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A. Alyce Werdel

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MANDATORY AIDS TESTING: THE LEGAL, ETHICAL AND PRACTICAL ISSUES

A. ALYCE WERDEL*

By 1981, a new worldwide epidemic was recognized. This epidemic is known as Acquired Immunodeficiency Syndrome (AIDS). The World Health Organization (WHO) estimates that between five and ten million people may be infected with the virus,¹ and over one million will be killed by the virus by the year 2000.² The number of AIDS cases is currently doubling every ten months.³ An International Summit on AIDS held in London warned: "The AIDS virus threatens hundreds of millions of lives around the world and is likely to create an explosive epidemic far into the next century."⁴ With no vaccine presently available, one way to halt the spread of the disease is to alert people to the possible danger in the hope that they will avoid high risk behavior. Many countries have developed, or are in the process of developing, laws to control the spread of this fatal virus.⁵ One scheme proposed in the United States is mandatory testing. This article will examine the practical, ethical, and legal considerations of mandatory testing among certain high risk populations. It concludes that testing should be required among the following groups: (1) prisoners, (2) arrested prostitutes and drug users, and (3) those who attend sexually transmitted disease and drug abuse clinics.

* B.A. Human Biology, Stanford University 1986; J.D. University of Notre Dame 1990.

1. Gallo, *Quest for a Vaccine*, WORLD HEALTH, March 1988, at 9.
2. Mesce, *AIDS Infection Rate is Declining: Report*, S. Bend Trib., Feb. 2, 1990, at A2, col. 1.
3. Montefiore, *AIDS: The Only Answer*, The Times (London), Aug. 10, 1988, at 10, col. 2.
4. Prentice, *Generations at Risk from 'Explosive AIDS Epidemics'*, The Times (London), Jan. 27, 1988, at 3, col. 1.
5. By March 1988, over fifty countries had laws in force pertaining to AIDS. Other countries have extended their public health codes or communicable disease statutes to apply to AIDS cases. Jayasuriya, *AIDS Related Health Legislation*, 14 COMMONWEALTH L. BULL. 879 (1988).

I. BACKGROUND: STAGES OF THE VIRAL INFECTION AND COMMON SYMPTOMS

AIDS is caused by a virus, known as the Human Immunodeficiency Virus (HIV). A virus is defined as an ultramicroscopic parasite, which invades a living cell and takes over its metabolic machinery in order to reproduce.⁶ The HIV virus is a retrovirus; a retrovirus can easily invade the living cell "turning it into factories for more viruses."⁷ HIV invades and multiplies within the white blood cells (lymphocytes) which are found in the immune system. It either destroys the host cell immediately or lies dormant for a period of time, delaying the onset of the disease.⁸ No vaccine has ever been developed for a retroviral disease.⁹

The human immune system is the body's natural defense against potentially harmful, infectious microorganisms (microscopic life forms), such as bacteria, viruses and fungi.¹⁰ The immune system consists of two types of cells: T-lymphocytes and B-lymphocytes. In a healthy immune system, the T-lymphocytes recognize and attack foreign cells in the body, known as antigens. There are two types of T-lymphocytes: T-killer cells and T-helper (T-4) cells. The T-killer cell binds to the antigen and kills it. The T-4 cell helps the T-killer cell to multiply, so that there are enough killer cells to fight the foreign cells.¹¹ The HIV virus attacks the body's immune system by destroying the T-4 cells.¹² As a result, the T-killer cells do not

6. J. LANGONE, AIDS: THE FACTS 22 (1988).

7. *Id.* at 43.

Genetic information comes the form of ribonucleic acid (RNA) or deoxyribonucleic acid (DNA). Wright, *AIDS: A Brief Overview*, 12 NOVA L. REV. 973, 974-75 (1988). The genetic information of most viruses and all living things is normally found in the DNA, which replicates itself into RNA when it is time to make a protein. *Id.* In a retrovirus the genetic information is found in the RNA rather than the DNA. *Id.* When the virus attaches to the cell, it uses a special enzyme, reverse transcriptase, in order to copy its genetic information into the host cell's DNA. At this point, the virus is able to replicate itself within the host cell. *Id.*; J. LANGONE, *supra* note 6, at 43.

8. Mann, . . . *for a Global Challenge*, WORLD HEALTH, March 1988, at 4, 5.

9. Yarchoan, Mitsuya, & Broder, *Clinical and Basic Advances in the Antiretroviral Therapy of Human Immunodeficiency Virus Infection*, 87 AM. J. MED. 191 (1989) [hereinafter Yarchoan & Mitsuya]. Other retroviral diseases include degenerative brain diseases and possibly some types of cancers. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE 1051 (1989).

10. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 570.

11. *Id.* at 573.

12. J. LANGONE, *supra* note 6, at 27. The viral antigens attach to the

multiply and the immune system is unable to fight infections.¹³ Because the body has a high number of T-4 cells, it is easy for the virus to spread once it is in the system.¹⁴ When the virus has destroyed the T-4 cells, the immune system is weakened and germs that normally are harmless can create fatal diseases.¹⁵

There are three stages of infection: HIV infection, AIDS-related complex, and full-blown AIDS.¹⁶ The first stage of the disease, HIV infection, begins at the time that the virus enters the body and begins to attack the T-4 cells. At this stage, HIV tests can usually detect antibodies to the virus two to eight weeks after the initial infection.¹⁷ Antibodies are proteins manufactured by T-lymphocytes in the immune system in response to an infection.¹⁸ The role of the antibodies is to neutralize the viral antigen (foreign protein) in the body.¹⁹ In order to do this, they block the HIV cells from binding to the T-4 cells.²⁰ However, as the body continues to fight the HIV infection, fewer and fewer antibodies are produced because the virus destroys the T-4 cells. As a result, HIV patients have low counts of these neutralizing agents²¹ and are unable to fight off

surface of the T-4 cell; after they have attached, they are able to invade and destroy the T-4 cell. *Id.* at 43-44, 47.

The HIV virus attacks only the T-lymphocytes, not the B-lymphocytes. The immune system has two parts: humoral immunity and cellular immunity. The humoral immunity relies on the B-lymphocytes, while the cellular immunity relies on the T-lymphocytes. The T-lymphocytes attack virally infected cells or tumor cells. Therefore, this article only addresses the role of T-lymphocytes in the immune system. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 573.

13. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 573.

14. J. LANGONE, *supra* note 6, at 44.

15. *Id.* at 48.

16. Other authors have divided the disease into different classification systems which are typically more detailed than the one proposed in this text. More detailed classification systems are useful for antiviral therapy analysis as well as epidemiological purposes. For a survey of these classification systems and a more detailed analysis of their usefulness, see Smiley, *HIV Infection and AIDS: Definition and Classification of Disease*, 12 DEATH STUD. 399 (1988).

17. J. LANGONE, *supra* note 6, at 11. Note that there have been sporadic reports of delayed seroconversion (the time at which the body produces antibodies to the virus). For a possible explanation and examples of this rare phenomenon, see Moss & Bacchetti, *Editorial Review, Natural History of HIV Infection*, 3 AIDS 55 (1989).

18. J. LANGONE, *supra* note 6, at 10.

19. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 115.

20. Yarchoan & Mitsuya, *supra* note 9, at 191.

21. *Id.* There is some indirect evidence that persons with high counts

the HIV infection. Because the infected individual may not exhibit exterior signs of illness at this stage, he or she may be unaware of the infection. This lack of awareness is particularly dangerous in the AIDS context since any infected person is capable of spreading the disease.²²

The second stage of infection, AIDS-related-complex, begins at the time the infected individual exhibits signs of immunological defects which are similar to those of full-blown AIDS.²³ However, at this stage, these defects cause a less profound weakening of the immune system.²⁴ Researchers and scientists do not know exactly how many people will advance to this stage,²⁵ but approximately 350,000 Americans have advanced to this stage of the virus.²⁶ The virus can be detected either by testing for the antibodies to the virus or by recognizing the clinical symptoms, which include swollen glands, unexplained loss of appetite and weight loss, heavy night sweats, persistent and chronic diarrhea, persistent dry cough, white spots or unusual blemishes on the mouth, hairy leukoplakia (a precancerous condition), shingles and lymphoma.²⁷

Full-blown AIDS is the third and final stage of infection. At this stage, the immune system is so weak that the body is unable to fight off opportunistic infections.²⁸ Opportunistic infections refer to those infections which ordinarily do not cause disease in human beings. However, due to the weakened immune system of the AIDS patient, they can cause death.²⁹

of these neutralizing agents have a better disease course, and the question remains whether administering anti-HIV antibodies would help AIDS patients suffering from ARC symptoms. *Id.* For a further discussion of this theory, see Dr. Jonas Salk's approach in developing a vaccination to the virus, *infra* notes 257-260 and accompanying text.

22. Piot & Colebunders, *The Clinical Symptoms*, WORLD HEALTH, March 1988, at 25, 26.

23. J. LANGONE, *supra* note 6, at 11.

24. Mann, *supra* note 8, at 5.

25. *Id.* at 6.

26. 100 CONG. REC. H6367 (daily ed. July 15, 1987) (statement of Rep. Dannemeyer).

27. J. LANGONE, *supra* note 6, at 12-13.

Leukoplakia is characterized by raised white patches on the mucous membrane of the mouth or vulva. Herpes zoster is the medical term for shingles, an infection of the nerves which service certain areas of the skin. It can cause a painful rash and blisters. Lymphoma is defined as "[a]ny group of cancers in which the cells of lymphoid tissues (found mainly in the lymph nodes and spleen) multiply unchecked." AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 638.

28. Piot & Colebunders, *supra* note 22, at 26.

29. Wright, *supra* note 7, at 974.

Infection at this stage may be confirmed by testing for antibodies to the virus or by recognizing the clinical symptoms which include a weakened and disfigured body, nervous system disorders ranging from forgetfulness to dementia, pneumocystis carinii pneumonia (a type of pneumonia common among AIDS patients), severe diarrhea, central nervous system infection, herpes simplex virus, tuberculosis, kaposi's sarcoma (malignant skin tumors) and emaciation.³⁰ AIDS dementia can affect anyone who carries the virus; it occurs in up to seventy-five percent of AIDS cases.³¹ The term "dementia" refers to a wide range of symptoms. The milder symptoms include muddled thinking, apathy, irritability, forgetfulness, and depression. The severe cases usually include more dramatic symptoms such as an "acute psychotic state manifested by euphoria and hyperactivity."³² There are two types of dementia: that which directly affects the central nervous system, and that which does not. The type of dementia which directly affects the central nervous system may be one of the first signs of infection because it is believed to occur at the time of seroconversion (the time at

30. J. LANGONE, *supra* note 6, at 14-16.

As infection progresses, fewer and fewer antibodies are produced. Therefore, the second two stages are more likely to be recognized by the clinical symptoms than by testing for antibodies to the virus.

Clinical symptoms refer to the symptoms and source of a disease as opposed to the laboratory findings which refer to anatomical changes. *STEDMAN'S MEDICAL DICTIONARY* 1308 (5th ed. 1982). In other words, clinical symptoms refer to those which pertain to or are founded on actual observation and treatment of the patients. *THE SLOANE-DORLAND ANNOTATED MEDICAL-LEGAL DICTIONARY* 149 (1987).

The prevalence of certain opportunistic infections varies with the geographical area because the type of infection depends on the patient's exposure to microbial [short-lived] agents. For example, pneumocystis carinii pneumonia is the most common opportunistic infection among Americans and Europeans, while the gastro-intestinal system is commonly affected in Africans with the disease. *Piot & Colebunders, supra* note 22, at 26.

31. Adams, *HIV-Related Dementia*, *NURSING TIMES*, Jan. 20, 1988, at 45. Other estimates have been significantly lower. See e.g., *Piot & Colebunders, supra* note 22, at 26. The authors estimate that dementia occurs in approximately one-third of all AIDS patients. However, they may not be including both types of dementia in their estimate, or they may not be including the milder symptoms, such as forgetfulness or depression, in the definition of dementia.

32. Raeburn, *AIDS Dementia Puzzles Doctors*, *S. Bend Trib.*, Nov. 6, 1989, at A2, col. 1. Bocellan, the Director of Neuropsychology at San Francisco General Hospital, said that those patients who experience the more severe symptoms "become very grandiose and delusional." *Id.*

which the immune system produces antibodies to the virus).³³ Both types of dementia continue until death.³⁴

Scientists do not know the exact percentage of infected persons who will develop full-blown AIDS. Although early studies indicated that only a minority may go on to develop clinical symptoms of AIDS, the latency period appears to have misled researchers.³⁵ Recent studies indicate that in the absence of treatment, most infected persons will progress to AIDS, with a median time of seven to ten years from the time of infection.³⁶ One report estimates that up to ninety-eight percent of AIDS victims will die less than three years after diagnosis.³⁷

II. THE MODE OF VIRAL TRANSMISSION AND HIGH RISK GROUPS

The HIV virus is transmitted through infected body fluids.³⁸ The virus has been detected in blood, semen, vaginal fluids, breast milk, saliva, and tears.³⁹ However, there are no reported cases of viral transmission through tears⁴⁰ or saliva.⁴¹ This can be explained by the fact that it takes a fairly large amount of the virus to infect a healthy person, and the virus is fragile outside the human body.⁴² It is also unlikely that

33. Adams, *supra* note 31, at 46.

34. *Id.* at 45-46.

35. Moss & Bacchetti, *supra* note 17, at 57.

36. *Id.* The Director of the American Medical Association (AMA) task force said that it may be "very likely" that almost all infected persons will go on to develop AIDS. Van de Kamp, *The Cost of AIDS*, L.A. LAW., Sept. 1988, at 30, 32. A Dr. Crenshaw, while testifying before Congress, said, "[m]ost experts, including Dr. Gallo [one of the co-discoverers of the HIV virus], . . . agree that up to one hundred percent of infected individuals could eventually die of AIDS or ARC." 100 CONG. REC. H6370 (daily ed. July 15, 1987) (statement of Dr. Crenshaw).

37. McLaughlin, *Legal Issues in Health Care Settings, AIDS: Current State of the Law—An Overview*, 3 J.L. & HEALTH 77, 79 (1988-1989). See also 100 CONG. REC. H6368 (daily ed. July 15, 1987) (statement of Mr. Dornan) (as of July 1987, ninety-one percent of those diagnosed with AIDS between January and June 30, 1981, have died).

38. J. LANGONE, *supra* note 6, at 83.

39. Summary: *Recommendations for Preventing Transmission of Infection with Human T-Lymphotropic Virus Type III Lymphadenopathy-Associated Virus in the Workplace*, 34 MORBIDITY & MORTALITY WEEKLY REP. 681, 682 (Nov. 15, 1985); Selwyn, *AIDS: What is Now Known*, HOSP. PRAC., May 15, 1986, at 67, 73.

40. Piot & Colebunders, *supra* note 22, at 26.

41. Smith, *HIV Transmitted by Kissing*, 294 BRIT. MED. J. 1033 (1987).

42. J. LANGONE, *supra* note 6, at 54, 70, 73. If one cubic centimeter (cc) of blood containing the HIV virus is diluted in a quart of water, and then one

infected food can transmit the virus because T-4 cells are usually not found in the digestive tract.⁴³ In general, it is widely accepted that casual transmission of the virus, although theoretically possible, is highly unlikely.⁴⁴

The virus can be transmitted through sexual activity, blood transfusions, and needle sharing.⁴⁵ Mothers can transmit the virus to their infants before birth (intrauterine), during delivery (peripartum), and possibly after birth while breast-feeding with infected breast milk.⁴⁶ Heterosexual transmission occurs through penile-vaginal intercourse.⁴⁷ Although the virus is present in both semen and cervical fluid,⁴⁸ it is transmitted more efficiently from men to women than from women to men.⁴⁹ This is most likely due to the fact that men inoculate women with a substantial dose of the virus during sexual intercourse,⁵⁰ and women naturally retain the bodily secretions.⁵¹

cc of the solution is injected back into the blood of a human or chimpanzee, it would not be a sufficient amount to infect either with the virus. Compare this to HBV, the virus responsible for hepatitis B, which under the same circumstances, would cause infection. *Id.* at 73.

The fact that the virus is very fragile outside the body is supported not only by the fact that nobody has caught the disease on toilet seats, doorknobs, or shower stalls, but it is also supported by scientific research. Although the virus thrives in a cool environment, it deactivates quickly under heat and can be killed by household bleach. *Id.* at 70, 78; Steinhilber, *AIDS and Employment: Legal and Policy Considerations*, 35 FED. BAR & NEWS J. 377 (1988). When the virus was placed in a fluid-filled test-tube at room temperature for twenty four hours, it has only a ten percent chance of surviving. However, when placed in a water-based solution of human blood cells at room temperature, it is capable of surviving up to fifteen days. J. LANGONE, *supra* note 6, at 78.

43. J. LANGONE, *supra* note 6, at 44.

44. *Id.* at 75-78; Mann, *supra* note 8, at 4. *But see* Cannon, *Corrected Statistical Analysis Suggests Casual Transmission of AIDS in the African Study of the Center for Disease Control*, 60 PSYCHOLOGICAL REP. 177 (1987). The author corrects the CDC's statistical analysis in an African study and concludes that the study does "not disprove casual transmission of AIDS, . . . [and] because the statistical analysis was incorrectly done, evidence that tends to support casual transmission was thereby suppressed." *Id.*

45. Mann, *supra* note 8, at 4.

46. National Institute of Justice, *HIV Infection and AIDS: Definitions and Means of Transmission*, AIDS BULL., Aug. 1989, at 5. It is not clear when transmission from mother to child takes place. Some evidence indicates that it occurs as early as the first trimester, while other evidence indicates infection after birth. Yarchoan & Mitsuya, *supra* note 9, at 197.

47. J. LANGONE, *supra* note 6, at 83-84.

48. *Id.*

49. Zuckerman, *The Enigma of AIDS Vaccines*, AIDS LETTER, Dec. 1988/Jan. 1989, at 4.

50. Leishman, *The Second Stage of the Epidemic: Heterosexuals and AIDS*, ATLANTIC MONTHLY, Feb. 1988, at 39-40.

There are currently three broad patterns of HIV infection throughout the world. In North America, Western Europe, New Zealand, and many urban areas in Latin America, the disease is primarily spread through homosexual and bi-sexual men and intravenous (IV) drug users.⁵² In some major cities, fifty to seventy percent of the homosexual men are already infected with the virus.⁵³ Heterosexual transmission is increasing in these areas as is the number of pediatric cases.⁵⁴ The National Academy of Sciences estimates that the majority of new cases will continue to come from the currently recognized high risk groups.⁵⁵

In sub-Saharan Africa and increasingly in Latin America, especially the Caribbean, heterosexual transmission is the predominant mode of transmission.⁵⁶ In Latin America, the virus was originally spread primarily through homosexual contacts. However, the pattern has recently shifted and is now increasingly spread through heterosexual contacts.⁵⁷ In Africa, up to ninety percent of the prostitutes are infected.⁵⁸ Pediatric cases are also a major problem because fifteen percent or more of the pregnant women are infected.⁵⁹ Infection through blood continues to be a problem in areas where the blood is not routinely screened and the needles are not sterilized.⁶⁰

51. Zuckerman, *supra* note 49, at 4.

52. *Id.* at 6.

53. 100 CONG. REC. H6366 (daily ed. July 15, 1987) (statement of Rep. Dannemeyer).

54. Van de Kamp, *supra* note 36, at 31. The National Academy of Sciences estimates a seven-fold increase in heterosexual cases by 1991 and a ten fold increase of pediatric cases by the same year. *Id.*

55. *Id.* See also notes 77-112 *infra* and accompanying text, which qualify this prediction: Although the disease is likely to continue among the currently recognized high risk groups, IV drug users and homosexuals who participate in unsafe sex will account for a higher percentage of the cases. High risk heterosexuals include those who participate in unsafe sex and those whose partners are IV drug users or participate in unsafe sex.

