A SURVEY OF HEALTH CARE PROVIDERS' BELIEFS ABOUT TESTING FOR HUMAN IMMUNODEFICIENCY VIRUS

A Master's Thesis
Presented to
The Oregon Health Sciences University
School of Nursing
in partial fulfillment
of the requirements for the degree of
Master of Nursing
June, 1989

by
Holly O. Coit, B.S.N.

APPROVED:

[redacted]

Joyce Semradek, R.N., M.S.N., Thesis Advisor

[redacted]

Barbara Gaines, R.N., Ed. D., First Reader

[redacted]

Marna Flaherty-Robb, R.N., M.S.N., Second Reader

[redacted]

Carol A. Lindeman, R.N., Ph.D., Dean, School of Nursing

Table of Contents

Table of Contents (continued)

List of Tables

Chapter 1

Issues Underlying AIDS Testing

Introduction

Acquired Immunodeficiency Syndrome (AIDS) is one of the most critical community health problems facing health care providers. It has been termed one of the greatest health crises in the history of the United States. The number of cumulative cases of AIDS in the United States diagnosed by 1992 is predicted to be between 365,000 and 380,000 persons (World Health Organization, 1989). "It is a fatal infectious disease for which there is now no cure, and its sufferers appear to remain infectious for life. HIV infection and AIDS strike primarily the most productive group of society - young adults" (Institute of Medicine, National Academy of Sciences, 1988). Faced with the growing threat of this epidemic, health care providers are responding to the overwhelming task of providing care, information and comfort to those afflicted with the disease.

The prevention of AIDS will be a primary goal of health care providers during the next decade. It is conceivable that the use of widespread testing to identify both infected and non-infected persons will be one means of altering the course of spread of AIDS. By identifying those infected with HIV, it may be possible to alter behavior that allows transmission of the virus. Individuals can be counseled to reduce high-risk behaviors, and those persons who are seronegative for the virus can potentially avoid contact with it. Donald R. Hopkins, deputy director of the Federal Centers for Disease Control in Atlanta made the following statement at the May, 1987, international AIDS meeting:

> The main task, simply stated, is to identify all infected persons as quickly as possible and persuade them to avoid transmitting the infection to others, while simultaneously seeking to convince everyone else to avoid putting themselves at risk of infection.

The enormity of this task, if it is to be accomplished, will require widespread testing for HIV.

Testing for the AIDS virus raises many issues. These issues are complex for two reasons. First, the effectiveness of testing in preventing transmission is, itself, an issue. Whether or not testing for HIV can actually influence risky behavior has not been established. In two recent studies where individuals in high-risk groups were tested, a majority of the participants were unable or unwilling to curb their high-risk behaviors after learning they were seropositive (Staver, 1987). Second, the issues include questions related to regulation and the possibility of violation of patient-provider confidences. Inherent in each of these questions is the tension or conflict between individual and collective rights.

One of the most hotly debated questions with respect to testing for HIV is whether testing for AIDS should be voluntary or should be required. Both the Center for Disease Control (CDC) and the World Health Organization (WHO) advocate voluntary testing for AIDS. These organizations have strongly endorsed voluntary testing for HIV because mandatory testing may violate certain civil rights (i.e., right to privacy) and because the mandate to test for AIDS may drive away those persons most in need of counseling and testing. For example, if screening were mandated at drug treatment centers where IV drug abusers are at an increased risk, the argument is made that drug abusers would not seek treatment.

Another issue is who should be tested. The call for mandatory testing has ranged from targeting only those at high risk of contracting AIDS to those such as marriage license applicants. The importance of confidentiality is recognized in the following quote from the recommendations published by the CDC for reducing the transmission of HIV:

> Accomplishing the objective of interrupting transmission by encouraging testing and counseling among persons in high-risk groups will depend heavily on health officials paying careful attention to maintaining confidentiality and protecting records from unauthorized disclosure. (MMWR, March 14, 1986)

The concern is that disclosure will lead to employment, insurance and housing discrimination for those individuals who are seropositive.

Another issue relates to the confidentiality of test results. Should positive test results remain confidential or should certain groups (i.e., health officials and hospitals) have access to those results? The argument against confidentiality of test results is that it may be possible to halt the transmission of the virus if an awareness exists as to who is infected. One example of this is health care providers involved in direct patient care who may be better able to protect themselves against infection with HIV.

The issue of reporting positive test results to public health authorities and possible contact tracing is also controversial. How test results are used is largely left to the discretion of the health care provider. Although reporting is required, contact tracing is optional in all but one state (Colorado). Compliance with the reporting regulation may vary between public and private practice.

