 to 2011 should be out in late 2012. The earliest report the Bureau of Justice Statistics presented is from 1999 to 2001. Because the entire population was used, a random sample was not applicable. These data are presented in tables 1 and 2.

Descriptive statistics were conducted (Table 4) and frequency statistics were conducted on the policies (Table 3), and Pearson Correlation tests were run between percentages and policies, as well as between the imprisoned percentages and general population percentages.

Results and Analysis

Table 1: High HIV/AIDS Rate States

State	Mandatory Testing	Needle Exchange	Condom Distribution	Imprisoned Rates 1999	Imprisoned Rates 2008	General Population Rates 2008
New York	Yes	No	Yes	9.7%	5.8%	0.6%
Florida	Yes	No	Yes	2.8%	3.6%	0.5%
Georgia	Yes	No	No	2.0%	1.8%	0.3%
Texas	Yes	No	No	1.8%	1.5%	0.3%
California	Yes	No	Yes	1.0%	0.8%	0.3%
Nevada	No	No	No	1.4%	0.9%	0.3%
Rhode Island	Yes	No	Yes	6.9%	1.4%	0.2%
Colorado	Yes	Yes	Yes	1.0%	0.7%	0.2%
Arizona	Yes	No	No	0.6%	0.5%	0.2%
Tennessee	No	No	No	1.4%	1.0%	0.2%
Mississippi	Yes	No	No	1.9%	1.4%	0.3%
Massachusetts	No	No	Yes	3.3%	2.4%	0.3%
Alabama	Yes	No	No	1.3%	1.1%	0.2%
Missouri	No	No	No	1.1%	1.0%	0.2%
Michigan	No	No	No	1.3%	0.7%	0.1%
Connecticut	Yes	No	Yes	3.7%	2.0%	0.3%
South Carolina	Yes	No	No	2.9%	1.7%	0.3%
Ohio	Yes	No	No	0.8%	0.8%	0.1%
Virginia	No	No	No	1.3%	1.3%	0.2%
Illinois	No	No	No	1.4%	1.0%	0.2%
Louisiana	No	No	No	2.1%	2.2%	0.3%
New Jersey	Yes	No	Yes	3.5 %	2.1%	0.4%
Maryland	Yes	No	Yes	3.6%	2.5%	0.6%
Pennsylvania	No	No	Yes	2.6%	1.6%	0.5%
North Carolina	No	No	No	1.9%	2.1%	0.3%

Table 2: Low HIV/AIDS Rate States

State	Mandatory Testing	Needle Exchange	Condom Distribution	Imprisoned Rates 1999	Imprisoned Rates 2008	General Population Rates 2008
Oregon	Yes	No	Yes	0.2%	0.4%	0.1%
Montana	No	No	Yes	0.7%	0.2%	0.04%
Alaska	No	No	No	0.6%	0.3%	0.09%
Wyoming	Yes	No	No	0.6%	0.3%	0.04%
Maine	Yes	No	Yes	0.5%	0.4%	0.07%
Indiana	No	No	No	1.6%	2.10%	0.1%
North Dakota	No	No	No	0.8%	0.4%	0.02%
South Dakota	No	No	No	0.2%	0.4%	0.04%
Vermont	No	No	Yes	1.3%	0.7%	0.05%
New Hampshire	No	No	No	0.8%	0.6%	0.08%
Nebraska	No	No	No	0.6%	0.4%	0.09%
Hawaii	Yes	No	Yes	0.9%	0.4%	0.2%
West Virginia	No	No	No	0.3%	0.5%	0.08%
Idaho	No	No	No	0.4%	0.4%	0.05%
New Mexico	No	No	No	0.5%	0.5%	0.1%
Utah	Yes	No	No	0.6%	0.7%	0.08%
Iowa	No	No	No	0.4%	0.5%	0.05%
Minnesota	No	No	No	0.6%	0.5%	0.1%
Kansas	No	No	No	0.5%	0.5%	0.1%
Washington	Yes	No	Yes	0.5%	0.4%	0.2%
Arkansas	Yes	No	No	1.0%	0.9%	0.2%
Kentucky	No	No	No	1.1%	0.9%	0.1%
Delaware	Yes	No	Yes	2.6%	1.9%	0.4%
Wisconsin	No	No	Yes	1.0%	0.6%	0.08%
Oklahoma	No	No	No	0.8%	0.6%	0.1%