56. Zuckerman, *supra* note 49, at 6.

57. Hiltz, *World AIDS Epidemic Draws New Warning*, N.Y. Times, Dec. 1, 1989, at D19, col. 1. In some areas, men and women are equally infected. The infection rate among women is ten percent in some countries in this region. *Id.*

58. Prentice, *supra* note 49, at 6.

59. Zuckerman, *supra* note 49, at 6; See also Pepin, Plummer, Brunham, Piot, Cameron & Ronald, *The Interaction of HIV Infection and Other Sexually Transmitted Diseases: An Opportunity for Infection*, 3 AIDS 3 (1988) [hereinafter Pepin & Plummer]. In Kampala, seroprevalence among pregnant women has increased from 10.8% in 1985 to 24.1% in 1987. *Id.*

60. Zucherman, *supra* note 49, at 6.

The third pattern of infection is in North Africa, the Middle East, Eastern Europe, Asia and the Pacific.⁶¹ The HIV virus was not recognized in these areas until the mid-1980s. Its presence there is due mainly to contact with countries in groups one and two or through imported infected blood.⁶² However, the number of cases has dramatically increased in some countries in these regions. Thailand, where there were virtually no cases a few years ago, has recently reported that the infection rate among IV drug users has risen from less than one percent in 1987 to forty percent in 1989.⁶³ This is probably due to the increased popularity of drug use in Thailand, Malaysia and Pakistan.⁶⁴ Southeast India, where the disease was also virtually unknown until recently, has reported that three to seven percent of the prostitutes are infected with the virus.⁶⁵

The most dramatic increase of AIDS cases in these regions has taken place in Romania. The epidemic exists predominantly among infants and young children. Nicolae Ceausecu and his government would not admit that this epidemic existed because they considered AIDS a capitalist disease which hardly existed in Romania.⁶⁶ Since the revolution, several studies have revealed the severity of the epidemic: at least seven hundred children are infected with the virus; at one orphanage, ninety-two out of one hundred thirty eight babies tested positive for the virus.⁶⁷ There are three reasons why this epidemic is primarily among children and infants: (1) hospitals use the old practice of injecting blood into the infant's umbilical cord in order to stimulate its growth, (2) blood donors are not screened, and (3) health care professionals use contaminated syringes or needles.⁶⁸ The World Health Organization has recently sent doctors to Romania in order to determine the extent of the epidemic.⁶⁹

The current high risk groups in the United States are homosexual men (sixty-three percent of all cases), intravenous

61. *Id.*

62. *Id.*

63. Hilts, *supra* note 57, at D19.

64. Engelman, *Advice Alone Fails to Stop the Spread of AIDS*, S. Bend Trib., Nov. 2, 1989, at 7, col. 1.

65. *Id.*

66. Purvis, *Rumania's Other Tragedy*, TIME, Feb. 19, 1990, at 74.

67. Bohlen, *Romania's AIDS Babies: A Legacy of Neglect*, N.Y. Times, Feb. 8, 1990, at A1, col. 2.

68. *Id.*

69. Purvis, *supra* note 66, at 74.

(IV) drug users (nineteen percent),⁷⁰ and heterosexuals who do not practice "safe sex" (four percent).⁷¹ Experts debate whether there will be a heterosexual explosion of AIDS cases in the western world similar to the phenomenon that countries such as Africa have experienced. There are several cofactors in Africa, where high risk behavior such as anal intercourse is virtually absent, which may explain why the HIV virus is spread primarily through heterosexual contacts.⁷² Most of these cofactors are common only among specific high risk groups in the United States, namely prostitutes and IV drug users. First, sexually transmitted diseases (STDs), which increase the risk of transmission, are more prevalent among the general population in Africa. STDs such as syphilis, chancroid, genital herpes, genital warts, chlamydia trachomatis, and gonorrhea are associated with HIV infection; some are more strongly associated than others.⁷³ Genital ulcer disease, which enhances the efficiency of transmission by providing a direct entry into the bloodstream, is also more prevalent in Africa than in the United States and other western countries.⁷⁴ The large number of prostitutes, a high percentage of whom are infected with STDs, intensify the presence of these cofactors.⁷⁵ Second,

70. Herek & Glunt, *An Epidemic of Stigma*, 43 AM. PSYCHOLOGIST 886, 887 (1988).

71. Johnson, Petherick, Davidson, Brettle, Hooker, Howard, McLean, Osborne, Robertson, Sonnex, Tchamouroff, Shergold & Adler, *Transmission of HIV to Heterosexual Partners of Infected Men and Women*, 3 AIDS 367 (1989) [hereinafter Johnson & Petherick]; see also Center for Disease Control, *Update: Heterosexual Transmission of Acquired Immunodeficiency Syndrome and Human Immunodeficiency Virus Infection — United States*, 262 J. AM. MED. A. 463 (1989). The CDC estimates that thirty percent of the women infected with the virus contracted it through heterosexual contacts. Ginsburg, *More Women Face Life with AIDS*, San Francisco Examiner, Jan. 1, 1989, at A1, col. 2.

72. Pepin & Plummer, *supra* note 59, at 3.

73. *Id.* at 3-6. STDs are likely to directly increase the infectivity of seropositive individuals or enhance the susceptibility of their contacts. *Id.* at 3.

74. Rosenberg & Weiner, *Prostitutes and AIDS: A Health Department Priority*, 78 AM. J. PUB. HEALTH 418, 421 (1988).

Genital ulceration is characterized by an eroded area of the skin in the genital area. In men, the ulcer is located on the penis or the scrotum; in women, the ulcer is on the vulva or within the vagina. The most common cause and type of genital ulcer is an STD. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 485.

75. Pepin & Plummer, *supra* note 59, at 3-4. Prostitution is "more readily available and accepted" in Central Africa. They are considered a reservoir of disease, which is supported by the following statistical rates of seroprevalence among prostitutes in different parts of Africa: twenty-seven percent in Kinshasha, twenty-nine percent in Dar as Salaam, fifty-six percent in Malawi, sixty-eight percent in Uganda, eighty-eight percent in Nairobi, and

there are various cultural practices in Africa which may also enhance the spread of AIDS among heterosexuals. For example, African women are circumcised with unsterilized knives, razor blades, sharp stones, or broken glass which can cause genital infections, menstruation irregularities, and blood clots.⁷⁶ If there is a "heterosexual explosion" of AIDS in the United States, it will most likely be channeled through IV drug users and prostitutes. These groups already have a high infection rate, and they possess many of the cofactors discussed above. The following discussion will explain why prostitutes, IV drug users, those who attend STD clinics, and prisoners are at a heightened risk of infection and, therefore, should be included in the mandatory testing scheme.

(a) *Prostitutes*

A prostitute exchanges sex for money or other items.⁷⁷ They are considered a "reservoir of infection"⁷⁸ and AIDS is no exception. The rate of seroprevalence among prostitutes varies among American cities. It is as low as zero percent in Las Vegas, but as high as six percent in San Francisco, sixty-nine percent in Newark,⁷⁹ and fifty percent in Washington D.C.⁸⁰ In a multi-city study, the CDC found that thirteen percent of female prostitutes were infected with the HIV virus.⁸¹

Prostitutes are at the highest risk of infection among heterosexuals.⁸² Many prostitutes in the United States are infected

eighty-eight percent in Rwanda. The different rates of seroprevalence may be because (1) the virus was introduced to different areas at different times, and (2) the patterns of prostitution, i.e. part-time prostitutes as opposed to full-time prostitutes, vary in each region. *Id.* at 4.

76. J. LANGONE, *supra* note 6, at 89.

77. Rosenberg & Weiner, *supra* note 74, at 419.

78. *Id.*

79. Pepin & Plummer, *supra* note 59, at 4. In Nevada, prostitution is legal in all but five counties. Leishman, *supra* note 50, at 47. The Board of Health has been testing prostitutes for HIV infection since March 1986 as a condition of employment. Center for Disease Control, *Antibody to Human Immunodeficiency Virus in Female Prostitutes*, 36 MORBIDITY & MORTALITY WEEKLY REP. 48, 50 (March 27, 1987). The women have weekly medical inspections and are tested for the virus once a month. If positive, the woman is denied employment. Leishman, *supra* note 50, at 47. This explains why such a low number of "official" prostitutes are HIV positive in Las Vegas.

80. 100 CONG. REC. E1726 (daily ed. May 5, 1987) (statement of Rep. Dannemeyer). This statistic is based on a study conducted by Harvard University in Washington D.C. which found that thirteen of twenty-six prostitutes had been infected with the HIV virus.

81. Center for Disease Control, *supra* note 71, at 467.

82. Hooykaas, Pligt, van Doornum, van der Linden & Coutinho,

with STDs which, as explained previously, are cofactors in the transmission of the virus.⁸³ In the United States, syphilis and herpes are high risk factors,⁸⁴ because they cause genital ulceration (open lesions) which make it easier for the virus to enter the bloodstream.⁸⁵ In addition, many prostitutes have numerous sexual encounters with partners whom they are unable to screen, and many do not use barrier methods of contraception.⁸⁶ A study found that an average prostitute had unprotected vaginal intercourse with one hundred and sixty partners in four months.⁸⁷

Prostitutes are also considered a high risk group because they often have regular non-paying relationships with boyfriends or husbands who are IV drug users⁸⁸ or because they are IV drug users themselves.⁸⁹ In a recent study conducted by the CDC, eighty percent of the prostitutes who were HIV-infected reported using IV drugs.⁹⁰ Among all prostitutes,

Heterosexuals at Risk for HIV: Differences Between Private and Commercial Partners in Sexual Behavior and Condom Use, 3 AIDS 525 (1989) [hereinafter Hooykaas & Pligt].

83. Rosenberg & Weiner, *supra* note 74, at 418. A study in Atlanta found that 17.4 percent of the prostitutes were infected with gonorrhea. Other studies show an increased rate of syphilis in prostitutes than among the general female population. *Id.*

84. *Id.* at 421.

85. Cheang, Piot, Simonsen, Ronald, Gakinya, Ndinya-Achola & Brunham, *Female to Male Transmission of Human Immunodeficiency Virus Type 1: Risk Factors for Seroconversion in Men*, LANCET, Aug. 19, 1989, at 405. A recent study found that genital ulcer disease increased the risk of transmission from seropositive women to seronegative men during vaginal intercourse. In cases where the woman was suffering from genital ulcer disease, the authors attributed these results to the increased virus shedding in the female genital tract. This shedding is most likely mediated by HIV-infected lymphocytes responding to the local inflammation in the genital tract. The woman's sexual partner would then come into contact with the infected blood and exudate [discharged fluid from blood cells into a tissue or onto a tissue's surface which is produced as a result of inflammation] within the genital epithelium [cells which cover the entire surface of the body]. In the alternative, if the male was infected with genital ulcer disease at the time of exposure to the HIV infected woman, this could act as a direct portal entry into his system. *Id.* at 406.

86. Rosenberg & Weiner, *supra* note 74, at 418.

87. Hooykaas & Pligt, *supra* note 82, at 525.

88. Rosenberg & Weiner, *supra* note 74, at 418.

89. Leishman, *supra* note 50, at 46. In a multi-city study, eighty percent of the infected prostitutes were IV drug users. Center for Disease Control, *supra* note 71, at 467.

90. Center for Disease Control, *supra* note 71, at 467. Other studies in Las Vegas found that most prostitutes and their pimps are on hard drugs and many are bi-sexual, as are their customers. Leishman, *supra* note 50, at 46.

fifty-one percent have reported IV drug use and twenty-seven percent were sexual partners of HIV-infected men or men at risk of infection.⁹¹ This interrelationship between prostitutes and IV drug users is important because heterosexual transmission seems to occur more efficiently when one person is an IV drug user.⁹² A man has a fifty percent chance of becoming exposed to the HIV virus in an unprotected encounter with a prostitute who is also an IV drug user.⁹³ In addition, prostitutes who are drug addicts are most likely to forgo the condom for a few extra dollars.⁹⁴

Prostitutes are a high risk group not only because they often carry STDs which enhance the transmission of the virus, but also because of the interrelationship between prostitutes and IV drug users. This interrelationship includes prostitutes who use drugs themselves, and those who have relationships with drug users. Prostitutes could unleash the HIV virus into the heterosexual population fairly rapidly, because a high percentage are infected and they have many indiscriminate, "unprotected" heterosexual contacts.⁹⁵ Furthermore, drug dependent prostitutes, who are the most likely to be infected, are arrested rather frequently.⁹⁶ Therefore, this population is reachable because they are already within the health care system administered by health departments.⁹⁷ For these reasons, prostitutes should be included in the mandatory testing scheme.

91. Center for Disease Control, *supra* note 79, at 48.

92. Leishman, *supra* note 50, at 40. A 1986 study of male to female transmission reported that transmission to partners of IV drug users occurred in approximately thirty to seventy percent of the cases, as opposed to partners of hemophiliacs where it occurred in only ten percent of the cases. *Id.*

93. *Id.* at 46.

94. *Id.*

95. *But see* M. FUMENTO, THE MYTH OF HETEROSEXUAL AIDS (1990). The author discredits the forecast of widespread AIDS among the heterosexual population as a political maneuver to raise more money. He also suggests that it is the result of a sensation-seeking press. However, there is an abundance of evidence to the contrary which indicates that there will in fact be a drastic increase in AIDS among heterosexuals. The majority of these cases will be among prostitutes, IV drug users, and the heterosexual partners of both prostitutes and IV drug users.

96. Kleinman, *AIDS, Vice, and Public Policy*, 51 L. & CONTEMP. PROBS. 315, 353 (1988).

97. Rosenberg & Weiner, *supra* note 74, at 418.

(b) *Intravenous Drug Users*

Intravenous (IV) drug users account for nineteen percent of all AIDS cases.⁹⁸ The virus is now spreading fastest among IV drug users and addicts who perform anonymous sex in exchange for drugs in crack houses.⁹⁹ In New York, fifty percent of all AIDS cases are IV drug users,¹⁰⁰ and the number of cases among this group is expected to outnumber those among homosexual men in the next few years.¹⁰¹

IV drug users transmit the disease through drug paraphernalia.¹⁰² This process begins when the drug user injects the drug, usually cocaine or heroine, into his or her veins with an unsterile needle.¹⁰³ Blood is often retained in the syringe after the drug user has injected the drug, and this residual blood is transferred to the subsequent users of the same needle or syringe.¹⁰⁴ The virus can spread very quickly since sharing a needle once is sufficient to transmit the virus.¹⁰⁵ Unfortunately, this is a common practice among drug users; up to ninety-five percent of the IV drug users in Los Angeles County have reported sharing needles.¹⁰⁶ Behavioral factors common among IV drug users can also increase the risk of spreading the virus. For example, "shooting galleries," which usually exist in abandoned buildings, provide a location where the drug user can buy the drugs, rent the paraphernalia, and hire someone to administer the drugs if necessary.¹⁰⁷ It becomes necessary to hire someone to administer the drugs if the only remaining available veins are in the buttocks or thighs.¹⁰⁸

The number of AIDS cases is increasing rapidly among IV drug users. There is a high risk of transmission among IV drug users through needle sharing. Moreover, there is a high risk of transmission to innocent victims, namely, their heterosexual

98. Herek & Glunt, *supra* note 70, at 887.

99. *Dr. Joseph and AIDS Testing*, N.Y. Times, Nov. 16, 1989, at A30, col 1.

100. *AIDS and Drugs, Shooting Up*, ECONOMIST, April 1, 1989, at 48.

101. *The Parliament of AIDS*, ECONOMIST, June 17, 1989, at 97.

102. Ginzburg, *Intravenous Drug Abuses and HIV Infections: A Consequence of Their Actions*, 14 L. MED. & HEALTH CARE 268, 269 (1986).

103. *Id.* at 268.

104. *Id.* at 269. Drug users withdraw blood into the syringe after injection in order to ensure that all of the drug is in their system. This is often referred to as "booting." *Id.*

105. *Id.*

106. Mascola, Lieb, Iwakoshi, McAllister, Siminowski, Giles, Run, Fannin & Strantz, *HIV Seroprevalence in Intravenous Drug Users: Los Angeles, California, 1986*, 79 AM. J. PUB. HEALTH 81 (1989).

107. Ginzburg, *supra* note 102, at 269.

108. *Id.*

partners and their children. Sexual partners of IV drug users now account for the majority of heterosexual AIDS cases.¹⁰⁹ Therefore, IV drug users should be included in the mandatory screening scheme.

(c) *Sexually Transmitted Disease Clinics*

Heterosexuals who do not practice "safe sex" are also a high risk group. The prevalence of HIV infection among those who attend sexually transmitted disease clinics is rapidly increasing. Heterosexuals who are seropositive are usually IV drug users or their sexual partners are IV drug users.¹¹⁰ In a recent study of heterosexuals at an STD clinic, forty-seven percent of the IV drug users were HIV positive, while thirteen percent of those whose sex partners were IV drug users were HIV positive.¹¹¹ In addition, the practice of trading sex for drugs, especially for crack, is growing at an alarming rate. In a STD clinic in New York, thirty percent of the crack users, with no other high risk activity, tested positive for AIDS.¹¹²

A high percentage of those who attend STD clinics are also IV drug users or crack users. Because STDs enhance the transmission of the virus and IV drug users are also a high risk group, those who attend STD clinics and drug abuse clinics should be included in the mandatory testing scheme.

(d) *Prisons*

Prisons create a unique problem regarding the spread of AIDS, because several high risk groups reside in a closed environment. The CDC warns that prisons will become a "hotbed" of the virus,¹¹³ because IV drug users and male homosexuals

109. Dannemeyer & Franc, *The Failure of AIDS-Prevention Education*, PUB. INTEREST, Summer 1989, at 47, 57. As of November 10, 1988, fifty-four percent of AIDS cases among adults were associated with heterosexual drug users, while 8.4 percent were linked to heterosexual contact alone. In the Bronx, where drug abuse is more prevalent than other areas of the country, forty-eight percent of the drug-free partners of IV drug users were HIV infected. Most of the heterosexual transmissions in these areas are from men to women. Women are four times as likely as heterosexual men to obtain the disease from heterosexual contacts. Women often do not know of their partners high risk behavior until they discover that they are infected with the virus. *Id.* at 57-58.

110. Center for Disease Control, *supra* note 71, at 467.

111. *Id.*

112. *The Parliament of AIDS*, *supra* note 101, at 97.

113. Rowe, *Death Row, AIDS is Turning Prison Into a Potential Death Sentence*, CAL. LAW., Sept. 1987, at 49, 51.

It is currently estimated that approximately twenty-one thousand to

make up a significant percentage of incoming inmates.¹¹⁴ The majority of AIDS cases in prisons are among IV drug users, many of whom are infected before entering prison.¹¹⁵ Prison officials are concerned about the high risk of transmission caused by forced or consensual homosexual activity,¹¹⁶ violent outbursts,¹¹⁷ and drug use within the prison walls.¹¹⁸ This concern is amplified by the fact that there is an increase in the number of high risk individuals entering prison, especially IV drug users.¹¹⁹ The concentration of AIDS cases has already reached high percentages in some cities. In New York prisons, more than fifty percent of all prisoners' deaths were caused by AIDS.¹²⁰ In Washington D.C., up to eighty percent were infected with the virus.¹²¹

There is a high risk that the above groups are infected with the virus and will transmit it to healthy individuals. They are reachable because they are within the public health care system. Therefore, the mandatory screening policy should include these groups. The next section will analyze the practicality of carrying out such a proposal.

forty-two thousand prisoners nationwide are infected with the virus. As of October 1, 1987, there had been 1,964 cases of full-blown AIDS in correctional institutions. Gostin & Curran, *AIDS Screening, Confidentiality, and the Duty to Warn*, 77 AM. J. PUB. HEALTH 361, 363 (1987).

114. Gostin & Curran, *supra* note 113, at 363 (1987).

115. Fordham, *AIDS, Facts and Fallacies*, CORRECTIONS TODAY, Feb. 1988, at 62. See also U.S. Dept. of Justice, *Prisoners and Drugs*, U.S. BUREAU OF JUST. STATISTICS BULL., March 23, at 1 (Thirty percent of prisoners sampled had used heroine at some point in their lives).

116. Nacci & Kane, *Sex and Sexual Aggression in Federal Prisons* 7 (Bureau of Prison Policy, unpublished report 1982) (Thirty-five to forty percent of incarcerated males may have a homosexual experience. Twenty-eight percent of federal inmates reported homosexual experience). See also 100 CONG. REC. E1726 (May 5, 1987) (statement of Rep. Dannemeyer).

117. Glass, PA-C, Hausler, Loeffelholz, & Yesalis, *Seroprevalence of HIV Antibody Among Individuals Entering the Iowa Prison System*, 78 AM. J. PUB. HEALTH 447 (1988).

118. Kleinman, *supra* note 96, at 364.

119. Rowe, *supra* note 112, at 51. In order to address this problem, the National Institute of Justice has prescribed an AIDS education and training program for all criminal justice personnel and offenders so that they "receive accurate, timely, and regular information about AIDS." See Hammett, *AIDS and HIV Training and Education and Criminal Justice Agencies*, AIDS BULL., Aug. 1989, at 1.

120. Gostin & Curran, *supra* note 113, at 363 (1987).

121. 100 CONG. REC. E1726 (May 5, 1987) (statement of Rep. Dannemeyer). This statistic was reported by the chief medical officer at a Washington D.C. jail.