Another issue related to reporting of positive HIV tests, or "what happens to the results," is that of confidentiality versus duty to warn. Third parties (i.e., health care providers) may be liable if they fail to warn uninformed contacts about their potential to become infected from seropositive patients. At issue is the balance between right to privacy of the infected person and protection of others who are not informed. To date, no law suits exist in which a health care provider has been held liable for failure to warn a contact of his/her patient. Although liability suits have been settled for the plaintiffs in AIDS cases, they have related mostly to transmission of the virus through contaminated blood.

Finally, the course of the epidemic of AIDS is so unlike any other in modern times that its very nature is likely to shape what health care providers believe about it. Because the incubation period may be as long as 10 years and the incidence of contracting AIDS among seropositive persons is unknown, a fear and mystery surround this disease. It does not behave like typical infectious diseases or sexually transmitted diseases, but rather has elements of both. Finally, the fact that AIDS, thus far, has been very specific in the groups it has targeted (i.e., homosexual men and IV drug abusers, their children and partners) has added another element to the epidemic in that those in some of those groups have marginal acceptance in society. This has ramifications for these groups (I.V. drug users and homosexuals) in that they are not part of mainstream America and may have less success getting the needed resources to fight the disease. In addition, there is heightened concern about privacy among members of the gay community who fear reprisal because of their sexual orientation.

That AIDS has become a political matter should come as no surprise. Funding for AIDS education, research and health care has become a controversial political issue. Because the disease effects so many aspects of public health, it is likely that at some point local, state or Federal governments may become involved by mandating laws related to testing for the AIDS virus. It becomes possible at that point for public policy law to dictate the practice of health care professionals.

The debate over liberty and privacy versus the demands of public health has been a compelling one. ". . . The ultimate question posed for American society by the AIDS epidemic is whether it will be possible to develop public health strategy that is at the same time attentive to liberal concerns over privacy" (Bayer, 1987). Relating directly to this conflict are the issues of testing for HIV. It is likely that some, if not most, of these questions will be resolved in the political, law-making bodies across the country.

Nurse practitioners and physicians are the health care providers who will implement any testing, reporting policies, or laws related to AIDS. For any policies to be successful, therefore, it requires their cooperation and support. It is reasonable to assume that health care providers' beliefs about testing for HIV may influence their compliance with any regulations about such testing.

Health care providers' beliefs about testing for AIDS will be influenced by their beliefs in its effectiveness, which, in turn, are related to the following: (1) whether testing is mandatory or voluntary, and (2) what reporting and followup procedures are established. In addition their beliefs on these issues reflect the tension between the often conflicting professional responsibilities to preserve and protect both the confidentiality of their patients' disclosure and the public health. Although, there are many other issues of importance to health care providers with respect to AIDS, such as the psychological consequences of testing and the counseling of persons screened, these are beyond the scope of this study and will not be discussed here. The issues identified above provide the conceptual framework for the review of the literature. The issues were selected for study because they are pertinent to health care providers involved or potentially involved in testing for HIV.

The purpose of this study is, therefore, to begin to discover what health care providers believe about testing for HIV. Information about the beliefs of health care providers could begin to provide knowledge that can be used in two ways. First, it can be used by health care providers and policy makers to influence policy so that it is realistic and in keeping with what physicians and nurse practitioners believe can be implemented or are willing to implement. Secondly, the information can be used to develop policies for health care providers and health administrators to ensure their acceptance of and compliance with testing policies for AIDS. Data could also be used by health care providers to help develop their own internal policies for dealing with testing issues. The information may also be helpful to program planners when developing programs for meeting the needs of a large population.

Review of the Literature

The review of the literature has been organized around four major areas: (1) AIDS as an epidemic, (2) testing for HIV, (3) reporting and (4) confidentiality and duty to warn. These areas were chosen because of their relevance for health care providers.

AIDS as an Epidemic. AIDS is both like and unlike other "epidemics" and infectious diseases both present and past. One aspect in which AIDS is similar to other epidemics is that debates over the disease are influenced by political concerns. For more than a century as health care providers battled smallpox, yellow fever, leprosy, typhoid, tuberculosis, and syphilis, society has sought to balance individual concerns with infectious disease control. The fact that AIDS originated with homosexuals, IV drug abusers and, to some extent, aliens has shaped the character of the disease, making it palpably different than "other venereal diseases" which seem to affect all classes and groups within society. It has similarities and differences as well, when compared to non-infectious diseases such as cancer and heart disease. How AIDS differs from other "scourges" of disease will be further examined.

More than a century ago, John Snow demonstrated that cholera could be controlled when a single source of contaminated water was identified; he curtailed the epidemic when he removed a contaminated pump handle (Mayer, 1985). Snow's experiment was perceived as circumstantial and received little support from the society of medical and scientific experts since the theory of "contagionism has been so recently and so definitely discredited by Europe's most celebrated medical experts" (McNeil, 1976).