These results are organized by states, column one. The second column in tables 1 and 2 represents the mandatory testing policy and whether states answered yes or no to having implemented mandatory testing. In column three, the needle exchange policy is

represented among the states and whether they have implemented it (yes) or they have not implemented it (no). The fourth column is the condom distribution variable among the states (yes or no). The Imprisoned Rates 1999 column is the variable representing the percentage of men imprisoned in the specific state prisons living with HIV/AIDS out of the entire state's male imprisoned population in 1999 from those same states. The column entitled Imprisoned Rates 2008 is the variable presenting the percentage of men imprisoned in the specific state prisons living with HIV/AIDS out of the entire male imprisoned population in 2008 from those same states. Finally, the General Population Rates 2008 represents each state's percentage of men and women (non-imprisoned) living with HIV/AIDS out of the entire state's non-imprisoned populations.

Among the states with higher imprisoned rates, New York and Rhode Island show significant drops from 1999 to 2008, and all three states have implemented mandatory testing and condom distribution policies within prisons. Colorado is the only state that has implemented all three policies, and Colorado also experienced a drop from 1.0% to 0.7%. Massachusetts practices condom distribution and also experienced a drop from 3.3% to 2.4%. Connecticut implemented mandatory testing and condom distribution and had a drop from 3.7% to 2.0%. North Carolina has not implemented any of the three policies and saw a rise in rates from 1.9% to 2.1 %.

Among the states with lower rates Vermont implemented condom distribution and saw a drop from 1.3% to 0.7%. Kansas has not practiced any of the three policies and

Table 3: Descriptive Statistics on Policies

Descriptive Statistics on Policies				
	Yes - N	Yes - %	No - N	No - %
Mandatory Testing	23	46%	27	54%
Needle Exchange	1	2%	48	98%
Condom Distribution	18	36%	32	64%

Table 4: Descriptive Statistics on HIV/AIDS Rates

Descriptive Statistics on HIV/AIDS Rates					
	N	Minimum	Maximum	Mean	SD
Rates 1999	50	0.20%	9.70%	1.608	1.69
Rates 2008	50	0.20%	5.80%	1.149	0.999
General Rates 2008	50	0.02%	0.60%	0.196	0.148

maintained a consistent rate from 1999 to 2008 at 0.5% with the state population being 0.1%. It may be important to note that many of the states that have not implemented one or more policies have neither decreased nor increased their imprisoned rates.

Table 3 shows how many states answered yes and no to each policy question (mandatory testing, needle exchange, and condom distribution). In the mandatory testing category, 27 (54%) states responded no, they do not practice mandatory testing for HIV/AIDS upon intake of inmates and 23 (46%) responded yes. For needle exchange programs, only one state currently practices this policy, Colorado. 32 (64%) states do not allow for condom distribution, while 18 (36%) do. The data in table 3 show that, currently, the most acceptable policy on preventing and managing HIV/AIDS in prisons is mandatory testing; however, even this policy is practiced in less than half of the states. Condom distribution also is becoming more acceptable within prisons. The least

acceptable method to preventing HIV/AIDS transmission in prisons is needle exchange, which the literature has shown to be the most controversial form of HIV/AIDS prevention.