III. PRACTICAL CONSIDERATIONS OF MANDATORY TESTING: THE ADVANTAGES AND DISADVANTAGES

In order for mandatory testing to be practical, the advantages of testing must outweigh the disadvantages. The disadvantages of testing are (1) errors, including false positives and false negatives, (2) cost of testing, including the opportunity cost, (3) risk of driving the disease underground, and (4) stigma and psychological stress caused by a positive test result. The advantages include (1) providing treatment for those infected with the virus and (2) providing reliable epidemiological data. This section will evaluate each of the advantages and disadvantages listed above, and it will conclude that the advantages outweigh the disadvantages.

A. *Disadvantages of Mandatory Testing*

1. Errors: False Positives and False Negatives

The tests available for detecting the HIV virus are not perfect. They can produce two types of erroneous results: false positives and false negatives. A false positive occurs when a person tests positive for the virus when, in fact, he or she is not infected. False positives occur in almost all medical tests,¹²² but they are of particular concern in the AIDS context because of the serious implications of testing positive. False negatives, on the other hand, occur when the test renders a negative result, but the person is actually infected with the virus. In such a case, an infected person may unknowingly transmit the disease to a healthy individual.

The two most common methods of testing for the HIV virus are the Enzyme-Linked Immunosorbant Assay (ELISA) test and the Western Blot test. Research groups have recently developed new ELISA-type tests which are more accurate than previous immunoassay tests.¹²³ A positive test result does not necessarily mean that the person will develop full-blown AIDS, but it does mean that the infected person is capable of transmitting the disease to a healthy individual.¹²⁴

The Food and Drug Administration (FDA) approved the ELISA test on March 2, 1985.¹²⁵ This test detects the antibodies to the virus, the earliest sign of infection.¹²⁶ Antibodies

122. *AIDS Test Examined*, ECONOMIST, July 2, 1988, at 90.

123. See *infra* notes 142-147 and accompanying text.

124. The test detects infection. Any infected person is capable of transmitting the disease. See *supra* note 22.

125. J. LANGONE, *supra* note 6, at 215.

126. *Id.*

created by the body's immune system bind to the antigens,¹²⁷ the protein on the surface of the viral cell. The ELISA procedure is as follows: First, the laboratory technicians detach the antigens from the inactivated HIV virus and place them on plastic sheets.¹²⁸ Next, they add the blood sample to the plastic sheets; if the blood is infected it will contain antibodies to the virus which will bind to the antigens on the plastic sheet.¹²⁹ Finally, they will confirm the presence of the antibodies by rinsing the sample with a chemical solution which produces a color reaction when it encounters the antibodies. This process can also determine the degree of positivity.¹³⁰ A person is considered "seropositive" if antibodies are found in the blood sample.

The ELISA test is extremely sensitive because it was developed for the purpose of increasing the safety of the blood supply.¹³¹ It is designed to identify virtually all blood which contains antibodies to the virus.¹³² Therefore, among non-high risk groups, it may render a high number of false positives. Some estimates indicate that as many as one-half to two-thirds of all positive test results in any given sample of blood donors may be false positives.¹³³ In order to avoid false positives, sequential testing is usually performed. In other words, if the results of the ELISA test are positive, then the test is repeated two or three times in order to confirm the result.¹³⁴ If the result is still positive, a Western Blot test is conducted to confirm this result.

127. *Id.*

128. *Id.* The HIV virus is grown in a laboratory and treated with a detergent which kills the virus, dissolves the outer coat, and breaks the rest into partly purified pieces. These pieces are put onto the plastic sheet. *AIDS Test Examined*, *supra* note 122, at 90.

129. J. LANGONE, *supra* note 6, at 215.

130. *Id.*; see also *AIDS Test Examined*, *supra* note 122, at 90.

131. Petriccianni, *Licensed Tests for Antibody to Human T-Lymphotropic Virus Type III*, 103 *ANNALS INTERNAL MED.* 726, 727 (1985). In January of 1985, the United States Health Service recommended screening all blood donations. Gostin & Curran, *supra* note 113, at 319. Currently all donated tissue, blood, organs, and semen are screened. Smith, *HIV Testing Is the Answer—What Is the Question?*, 319 *NEW ENG. J. MED.* 1010, 1011 (1988).

"Sensitivity" in screening refers to the proportion of individuals with a positive test result for the disease that the test is intended to reveal, *i.e.*, true positive results as a proportion of the total of true positives and false negative results. *STEDMAN'S MEDICAL DICTIONARY*, *supra* note 30, at 1274.

132. J. LANGONE, *supra* note 6, at 217.

133. *Id.*

134. *AIDS Test Examined*, *supra* note 122, at 90.

The Western Blot is a more accurate test. It detects each antibody which the immune system produces in response to each of the virus's main proteins (antigens) and, therefore, is less likely to react to the wrong antibody.¹³⁵ The first step in this procedure is to change a solution of an inactivated, laboratory-grown HIV virus into a gel which is then placed between two pieces of glass.¹³⁶ An electric current is applied to the gel which forces the main proteins of the virus, the antigens, to separate and form bonds on the gel.¹³⁷ The gel is removed and placed onto strips of paper.¹³⁸ The blood specimen is added to these strips; those which do not contain antibodies to the virus do not react with the antigens while those which do contain antibodies will bind to a particular antigen.¹³⁹ This test requires overnight incubation and a skilled researcher to interpret the results.¹⁴⁰ When an ELISA test is confirmed by a subsequent Western Blot Test, the result is 99.9 percent reliable.¹⁴¹

Although the sequential testing procedure outlined above produces reliable results, researchers continue to search for the perfect test. The future is likely to bring tests which will render results at least as accurate as sequential testing. In addition, they will cost less and will be easier to interpret than the Western Blot. In a recent study, a new test called the recombinant HIV-1 antigen ELISA panel, demonstrated one hundred percent sensitivity and specificity in distinguishing seropositive from seronegative individuals.¹⁴² The authors of this study concluded that this new ELISA testing procedure could "virtu-

135. *Id.* The Western Blot is a more "specific" test which compensates for the sensitivity of the ELISA test. "Specificity" in screening refers to the proportion of individuals with a positive test result for the disease that the test is intended to reveal, *i.e.*, true positives result as a proportion of the total true positive and false negative results. *STEDMAN'S MEDICAL DICTIONARY*, *supra* note 30, at 1308.

136. *AIDS Test Examined*, *supra* note 122, at 90.

137. *Id.*

138. *Id.*

139. *Id.*

140. *Id.*

141. Smith, *supra* note 131, at 1011. One study found the rate of false positives to be 0.0007 percent, which renders a specificity of 99.9993 percent. *Id.*

142. NG, Chiang, Debouck, McGrath, Grove & Mills, *Reliable Confirmation of Antibodies to the Human Immunodeficiency Virus Type 1 (HIV -1) with an Enzyme-Linked Immunoassay Using Recombinant Antigens Derived from HIV-1 gag, pol, and env Genes*, 27 J. CLINICAL MICROBIOLOGY 977, 980 (1989) [hereinafter NG & Chiang].

ally eliminate false positive results."¹⁴³ This procedure involves using various antigens produced by the HIV virus in order to accurately detect human antibodies to the virus.¹⁴⁴ The advantages of this test include (1) highly sensitive and specific results for detecting antibodies to the HIV virus, (2) fewer indeterminate results than the Western Blot, (3) the ability to verify more positive results than the Western Blot, and (4) a procedure which easily renders itself to automation.¹⁴⁵ Because current assays for HIV antibodies have sensitivities and specificities of 99.9 percent or greater, the future tests are likely to vary the antigen which is used to detect the antibodies, since the assay procedure itself has almost no room for improvement.¹⁴⁶ Many manufactures are currently developing simple, rapid assays which can be performed virtually anywhere. These tests should be available by 1991.¹⁴⁷

The original ELISA test is very effective, but its effectiveness in purifying the blood supply is the very reason that, when used by itself, it is ineffective for testing individuals. The flaw is the high rate of false positives. The present solution is the sequential testing procedure, which uses both the ELISA and Western Blot methods to render a 99.9 percent reliable result. The new testing procedures will, at the very least, match the reliability of the sequential procedure. Moreover, they will reduce the cost and administrative burdens of the Western Blot test.

False positives are not only due to the testing procedure, but are also a function of the quality of the laboratory where

143. *Id.* at 981.

144. *Id.* at 980-81. This test uses six recombinant proteins corresponding to large segments of the HIV gene products; these gene products are antigens, substances which cause the human immune system to develop antibodies to the virus. When the serum sample of the individual reacts with one of the antigens, the serum is seropositive. Some antigens appear to be more accurate than others. For example, the Kp41 antigen demonstrated one hundred percent accuracy in determining seropositive from seronegative individuals. Although this antigen may be sufficient in itself, the authors suggest requiring reactivity against more than one of the gene products (antigens) in order to eliminate false positives. *Id.*

145. *Id.*

146. Gust & Maskill, *Diagnostic Tests for the Human Immunodeficiency Virus*, 151 *MED. J. AUSTRALIA* 57, 58 (1989).

147. *Id.* For example, an immuno-dot blot assay was recently tested and proved to be inexpensive, rapid, and reliable (highly sensitive and specific) for detecting HIV antibodies. In addition, expensive and sophisticated equipment was not needed to carry out the test. Xu, Gorny, & Pazner, *An Immuno-dot Blot Assay for the Detection of Antibody to HIV*, 120 *J. IMMUNOLOGICAL METHODS* 179 (1989).

the tests are conducted. The blood samples are often sent to private laboratories where they are tested for the virus. Dr. Dan Burton, Chief of the Department of Virus Diseases at the Walter Reed Army Institute of Research, said that "[t]he fact that false positive rates are unacceptably high in some private sector laboratories is a direct consequence of the feeble quality control programs implemented by civil public health authorities."¹⁴⁸ In order to address this problem, the federal government should set minimum quality laboratory standards. In addition, health officials should provide strict, written procedural guidelines for the laboratories to follow.

As a result of their rigorous testing procedure, the United States Military has succeeded in achieving an extremely high rate of accuracy. Each recruit's blood sample is tested with ELISA. If the result is positive, the sample is tested again with ELISA. If the second test is positive, a new blood sample is drawn which is tested with Western Blot. If the result is positive, the blood sample undergoes a second Western Blot test. Finally, if that test is positive, the recruit is considered seropositive.¹⁴⁹ The military has received only one false positive result after testing 135,000 recruits.¹⁵⁰ Dr. Redfield of the Walter Reed Army Institute of Research said that the military has improved its test and false positive results are now one in every million.¹⁵¹ The military's success in eliminating false positives indicates that this problem can be overcome if the laboratory follows a thorough procedure and meets the minimum quality standards.

The rate of false positives rapidly declines when testing high risk groups because there is a higher percentage of infected persons within the population.¹⁵² Therefore, if the government requires HIV testing among convicted prostitutes, IV drug users, prison inmates, and those who attend STD and drug abuse clinics, the rate of false positives will rapidly decline. Thus, the test will be more than 99.9 percent accurate. Statistically, false positives will be virtually eliminated, thereby eliminating this particular disadvantage of mandatory testing.

148. Burke, *A Strategy to Prevent the Spread of AIDS*, SAT. EVENING POST, May-June 1988, at 22.

149. *Military AIDS Test Unusually Accurate*, Washington Times, Oct. 13, 1988, at A1, col. 1.

150. *Id.*

151. *Id.*

152. Gostin & Curran, *supra* note 113, at 361; Petriccianni, *supra* note 131, at 728.

False negatives pose another problem to mandatory testing. False negatives occur when the individual tests negative for the virus, but is in fact infected. This is problematic because the infected person has a false sense of security. False negatives can occur in two situations: (1) When the person has only recently become infected with the virus and has not yet developed antibodies to the virus, and (2) when the test fails to recognize the HIV antibodies in the blood sample. In regard to the first situation, the so called "window period" is usually only a few weeks with modern assays.¹⁵³ These assays are capable of detecting the early antibodies to the virus and therefore, are effective in detecting recent infection.¹⁵⁴ Although cases of late seroconversion have been reported, they are rare.¹⁵⁵ In regard to the second situation, it is highly unlikely that the testing procedure will fail to recognize an HIV antibody in the blood sample. As explained above, the ELISA test was developed in order to create a safe blood supply; by its very nature, it is more likely to be over inclusive rather than under inclusive. Therefore, the problem of false negatives, although real, is not great.¹⁵⁶ It is not a sufficient reason to prohibit mandatory testing.

2. The Cost of HIV Testing (in Terms of Dollars and Lives)

The HIV virus will cost an enormous amount in terms of both dollars and lives. The Center for Disease Control (CDC) estimates that between one and one-and-a-half million Americans are infected with the virus.¹⁵⁷ In New York City, the U.S. city with the highest infection rate, approximately one of every fifteen persons carries the virus.¹⁵⁸ The future outlook is grim. The United States Public Health Service (PHS) estimates that by the end of 1992, there will be approximately 365,000 AIDS

153. Gust & Maskill, *supra* note 146, at 58.

154. *Id.* While most assays are designed to detect total antibody or the immunoglobulin (IgG), modern assays are designed to detect the HIV IgM antibody; most of the early antibodies belong to the latter subclass. *Id.*

155. *Id.*

156. Researchers at the CDC found that approximately one in every forty thousand were false negatives. *AIDS Test Examined*, *supra* note 122, at 90.

157. Zucherman, *supra* note 49, at 8. A new report recently reported that 1.4 million Americans will be infected by 1991. As of December 31, 1989, full-blown AIDS had been diagnosed in 117,781 Americans. By the year 2000, this report estimates 1.1 million AIDS cases and 1.1 million AIDS deaths. These figures do not include AIDS cases due to blood transfusions, hemophiliacs, and children, which account for five percent of all cases. Mesce, *supra* note 2, at A2.

158. J. LANGONE, *supra* note 6, at 67.

cases in the United States and 263,000 people will have died of AIDS.¹⁵⁹ In this same year, there will be 80,000 new cases and 65,000 deaths.¹⁶⁰ In 1989, the Federal Center for Disease Control estimated that 35,000 people would die from AIDS during that year, as opposed to 500,000 who died from cancer and 770,000 who died from heart disease.¹⁶¹ However, the number of AIDS related deaths will increase rapidly as those presently infected develop AIDS-related illnesses, while deaths from other major diseases remain stable.¹⁶²

Although the death rate for AIDS is not as high as that for cancer or heart disease, the cost of treating those with AIDS is certainly comparable. In 1989, the federal government spent an estimated 2.2 billion dollars on AIDS, 1.3 of which was spent on research and prevention.¹⁶³ In comparison, 1.5 billion dollars was spent on research and prevention of cancer and one billion was spent on heart disease.¹⁶⁴ Everett Koop, the former Surgeon General of the United States, estimated that the cost of treating AIDS by 1991 will be approximately eight to sixteen billion dollars per year.¹⁶⁵ In that same year, it is estimated that the nation will lose fifty-five billion dollars in loss of earnings due to AIDS,¹⁶⁶ and spend 2.3 billion dollars on research, testing, education, and general support services.¹⁶⁷ These estimates only include the cost of AIDS patients and not the cost of ARC patients. Although cancer and heart disease presently cause far more death and disability than AIDS, by 1991 the cost of treating AIDS patients is estimated to be higher than that of both of the other two leading causes of death.

The actual cost of HIV testing varies from report to report. The ELISA test costs as little as three to eight dollars, while the Western Blot test costs as much as forty to seventy-five dol-

159. Haney, *Despite More Tools to Fight AIDS, Experts Fear for Urban Poor in '90s*, S. Bend Trib., Oct. 30, 1989, at A11, col. 1.

160. *Id.*

161. Leary, *AIDS Outlay Equals that for Cancer and Heart Disease*, N.Y. Times, June 15, 1989, at B13, col. 1.

162. *Id.*

163. *Id.*

164. *Id.*

165. *AIDS is Here to Stay*, WORLD HEALTH, March 1988, at 27.

166. *The Incalculable Cost of AIDS*, ECONOMIST, March 12, 1988, at 68. Loss of earnings refers to that income the person would have produced if he or she had lived to life expectancy. This estimate (55 million) probably does not take account of the cost of "late stage illness" — the cost of what would have been spent on health care when the person became ill in old age.

167. Van de Kamp, *supra* note 36, at 32.

lars.¹⁶⁸ The United States Military has been able to carry out HIV testing with an average of three dollars per person.¹⁶⁹ Their low cost may be due to efficiency in numbers and the low rate of positives found in the first round of ELISA testing, thereby abrogating the need to conduct further testing on the blood sample. However, it is commonly accepted that massive testing of the general population could be carried out at five dollars per person.¹⁷⁰ At this price, it would cost approximately 1.2 billion dollars to screen every person in the country.¹⁷¹ If the total dollar cost of the disease in 1991 is 73.3 billion dollars,¹⁷² the cost of testing the entire population would be approximately one-sixtieth of the total cost of AIDS.¹⁷³ The cost of testing the high risk groups proposed in this article would cost significantly less than 1.2 billion since they account for a relatively small amount of the total population.¹⁷⁴ Therefore, the cost of testing is low in comparison to the total cost of this disease.

Even though the cost of mandatory testing is relatively low when compared to the total cost of AIDS, it is still an opportunity cost; every dollar spent on testing is unavailable for research, education, and treatment. In this context, the cost of

168. *AIDS Test Examined*, *supra* note 122, at 90.

169. *Id.*

170. Burton, *The Case for Mandatory AIDS Testing*, Indianapolis Star, Sept. 14, 1987, at A9, col. 1.

171. *Id.*

172. *See supra*, notes 163-167 and accompanying text.

173. These calculations have been based on the following numbers:

Cost of treating AIDS patients	=	up to 16 billion
Loss of earnings	=	approx 55 billion
Research, etc.	=	<u>approx 2.3 billion</u>
TOTAL	=	73.3 billion

Cost of testing the entire population at \$5.00/person: 1.2 billion

Burton, *supra* note 170, at A9.

Cost of testing as compared to cost of the disease: $1.2/73.3 = \text{approx. } 1/61$.

174. The proposed scheme keeps the size of the group which will undergo testing down to a tolerable limit, because a large percentage of AIDS carriers, including those in high risk groups, would not be tested. The mandatory testing plan proposed in this article only requires testing arrested prostitutes, arrested IV drug users, prisoners, and those who attend STD and IV drug use clinics. Therefore, many persons in high risk groups will not be mandatorily tested, such as homosexual males and all of the unarrested prostitutes and IV drug users (primarily because it is not practical — such a plan could not realistically be carried out on an organized basis). Testing is not going to stop the spread of the virus, but it will limit its spread.

testing is significantly higher. However, this cost can be justified by the fact that testing for the virus can save money and prolong lives in the long run.

Testing may save the lives of uninfected persons because some people who test positive for the virus might change their conduct if they learn that they can infect others. Indeed, the majority of studies show that HIV testing is associated with a reduction in high risk activity.¹⁷⁵ Recent reports among male homosexuals and IV drug users indicate that those who are aware of their positive status reduce their high risk behavior.¹⁷⁶ Therefore, testing will reduce the rate of infection and the cost of the disease.

The cost of testing is neutralized by the savings which result from early treatment of AIDS-Related-Conditions (ARC). The available treatment costs less than hospitalization for the particular condition. For example, aerosolized pentamidine, which prevents pneumocystis carinii pneumonia, the major killer of AIDS victims, costs approximately one hundred dollars per month.¹⁷⁷ Experts agree that the cost of this treatment would be offset by savings in the cost of treating pneumonia.¹⁷⁸ A typical pneumonia hospitalization costs ten thousand dollars, and most AIDS patients have two or three spells of the disease before they succumb.¹⁷⁹ Therefore, a twelve hundred dollar annual cost of providing aerosolized pentamidine would be offset by a savings in subsequent hospitalization costs by as much as thirty thousand dollars.¹⁸⁰ In response to the potential savings, the United States Army has routinely treated all HIV-infected personnel with aerosolized

175. Coates, Stall, Keegles, Lo, Morin & McKusick, *AIDS Antibody Testing*, 43 AM. PSYCHOLOGIST 859 (1988) [hereinafter Coates & Stall].