Part of the reason there was resistance to the acceptance of the "germ theory" was the political implications it had for trade and commerce. As Charles Rosenberg has shown in his Cholera Years, those concerned with free trade "were loathe to accept the theory of contagion lest they provide justification for the imposition of quarantine" (Bayer, 1986). AIDS, too, has attendant political concerns, though not primarily those of commerce, but rather those issues related to quarantine and other regulatory aspects of communicable disease control. Whereas quarantine, in the case of cholera, affected trade, proposed quarantine for AIDS patients imposes a personal restriction.

Other similarities between AIDS and cholera include the unique psychological impact of the two killers. As William McNeil documents in his comprehensive Plagues and People, cholera had long been endemic in Bengal before being spread to other parts of the globe. He describes how cholera caused death within a few hours of the first signs of illness and, although this differs from AIDS, the fear produced is the same, that is, "healthy people could never feel safe from death" (McNeil, 1976). Further, "cholera seemed capable of penetrating any quarantine, of bypassing any man-made obstacle, thus adding to more psychological stress."

The fear of AIDS in high-risk groups, as well as those not presently labeled as such, can be incapacitating in itself. Because individuals can be seropositive <u>and</u> asymptomatic for years, tremendous implications for transmission as well as "peace of mind" exist in the "worried well" and in those infected.

AIDS has additional similarities to other infectious diseases. It is like tuberculosis (TB) and hepatitis-B for the following reasons: (1) Hepatitis-B affects homosexual men and IV drug abusers at greater rates than the general population, as does AIDS. In AIDS, the higher incidence may be due to the high proportion of IV drug abuse and prostitution in the population. (2) Like AIDS, TB presently affects urban poor in greater numbers than the more affluent although the mechanisms by which that occurs may be different. The incidence of TB is related to overcrowding, malnutrition and poor sanitation found in inner city ghettos. (3) As in all diseases, health care providers are at risk, particularly when patients with HIV are undiagnosed and appropriate precautions cannot be instituted. Further, the risk of contracting hepatitis-B and AIDS in the hospital through blood contamination (i.e., finger pricks, contact with infected body fluids) causes fear in health care providers. The extent of the risk of becoming seropositive "from a single needlestick exposure is estimated to be 0.5 percent (one in 200)" (Presidential Commission on the Human Immunodeficiency Virus Epidemic, 1988). Despite this relatively low incidence, a real fear exists because of the consequences of HIV infection. (4) Finally, in both AIDS and hepatitis-B, asymptomatic carriers are able to transmit the disease. Thus, identification of the carrier states has major implications for control.

Some of the similarities between AIDS and other epidemics and infectious disease have been discussed. How it <u>differs</u> is important to understand and explains why it is so politicized.

> In the course of human history infectious diseases such as the bubonic plague of 1348 or the influenza pandemic of 1918 have decimated whole populations. Public health measures, vaccines, and antibiotics have largely freed technologically advanced societies from such scourges. More recently, highly pathogenic and previously unrecognized infectious agents have been discovered (Legionella pneumophilia and the Marburg and Ebola viruses), but diseases they produced were geographically limited, or--as in the case of Legionnaire's disease--amenable to treatment. (Krim, 1985)

Now a fatal and incompletely understood disease has suddenly appeared in the last decades of this century and in the most technologically advanced countries. To quote Altman, ". . . it has occurred at a time when modern medicine was believed to be well on the way to abolishing epidemic diseases altogether, at least in the Western world" (1986). Because AIDS has occurred at a time when the era of infectious diseases was thought to be ending is one reason why it has such political implications.

In AIDS in the Mind of America, Altman makes three points which illustrate how AIDS differs as a modern epidemic from our previous experiences with epidemics. First, the belief that modern medicine can control or cure disease means that there is immediate pressure on governments to act once an outbreak of disease occurs. From the beginning, AIDS has unleashed debate regarding funding, treatment and research issues.

Secondly, with the exception of parts of Africa, AIDS has been very specific in the groups it has affected. Those groups are male homosexuals and IV drug abusers. These groups share the dubious distinction of occupying stigmatized positions within society.

Finally, Altman points out that AIDS is firmly linked with sex, although it is not the only method of transmission. ". . . Except for syphilis before the discovery of antibiotics, no life-threatening illness has had the potential of AIDS to be linked so clearly to sexuality and personal behavior" (Altman, p. 27). The author goes on to note that the comment of historian Allan Brandt on venereal disease is equally true of AIDS: ". . . It is seen as a revenge against the sexual revolution and the modern medical technology that helped to make it possible" (1985, p. 40).