Table 4 shows the distribution of HIV/AIDS rates across all states. The first two rows represent the male imprisoned population living with HIV/AIDS rates for 1999 and 2008. The last row shows the distribution of the general population's (non-imprisoned) rates from 2008. The minimum percentage for the male imprisoned population for 1999 was 0.2% and the maximum was 9.7% with a mean of 1.608% and a standard deviation of 1.69. For the male imprisoned population for 2008 the minimum was also 0.2% and the maximum was 5.8% with a mean of 1.149% and a standard deviation of 0.999. For the general, non-imprisoned population for 2008 the minimum was 0.02% and the maximum was 0.6% with a mean of 0.196% and a standard deviation of 0.148. The graph is essentially re-emphasizing the disproportionate HIV/AIDS rates between the imprisoned population and the non-imprisoned population (the difference in means for imprisoned rates 2008 and general population rates 2008 is almost 1%). It also shows that, overall, the imprisoned HIV/AIDS rates have dropped from 1999 to 2008 (the mean dropped from 1.608 to 1.149).

Correlations

Table 5: Mandatory Testing		Test	First	Rate
Test	Pearson Correlation	1	.322*	.270
	Sig. (2-tailed)		.023	.058
	N	50	50	50
First	Pearson Correlation	.322*	1	.847**
	Sig. (2-tailed)	.023		.000
	N	50	50	50
Rate	Pearson Correlation	.270	.847**	1
	Sig. (2-tailed)	.058	.000	
	N	50	50	50

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

Table 6: Needle Exchanage		NX	First	Rate
NX	Pearson Correlation	1	-.052	-.065
	Sig. (2-tailed)		.720	.655
	N	50	50	50
First	Pearson Correlation	-.052	1	.847**
	Sig. (2-tailed)	.720		.000
	N	50	50	50
Rate	Pearson Correlation	-.065	.847**	1
	Sig. (2-tailed)	.655	.000	
	N	50	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

Table 7: Condom Distribution		Condom	First	Rate
Condom	Pearson Correlation	1	.420**	.306*
	Sig. (2-tailed)		.002	.031
	N	50	50	50
First	Pearson Correlation	.420**	1	.847**
	Sig. (2-tailed)	.002		.000
	N	50	50	50
Rate	Pearson Correlation	.306*	.847**	1
	Sig. (2-tailed)	.031	.000	
	N	50	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The relationship between Mandatory Testing (Test) and the imprisoned rates for 1999 (First), as shown in table 5, was found as a definite positive low, relationship (.322), and statistically significant correlation at a p-value of 0.05. This relationship, given time, may eventually become stronger. The relationship between the testing variable and the 2008 imprisoned rates (Rate) was positive but also a low correlation (.270); it was not statistically significant. When a state uses mandatory testing, they may be identifying more individuals with
HIV/AIDS; therefore, their rates may be higher than a state who does not implement mandatory testing.

Because only one state said "yes" to having a Needle Exchange policy, as shown in table 6, the correlation between the Needle Exchange variable (NX) and the 1999 and 2008 imprisoned rates variables is negative and negligible (-.052 and -.065). It will be interesting to run this correlation test; again, once more states have adapted the needle exchange policy.

The Condom Distribution correlation variable (Condom) shows the most promise, thus far, as shown in table 7. The relationship between Condom Distribution and the 1999 imprisoned rate is a moderate correlation with a substantial positive relationship (.420). This correlation is also statistically significant using a p-value of 0.05. Essentially, there is a marked relationship between state prison's condom distribution policies and the HIV/AIDS rates within those prisons. The relationship between Condom Distribution and

Correlations

Table 8: General Rates		Gen	First	Rate
Gen	Pearson Correlation	1	.698**	.812**
	Sig. (2-tailed)		.000	.000
	N	50	50	50
First	Pearson Correlation	.698**	1	.847**
	Sig. (2-tailed)	.000		.000
	N	50	50	50
Rate	Pearson Correlation	.812**	.847**	1
	Sig. (2-tailed)	.000	.000	
	N	50	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

the 2008 rate variable is also a moderate correlation with a substantial positive relationship (.306). This correlation is also statistically significant using a p-value of 0.05. This analysis recognizes the impact Condom Distribution has on the HIV/AIDS rates within prisons.