176. *Id.* at 860. In this study, homosexual men who were aware of their seropositive status after undergoing antibody testing reduced unprotected anal receptive intercourse to forty-two percent of baseline, as opposed to sixty-two percent for the seronegative group, and fifty-seven percent for the uninformed group (not tested). These results are "statistically significant." *Id.*

177. Shilts, *U.S. May Mandate Costly AIDS Tests and Treatment*, San Francisco Chron., June 7, 1989, at A7, col. 1. Pneumocystis carinii pneumonia was responsible for seven thousand AIDS deaths in 1988. *Id.*

178. *Id.*

179. *Id.*

180. *Id.* U.S. Representative Henry Waxman, chairman of the House Subcommittee on Health and the Environment says, "[t]he public health experts should be talking to the budget makers now to explain why we need millions for the test and preventive drugs today in order to save hundreds of millions tomorrow in hospitalization costs." *Id.*

pentamidine since 1986.¹⁸¹ As a result, pneumonia is rarely seen among HIV-infected military personnel.¹⁸²

AZT, the only drug currently approved by the FDA, can prolong the lives of AIDS victims by postponing the onset of the disease. Approximately twenty-five thousand of the forty thousand patients who have full-blown AIDS are currently taking AZT,¹⁸³ and it is estimated that at least 600,000 infected persons could presently benefit from such treatment.¹⁸⁴ It costs approximately 2,800 to 3,750 dollars per year, and many patients may have to take this drug for years.¹⁸⁵ However, the cost of treating an AIDS patient averages 17,910 dollars per year. Hospitalization costs alone are approximately seven hundred dollars per day.¹⁸⁶ Although the cost of AZT is expensive, it is far less than the hospitalization costs. In addition, if patients are tested for the virus and receive early treatment, the burden on public hospitals would be alleviated.¹⁸⁷ Health care officials have recently supported such claims. Dr. Douglas Shenson of Montefiore, who predicts that our health care system will be thrown into chaos in two or three years when the largest number of infected people will become ill, says that "[i]f we intervene early, on an outpatient basis, we can keep people from crashing into the emergency rooms later."¹⁸⁸

The cost of testing and treating AIDS-related illnesses today can save money in hospitalization costs tomorrow. As a general rule, outpatient care costs less than inpatient care. There is little doubt that all AIDS patients will spend time in the hospital prior to their death. However, if treatment is administered in the early stages of infection, the number of hospital visits can be reduced. More importantly, the lives of

181. *Id.*

182. *Id.*

183. Kolata, *Strong Evidence Discovered that AZT Holds Off AIDS*, N.Y. Times, Aug. 4, 1989, at A1, col. 3.

184. Hiltz, *AIDS Treatment Costs Put at \$5 Billion a Year*, N.Y. Times, Sept. 15, 1989, at A18, col. 3.

185. The cost of taking a full dosage of AZT was estimated in the past to be anywhere from 5,600 dollars to 7,500 dollars. Kolata, *U.S. Halves Dosage for AIDS Drug*, N.Y. Times, Jan. 17, 1990, at B6, col. 4; Freundlich & Siler, *Now that AIDS is Treatable, Who'll Pay the Crushing Cost?*, BUS. WEEK, Sept. 11, 1989, at 115. However, the recommended dosage has recently been cut in half and, therefore, so has the cost. Kolata, *supra*, at B6.

186. *The AIDS Plague Spreads*, ECONOMIST, July 15, 1989, at 23, 24.

187. Freundlich & Siler, *supra* note 185, at 118. So far, the public hospitals have carried the burden of treating AIDS patients who have become seriously ill. The average public hospital lost more than 600,000 dollars in 1987. *Id.*

188. Hiltz, *supra* note 184, at A18.

the victims can be prolonged with early treatment. Thus, both the infected and uninfected population benefit from testing and early treatment. These facts justify the cost of testing.

3. Mandatory Testing Will Drive the Disease Underground

Another argument against mandatory testing is that it will drive the disease underground. In other words, it will drive high risk individuals away from the health care professionals, who are precisely the people they should see in the hope that they will convince them to change their ways. Proponents of this argument assert that voluntary testing and education alone are sufficient to fight this disease. However, these two methods of control have been notoriously ineffective.

First, statistics indicate that the disease is already underground. Only five to ten percent of all HIV infected persons in the United States have been identified through voluntary testing at alternative site programs.¹⁸⁹ Thus, ninety to ninety-five percent of the infected persons are unaware of their status, are contagious to others, and continue to unknowingly spread the disease. The disease, in this sense, cannot go much further underground. Voluntary testing can hardly be claimed as a success thus far.

Second, voluntary testing is unlikely to succeed due to human nature. The argument against mandatory testing is that high risk individuals will refuse to see health care professionals because they will be required to undergo HIV testing. In other words, because they do not want to know if they are infected with a fatal disease, they will avoid health care centers. However, if this is true, then they necessarily will not submit themselves to voluntary testing. Therefore, the argument in favor of voluntary testing necessarily refutes itself. This reasoning is scientifically supported as well. A recent study found that the current policy of education, voluntary testing, and counseling does not consider the recognized psychological defense known as the "avoidance, repression, and denial [of] the knowledge that one has, or might have, a fatal disease [which is] used by a high percentage of individuals."¹⁹⁰ The study estimates that

189. Burke, *supra* note 148, at 91; Burton, *supra* note 170, at A9.

One study estimated that only 75,000 carriers had been identified through alternative site programs, while another estimate that up to 120,000 had been identified. Either way, this is a very low percentage of the estimated 1.0 to 1.5 million estimated carriers in the United States.

190. Archer, *Psychological Defenses and Control of AIDS*, 79 AM. J. PUB. HEALTH 876, 878 (1989). In a study involving 1700 high risk individuals, sixty-eight percent declined to attend a session to discover their HIV status.

over half of high-risk individuals will probably avoid testing because of the avoidance-denial mechanism. Based on this estimate, mandatory testing is likely to identify a much higher percentage of high risk individuals than is voluntary testing.¹⁹¹

Third, education alone is also unlikely to be successful in fighting the AIDS epidemic. Education is typically aimed at high risk groups; it tries to inform them of risk reduction methods, ultimately aiming at permanent behavior modification. So far, this approach has not been successful,¹⁹² especially among IV drug users and adolescents. Drug users are the most difficult high risk group to persuade to modify their behavior. A recent study found that most teenage crack users rarely use condoms and over one-third never use them, inspite of the fact that eighty percent understood their value in preventing transmission of the HIV virus.¹⁹³

Education has not been successful among non-high risk groups either. Teenagers have not significantly altered their sexual practices, regardless of their increased knowledge about AIDS.¹⁹⁴ This is true among groups with a high and low prevalence of HIV infection.¹⁹⁵ Adolescents typically deny risk

In another group, which agreed to give blood, only twenty-six to forty-six percent failed to ask for their result. Those who did ask for their status, did so in order to modify their behavior if positive, presumably to protect others. *Id.* at 877.

191. *Id.* at 878.

192. Dr. Jonathan Mann, director of the WHO global AIDS program, says that despite AIDS prevention campaigns, the virus continues to spread worldwide. Hilts, *supra* note 57, at D19.

193. Dannemeyer & Franc, *supra* note 109, at 48. This study was conducted by a San Francisco physician who studied the sexual behavior of two hundred teenagers. She found that twenty-seven percent reported having five or more sexual partners in the previous year, with twelve percent having more than ten partners. *Id.* (These research results show the lack of success of education efforts alone; these results are not to be confused with the studies cited in notes 175-176, *supra*, which refer to reported behavior modification after the individual has learned of his or her positive status.)

Although crack users do not inject drugs into their veins, an increasing number are finding (when they check into sexually transmitted disease clinics) that they are infected with the HIV virus. This is most likely due to the fact that many addicts prostitute themselves in return for crack. This theory is further supported by the fact that other sexually transmitted diseases, such as syphilis and gonorrhea, are on the rise among crack addicts. *AIDS Plague Spreads, supra* note 186, at 23.

194. Kolata, *AIDS is Spreading in Teenagers, A New Trend Alarming to Researchers*, N.Y. Times, Oct. 8, 1989, at 1, col. 1. Although there are AIDS programs and lectures at schools, they appear to have virtually no impact. *Id.* Teenagers who are infected said that they were not concerned about "safe sex" practices until it was too late. *Id.*

195. For more information on these studies, see Keegles, Adler &

inspite of their awareness; this is amplified in the AIDS context because they rarely see someone their own age infected with the virus.¹⁹⁶ The lack of response to education is of particular concern because AIDS cases among teenagers have increased forty percent in the last two years.¹⁹⁷ Furthermore, an equal number of males and females are infected,¹⁹⁸ which indicates that the virus is spreading among the heterosexual population at a significant rate.

Education has been even less successful in reaching minority communities.¹⁹⁹ Education among the Hispanic population has largely failed due to language and cultural barriers.²⁰⁰ Unfortunately, in this decade, AIDS is expected to become more prevalent among poor black and Hispanic heterosexuals.²⁰¹ The virus will spread primarily through needle sharing and sexual activity.²⁰² In New York City this trend has already manifested itself: eighty-four percent of the women with AIDS are black or Hispanic, as are ninety percent of the children with AIDS.²⁰³

Some studies indicate that education seems to have had some effect in persuading the male homosexual population to modify their behavior, although many still continue to partici-

Irwin, *Sexually Active Adolescents and Condoms: Changes Over One Year in Knowledge, Attitudes and Use*, 78 AM. J. PUB. HEALTH 460 (1988); Jones, Waskin, Gerety, Skipper, Hull & Mertz, *Persistence of High Risk Sexual Activity Among Homosexual Men in the Area of Low Incidence of AIDS*, 14 SEXUALLY TRANSMITTED DISEASES 79 (1987); Fleming, Cochi, Steece & Hull, *Acquired Immunodeficiency Syndrome in Low Incidence Areas: How Safe Is Unsafe Sex?*, 258 J. AM. MED. A. 785 (1987).

196. Kolata, *supra* note 194, at A1.

197. *Id.* Four hundred and fifteen cases have been reported among teenagers (ages thirteen - nineteen). *Id.*

198. *Id.*

199. Dannemeyer & Franc, *supra* note 109, at 50. Since 1982, the number of AIDS cases has risen 3.8 times faster for blacks than whites. The *Journal of the American Medical Association* recently reported that "behavior has not changed much and HIV-seroprevalence has continued to climb" in San Francisco, even though public health authorities have made "strenuous educational and intervention efforts" to reach intravenous drug users. *Id.*

200. Navarro, *AIDS and Hispanic People: A Threat Ignored*, N.Y. Times, Dec. 29, 1989, at A1, col.2.

201. Haney, *Despite More Tools to Fight AIDS, Experts Fear for the Urban Poor in the '90s*, S. Bend Trib., Oct. 30, 1989, at A11, col. 1.

202. *Id.* Although the rate of infection has decreased among homosexual males, the virus continues to spread through IV drug use, especially among poor black and Hispanic males in the big cities; it is then transmitted from them to their sex partners, who are mostly women. *Id.*

203. Navarro, *supra* note 200, at A1.

pate in high risk behavior.²⁰⁴ The discrepancy between the effect of education on the male homosexual community and IV drug users may be explained by the nature of the groups: drug users have an addictive habit which they already know may kill them, the added risk of HIV infection is not sufficient incentive to change their behavior; homosexual males, on the other hand, do not have this additional health risk and, therefore, are more motivated to undergo behavior modification.

Education's failure to convince people to modify their behavior is not unprecedented. It has not proven completely successful in other health-related areas. For example, the Surgeon General has tried to educate the public on the health problems associated with smoking. Mandatory warnings are printed on every package of cigarettes, and the scientific findings of the Advisory Committee to the Surgeon General are widely disseminated to the public through extensive press coverage.²⁰⁵ Consequently, the prevalence of smoking has dropped approximately twenty percent among some populations.²⁰⁶ However, in spite of the fact that smoking causes lung cancer and an increased risk of cerebrovascular disease (stroke), fifty million Americans continue to smoke.²⁰⁷ Although education may have been successful in lowering the percentage of smokers, it has far from eliminated the problem. The NCAA's mandatory drug testing program of college athletes also illustrates that education alone is not sufficient to induce behavior modification. Many athletes continue to use steroids in spite of the fact that they can cause psychological disorders,²⁰⁸ risk of heart disease, sexual and reproductive dis-

204. Martin, Garcia & Beatrice, *Sexual Behavior Changes and HIV Antibody in a Cohort of New York City Gay Men*, 79 AM. J. PUB. HEALTH 501, 502 (1989). The study found a 3.5 increase in risk reduction efforts over a seven year period, yet nearly twenty percent continued to engage in unprotected receptive anal intercourse. *Id.* at 502. See also Leishman, *supra* note 50, at 41. In reference to the homosexual community in San Francisco, Dr. Constance Wofsy, an infectious-disease specialist at San Francisco General Hospital and an authority on AIDS, said, "[w]ith intense education efforts and extraordinary motivation you can affect the behavior of some people — in most cases only temporarily." *Id.* Yet another study of homosexual men in San Francisco, found that eighty percent knew that condoms helped prevent the transmission of the virus, yet only six percent used them. *Id.*

205. Warner, *Smoking and Health: A 25-Year Perspective*, 79 AM. J. PUB. HEALTH 141 (1989).

206. *Id.* at 142. Smoking prevalence among men has fallen from over fifty percent in 1965 to close to thirty percent at present. *Id.*

207. *Id.* at 142.

208. Hartley, *NCAA Weighs Year-Round, Random Drug Testing to Halt What*

orders, liver damage, stunted growth, and premature death.²⁰⁹ Because education and rehabilitation have proven unsuccessful on their own,²¹⁰ the NCAA and some universities have implemented mandatory drug testing programs for college athletes.²¹¹

Past experiences and recent studies indicate that education and voluntary testing alone are not successful in convincing those at risk to modify their behavior. Mandatory testing is likely to provide a more effective policy. Public policy should not be devoid of education and counseling all together, but it should focus on testing. An effective AIDS prevention program would incorporate all three strategies.

4. Social Stigma

The final argument against mandatory testing is that it causes social stigma. Stigma is defined as a mark of disgrace or reproach.²¹² This stigma is usually caused by other peoples' reactions to those with AIDS or those who are at risk of

Many Call a Growing Use of Steroids, Chron. Higher Educ., Jan. 11, 1989, at A35, col. 2.

Psychological disorders include alternate anxiety attacks and depression, an increase in sex drive, schizophrenic disorders, and an increase in aggressive behavior often leading to frenzied violence. Lamb, *The Consequences of Anabolic Steroid Use*, SCHOLASTIC COACH, February 1989, at 81.

209. Lamb, *supra* note 208, at 81. In 1985, more than fifty percent of Michigan State University's athletes tested positive for steroids. Cochran, *Drug Testing of Athletes and the United States Constitution: Crisis and Conflict*, 92 DICK. L. REV. 571, 574 n.19 (1988). In a more recent 1989 study among fifty-three varsity athletes at two institutions with major athletic teams, seventeen percent reported steroid use alone. Pope, Katz & Champoux, *Anabolic-Androgenic Steroid Use Among 1,010 College Men*, PHYS. & SPORTS MED., July 1988, at 75, 75-77. Drug abuse is also prevalent outside the college atmosphere, some studies indicate that up to fifty percent of the athletes at the Olympic games have used or do use steroids. Everson, *Ban Steroids? Ethics No, Health Yes!*, 50 MUSCLE & FITNESS 176 (1989). The professional leagues do not show any improvement. Bill Fralic, a lineman for the Atlanta Falcons who admitted using steroids while at the University of Pittsburgh, estimates that up to seventy-five percent of the league's [NFL] lineman use drugs. Lederman, *Witnesses Tell Senators Steroid Use Has Reached Epidemic Proportions Among Football Players*, Chron. Higher Educ., May 17, 1989, at A38, col. 1.

210. Begel, *The Difficulty of Treating the Drug Abusing Athlete*, N.Y. Times, Feb. 13, 1986, at E2, col. 1.

211. NCAA, THE 1987-88 NCAA DRUG TESTING MANUAL 111 (1987) (National Collegiate Athletic Association); DEPARTMENT OF INTERCOLLEGIATE ATHLETICS, UNIV. OF CAL., LOS ANGELES, POLICY STATEMENT DRUG EDUCATION AND TESTING PROGRAM FOR UCLA STUDENT ATHLETES (1987-1988) (pamphlet).

212. WEBSTER'S NEW WORLD DICTIONARY 735 (2d concise ed. 1977).

AIDS.²¹³ In balancing the social consequences of testing stigma against the benefits of testing, the benefits clearly outweigh the burdens.

First, social stigma pales in significance to the fatal consequences of the HIV virus. Those who are aware of their seropositive status can not only save the lives of others by modifying their behavior, but they can also prolong their own lives. Without an available cure, these are the most effective means to limit the spread of the disease and to help those who are already infected.

Second, the conduct that is seen as socially stigmatizing among the high risk groups at issue is voluntary conduct. However, the lives which may be saved are often innocent, such as babies born with HIV infection and spouses who are unaware of their partner's high risk behavior.²¹⁴ The fact that someone within a high risk group is stigmatized is regrettable, but it is not a sufficient reason to reject a mandatory testing policy. Furthermore, public health officials can control stigma by adhering to strict confidentiality rules.

B. *Advantages of Mandatory Testing*

1. The Patient May Receive Treatment

Mandatory testing identifies those who are infected and enables them to take advantage of the treatment presently available. Although at one time testing may have offered nothing but fear of death to those who underwent testing, this is not the case now. There is still no cure or vaccine, but there are

213. Herek & Glunt, *supra* note 70, at 887. See also Muhammad v. Carlson, 845 F.2d 175 (8th Cir. 1988) (although the inmate was stigmatized by his confinement in the prison's AIDS unit, this stigma arose from the public fear and misunderstanding of the disease, not from the medical official's misconduct and, therefore, the stigma did not rise to an infringement on the inmate's constitutionally protected liberty interest).

214. Because female drug addicts and females who have acquired the disease through heterosexual transmission comprise an increased proportion of new AIDS patients, a growing number of children are born with HIV infection. A recent study in New York City found that one in eighty infants is born to an HIV-infected mother. Approximately one-third to one-half of those babies will be seropositive. Yarchoan & Mitsuya, *supra* note 9, at 197. See also Dannemeyer & Franc, *supra* note 109, where the authors document the fact that an increasing number of women, who are not IV drug users, are acquiring the disease from male IV drug users.

Hemophiliacs are also innocent victims who are at risk of infection. However, due to the sensitivity of the ELISA test, the blood supply is considered to be safe at this time. See *supra* notes 131-132 and accompanying text.

many forms of treatment available. Researchers are also developing many new forms of treatment.

Initially, many scientists thought that human retroviral infections were inherently untreatable because no antiviral therapy had ever been established for a retroviral disease such as the HIV virus.²¹⁵ However, in recent years various forms of retroviral treatment have become available and researchers are developing many more. This section will describe the treatment presently available as well as the treatment being developed.

AZT (also known as zidovudine or azidothymidine) is an anti-retroviral drug (prevents retroviral replication) which is active against the HIV virus.²¹⁶ It has improved the survival rate and quality of life of HIV-infected persons.²¹⁷ First, it reduces the frequency and mortality of opportunistic infections and neoplasms (tumors, i.e. kaposi's sarcoma). In at least one case, AZT has been associated with, and believed to be responsible for, the regression of AIDS-related kaposi's sarcoma.²¹⁸ Kaposi's sarcoma is the most common malignant tumor suffered by AIDS patients.²¹⁹ Second, AZT improves the intellectual functioning of patients who suffer from HIV-induced dementia by slowing the course of neurological deteriora-

215. Yarchoan & Mitsuya, *supra* note 9, at 191.

216. Langtry & Campoli-Richards, *Zidovudine, A Review of Its Pharmacodynamic and Pharmacokinetic Properties, and Therapeutic Efficacy*, 37 *DRUGS* 408, 409 (1989).

217. *Id.* at 409. During the second phase of the initial study on AZT, a total of 282 patients with AIDS or ARC were randomly assigned to receive either AZT or placebo. Seven months later, one patient receiving AZT had died, compared with nineteen on the placebo. Those patients receiving AZT had overall better prognosis than those receiving the placebo. Yarchoan & Mitsuya, *supra* note 9, at 195-96.

218. Langford, Ruf, Kunze, Pohle & Reichart, *Regression of Oral Kaposi's Sarcoma in a Case of AIDS on Zidovudine (AZT)*, 120 *BR. J. DERMATOLOGY* 709 [hereinafter Langford & Ruf]. In a recent study, a case of oral Kaposi's Sarcoma (KS) regressed during therapy with AZT, which began five months after the first dermal and oral tumors were recognized. After six months of treatment with AZT, the number of T-helper cells increased and the KS lesions on the gingiva [gums], uvula, body, and the face disappeared. The KS lesion on the hard palate regressed. *Id.*

Placebo-controlled studies have shown that AZT decreases mortality and frequency of opportunistic infections in patients with AIDS or ARC. Patients on AZT had a significant improvement of their immune function. In a study of 284 patients with AIDS or ARC, KS lesions developed in sixteen. Six were patients on treatment with AZT and ten were in the placebo group. *Id.* at 712.

219. *Id.*

tion.²²⁰ Finally, patients who have taken AZT have experienced an improvement in their immune system (an increase in T-4 cells), and they have shown other clinical signs of improvement, such as weight gain.²²¹

Although AZT can cause severe side-effects, recent developments have greatly decreased the frequency in which they are likely to occur. The most common side-effect is bone marrow suppression.²²² Because bone marrow suppression causes anemia, many patients must have frequent blood transfusions in order to continue treatment.²²³ Other side-effects include headaches and nausea.²²⁴ For most patients, the headaches and nausea subside after the first few weeks.²²⁵ The side-effects usually occur after the patient has taken AZT for several months. In the past, some patients have had to discontinue treatment all together, while others have only had to take a lower dose or discontinue treatment for a short time.²²⁶ However, the severity of the side-effects may no longer pose a problem. The government has recently halved the recommended dosage of AZT, because the lower dose is just as effective and does not cause side-effects.²²⁷ The Secretary of Health and Human Services, Dr. Louis W. Sullivan, said that fewer patients will have to discontinue treatment in the future due to side-effects.²²⁸ Tolerance to AZT may also be improved if the patient takes the drug in the early stages of the disease rather than waiting until AIDS-related symptoms appear. A recent study found that less than five percent of those patients who

220. Langtry & Campoli-Richards, *supra* note 216, at 445; Yarchoan & Mitsuya, *supra* note 9, at 195. Evidence suggests that monocyte [white blood cell]-derived cells [*i.e.*, T-4 cells] are the main target cells of the HIV virus. AZT's ability to protect such cells against HIV infection may be related to the improvement in dementia observed in patients who are given AZT. *Id.*

221. Yarchoan & Mitsuya, *supra* note 9, at 195-96.

222. *Id.* at 196. Bone marrow is soft fatty tissue found in bone cavities which is responsible for producing most of the blood cells; red bone marrow is responsible for producing some of the red blood cells and most of the white blood cells. AMERICAN MEDICAL ASSOCIATION ENCYCLOPEDIA OF MEDICINE, *supra* note 9, at 195 (1989).

223. Kolata, *supra* note 185, at B6.

224. Yarchoan and Mitsuya, *supra* note 9, at 196.

225. *Id.*

226. *Id.*

227. Kolata, *supra* note 185, at B6. A recent study sponsored by the National Institute of Allergy and Infectious Disease found that AIDS patients who took the normal twelve hundred milligram dose of AZT for the first month and then reduced their dosage to six hundred milligrams per day did just as well as those who continued to take the higher dose. *Id.*

228. *Id.*

began treatment in the early stages of the disease had serious side-effects, while fifty percent of those patients who waited until they had full AIDS had to discontinue treatment due to serious side-effects.²²⁹

AZT has been effective in treating HIV-infected individuals, and provides promise for the future.²³⁰ As new treatment is developed, AZT may be used in combination with other drugs, thereby reducing the frequency of its side-effects.²³¹ Through such combination therapy, some scientists believe that "it may be possible to both ameliorate HIV-related symptoms and extend the life span of infected individuals to the point that they approach those of uninfected control subjects."²³² Combination therapy will also prevent patients from becoming immune to AZT treatment.²³³

The FDA has recently approved three new drugs for marketing: ganciclovir, aerosolized pentamidine, and fluconazole. Ganciclovir is used to treat cytomegalovirus retinitis (a severe eye infection).²³⁴ Approximately twenty-five percent of all AIDS patients are afflicted with this eye infection which often causes blindness.²³⁵ Aerosolized pentamidine prevents pneumocystis carinii pneumonia, the major killer of AIDS victims.²³⁶ Fluconazole, a new fungus-fighting drug, is successful in fighting cryptococcal meningitis and candidiasis.²³⁷ Almost every AIDS patient develops a fungal infection and approximately ten percent have cryptococcal meningitis, which is a seri-

229. Kolata, *supra* note 183, at A1.

230. AZT may also be effective as preventive medicine. Recent studies suggest that in some animals, immediate administration of AZT may prevent the development of retroviral infections. Some infected individuals have recently taken AZT in the hope that it will prevent the onset of the disease, but there is as yet no formal data to support this theory. Yarchoan & Mitsuya, *supra* note 9, at 197.

231. *Id.* at 198. "A decrease in the overall toxicity may be attained if active drugs with different toxicities are combined." *Id.*

232. *Id.* at 197.

233. *Id.* at 198. Combination treatment prevents the emergence of resistant strains to the virus. *Id.*

234. Goldsmith, *AIDS Drug Development, Availability Intensify*, 262 J. A. M. A. 452 (1989).

235. Seligman, *At Last, Quicker Access to AIDS Drugs*, NEWSWEEK, July 10, 1989, at 76.

236. Shilts, *supra* note 177, at A7. See also the previous information on aerosolized pentamidine and its success in preventing pneumonia, *supra* notes 177-182 and accompanying text.

237. Cimon, *New Drug Added to Anti-AIDS Arsenal*, L.A. Times, Jan. 30, 1990, at A6, col. 1; Kolata, *AIDS Drug is Approved After Clamor*, N.Y. Times, Jan. 30, 1990, at C5, col. 3.

ous infection on the lining of the brain.²³⁸ Moreover, the drug has proven to have very few side-effects, and those that do occur are usually not severe.²³⁹

Doctors also use ritalin, a stimulant which is often prescribed for hyperactive children, to treat AIDS patients. It improves the patient's mental health and emotional symptoms.²⁴⁰ Unlike AZT, ritalin does not fight the AIDS virus directly. Instead, it improves mood and concentration.²⁴¹ In a recent study, ninety-seven patients took the drug, of whom seventy-six percent displayed moderate to marked improvement in energy, vigor and mood; and sixty-seven percent improved their reaction time, information processing speed, and long-term memory.²⁴² Although this is not a cure for AIDS patients, it is a way to help them get "an edge on what they've got."²⁴³

Although they are not licensed for full use, the FDA has recently permitted expanded distribution of two new drugs, DDI (dideoxyinosine) and erythroprotein. DDI, like AZT, blocks retroviral reproduction.²⁴⁴ It interferes with retroviral reproduction by "inhibiting the synthesis of the viral genetic material."²⁴⁵ In recent studies, several patients exhibited more than eighty percent reduction of an AIDS virus protein in their serum concentrations.²⁴⁶ These individuals also experienced an increase in their T-4 cell count and weight gain, a clinical sign of improvement.²⁴⁷ Moreover, in clinical trials the drug has not produced any serious side-effects at any dosage level, which is encouraging to those patients who are unable to tolerate AZT.²⁴⁸ The FDA has also permitted expanded distribu-

238. Kolata, *supra* note 185, at B6.

239. Cimonis, *supra* note 237, at A6. Most of the side-effects are only abdominal discomfort and nausea. In rare circumstances, they have included liver damage, skin rashes, and liver failure. *Id.*

240. *Stimulant Said to Ease Problems From AIDS*, N.Y. Times, May 8, 1989, at A16, col. 2.

241. *Id.*

242. *Id.*

243. *Id.* This is the statement of Dr. William Breitbart, assistant attending psychiatrist at Memorial Sloan-Kettering Cancer Center in New York.

244. *New AIDS Test Gets the Go-Ahead*, NEWSWEEK, Oct. 9, 1989, at 40.

245. Marx, *New AIDS Drug Passes First Clinical Test*, 24 SCIENCE 353 (1989).

246. *Id.*

247. *Id.*

248. *Id.* Last fall, researchers gave DDI to 2,600 people with AIDS or ARC in formal clinical trials, provided free of charge to those who cannot tolerate AZT. Seligman, *supra* note 235, at 76. The results of the expanded access program have caused some controversy: the death rate was more than

tion of erythropoietin, a reproduced form of a hormone produced by the kidneys, which is used to treat AIDS-related anemia.²⁴⁹ The drug has proved successful in preliminary studies.²⁵⁰

Another new drug currently being developed is the CD4-PE40 compound. The HIV virus binds to the T-Helper cells in the immune system. This binding occurs when the viral protein, gp120, binds to the receptor on the T-Helper cell, known as CD4.²⁵¹ The CD4 compound prevents the virus from infecting the T-Helper cell by interfering with the binding of the HIV virus to the T-cell.²⁵² Flooding the patient's body with this compound creates a "decoy" which may prevent or reduce the spread of the virus to healthy cells.²⁵³ In other words, the HIV virus attaches to the CD4 cells rather than the T cells in the immune system. Some research groups have found that this compound successfully inhibits the infection of T cells by the HIV virus at certain levels.²⁵⁴ It is also unlikely to cause bone marrow toxicity like AZT.²⁵⁵ In order to make this compound even more effective, scientists have attached a toxin, PE40, to the CD4 compound which selectively binds to the HIV cells and then kills them.²⁵⁶ Thus, this compound may potentially prevent infection of healthy cells by the HIV virus as well as kill the cells already infected.

While drugs take effect after the person becomes infected with the virus, vaccines prevent infection in the first place. Dr.

ten times that in the regular clinical trials. However, this discrepancy can be explained by the fact that those patients who take the drug on the expanded access program are much sicker than those who take the drug in the clinical trials. Most experts believe that the deaths are probably caused by the disease rather than the drug. Kolata, *Many Recommended Disputed AIDS Drug*, N.Y. Times, Mar. 19, 1990, at A13, col. 4 (national ed.).

249. Seligman, *supra* note 235, at 76.

250. Thompson, *Drugs From the Undergrounds*, TIME, July 10, 1989, at 49.

251. Mittler & Hoffmann, *Synergism Between HIV gp120 and gp120-Specific Antibody in Blocking Human T Cell Activation*, 245 SCIENCE 1380 (1989).

252. Yarchoan & Mitsuya, *supra* note 9, at 192. "In the first step in the life cycle of HIV, the virus binds to the surface of the target cell. There is substantial evidence that this usually involves the attachment of the gp 120 env glycoprotein of HIV to CD4, a glycoprotein found on certain T lymphocytes [T-4 cells of the immune system], monocytes, and other cells." There is evidence that alternate receptors may exist, but their significance is unclear at this point. *Id.* at 191.

253. *Scientists Developing Potential AIDS Drug*, S. Bend Trib., June 8, 1989, at C1, col. 6.

254. Yarchoan & Mitsuya, *supra* note 9, at 192.

255. *Id.*

256. *Scientists Developing Potential AIDS Drug*, *supra* note 253, at C1.

Jonas Salk, who developed the polio vaccine, is presently developing an AIDS vaccine. He proposes to inject an inactivated HIV virus into the system of an infected patient in the hope that it will bolster their immune system, thereby preventing the person from developing full blown AIDS.²⁵⁷ In studies which he and his colleagues have performed with chimpanzees, two of the three were able to clear the virus from their system completely.²⁵⁸ In a recent study with nineteen ARC patients injected with the inactivated virus, only two have developed full-blown AIDS within one year of injection.²⁵⁹ The immune responses of these patients have improved.²⁶⁰

A recent study reported the preliminary success of another vaccine. This vaccine protected eight of nine monkeys against the simian AIDS virus, a virus related to the AIDS virus.²⁶¹ Each monkey was given three injections of the vaccine. Four monkeys were injected with the virus one month later. Three of the four showed no sign of infection; the fourth became infected but showed no symptoms. Thirteen months later, another five monkeys were given the vaccine followed by an injection of the virus. These five monkeys remained uninfected. Seventeen monkeys who did not receive the vaccine, but were injected with the virus, died within seven months.²⁶² Although more research must be done before it can be used on humans, the preliminary results are very promising.

Finally, doctors at Johns Hopkins School of Medicine recently reported that they had actually cured one AIDS patient of the virus, although he died later of cancer.²⁶³ The patient was suffering from lymphoma which is a common immune system cancer among AIDS patients.²⁶⁴ First, the patient underwent chemotherapy, which kills nearly all of the immune cells in the body. The patient was later given a bone marrow transplant and AZT at the same time. As a result, the AZT prevented the few infected immune cells which did survive the chemotherapy from replicating the virus.²⁶⁵ Approximately

257. Goldsmith, *supra* note 234, at 453.

258. *Id.*

259. *Id.*

260. *Id.*

261. Hiltz, *Tests of a Vaccine on Monkeys Offer New Hope in AIDS Fight*, N.Y. Times, Dec. 8, 1989, at A1, col. 1.

262. *Id.*

263. Kolata, *Physicians Rid a Man's Body of AIDS Virus in Experiment*, N.Y. Times, Dec. 19, 1989, at A1, col. 4.

264. *Id.*

265. *Id.*

one month later, the virus was not present in either the patient's blood or bone marrow. The disadvantages of this treatment are that (1) it is extremely expensive (approximately \$100,00 to \$200,000 per transplant), and (2) it is difficult to find bone marrow donors who match the tissue of the patient (approximately twenty-five percent chance of matching a sibling and a twenty percent chance of matching a donor).²⁶⁶ However, this is the only case in which the virus has been completely removed from a patient's body. After further research has been conducted, the procedure may become less expensive.

It is becoming increasingly advantageous for HIV carriers to know their status as early as possible. Although some drugs are not fully developed, there is treatment which is presently available for many AIDS-related illnesses. These include aerosolized pentamidine, treatment for pneumonia; AZT, which prolongs the life of the patient; ganciclovir, which treats cytomegalovirus; fluconazole, which treats meningitis and candidiasis; and ritalin, which improves AIDS patient's mental capabilities. As researchers develop these various forms of treatment, they will be able to combine these drugs into a form of therapy which may be superior to any single drug used alone. Scientists have already devised certain combinations which include AZT as one of the ingredients. They hope that those patients who are unable to take large doses of AZT will be able to tolerate it at a reduced level. It is advantageous for patients to know their status as early as possible because some forms of treatment, such as AZT, are more effective if taken early in the course of the disease. Early diagnosis also alerts doctors to look for certain opportunistic infections which are common in AIDS patients, such as tuberculosis or kaposi's sarcoma. If these infections are recognized early, the physician is able to administer immediate treatment which will prolong the life of the patient. Due to the new forms of treatment, many experts have recognized that it is advantageous to HIV carriers to know their status as early as possible.²⁶⁷

266. *Id.*

267. Altman, *Experts on AIDS, Citing New Data, Push for Testing*, N.Y. Times, April 24, 1989, at A1, col. 1.

After interviewing various AIDS experts, the authors summarized their comments and explanations:

Many experts are coming to believe that for people who carry the AIDS virus, but have not yet developed symptoms, treatment administered at the moment the immune system first shows signs of failure can delay the onset of symptoms. A positive test for HIV

2. Epidemiological Data

Mandatory testing will help provide reliable epidemiological data. In order to plan rationally for the incidence of disease, it is necessary to know the magnitude of the problem. The more the public officials know about the spread of the disease, the easier it is to raise and distribute funds and to prepare hospitals and health care professionals for managing this devastating virus.

In sum, arrested prostitutes and IV drug users, prisoners, and those who attend sexually transmitted disease and drug abuse clinics should be tested for the HIV virus because the advantages outweigh the disadvantages. Mandatory screening will help reduce the spread of AIDS and prolong the lives of the victims. When a known HIV carrier develops AIDS symptoms, that person can be promptly diagnosed and treated. Early diagnosis is advantageous since some forms of treatment are more effective in the early stages of the disease. Moreover, it is efficient to test these high risk populations because they are already within the health care system. Because each of the high risk groups is attainable and early treatment is to the advantage of both the healthy and the infected, it is practical to compel them to undergo HIV testing.

IV. LEGAL AND ETHICAL CONSIDERATIONS OF MANDATORY TESTING

This section will examine the constitutional and ethical considerations of mandatory testing. The constitutional issues include the fifth and fourteenth amendment right to equal protection and the fourth amendment right to privacy; in the prison context, the eighth amendment right against cruel and unusual punishment is also an issue. The ethical inquiry is whether the state can compel an individual to undergo mandatory testing, and if so, what duty does the individual have to comply with such a law.

would signal doctors that they should closely monitor the status of the immune system.

For example, Dr. Jonas A. Shulman, an AIDS expert in Atlanta, said that "[w]e've come a long way since the conventional wisdom three or four years ago, of what a difference it is going to make to get tested." This message was also supported by Dr. Anthony S. Fauci, the director of the Federal National Institute of Allergy and Infectious Diseases, who said that there is "no question" that it is advantageous for people to know whether they are infected with the AIDS virus, because in some cases the patients may benefit from early treatments that could ward off infections and other complications as well as ease their suffering. *Id.* at B8, col. 4.

A. *Ethical Considerations — the Power of the State to Regulate Public Health and the Duty of the Individual to Comply*

The state traditionally has the right to regulate public health through its police power, which is reserved to the state under the Tenth Amendment to the United States Constitution.²⁶⁸ The state's police power includes the power to regulate public health and safety.²⁶⁹ Pursuant to this power, the state legislature has the power to pass laws which improve the health and well-being of its citizens.²⁷⁰ In addition, the federal government has the power to enact regulations which are necessary to prevent the spread of diseases across state or national borders.²⁷¹

Is the state's power to compel an individual to undergo mandatory testing pursuant to its police power an unethical denial of individual freedom or is it the ethical promotion of the common good? The issue in this inquiry involves the relationship between individual freedom and the common good.

There are many different definitions of freedom.²⁷² They range from the natural rights definition of freedom as self-

268. U.S. CONST. amend. X. "The powers not delegated to the United States by the Constitution, nor prohibited by it, are reserved to the States respectively, or to the people"; *Jacobson v. Massachusetts*, 197 U.S. 11, 25 (1905) (the state did not surrender its police power when it became a member of the Union under the Constitution).

269. *Jacobson v. Massachusetts*, 197 U.S. 11, 25 (1905) ("[a]ccording to settled principles, the police power of a state must be held to embrace, at least, such reasonable regulations established directly by legislative enactment as will protect the public health and the public safety").

270. *Kleid v. Board of Fulton, Ky. Indep. School Dist.* 406 F. Supp. 902 (W.D. Ky. 1976).

271. Public Health Service Act, 42 U.S.C. § 264 (West 1982) ("The Surgeon General . . . is authorized to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession"). See *Siegel v. Shinnick*, 219 F. Supp. 789 (E.D.N.Y. 1963) (the court found that it was necessary to isolate the individual in order to determine if he was infected with smallpox; this decision was based on the fact that he was probably exposed to the disease overseas and his vaccination was unsuccessful). To date, the federal government has not included AIDS on the list of communicable diseases which provides for apprehension, detention, or conditional release of afflicted individuals. However, under the power granted by the Immigration and Nationality Act, 8 U.S.C. § 1182 (1970 & Supp. 1986), the federal regulations provide for the denial of a visa if the visa applicant tests positive for the HIV virus. 42 C.F.R. § 34.2(b) (1987).

272. See M. ADLER, *THE IDEA OF FREEDOM* (1961). The author analyzes the five definitions of freedom: Self-realization, self-perfection, self-determination, political liberty, and collective freedom.

perfection to libertarian definition of freedom as self-realization. This article will use the broad libertarian definition of freedom, because it tolerates the fewest restraints on individual behavior. In other words, it will be more difficult to justify restrictive legislation under this definition of freedom and, therefore, is the highest standard that a mandatory testing scheme would have to meet.²⁷³

The libertarian idea of freedom, which is popular in the American tradition, is the "circumstantial freedom of self-realization."²⁷⁴ This type of freedom is defined as that "which is possessed by any individual who, under favorable circumstances, is able to act as he wishes for his own good as he sees it."²⁷⁵ This freedom is circumstantial because it is wholly dependent on favorable circumstances, i.e. those which will allow individuals to act as they please for their own good.²⁷⁶ Acting as one wishes or doing as one pleases expresses self-realization when the individual's wish is translated into action, and the individual's own good, as he or she sees it, is achieved by the action performed.²⁷⁷ In other words, individuals achieve self-realization when they are permitted to act as they please.