Finally, it is important to see the correlations between general population HIV/AIDS rates (Gen) and the imprisoned population HIV/AIDS rates, by state, as shown in table 8. The data and descriptive statistics analysis has shown that the rates among the imprisoned population is higher than the general population rates, by state. The relationship between the 2008 general population rates and the 2008 imprisoned population rates is a high positive correlation (.812), indicating a marked relationship that is statistically significant using a p-value of 0.05.

Correlations

Table 9: Mandatory Testing Difference		Difference	Test
Difference	Pearson Correlation	1	.271
	Sig. (2-tailed)		.057
	N	50	50
Test	Pearson Correlation	.271	1
	Sig. (2-tailed)	.057	
	N	50	50

Correlations

Table 10: Needle Exchange Difference		Difference	NX
Difference	Pearson Correlation	1	-.024
	Sig. (2-tailed)		.871
	N	50	50
NX	Pearson Correlation	-.024	1
	Sig. (2-tailed)	.871	
	N	50	50

Correlations

Table11:Condom Distribution Difference		Difference	Condom
Difference	Pearson Correlation	1	.402**
	Sig. (2-tailed)		.004
	N	50	50
Condom	Pearson Correlation	.402**	1
	Sig. (2-tailed)	.004	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

To determine if the change in imprisoned rates from 1999 to 2008 was due to the enactment of mandatory testing, needle exchange and condom distribution, a Pearson's Correlation test was run. The variable, Difference, was calculated as imprisoned rates 1999 – imprisoned rates 2008.

Table 9 shows the correlation between Difference and Mandatory Testing. With the correlation test reporting .271, there is a low, but definite positive relationship; however, this correlation was not found to be statistically significant.

Table 10 displays the correlation between the Difference variable and the Needle Exchange variable. As it is shown in table 6, there is a negligible negative correlation that is not statistically significant. This is most likely due to the fact that only one state reported having the Needle Exchange policy in their prisons.

Table 11 again adds supporting evidence that there will be a need to continue advocating for condom distribution in prisons across the United States. The correlation between the Difference variable and the Condom variable came out to be .402, a positive moderate substantial correlation that was also found to be statistically significant using a p-value of .05. This provides incredible evidence supporting the hypothesis of this thesis; that a policy such as condom distribution can change HIV/AIDS rates in prisons over an almost 10 year period.

Implications and Conclusion

This research is an effort to raise awareness about HIV/AIDS in prisons. The whole concept of imprisonment was brought forth for people who have committed offenses not just to "serve time," but to also rehabilitate. Many of those people who are imprisoned with HIV or AIDS will eventually be released into the community, and prison time could serve as a place to educate and help people with HIV or AIDS to understand what they are actually is they are living with and what they can do to prevent the spreading of it within prisons and once they are released back into their communities. However, there is a problem with HIV/AIDS in prisons, and also there are programs available for implementation within prisons. The problem is the disproportionate numbers between the imprisoned population and the general population for HIV/AIDS rates and the fact that the imprisoned population is more vulnerable to the disease because of the lack of freedom to access treatment.

Mandatory testing can help prisons see how big of a problem HIV/AIDS may be for their jurisdiction; it is essentially a starting point. However, in some states it may be used as a tool for discrimination and torment for those found positive. Because there was a noted correlation between rates and mandatory testing, it will be important for state prisons and policy makers to be evaluating the effectiveness of their mandatory testing policies; they must be sure they are implementing it for prevention and education, rather than discrimination. Once they do implement mandatory testing in their jurisdictions, and they identify those who are positive, services and treatment must be provided. The

correlation that was noted between mandatory testing and the HIV/AIDS rates may also be due to the fact that when a state implements mandatory testing, they are going to have higher rates because they are identifying more cases than states who have not implemented mandatory testing. Identifying all cases of HIV/AIDS in prisons through mandatory testing will allow states to recognize the issue, and then begin implementing programming for treatment and services to those found positive.