273. For example if freedom were defined as self-perfection for the purposes of this paper, mandatory testing would be legitimate. Freedom as self-perfection is a "freedom which is possessed by those . . . who, only through acquired virtue or wisdom, are able to will or live as they ought in conformity to the moral law or an ideal befitting human nature." M. ADLER, *supra* note 272, at 6. This freedom is acquired by those whose state of mind or character enables them to will as they ought (i.e. in accord with the moral or natural law). *Id.* The idea of freedom as the right to achieve self-perfection must be distinguished from the idea of freedom as license. Individual freedom cannot be equated with the power to pursue any desire, for a desire may be right or wrong depending on the extent to which it fulfills a natural need. M. ADLER, *TEN PHILOSOPHICAL MISTAKES* 123-25 (1985). Humans by nature need those conditions which are necessary for them to achieve self-perfection. *Id.* All human beings naturally desire good health and need an environment free of contagious, non-curable disease in order to be free. Since these natural needs are the basis of natural rights, legislation reasonably designed to promote public health is valid. Mandatory testing of certain high risk groups for the HIV virus would promote the public health.

Although freedom as self-perfection may be the better view with regard to personal morality, this article must address the reality that a mandatory testing proposal must go through the political machinery in order to be enacted. Therefore, it must deal with freedom in the contemporary American tradition, which is the libertarian definition of freedom.

274. M. ADLER, *supra* note 272, at 5.

275. *Id.*

276. *Id.* at 5-6.

277. *Id.* at 6.

When freedom is defined in terms of self-realization in the political arena, the government tolerates a wide variety of behavior. However, the libertarian idea of freedom does not sanction absolute individual liberty. Although one may start with the basic assumption that every individual may act as he or she pleases in order to achieve personal development, living in a society still places an obligation upon each person to observe a certain standard of conduct toward the other members of society.²⁷⁸ This standard mandates that each person not interfere with the rights of others, and that each person bear his or her share of the labors and sacrifices necessary in order to defend society or its members from injury or molestation.²⁷⁹ When an individual's action does prejudicially affect the rights of others, society has jurisdiction over it and may limit it.²⁸⁰ However, society only has such control over individual action when it affects the rights of other members of the community, otherwise the individual should be free to do the action and accept the consequences.²⁸¹

Although this concept of freedom tolerates a wide variety of human actions, it still does not tolerate that which interferes with the rights of others. When a person exercises his or her freedom to the detriment of others, the government has the power to interfere with individual autonomy. Members of high risk groups must not be permitted to exercise their freedom to the detriment of others by voluntarily participating in high risk activity, making large claims upon society's resources, and then arguing that they have no moral obligation to promote the common good of the community by submitting to reasonable

278. J. MILL, *On Liberty*, in *THE GREAT LEGAL PHILOSOPHERS* 380, 393 (C. Morris ed. 1985).

279. *Id.* at 393. This duty not to interfere with the rights of others rises to the level of a moral principle. Those acts which injure others by encroaching on the rights of others, damaging the rights of others, falsely dealing with them, using unfair or ungenerous advantages over them, or selfishly abstaining from protecting them against injury are all morally reprehensible actions and, in grave cases, should be subject to moral retribution and punishment. *Id.* at 394. See also A. GEWIRTH, *Human Rights and the Prevention of Cancer*, in *HUMAN RIGHTS* 181 (1982). Gewirth argues that all persons have the right not to have cancer inflicted upon them by the actions of others. This assertion is based upon a moral principle which is at the basis of a civilized society: "This is the principle of mutual trust, of mutual respect for certain basic rights: that persons will not, in the normal course of life, knowingly inflict physical harm on one another, that they will abstain from such harms insofar as it is in their power to do so, insofar as they can informedly control their relevant conduct." *Id.* at 185.

280. J. MILL, *supra* note 278, at 393.

281. *Id.*

testing procedures. In examining the public health questions, the courts have traditionally chosen to apply this line of reasoning.

The state's power to regulate public health is not questioned. Courts have held that of all the duties the state has, none is more important than the protection of public health.²⁸² Judicial decisions concerning the power to regulate public health grant considerable deference to the state.²⁸³ Moreover, courts have interpreted the state's power to regulate public health broadly.²⁸⁴ The state's power to regulate public health is usually justified in one of two ways: (1) The state has a legitimate interest in protecting the health, safety, and welfare of the community, which includes protecting society from the harm of an individual and preventing any member of society from becoming a burden on others; or (2) The state has a legitimate interest in protecting the health, safety, and welfare of any one individual, which includes protecting the individual from self-imposed harm.²⁸⁵

The state's police powers have been the most broadly interpreted in the cases where the state is protecting third parties from risks created by individual conduct.²⁸⁶ In such cases, almost all courts have deferred to the state legislature.²⁸⁷

282. *Irwin v. Arrendale*, 117 Ga. App. 1, 159 S.E.2d 719, 724 (1967); *Barmore v. Robertson*, 302 Ill. 422, 134 N.E. 815 (1922).

283. *Derrick v. Ontario Community Hosp.*, 47 Cal. App. 3d 145, 151-52, 120 Cal. Rptr. 566, 570 (1975) ("[t]he local public health officer is vested with considerable discretion as to what actions he should take to control the spread of an infectious disease"); *In Re Halko*, 246 Cal. App. 2d 553, 557, 54 Cal Rptr. 661, 664-65 (1966) (the "[l]egislature is vested with broad discretion in determining what are contagious diseases and in adopting means for preventing the spread thereof" and, therefore, "the court should give it broad and liberal construction"); *Barmore v. Robertson*, 302 Ill. 422, 134 N.E. 815 (1922) (the courts will not interfere with the discretionary power of the state to enact public health regulations unless they are arbitrary, oppressive or unreasonable).

284. *Jacobson v. Massachusetts*, 197 U.S. 11 (1905). Justice Harlan said that the state may enact "health laws of every description." "[T]he police power of a state must be held to embrace, at least, such reasonable regulations established directly by legislative enactments as will protect the public health and the public safety". *Id.* at 25.

285. K. WING, *THE LAW AND THE PUBLIC'S HEALTH* 20 (1985).

286. *Id.*

287. *Id.* at 25-26. *See also In re Halko*, 246 Cal. App. 2d 553, 556, 54 Cal. Rptr. 661, 663 (1966) (the court upheld the mandatory quarantine provision for all tuberculosis patients as a legitimate exercise of its police power; it emphasized that in the area of public health, the courts must defer to the legislature in the area of public health regulations: "It is also the province of the legislature, in the exercise of a sound discretion, to determine what

Therefore, the state can compel an individual suspected of carrying a contagious disease to undergo medical examination, quarantine, and treatment.²⁸⁸ Because the AIDS issue also involves the state protecting healthy individuals against the

measures are necessary for the protection of such interests"); *Barmore v. Robertson*, 302 Ill. 422, 427, 134 N.E. 815, 817, (1922) (In reference to a state quarantine law, the court said that each state has the power to pass public health laws and "such laws must be submitted to by individuals for the good of the public").

288. K. WING, *supra* note 285, at 25-26. For example, the state can compel children to undergo medical examinations or vaccinations before attending school, and it can require marriage license applicants to undergo certain medical examinations. *Id.* Some states require those convicted of sexual offenses or prostitution to undergo HIV antibody testing. *E.g.*, CAL. PENAL CODE § 1202.1 (West Supp. 1989) (persons convicted of a sexual offense must submit to a court ordered blood test for AIDS); FLA. STAT. ANN. § 796.08 (West Supp. 1989) (requires all arrested prostitutes to undergo screening for a sexually transmitted disease, as defined by the statute, which may include AIDS if the health department deems it necessary). *See also* *Irwin v. Arrendale*, 117 Ga. App. 1, 159 S.E.2d 719 (1967) (it is within the state's police power to compel prisoners to undergo X-ray examination in order to determine if they have a communicable, contagious, or infectious disease, as long as there is a sound reason for such examination).

The state can compel treatment in certain situations. *See* *Breithaupt v. Abram*, 352 U.S. 432 (1957) (giving a blood test to drunk driver without his consent while unconscious is constitutional); *Dunn v. White*, 880 F.2d 1188 (10th Cir. 1989) (non-consensual AIDS testing does not violate prisoner's constitutional rights); *Reynolds v. McNichols*, 488 F.2d 1378 (10th Cir. 1973) ("hold and treat" laws which require arrested prostitutes either to take drugs for treatment of venereal diseases or be detained in jail for such treatment are constitutional); *Ex parte Woodruff*, 90 Okla. Crim 59, 210 P.2d 191 (1949) (statute requiring examination and treatment of persons arrested for sex crimes for venereal diseases is upheld as constitutional).

When a person infected with a contagious disease endangers the health of the community, many state legislatures permit the health authorities to quarantine the individual. *E.g.*, CAL. HEALTH & SAFETY CODE § 3186 (West Supp. 1987) ("[a]ny state agency conducting a public hospital shall admit acute venereal disease cases, when, in the opinion of the state or local health officer having jurisdiction, persons infected with venereal disease may be a menace to public health"); CAL. HEALTH & SAFETY § 3053 (West Supp. 1987) ("Upon being informed by a health officer of any contagious, infectious, or communicable disease the state department may take such measures as are necessary to ascertain the nature of the disease and prevent its spread. To that end, the state department may, if it considers it proper, take possession or control of the body of any living person, or the corpse of any deceased person"). *See also* MINN. STAT. ANN. § 144.12(7) (West Supp. 1987); N.Y. PUB. HEALTH LAW § 2100 (Consol. 1986); OHIO REV. CODE ANN. § 3703.07 (Baldwin 1982). These laws have been upheld as constitutional. *See In re Halko*, 246 Cal. App. 2d 553, 54 Cal. Rptr. 661 (1966) (court upheld statute which provided that those with pulmonary tuberculosis, an infectious and communicable disease, may be quarantined by health officials pursuant to a reasonable belief that the person is infected). For more information on the

risks created by third parties, its power to regulate the transmission of the virus should be given broad deference by the courts.

The state's power to regulate an individual's conduct in order to protect the public health is best articulated in the landmark case, *Jacobson v. Massachusetts*,²⁸⁹ where the Supreme Court of the United States held that it was within the state's police power to require a compulsory small-pox vaccination. The plaintiff argued that a compulsory vaccination law was arbitrary and oppressive because it was "hostile to every freeman to care for his own body and health in such a way as to him sees best" ²⁹⁰ In an opinion delivered by Justice Harlan, the Court vehemently rejected the plaintiff's argument. Justice Harlan explained the philosophical and practical basis of the state's power to regulate public health and safety:

But the liberty secured by the Constitution of the United States to every person within its jurisdiction does not import an absolute right in each person to be, at all times and in all circumstances, wholly freed from restraint. There are manifold restraints to which every person is necessarily subject for the common good. On any other basis, organized society could not exist with safety to its members. Society based upon the rule that each one is a law unto himself would soon be confronted with disorder and anarchy. Real liberty for all could not exist under the operation of a principle which recognizes the right of each individual person to use his own, whether in respect of his person or his property, regardless of the injury which may be done to others. This court has more than once recognized it as a fundamental principle that "persons and property are subjected to all kinds of restraints and burdens in order to secure the general comfort, health and prosperity of the state. . . . Even liberty itself, the greatest of all rights, is not unrestricted license to act according to one's own will. It is only freedom from restraint under conditions essential to the equal enjoyment of the same rights by others. It is, then, liberty regulated by the law."²⁹¹

power of the state to quarantine individuals, see K. WING, *supra* note 285, at 41-73.

289. *Jacobson v. Massachusetts*, 197 U.S. 11 (1905).

290. *Id.* at 26.

291. *Id.* at 26-27.

The idea that the state has the power to enact regulations for the common good, while every member has the duty to abide by these regulations when certain conditions are met, is the underlying concept of the state's police power.²⁹² Of course, this power is not unrestricted. The regulations must be reasonable; if they rise to the level of becoming arbitrary or unreasonable in light of the threat to public health, then the court must interfere in order to protect persons subject to the regulation.²⁹³ In more recent years, the Court has refined this restriction. If a "fundamental" right is at stake, then regulations limiting these rights may be justified only by a compelling state interest and "legislative enactments must be narrowly tailored to enforce the compelling state interest."²⁹⁴ Regulating the public health is a compelling state interest in certain circumstances.²⁹⁵

292. Justice Harlan, in *Jacobson*, emphasized the duty of the individual to comply with the compulsory vaccination law:

It is the cause of an adult who, for aught that appears, was himself in perfect health and a fit subject of vaccination, and yet, while remaining in the community, refused to obey the statute and the regulation adopted in execution of its provisions for the protection of the public health and public safety, confessedly endangered by the presence of a dangerous disease. *Id.* at 39.

293. *Id.* at 28, 38 (laws should not be construed to lead to injustice, oppression, or an absurd consequence). See also *Jew Ho v. Williamson*, 103 F. 10 (N.D. Ca. 1900) (quarantine invalid because discriminatory as applied); *In re Halko*, 246 Cal. 2d 553, 54 Cal. Rptr. 661 (1966) (the legislature's determination that a particular regulation is necessary to protect the public health is conclusive unless it is unreasonable, an abuse of discretion, or a violation of the individual's constitutional rights); *DeAryan v. Butler*, 119 Cal. App. 2d 674, 260 P.2d 98 (1953) (legislature determines measure necessary to protect public health unless it is unreasonable), *cert. denied*, 374 U.S. 1012 (1954); *Patrick v. Riley*, 209 Cal. 350, 287 P. 455 (1930) (the challenged regulation did not rise to an abuse of discretion by the legislature).

294. See *Roe v. Wade*, 410 U.S. 113 (1973) (the right to privacy is a fundamental right); *Griswold v. Connecticut*, 381 U.S. 479, 485 (1965) (establishing the constitutional right to privacy).

295. *City of Akron v. Akron Center for Reproductive Health*, 462 U.S. 416 (1982) (the state's interest in health regulation becomes compelling at approximately the end of the first trimester); *Roe v. Wade*, 410 U.S. 113, 163-64 (1973) (the state has important interests in safeguarding the public health, in maintaining medical standards and in protecting potential life; these interests become compelling at the point of viability of the fetus); *Morris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990) (preventing the spread of AIDS within a prison is a controlling state interest); *Fla. Women's Medical Clinic, Inc. v. Smith*, 536 F. Supp. 1048 (S.D. Fla. 1982) (prompt and proper disposal of fetal remains and tissue resulting from the abortion does rise to the level of a compelling state interest in protecting the public health).

Through the police power, the state aims to secure freedom and well-being to all its citizens. The state must have the power to compel persons to comply with certain health regulations in order to protect the health and well-being of the community. The state not only has the power to compel persons to undergo medical care in order to protect the public health, but it also has the duty to do so;²⁹⁶ if it were otherwise, the freedom of the community would be jeopardized by the selfish actions of the few who believe their behavior is free from restraint. Pursuant to this duty to protect the public health, the government has the power to compel small pox vaccinations,²⁹⁷ it has the power to enact municipal laws which prevent manufacturers from exposing employees to cancerous risks,²⁹⁸ and the power to enact laws which regulate smoking in order to reduce the cancerous risk of passive inhalation to nonsmokers.²⁹⁹ This

296. *Jacobson v. Massachusetts*, 197 U.S. 11, 29 (1905) (because society has the duty to conserve the safety of its members, the individual, with respect to his liberty, may be subject to reasonable regulations as the public safety requires); *In re Halko*, 246 Cal. App. 2d 553, 556, 54 Cal. Rptr. 661 (1966) (“[t]he preservation of the public health is universally conceded to be one of the duties devolving upon the state as a sovereignty, and whatever reasonably tends to preserve the public health is a subject upon which the legislature, within its police power, may take action”); *Barmore v. Robertson*, 302 Ill. 422, 134 N.E. 815 (1922) (“[t]hat the preservation of the public health is one of the duties devolving upon the State as a sovereign power will not be questioned. . . . [t]he duty to preserve the public health finds ample support in the police power, which is inherent in the State and which the State cannot surrender”).

297. *Jacobson v. Massachusetts*, 197 U.S. 11, 29 (1905).

298. See Gewirth, *Human Rights and the Prevention of Cancer*, in HUMAN RIGHTS, *supra* note 279, at 181-82. “Each person has a basic human right not to have cancer inflicted on him by the action of other persons. . . . [e]ach person [also] has a right to have informed control over the conditions relevant to the possible infliction of cancer on himself.” These rights are basic human rights because of their connection with freedom and well-being, the two necessary conditions of action and of successful action. *Id.* See also *Bailey v. Drexel Furniture Co.*, 295 U.S. 20 (1922) (the state has the power to regulate the employment of child labor, presumably in order to protect the interests of the child).

299. Passive smoke inhalation is associated with subsequent health problems, such as an increased incidence of lung cancer. Byrd, Shapiro & Scheidermayer, *Passive Smoking: A Review of Medical and Legal Consequences*, 79 AM J. PUB. HEALTH 209 (1989); See also Wall, Johnson, Jacob & Benowitz, *Cotinine in the Serum, Saliva, and Urine of Nonsmokers, Passive Smokers, and Active Smokers*, 78 AM. J. PUB. HEALTH 699 (1988) Cotinine is the major degradation product of nicotine metabolism. In the serum and saliva of nonsmokers who lived with smokers, the cotinine levels were the same in both the smokers and the nonsmokers. Moreover, the cotinine levels were actually higher in the urine samples of the nonsmokers. *Id.* Based upon such findings, the federal and state governments have passed legislation seeking to

power should now be extended to include mandatory testing of certain high risk groups.³⁰⁰

reduce the risks to nonsmokers. The federal government has recently passed a permanent prohibition against smoking on all airline flights, intrastate and interstate, which are six hours or less in duration; or which are between any point in Alaska, and any point in Hawaii; or are within the state of Alaska or within the state of Hawaii. 103 STAT. 1098 (Feb. 1990). Several states have also passed legislation restricting smoking in public places. See CAL. HEALTH & SAFETY CODE § 25941 (West 1984 & Supp.); FLA. STAT. ANN. § 386.204 (West 1986); MINN. STAT. ANN. § 144.414 (West 1989); N.Y. PUBLIC HEALTH LAW § 1339-0 (McKinney Supp. 1990).

300. A related issue which is beyond the scope of this paper is whether the results of the HIV tests should be reported to the public health authorities. Several health authorities have recently come out in favor of making AIDS a reportable disease. The strongest argument against such a policy is that it will drive the disease underground. However, a recent study found that reporting the results of HIV tests to public health officials did not reduce the number of requests for voluntary testing. In another study, only one percent gave fear of disclosure as a reason to avoid testing. Archer, *supra* note 190, at 876. Universal partner notification is receiving a lot of support recently. One research group recently found that such a program is "affordable, operationally manageable, and can effectively reach high risk persons." In addition, confidentiality protections are attainable. The group concluded that partner notification should be a standard public health practice in the effort to control the spread of the HIV virus. Potterat, Spencer, Woodhouse & Muth, *Partner Notification in the Control of Human Immunodeficiency Virus*, 79 AM. J. PUB. HEALTH 874 (1989). See also, *The AIDS Plague Spreads*, *supra* note 186, at 24.

As the law presently stands, at least twelve states already require that health workers and doctors report AIDS patients to health officials. Altman, *New York Health Chief Proposes List of People Carrying the AIDS Virus*, N.Y. Times, June 6, 1989, at B5, col. 1. Some states also require tracing the infected person's sexual contacts or those with whom they have shared needles. Recently, the New York City Health Commissioner, Dr. Stephen C. Joseph, has come out in favor of confidential reporting of all AIDS patients to health authorities. The proposal is as follows: Doctors, hospitals, and clinics would report those infected with the virus to the Health Department which would use this list to reach all infected people, notify their partners and insure thorough tracing. Those who are infected with the virus would be asked to provide the names of their sexual contacts and those with whom they have shared needles, so that tracing could be carried out similarly to the tracing and contact procedure of other STDs. However, the list of HIV infected persons would be kept separate from other STD lists. Dr. Joseph said that there is not a high risk of confidentiality exposure based upon the fact that "[p]ublic health has done that [prevented confidential records from being exposed] very well historically, and there has never been a leak from the New York City Health Department on the name of any AIDS case." *Id.* Dr. Joseph emphasizes that this proposal is for the benefit of the infected because recent developments have shown that it is advantageous for those at risk of infection to be informed as early as possible so that they can obtain treatment if they

B. *Legal Considerations of Mandatory Testing*

The constitutional challenges which most commonly appear in the context of AIDS testing legislation are (1) the right to equal protection under the fifth or fourteenth amendment, (2) the right to privacy under the fourth amendment, and (3) the prohibition of cruel and unusual punishment under the eighth amendment. This section of the article will begin with an overview of relevant, current AIDS legislation. It will then apply the constitutional analysis to the various AIDS issues.

1. Current Legislation

The federal government and a few state governments have already adopted mandatory AIDS testing legislation. At present, this legislation primarily concerns testing prisoners and those convicted of sex crimes. Both the state governments and the federal government should extend this legislation to include arrested prostitutes and drug users and to those who attend STD and drug abuse clinics.

Legislation that requires testing those arrested or convicted of prostitution for STDs has been introduced on both the state and federal level.³⁰¹ The American Medical Associa-

need it. Therefore, we should adopt a policy towards AIDS which is similar to that of tuberculosis, syphilis, and other communicable diseases. *Id.*

For an example of a statute which authorizes reporting all HIV-infected persons to health authorities, see COLO. REV. STAT. § 25-4-1404 (1988 Supp.), which declares AIDS a communicable disease. Doctors, laboratories, hospitals, clinics, and other institutions are required to report the cases of AIDS to the local health authorities. In addition, if necessary, the public health officials have the authority to "[i]solate or quarantine persons with Acquired Immunodeficiency Syndrome or a viral infection associated therewith, but only if it is shown to be necessary to protect the public health." *Id.* § 25-4-1406.

301. H.R. 2273, 100th Cong., 1st Sess. (1987). On the federal level, Congressman Dannemeyer introduced a bill which would require mandatory testing of all arrested prostitutes.

On the state level, Florida has enacted a statute in which arrested prostitutes are tested for all STDs, including the HIV virus. FLA. STAT. ANN. § 796.08 (West Supp. 1989) (Subsec. (3): Any person convicted of prostitution or procuring another to commit prostitution with himself . . . shall be required to undergo screening for a sexually transmissible disease under direction of the Department of Health and Rehabilitation Services and, if infected, shall submit to treatment and counseling as a condition of release from probation, community control, or incarceration. . . . According to subsec. (1)(b), in determining which diseases are to be designated as sexually transmitted diseases, human immunodeficiency virus shall be considered along with many other recognized STDs.)

Although AIDS is an STD in the sense that it can be spread via sexual

tion has recommended mandatory HIV testing of all prison inmates.³⁰² Currently, at least fourteen states screen all prisoners.³⁰³ Other states, such as California, require testing inmates if the prison medical authorities believe the inmate may be suffering from AIDS or ARC.³⁰⁴ On the federal level, all inmates are screened.³⁰⁵ The federal government has conditioned state grants on state action which requires mandatory testing for all convicted IV drug users and sex offenders.³⁰⁶

2. Equal Protection

Equal protection is rooted in the fourteenth amendment where the state government is involved and in the fifth amendment where federal government is involved.³⁰⁷ It is premised on the maxim that all persons similarly situated should be

intercourse, it generally is not a sexually transmitted disease, unless the statute so provides, within the meaning of public health laws.

302. JAMA Board of Trustees, *Prevention and Control of Acquired Immunodeficiency Syndrome*, 258 J. A. M. A. 208 (1987).

303. Andrus, Fleming, Knox, McAllister, Skeels, Conrad, Horan & Foster, *HIV Testing in Prisoners: Is Mandatory Testing Mandatory?*, 79 AM. J. PUB. HEALTH 840 (1989) [hereinafter Andrus & Fleming]. See, e.g., ALA. CODE § 11A-17 (1975 & Supp.); GA. CODE ANN. § 42-5-52.1 (Harrison Supp. 1989); IDAHO CODE § 39-604 (1989); R.I. GEN. LAWS § 42-56-37 (1988); TEX. GOV'T CODE ANN. § 500.054 (Vernon Supp. 1990).

304. CAL. PENAL CODE § 7501 (Deering Supp. 1989).

In order to address the public health crisis described in Section 7500, it is the intent of the Legislature to: (d) Authorize prison medical staff authorities to require tests of a jail or prison inmate under certain circumstances, if they reasonably believe, based upon the existence of supporting evidence, that the inmate may be suffering from AIDS or AIDS-related diseases and is a danger to other inmates or staff.

305. Andrus & Fleming, *supra* note 309, at 840.

306. 42 U.S.C. § 300ee-6 (West Supp. 1988).

(a) To be eligible to receive funds under this section, the chief law enforcement officer of each State shall establish a State program to provide for the confidential testing of any individual convicted under State law, of any intravenous drug or sex offense on or after November 4, 1988.

307. Equal protection is explicitly granted by the fourteenth amendment: U.S. CONST. amend. XIV, § 1: . . . "No state shall . . . deny to any person within its jurisdiction the equal protection of the laws." Although there is no explicit equal protection clause in the fifth amendment, the Supreme Court has read it into the fifth amendment. *Bolling v. Sharpe*, 347 U.S. 497 (1954) (the fifth amendment due process clause and the fourteenth amendment equal protection clause are not mutually exclusive — equal protection is tied up with the American notion of fairness found in the fifth amendment due process; therefore, the fifth amendment also guarantees equal protection).

treated alike.³⁰⁸ Equal protection analysis is applied any time the law creates a classification under any governmental authority. There are three levels of analysis under the Equal Protection Clause: (1) heightened scrutiny, (2) intermediate scrutiny, and (3) traditional analysis. At each level there is a different standard that the regulation must meet in order to be constitutional. Those who challenge mandatory AIDS testing laws must first determine the category into which they fit and then apply the relevant standard.

The first level of analysis, heightened scrutiny, involves a fundamental right or a suspect class.³⁰⁹ If the law distinguishes individuals on the basis of a suspect class, the state must show a substantial purpose or interest that is constitutionally permissible, and that its classification is necessary to accomplish that purpose or safeguard that interest.³¹⁰ Suspect classes have been limited to classifications based upon race³¹¹ and alienage.³¹²

The second level of equal protection analysis, intermediate scrutiny, includes classifications concerning illegal aliens,³¹³ gender,³¹⁴ and illegitimate children.³¹⁵ If the law treats any person within these three classes differently from others, then the state must show that the regulation is substantially related to an important state interest and that this regulation substantially advances that interest. This is a lower standard than the one set forth in the first category and, therefore, it is an easier showing for the government to make.

308. *City of Cleburne v. Cleburne Living Center*, 473 U.S. 432, 439 (1985).

309. The fundamental right analysis is addressed *supra* notes 332-351 and accompanying text.

310. *Regents of the Univ. of Cal. v. Bakke*, 438 U.S. 265 (1978).

311. *Brown v. Board of Educ.*, 349 U.S. 294 (1955) (overruling separate but equal doctrine); *Yick Wo v. Hopkins*, 118 U.S. 356 (1886) (overruled regulation which was neutral on its face but discriminatory as applied).

312. *Ambach v. Norwich*, 441 U.S. 68 (1979) (alienage is a suspect class and therefore gets heightened scrutiny).

313. *Plyler v. Doe*, 457 U.S. 202 (1982) (illegal aliens are not a suspect class because they are not in the country legally).

314. *Craig v. Boren*, 429 U.S. 190 (1976).

315. *Lalli v. Lalli*, 439 U.S. 259 (1978) (the probate statute which contained the requirements for illegitimate children to take from their fathers on intestacy was supported by an important government interest (orderly disposition of property upon death) and the statute substantially advanced the important government interest).

The third level, traditional analysis, includes economic regulations,³¹⁶ wealth,³¹⁷ and age.³¹⁸ If the law distinguishes upon characteristics in any of these classes, the court will only apply minimum scrutiny: the "classification challenged must be rationally related to a legitimate state interest."³¹⁹ The court generally defers to the experience of the legislature in such cases.³²⁰

In order for high risk groups to qualify for heightened scrutiny, they must show either (1) they are being treated differently than others to whom they are similarly situated, or (2) they are or should be labeled a suspect class. Although a mandatory testing scheme may treat high risk individuals differently than the general population, high risk groups are not similarly situated to the general public — they participate in activity which puts them at risk of becoming infected with a fatal disease. Based upon this activity, the state should treat them differently. Moreover, the Supreme Court has been unwilling to extend the protection provided to suspect classes to groups other than race and alienage. In recent years, the Court has even cut back on those groups which qualify for heightened scrutiny under the suspect class analysis.³²¹ Therefore, it is unlikely that AIDS victims will be able to qualify as a suspect class. Indeed, the few courts that have dealt with this

316. *Railway Express Agency v. New York*, 336 U.S. 106 (1949) (the Court upheld a state statute which prohibited trucks from hiring out to advertise businesses other than their own in order to prevent traffic problems).

317. *San Antonio Indep. School Dist. v. Rodriguez*, 411 U.S. 1 (1973) (the Court held that wealth is not a suspect class because it has none of the indicia of suspiciousness).

318. *Massachusetts Bd. of Retirement v. Murgia*, 427 U.S. 307 (1976) (per curiam) (the Court upheld a mandatory retirement law because age is not a suspect class).

319. *City of New Orleans v. Duke*, 427 U.S. 297 (1976) (per curiam) (the Court upheld a state law which allowed certain vendors in the French Quarter to remain in business while prohibiting other vendors in the French Quarter and throughout the rest of the city in order to promote tourism).

320. *Id.* The Court said that there is a presumption of rationality and almost no scrutiny of the ends. "States are accorded wide latitude in the regulation of their local economies under their police powers, and rational distinctions may be made with substantially less than mathematical exactitude." *Id.* at 303.

321. *Craig v. Boren*, 429 U.S. 190 (1976) (the Court overruled prior cases which held that gender was a suspect classification and moved it down to a quasi-suspect class (where it gets only intermediate scrutiny)); *See also City of Cleburne v. Cleburne Living Center*, 473 U.S. 432 (1985) (the Court refused to include the mentally handicapped as a suspect class; this decision indicates that the Court is unwilling to create new suspect classes).

issue in the prison context have held that AIDS victims are not a suspect class.³²²

The Supreme Court is not likely to extend the "suspect class" to include those who will be tested under the plan proposed in this article, namely, arrested prostitutes IV drug users, prisoners and those who attend sexually transmitted disease clinics.³²³ These groups do not possess the typical characteristics of a suspect class because the group must be historically saddled with disabilities, the law must be the source of their disability, the condition must be immutable and not of their making, and they must be politically powerless.³²⁴ Therefore, high risk groups are unlikely to qualify for extraordinary protection from the majoritarian process.

In the prison context, inmates have not brought successful equal protection challenges against prison policies that segregate HIV-infected prisoners from the general prison population. Because, courts have refused to label infected prisoners a suspect class,³²⁵ their claims have not received heightened scrutiny. Rather, the courts have applied the lowest level of scrutiny: the state has only had to show that it had a legitimate

322. *Powell v. Department of Corrections*, 647 F. Supp. 968 (N.D. Okla. 1986) (AIDS victim in prison did not qualify for heightened scrutiny because they are not a suspect class); *Codero v. Coughlin*, 607 F. Supp. 9 (S.D.N.Y. 1984) (AIDS victims are not a suspect class; moreover, AIDS victims are not similarly situated to other prisoners and, therefore, the equal protection clause does not apply); *Marsh v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990) (AIDS victims are not a suspect class).

323. In *Bowers v. Hardwick*, 478 U.S. 186 (1986), the Court refused to recognize male homosexual sodomy as a protected interest (fundamental right) under the right to privacy. The Court did not address the issue of whether male homosexuals were a suspect class, which would seem to suggest that the Court would be unwilling to extend such protection to this class. This refusal is relevant to the testing issue because homosexual males are the most likely of any high risk group to be labeled a suspect class.

324. *San Antonio Indep. School Dist. v. Rodriguez*, 411 U.S. 1 (1973).

325. *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990) (AIDS victims are not a suspect class); *Powell v. Department of Corrections*, 647 F. Supp. 968, 971 (N.D. Okla. 1986) (the equal protection requirements will have been met if all the members of the class (HIV-infected prisoners) have been treated equally and the classification is not arbitrary; since the regulation was based on the inmate's HIV status and the inmate was not treated any differently than other infected inmate's, the segregation policy did not violate the equal protection clause); *Codero v. Coughlin*, 607 F. Supp. 9, 10 (S.D.N.Y. 1984) (the segregation policy did not violate the prisoners' constitutional right to equal protection for two reasons: (1) Although the equal protection clause requires that similarly situated persons be treated equally, this requirement did not apply to the plaintiffs because AIDS victims are not similarly situated to other prisoners, and (2) Even if the equal protection clause did apply, AIDS victims are not a suspect class).

interest and that the segregation policy was rationally related to that interest.³²⁶ Preventing the spread of a deadly disease within the prison walls and protecting the infected inmates from assault by other prisoners is a legitimate government interest, and segregation is rationally related to that interest.³²⁷ At least one court has recently held that the state's interest in preventing the spread of a deadly disease among prison inmates and prison officials rises to the level of a "controlling" state interest.³²⁸

Prostitutes have also been unsuccessful in claiming that a state health law aimed at sex offenders violates their constitutional right to equal protection. Because prostitutes are not a suspect class, the proposed regulation should be upheld unless the Court finds it irrational or arbitrary.³²⁹ In cases where the

326. *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990) (if the Equal Protection Clause does apply, the court only needs to find that there is a legitimate government end and the means are rationally related to that end); *Powell v. Department of Corrections*, 647 F. Supp. 968, 971 (N.D. Okla. 1986) (the classification is valid as long as it is not arbitrary or capricious); *Codero v. Coughlin*, 607 F. Supp. 9, 10 (S.D.N.Y. 1984) ("... as long as there is a legitimate government interest and the means used are rationally related to that end, the Equal Protection Clause is not violated").

327. *Powell v. Department of Corrections*, 647 F. Supp. 968, 970 (N.D. Okla. 1986) (the decision to segregate was based on a legitimate objective: "to prevent the spread of a deadly infectious disease and to protect Plaintiff from assault by other inmates"); *Codero v. Coughlin*, 607 F. Supp. 9, 10 (S.D.N.Y. 1984) (the state had a legitimate interest "to protect both the AIDS victims and other prisoners from the tensions and harm that could result from the fears of the other inmate's").

328. *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990). Courts often use the term "compelling" and "controlling" interchangeably.

329. The cases which have addressed state "hold and treat" laws (requiring that the person either take drugs for treatment of a venereal disease or be detained in jail for such treatment) or quarantine laws directed at prostitutes have not addressed the question of whether prostitutes are a "suspect class." Only one case has addressed an equal protection claim based upon this classification, *Reynolds v. McNichols*, 988 F.2d 1378, 1383 (10th Cir. 1973). In *Reynolds*, the court held that the "claim that the ordinance was enforced only against females, and not males, is, under the circumstances of this case, insufficient to invoke the equal protection provision of the Fourteenth Amendment," and "the fact that on the two occasions when the plaintiff was arrested in a hotel room the plaintiff's customer was not himself arrested and detained for examination is not significant." Therefore, although the cases involving laws aimed at prostitutes have not been analyzed on an equal protection basis (with the exception of the above case), the court has permitted reasonable classification in the exercise of the police power. See also *Zucht v. King*, 260 U.S. 174, 176-77 (1922) (the Supreme Court upheld an ordinance which forbade an unvaccinated child from attending either public or private school against an equal protection claim on the basis that in "the exercise of the police power

regulation has been aimed at prostitutes in order to protect public health, the courts have traditionally examined these regulations under the state's police power. These regulations, often referred to as "hold and treat" laws (laws which require those arrested for sex crimes to be detained in order to determine if they are infected with a venereal disease, and if so, to compel them to undergo treatment) have consistently been upheld as a valid exercise of the police power.³³⁰ In addition, quarantine laws aimed at prostitutes while leaving other groups unregulated, have been upheld as a constitutional use of the state's police power.³³¹

Even if AIDS carriers are not labeled a suspect class, they may still qualify for strict scrutiny if they can show that the law interferes with a "fundamental right." When a fundamental right is involved, the state must show that it has a compelling state interest and the regulation is narrowly tailored to meet that interest (i.e. there is no less restrictive alternative).³³² The Supreme Court has defined "fundamental right" as (1) those liberties that are "implicit in the ordered concept of liberty" such that "neither liberty nor justice would exist if [they] were sacrificed,"³³³ or (2) those liberties which are "deeply rooted in

reasonable classification may be freely applied and that regulation is not violative of the equal protection clause merely because it is not all embracing").

330. *Reynolds v. McNichols*, 488 F.2d 1378, 1382 (10th Cir. 1973) (the purpose of the ordinance is to bring in and treat the source of the communicable diseases, which had reached almost epidemic proportions; because it is reasonable to suspect that known prostitutes are a prime source of infectious venereal disease, the court concluded that this was a valid exercise of the state's police power); *Ex parte Woodruff*, 90 Okla. Crim. 592, 10 P.2d 191, 195 (1949) (a law which confers discretion on a local officer or board relating to police regulation for the protection of public morals, health, safety or general welfare may be constitutional; therefore, the statute requiring examination by health officials of persons arrested for sex crimes to determine whether they are infected with venereal diseases is constitutional); *Baker v. Strautz*, 386 Ill. 360, 54 N.E.2d 441 (1944) ("The power to detain a person who is suspected of having a contagious disease rests in the police power of the State. When a State employs its police power to safeguard the public health it may act in a summary manner even though the result is to deprive the citizen of liberty").

331. *Ex parte Clemente*, 61 Cal. 666, 215 P. 698 (Cal. 1923); *Huffman v. District of Columbia*, 39 A.2d 558 (D.C. 1944); *Ex parte Company*, 106 Ohio St. 50, 139 N.E. 204 (1922).

332. *Kramer v. Union Free School Dist.*, 395 U.S. 621 (1969); *Griswold v. Connecticut*, 381 U.S. 479 (1965).

333. *Bowers v. Hardwick*, 478 U.S. 186 (1986) (male consensual sodomy is not a fundamental right under either definition); *Palko v. Connecticut*, 302 U.S. 319 (1937).

our nation's history and tradition."³³⁴ These rights usually relate to either the democratic process or the individual's liberty interests. Those which are concerned with the democratic process include the right to vote³³⁵ and apportionment cases.³³⁶ Those fundamental rights concerned with an individual's liberty interest include the right to travel,³³⁷ the right to a fair criminal trial,³³⁸ the right to appeal in certain cases,³³⁹ the right to counsel,³⁴⁰ and the right of privacy.³⁴¹ The right to privacy is not a general right to privacy.³⁴² Rather, it protects certain individual decisions, such as the right to marriage and a

334. *Bowers v. Hardwick*, 478 U.S. 186 (1986); *Moore v. City of East Cleveland*, 431 U.S. 494 (1977).

335. *Harper v. Virginia Bd. of Elections*, 383 U.S. 663 (1966) (voting is a fundamental right and cannot be conditioned upon affluence).

336. *Reynolds v. Sims*, 377 U.S. 533 (1964) (that the districting scheme in a state election must be of substantial equality of population among the various districts); *Wesberry v. Sanders*, 367 U.S. 1 (1964) (the districting scheme in a federal election must be mathematically apportioned to one person one vote).

337. *Craig v. Boren*, 429 U.S. 190 (1976) (gender was a quasi-suspect class).

338. *Sheppard v. Maxwell*, 384 U.S. 333 (1966).

339. *Boddie v. Connecticut*, 401 U.S. 371 (1971) (the Court invalidated a state law which required divorce applicants to pay court fees and costs of service of process; since the state had a monopoly on the means to dissolve a marriage, due process prohibited the State from denying the means for legally dissolving this relationship solely on inability to pay); *Douglas v. California*, 372 U.S. 353 (1963) (state must provide counsel to indigent client on his first appeal granted as a matter of right from a criminal conviction); *Griffin v. Illinois*, 351 U.S. 12 (1956) (the state must provide "adequate and effective appellate review to indigent defendants").

340. *Argesinger v. Hamlin*, 407 U.S. 25 (1972); *Gideon v. Wainwright*, 372 U.S. 335 (1963).

341. *Roe v. Wade*, 410 U.S. 113 (1973) (the right to privacy is a fundamental right); *Griswold v. Connecticut*, 381 U.S. 479, 485 (1965) (the Court found that the right to privacy is one of the "penumbral" rights from the constitution which create zones of privacy).

342. The Supreme Court has not recognized a general right to privacy, and the lower federal courts have not been willing to do so either. *Hanzel v. Arter*, 625 F. Supp. 1259 (E.D.N.Y. 1985); *J.P. v. DeSanti*, 653 F.2d 1080 (6th Cir. 1981). Instead, the right to privacy has been limited to protecting an individual's choice in certain personal matters.

family,³⁴³ contraception,³⁴⁴ abortion,³⁴⁵ and childrearing and education.³⁴⁶

The most likely fundamental right at issue in a mandatory AIDS testing policy is the right to privacy. However, in order to qualify for strict scrutiny, the person would have to show that an individual decision, which should be protected by the right to privacy, is at issue. In other words, the person would have to prove that the right to privacy includes the right to participate in the particular high risk activity. It is very unlikely that the Court would expand the right to privacy to include IV drug use or homosexual sodomy.³⁴⁷ However, those who attend sexually transmitted disease clinics may have more success in arguing that they have a fundamental right at issue.³⁴⁸

343. *Zablocki v. Redhail*, 434 U.S. 374, 386 (1978) (right to marry cannot be conditioned on the marriage applicant submitting proof of compliance with a state statute which requires that the applicant obtain a court order granting permission to marry if he has minor issue not in his custody and which he is under an obligation to support); *Loving v. Virginia*, 388 U.S. 1 (1967) (right to marriage); *Skinner v. Oklahoma*, 316 U.S. 535 (1942) (right to procreation).