Needle exchange within the general population is controversial, so needle exchange is bound to be even more controversial when suggested for prison use, because drug use while in prison is illegal. Needle exchange programs seem to encourage drug use. However, the argument in favor of needle exchange programs states that people are going to use because they have an addiction and if they learn to use clean needles, they will be using in a safer manner than without needle exchange. However, in prisons, drug use should not even be occurring because of the "lock-down" situation, but drug use is occurring within prisons. Because of the controversy surrounding needle exchange programs, it may be a very long time before it is implemented within prisons. Perhaps by then, another policy will be implemented that completely distinguishes drug use within prisons. Since only one state has a needle exchange policy in the country, there cannot be a sufficient conclusion drawn. Hopefully, more states will implement the program and the data can be re-evaluated.

Condom distribution may be the best policy to begin implementing more frequently. It is less controversial than needle exchange and may prove to be very effective. Since consensual sex occurs among 45% or men imprisoned (Krebs, 2002), if a prison does not offer condom distribution, the men who are imprisoned are put in high risk situations for HIV transmission. If condoms were used, and consensual sex rates remained constant, HIV transmission will go down. The correlation between condom distribution and HIV/AIDS rates is significant enough to realize that it may be a viable option to institute in more prisons across the United States. Prisons have been considered "breeding grounds" for HIV/AIDS for reasons that are very clear and although condom distribution may also be controversial, it can help put an end to the spread of HIV/AIDS in prisons, thus lowering the actual occurrence rates.

A strength of this study was the use of the entire population in question, and not the use of a sample. By calling every state's Department of Corrections, this study was strengthened the by eliminating error due to sampling methods. However, because the general population HIV/AIDS rates from 2008 include men and women, there will be some disparity when comparing those rates to the imprisoned HIV/AIDS rates from 1999 and 2008 which only include men. The collection method also created an inconsistent response due to which state prison system representative I was referred to, and collected information from during the survey.

Overall, the data collected have shown that the imprisoned population's HIV/AIDS rates are higher than the general population's HIV/AIDS rates, and this is something that needs to be addressed through policy.

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Appendix A

Alabama Department of Corrections. Retrieved from http://www.doc.state.al.us/.

Alaska Department of Corrections. Retrieved from http://www.correct.state.ak.us/.

Arizona Department of Corrections. Retrieved from http://www.azcorrections.gov.

Arkansas Department of Corrections. Retrieved from http://www.adc.arkansas.gov.

California Department of Corrections and Rehabilitation. Retrieved from http://www.cdcr.ca.gov/.

Colorado Department of Corrections. Retrieved from http://www.doc.state.co.us/.

Connecticut Department of Corrections. Retrieved from http://www.ct.gov/doc.

Delaware Department of Corrections. Retrieved from http://www.doc.delaware.gov.

Florida Department of Corrections. Retrieved from http://www.dc.state.fl.us/.

Georgia Department of Corrections. Retrieved from http://www.dcor.state.ga.us.

Hawaii Department of Corrections. Retrieved from http://www.hawaii.gov/psd/corrections.

Idaho Department of Corrections. Retrieved from http://www.idoc.idaho.gov/.

Illinois Department of Corrections. Retrieved from http://www.illinois.gov/idoc.

Indiana Department of Corrections. Retrieved from http://www.in.gov/idoc/.

Iowa Department of Corrections. Retrieved from http://www.doc.state.ia.us.

Kansas Department of Corrections. Retrieved from http://www.dc.state.ks.us.

Kentucky Department of Corrections. Retrieved from http://www.corrections.ky.gov.

Louisiana Department of Corrections. Retrieved from http://www.corrections.state.la.us/.

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Minnesota Department of Corrections. Retrieved from http://www.doc.state.mn.us.

Mississippi Department of Corrections. Retrieved from http://www.mdoc.state.ms.us.

Missouri Department of Corrections. Retrieved from http://www.doc.mo.gov/.

Montana Department of Corrections. Retrieved from http://www.cor.mt.gov.

Nebraska Department of Corrections. Retrieved from http://www.corrections.state.ne.us.

Nevada Department of Corrections. Retrieved from http://www.doc.nv.gov/.

New Hampshire Department of Corrections. Retrieved from http://www.nh.gov/nhdoc/.

New Jersey Department of Corrections. Retrieved from http://www.state.nj.us/corrections/.

New Mexico Department of Corrections. Retrieved from http://corrections.state.nm.us/.

New York Department of Corrections. Retrieved from http://www.doccs.ny.gov/.

North Carolina Department of Corrections. Retrieved from http://www.doc.state.nc.us/.

North Dakota Department of Corrections. Retrieved from http://www.nd.gov/docr/.

Ohio Department of Corrections. Retrieved from http://www.drc.ohio.gov.

Oklahoma Department of Corrections. Retrieved from http://www.doc.state.ok.us/.

Oregon Department of Corrections. Retrieved from http://www.oregon.gov/DOC/.

Pennsylvania Department of Corrections. Retrieved from http://www.cor.state.pa.us.

Rhode Island Department of Corrections. Retrieved from http://www.doc.ri.gov/.

South Carolina Department of Corrections. Retrieved from http://www.doc.sc.gov/.

South Dakota Department of Corrections. Retrieved from http://www.doc.sd.gov/.

Tennessee Department of Corrections. Retrieved from http://www.state.tn.us/correction/.

Texas Department of Criminal Justice. Retrieved from http://www.tdcj.state.tx.us/.

Utah Department of Corrections. Retrieved from http://www.corrections.utah.gov/.

Vermont Department of Corrections. Retrieved from http://www.doc.state.vt.us/.

Virginia Department of Corrections. Retrieved from http://www.vadoc.state.va.us/.

Washington Department of Corrections. Retrieved from http://www.doc.wa.gov/.

West Virginia Department of Corrections. Retrieved from http://www.wvdoc.com/.

Wisconsin Department of Corrections. Retrieved from http://www.wi-doc.com/.

Wyoming Department of Corrections. Retrieved from http://corrections.wy.gov/.

Appendix B

Phone Number for Each State's Department of Corrections

State	Phone Number Called
Alabama	(334) 738-5625
Alaska	(907) 458-6700
Arizona	(602) 352-0350
Arkansas	(870) 297-4311
California	(916) 985-8610
Colorado	(719) 269-5120
Connecticut	(860) 240-1800
Delaware	(302) 739-5601
Florida	(904) 368-2500
Georgia	(478) 992-5211
Hawaii	(808) 485-5200
Idaho	(208) 658-2000
Illinois	(217) 558-2200
Indiana	(219) 874-7256
Iowa	(319) 372-5432
Kansas	(785) 296-3317
Kentucky	(502) 564-4726
Louisiana	(225) 342-6633
Maine	(207) 273-5300
Maryland	(410) 585-3300
Massachusetts	(508) 422-3300
Michigan	(517) 335-1426
Minnesota	(651) 361-7200
Mississippi	(601) 359-5600
Missouri	(573) 751-2389
Montana	(406) 846-1320
Nebraska	(402) 471-2654
Nevada	(775) 882-8588
New Hampshire	(603) 271-1801
New Jersey	(609) 723-4221
New Mexico	(505) 827-8645
New York	(518) 457-8126
North Carolina	(919) 716-3700
North Dakota	(701) 328-6100
Ohio	(614) 752-1159
Oklahoma	(405) 425-2500
Oregon	(503) 945-9090
Pennsylvania	(717) 975-4928
Rhode Island	(401) 462-1000
South Carolina	(803) 896-8500
South Dakota	(605) 773-3478
Tennessee	(615) 741-1000
Texas	(936) 295-6371
Utah	(801) 545-5500
Vermont	(802) 241-2276
Virginia	(804) 674-3000
Washington	(360) 725-8213
West Virginia	(304) 845-6200
Wisconsin	(608) 240-5000
Wyoming	(307) 328-7464

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