344. *Carey v. Population Servs. Int'l*, 431 U.S. 678 (1977) (the Court invalidated the state restrictions on distribution of nonprescription contraceptives to adults); *Griswold v. Connecticut*, 381 U.S. 479, 485 (1965) (right of privacy includes right to decide to use contraception).

345. *Akron v. Akron Center for Reproductive Health, Inc.*, 462 U.S. 416 (1983) (the Court clarified the limits of the state's power to regulate abortions); *Roe v. Wade*, 410 U.S. 959 (1973).

346. *Wisconsin v. Yoder*, 406 U.S. 205 (1972) (the Court held that the first and fourteenth amendments prohibited the state from requiring Amish children to attend secondary school until the age of sixteen); *Pierce v. Society of Sisters*, 268 U.S. 510 (1925) (although the state can compel a child to attend school, it cannot dictate whether the child goes to a public or private school); *Meyer v. Nebraska*, 262 U.S. 390 (1923) (the Court held that a state statute which prohibited teaching a foreign language in schools until the ninth grade was unconstitutional).

347. *Bowers v. Hardwick*, 478 U.S. 186 (1986) (the Court held that the right to privacy does not include consensual homosexual sodomy).

348. Because the Supreme Court has held that the fundamental right to privacy includes procreation and contraception, both of which involve heterosexual intercourse, the attendees of STD clinics may be successful in claiming that their right to privacy is intruded upon by mandatory AIDS testing. See *Carey v. Population Services Int'l*, 431 U.S. 678 (1977) (non-prescriptive contraceptives do not have to be distributed by a licensed physician); *Einstadt v. Baird*, 405 U.S. 438 (1972) (the decision to use contraceptives is protected by the right to privacy for both married and unmarried persons); *Griswold v. Connecticut*, 381 U.S. 479 (1965) (the decision between husband and wife to use contraception is protected under the fundamental right of privacy); *Skinner v. Oklahoma*, 316 U.S. 535 (1942) ("[m]arriage and procreation are fundamental to the very existence and survival of the race"). *Id.*

Therefore, the state will have to show that preventing the spread of AIDS is a compelling state interest and that this reasonable testing procedure is narrowly tailored to meet that interest. At least one court has held that controlling the spread of AIDS in the prison context is a compelling state interest.³⁴⁹ There is no reason that such a finding should be confined to the prison context. Considering the number of people currently infected, the number of lives this disease will claim, and the enormous cost to society, controlling the spread of AIDS is a "compelling state interest" and should be labeled as such. This program is narrowly tailored to meet that interest because it only calls for testing those high risk groups which are within the care of the state, either on the basis of health care or punishment.³⁵⁰ There is no less restrictive alternative available which is as effective as mandatory testing.³⁵¹

3. Unreasonable Searches and Seizures Under the Fourth Amendment

Every citizen possess a fourth amendment right against unreasonable searches and seizures.³⁵² In criminal cases, in order for the search to be "reasonable" the state must obtain a

349. *Harris v. Thigpen*, 727 F. Supp. 1564, 1572 (M.D. Ala. 1990). The court said that the State's interest in preventing the spread of such a disease among prison inmate's and prison officials is a controlling state interest. Because the state is responsible for the care of the inmates and may be liable to healthy inmates if the disease is communicated to them, this matter concerns the health and welfare. Therefore, the court found that it is not a matter of privacy but a matter of a controlling state interest. *Id.*

350. *See Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990) ("... a prisoner has entrusted his or her official care to the public by committing a crime for which he or she is convicted and he or she, therefore, becomes a public charge"). In addition, medical clinics accept public funds and therefore, those who attend the clinics are within the public care.

351. Although education and voluntary testing programs may be less restrictive, they are also relatively ineffective. *See supra* notes 192-211 and accompanying text.

352. U.S. CONST. amend. IV: The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated and no Warrants shall issue, but upon probable cause, supported by an Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized. *See Terry v. Ohio*, 392 U.S. 1 (1968) (the right to personal security belongs to both the citizen on the street as well as the homeowner); *Katz v. United States*, 389 U.S. 347 (1967) (the fourth amendment affects persons, not places; wherever a person may have a reasonable expectation of privacy, he is entitled to be free of governmental intrusion.); *Elkins v. United States*, 364 U.S. 206 (1960) (the Constitution does not prohibit all searches and seizures, just unreasonable searches and seizures).

warrant based upon a showing of probable cause.³⁵³ Probable cause typically involves individualized suspicion. However, a showing of individualized suspicion is not "an indispensable component of reasonableness in every circumstance."³⁵⁴ In certain non-criminal search and seizure cases, the search does not have to be based on probable cause and a warrant does not need to be issued in order to be "reasonable" under the fourth amendment.

In two cases decided last term, the Supreme Court explained the analysis which should be used in a non-criminal search and seizure case.³⁵⁵ Both cases involved mandatory drug testing of employees in certain high risk positions.³⁵⁶ The employees challenged the drug testing policies on the basis that they violated their fourth amendment right against unreasonable searches and seizures. Although the Court recognized that such tests do constitute seizures under the Fourth Amendment,³⁵⁷ it did not apply the traditional fourth amendment analysis used in criminal cases. Instead, the Court said that when the case involves a special government need, beyond the need for normal law enforcement, the court must balance the individual's privacy interests against the government's interests in order to determine if it is impractical to require a warrant or some degree of individualized suspicion.³⁵⁸ The warrant requirement was excused because the Court found that it would impede the state's interest and add little protection to

353. *Griffin v. Wisconsin*, 483 U.S. 868 (1987); *United States v. Karo*, 468 U.S. 705 (1984).

354. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384 (1989).

355. *See National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402 (1989).

356. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384 (1989) (United States Customs Service required drug testing all employees applying for a promotion to positions involving the interdiction of illegal drugs or requiring them to carry firearms); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1412-13 (1989) (Federal Railroad Administration required drug and alcohol tests of certain employees following major train accidents or incidents). "High risk" in this context does not refer to AIDS, but rather to those positions which involve public safety or national security.

357. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1390 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1412-13 (1989).

358. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1390 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1414 (1989).

the individual.³⁵⁹ Even where the warrant requirement is excused, the search must still be "reasonable," which ordinarily requires a showing of probable cause.³⁶⁰ However, the Court emphasized that the probable cause standard is particularly unhelpful when considering the reasonableness of "routine administrative functions, especially where the Government seeks to prevent the development of hazardous conditions."³⁶¹ In these cases, a showing of probable cause was not necessary because the state's interest in protecting public safety was beyond the normal law enforcement interest.³⁶² The government's need to conduct suspicionless searches (protecting the public safety) outweighed the individual's privacy interest.³⁶³ In its analysis, the court emphasized two important points: First, due to the nature of the employment, the employees had a diminished right to privacy because the industries were regulated to insure safety which, in turn, depends on the health and fitness of the employees.³⁶⁴ Second, blood tests are not a significant intrusion into the individual's privacy because they have become "routine in our everyday life."³⁶⁵ When the government's special interest in protecting the public safety could not be served if a showing of probable cause was necessary, it may conduct a search without a showing of individualized suspicion.

Mandatory testing of high risk groups will have to be carried out without individualized suspicion. However, based on

359. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1390-91 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1415-16 (1989).

360. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1391 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1416 (1989).

361. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1391-92. (1989).

362. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1390 (1989) ("It is sufficient that the Government have a compelling interest in preventing an otherwise pervasive societal problem from spreading to the particular context." *Id.* at 1395 n.3); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1414 (1989).

363. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1392 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S.Ct. 1402, 1421 (1989).

364. *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384, 1393-94 (1989); *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1418 (1989).

365. *Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402, 1417 (1989) (quoting *Schmerber v. California*, 384 U.S. 757, 762 (1966)); *Breithaupt v. Abram*, 352 U.S. 432, 436 (1957).

the above cases, such a policy is not unconstitutional. These groups are known to have a high rate of infection, and they present a serious risk to the health of the community. If the government is to limit the spread of AIDS, it must be able to test on a group basis. To require individual suspicion in each case would place such a burden on the government that it would impede its ability to control the spread of the disease.

In the area of public health, the courts have permitted the testing of those within a certain class. Although fourth amendment challenges to such laws were not brought by the plaintiffs nor were they addressed by the courts, laws which mandate testing prostitutes for venereal disease have been upheld as a reasonable exercise of the state's police power. In *Ex Parte Woodruff*,³⁶⁶ the Criminal Court of Appeals in Oklahoma upheld the statute which required examination and treatment for venereal disease of those persons arrested for sex crimes, including prostitution. The court held that these rules are "reasonable for the purpose of determining the infectivity of persons suspected of having venereal disease or diseases, and for the prevention of the spread thereof, which is in accordance with the legislative intent, and for the public welfare."³⁶⁷ Likewise, the United States Court of Appeals for the Tenth Circuit upheld a similar statute in *Reynolds v. McNichols*.³⁶⁸ In this case, an arrested prostitute challenged the city's "hold and treat" ordinance which required examination and treatment of one reasonably suspected of carrying a venereal disease. The purpose of the statute was to control the spread of venereal disease which "had reached virtually epidemic proportions."³⁶⁹ The court found that the "hold and treat" ordinance was a reasonable means of bringing this problem under control: "[I]t is reasonable to suspect that known prostitutes are a prime source of infection. Prostitution and venereal disease are no strangers."³⁷⁰ The court held that the statute was a "valid exercise of the police power designated to protect the public health."³⁷¹ The court relied on the frequency of infection of

366. 90 Okla. Crim 59, 210 P.2d 191 (1949).

367. 210 P.2d at 197.

368. 488 F.2d 1378 (10th Cir. 1973).

369. *Id.* at 1381.

370. *Id.* at 1382.

371. *Id.* at 1382. The court also noted that similar statutes and ordinances had been upheld by numerous state courts. *See, e.g.* *City of Little Rock v. Smith*, 204 Ark. 692, 163 S.W.2d 705 (1942); *Varholly v. Sweat*, 153 Fla. 571, 15 So. 2d 267 (1943); *People v. Strautz*, 386 Ill. 360, 54 N.E.2d 441 (1944); *Welch v. Shepard*, 165 Kan. 394, 196 P.2d 235 (1948); *Ex parte Fowler*, 85 Okla. Crim. 64, 184 P.2d 814 (1947).

prostitutes rather than on any individualized suspicion in order to justify the ordinance as "reasonable."

Non-consensual, group-based testing has also been upheld in the prison context. Prison policies which require mandatory testing for communicable diseases, including HIV, do not violate the fourth amendment right against unreasonable searches and seizures.³⁷² In the two cases which involve mandatory HIV testing, the courts held that the prison's need to test all prisoners in order to limit the spread of the disease in prisons and to protect the healthy inmates outweighed the prisoner's diminished right to privacy.³⁷³ In addition, the state had to show that the means (the regulation) used to attain this need, were "reasonably related to legitimate penological interests."³⁷⁴ The court found that the method of testing was a "sufficiently productive mechanism to justify intrusion upon Fourth Amendment interests."³⁷⁵ Therefore, this "search," which lacks individual suspicion, is reasonable under the fourth amendment.³⁷⁶

372. *Dunn v. White*, 880 F.2d 1188 (10th Cir. 1989) (the court upheld mandatory HIV testing of all prisoners); *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990) (the court upheld the mandatory HIV testing of all prisoners); *Lareau v. Manson*, 507 F. Supp. 1177 (D. Conn. 1980), *aff'd in part, modified in part on other grounds and remanded*, 651 F.2d 96 (2d Cir. 1981) (the prison must screen all prisoners for communicable diseases).

373. *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990). The court said that "[t]he case necessarily involves a balance of rights and duties to affected inmates with those of unaffected inmates and with the State's rights and duties to effect reasonable penological administration." *Id.* at 1567. It is well-established that prisoners have a decreased expectation of privacy. *Id.* at 1568. The court found that the healthy inmates' right not to be exposed to a fatal disease and the prison's interest in controlling the spread of the fatal disease outweighed the plaintiff's privacy interests. *Id.* at 1583. The court found added support in the fact that the Supreme Court has held that a state's statutory authority permits it to order an examination, including blood tests, where the condition of a person in its custody is in controversy. *Id.* at 1571. *See also Dunn v. White*, 880 F.2d 1188, 1195 (10th Cir. 1989) (The court concluded that in light of the seriousness of the disease, the prison's legitimate interest outweighed the prisoner's diminished right to privacy. *Id.* at 1195. Incarceration reduces the prisoner's privacy expectation in his body, quoting *Bell v. Wolfish*, 441 U.S. 520 (1979)); *See also Camden & Suburban Ry. Co. v. Stetson*, 177 U.S. 172 (1900).

374. *Dunn v. White*, 880 F.2d 1188, 1194 (10th Cir. 1989) (quoting *Turner v. Safley*, 482 U.S. 78, 89-90 (1987)).

375. *Id.* at 1196 (quoting *Delaware v. Prouse*, 440 U.S. 648, 658-59 (1979)).

376. *Dunn v. White*, 880 F.2d 1188, 1193-96 (10th Cir. 1989) (quoting *National Treasury Employees Union v. Von Raab*, 109 S. Ct. 1384 (1989)). *See also Skinner v. Railway Labor Executives' Ass'n*, 109 S. Ct. 1402 (1989).

4. Cruel and Unusual Punishment

Testing and segregating prisoners does not rise to the level of cruel and unusual punishment under the eighth amendment.³⁷⁷ The eighth amendment only guarantees that prisoners receive "adequate food, clothing, shelter, sanitation, medical care and personal safety."³⁷⁸ Some courts rely on Chief Justice Rhenquist's dictum in *Atiyeh v. Capps*,³⁷⁹ where he said:

[i]n short, nobody promised them [prison inmates] a rose garden; and I know of nothing in the eighth amendment which requires that they be housed in a manner most pleasing to them, or considered even by most knowledgeable penal authorities to be likely to avoid confrontations, psychological depression and the like. They have been convicted of a crime and there is nothing in the Constitution which forbids their being penalized as a result of that conviction.³⁸⁰

Furthermore, if the prison does not test all prisoners for HIV infection, it may violate the eighth amendment rights of the uninfected prisoners. At least one court has held that failure to screen prisoners for communicable disease violates constitutional rights of other prisoners.³⁸¹ Other courts have suggested that failure to protect healthy inmates from those infected with AIDS may rise to the level of violating their

377. *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990); *Dunn v. White*, 880 F.2d 1188 (10th Cir. 1989); *Codero v. Coughlin*, 607 F. Supp. 9 (S.D.N.Y. 1984).

378. *Codero v. Coughlin*, 607 F. Supp. 9, 11 (S.D.N.Y. 1984) (quoting *Wolf v. Levi*, 573 F.2d 118, 125 (2d Cir. 1978)).

379. 449 U.S. 1312 (Rehnquist, Circuit Justice 1981).

380. *Id.* at 1315-1316 (cited in *Codero v. Coughlin*, 607 F. Supp. 9, 11 (S.D.N.Y. 1984)).

381. *Lareau v. Manson*, 507 F. Supp. 1177 (D. Conn. 1980), *aff'd in part, modified in part on other grounds and remanded*, 651 F.2d 96 (2d Cir. 1981). The court said:

[T]he defendants have failed adequately to screen newly arrived inmates in order to identify and segregate from other inmates persons carrying communicable diseases. The threat posed to all HCCC [Hartford Community Correction Center] inmates by this practice is obvious. A medical 'screening' examination shortly after admission to a correctional facility is therefore widely recognized to be essential to the health of the inmates. . . . [T]he resulting threat to the well-being of the inmates is so serious, and the record so devoid of any justification for the defendants' policy, that . . . this practice constitutes "punishment" in violation of due process.

Id. at 1195 n.22.

eighth amendment rights.³⁸² The court in *Thigpen* used stronger language: "The Eighth Amendment provides inmates with the right to a safe and secure environment. Allowing inmates with AIDS to be introduced into the general population may be violative of the general population inmates' Eighth Amendment right."³⁸³ Moreover, allowing the infected inmates into the general prison population may amount to cruel and unusual punishment to the uninfected because they may receive a punishment which is not in proportion to their crime. In other words, they may receive a punishment which amounts to a death sentence.³⁸⁴ The court concluded that segregation was an appropriate measure to protect the constitutional rights of the healthy prisoners.³⁸⁵

In coming to the conclusion that mandatory testing of all prisoners does not violate the inmate's constitutional rights, the court in *Thigpen* said that although it is regrettable that these inmates are infected with a fatal disease, it does not mean that the plaintiffs can selfishly claim a right that would expose other inmates to their problems independent of any rights of the other inmates to be protected from the disease.³⁸⁶ The court said that it must consider the rights of the general prison population in order to determine if the policies in question were permissible.³⁸⁷ These considerations should not be limited to the prison context. The rights of the general population to be free of a deadly disease justify the establishment of mandatory testing policies for other high risk groups. Mandatory testing is justifiable in the AIDS context because certain groups are known to be at high risk of carrying the disease. Based upon this knowledge, the state has a duty to protect others not within those classes.³⁸⁸

V. CONCLUSION

An efficient and effective mandatory testing policy includes testing arrested prostitutes and IV drug users, prisoners, and

382. *Dunn v. White*, 880 F.2d 1188, 1195 (10th Cir. 1989); *Glick v. Henderson*, 855 F.2d 536 (8th Cir. 1988).

383. *Harris v. Thigpen*, 727 F. Supp. 1564 (M.D. Ala. 1990).

384. *Id.* at 1572.

385. *Id.*

386. *Id.*

387. *Id.*

388. *See Lareau v. Manson*, 507 F. Supp. 1177, 1195 n.22 (D. Conn. 1980) (failure to screen prisoners for communicable disease violates constitutional rights of other prisoners), *aff'd in part, modified in part on other grounds and remanded*, 651 F.2d 96 (2d Cir. 1981).

those who attend sexually transmitted disease and drug abuse clinics. The identifiable high risk groups render an organized testing scheme efficient, and the certain fatality of the disease makes testing necessary. These groups are already within the public health care system and, therefore, are reachable. It is effective because it is advantageous to both the infected and the uninfected. First, it protects third parties from infection, thereby slowing the spread of the disease. Indeed, among some high risk groups testing is associated with a reduction in high risk activity.³⁸⁹ Second, testing is advantageous to the community because providing treatment in the early stages of the disease saves money in the long run. Third, it provides reliable epidemiological data so that the health care system can provide and plan for the incidence of this disease. Testing is advantageous to those who are at high risk of infection, because health care professionals can identify the infected individuals and give them treatment. In light of the recent advances in treatment for HIV infection, it is to the advantage of the infected person to know his or her status. Early diagnosis is also advantageous since some forms of treatment are more effective if the patient receives them before the onset of the symptoms. Finally, health care professionals know to whom they should direct counseling and other support services in the hope that it will lead to permanent behavior modification, and in the hope that it will help the person to cope with the disease.

These groups are not only at a high risk of infection, but they pose a serious risk to the health of the community. They are likely to transmit the disease to innocent, healthy members of society. Although those who are infected with the virus have rights, the state also owes a duty to those who are not infected. The state is obligated to protect the health and welfare of all its citizens. With almost every other contagious disease in history the government has acted in a more aggressive manner than it has with respect to the AIDS epidemic.³⁹⁰ Because the state

389. See *supra* notes 175-176 and accompanying text.

390. In the past, public health officials have treated contagious diseases in the following way: locate the carriers, inform those who may have been exposed, offer counseling to prevent further transmission, and ensure that infected persons stop all activity which spreads the disease. Those who continue to spread the disease have been incarcerated. These procedures are followed in nearly every state with regard to such STDs as syphilis and gonorrhea. Dannemeyer & Franc, *supra* note 190, at 47. For an example of legislation which treats other communicable diseases as reportable diseases and which enable public health authorities to quarantine an infected person should their behavior threaten the public, see ALA. CODE § 22-11A-3 (1987),

and federal governments have not adequately moved against the HIV virus, they have not fulfilled their obligation to protect the public health. One group of people should not be permitted to exercise their rights to the detriment of others. So far, most states have exempted high risk groups from reasonable regulation, thereby allowing them to exercise their rights to the detriment of the community.