Other authors have supported Altman's contention that because AIDS targets specific groups it changes the character of the infectious disease. "From the beginning, those primarily at risk have been members of groups viewed with suspicion, fear, and hatred, when not simply with disdain. . . ." (Bayer, 1986) AIDS, unlike other epidemics of which polio and Legionnaires' disease are the most recent, is not seen as threatening the population at large. It has been seen as the curse of what Altman describes as "the other." However, this view may be changing with more recent reports of heterosexual, middle-class transmission (Bazell, 1986; and US News and World Report, 1987).

<u>Testing for HIV</u>. Questions about testing for HIV include the issue of mandatory versus voluntary testing. If testing is mandatory, at whom should it be directed. A pivotal issue revolves around the question of who should decide whether testing will be mandatory or voluntary. Whether it should be left to those providing care, administrators of health care agencies, governmental bodies or some combination of the three has yet to be determined. How mandatory testing will affect the health care provider's practice is also unknown, as is the potential influence health care providers can have on legislation related to testing. Finally, that testing will decrease the transmission of the disease has been postulated, but to what extent, if any, is unknown.

Mandatory testing has been widely discouraged by both public and private health officials. Additionally, the CDC, WHO and PHS have all taken public positions against the use of mandatory testing for HIV. Dr. Donald R. Hopkins, deputy director of the CDC, stated that national political leaders must "avoid distracting sideshows" such as the call for mandatory testing and quarantines because of the fear that it will "drive infected people underground" (New York Times, 6/8/87).

Bayer and Levine in their comprehensive ethical framework for evaluating proposed screening programs discuss the issue of mandatory testing and conditions, as yet unmet, under which it could be justified.

> Universal mandatory screening can be justified on the basis of beneficence when a therapeutic intervention is available or when an infectious state puts others at risk merely by casual contact. However, neither is the case with AIDS. Thus, there is no demonstrable public health benefit that justifies universal mandatory screening, given the invasion of privacy involved. (1986, p. 1770)

Bayer and Levine go on to say that, at one extreme, advocates of universal mandatory screening suggest it to be a prelude to quarantine. Bayer and Levine believe that "this would entail a sweeping deprivation of civil and human rights." They also suggest that isolation would increase the incidence of the disease because those segregated "would become a closed community, with the prospect of repeated reinfection."

Bayer and Levine discuss the less drastic aspects of the call for mandatory testing as well. They state that some advocates see it "as a way of making each individual learn his or her antibody status, hoping it will prompt behavioral change." Given that the prospect of long-term behavioral change is complex at best, and that the cost and intrusion it entails is enormous, universal mandatory screening would be unacceptable, on the ground of beneficence alone (Bayer and Levine, 1986).

Other authors have concurred with Bayer and Levine. Gostin and Curran in their discussion of screening, confidentiality and duty to warn remark that "justification of legally authorized selective screening must be based upon the undisputed achievement of protection of the public health which clearly outweighs the invasion of individual privacy. . . ." (1987) They offer five criteria for determining whether mandatory screening programs would constitute prudent public policy. Briefly, the five criteria are: (1) The selected populations should have a reservoir of infection so that there are not disproportionate numbers of infected persons having to submit to the test. (2) The environment in which the population operates should show an increased rate of transmission. (3) The results of the tests should enable the testers to halt the spread of the virus. (4) The consequences of the testing should not be disproportionate to the benefits. (5) There are no less restrictive measurements which would be equally effective in controlling the spread of the disease.

According to the criteria of Gostin and Curran, presently proposed testing programs are not justifiable. Additionally, they go on to state universal mandatory screening programs should be based on the premise that testing will lead to behavior change. Although Staver et al. (1986) have shown that testing has not led to behavior changes, this critical question still remains unanswered and needs further study.

While the prevailing view of public health officials is that testing for HIV should be voluntary, some political leaders have argued for mandatory screening. In addition, there have been a number of public opinion polls that show a majority of citizen respondents support mandatory testing (US News and World Report, 4/20/87; and Seattle Times, 1987).

At the 1987 International Foundation for AIDS Research meeting, President Reagan proposed mandatory testing for certain groups of people, including prisoners, immigrants and military recruits. Republican presidential candidates George Bush and Jack Kemp also have called for mandatory screening of couples applying for marriage licenses. US News and World Report and CNN published a poll conducted by the Roper organization in March, 1987, which showed strong public support for massive AIDS testing. "Three fourths favor tests for anyone entering a hospital. Two-thirds believe restaurant workers should be checked, even though public-health experts have stressed that AIDS cannot be transmitted while handling food." A Seattle Times poll, conducted by Elway Research in April, 1987, showed strong support for the increased use of mandatory testing for HIV.

A related issue to testing for HIV involves the question of who decides who should be tested for HIV. Presently, the questions of mandatory versus voluntary testing, confidentiality of test results and laws prohibiting the discrimination of AIDS patients are being addressed in the state legislatures. Richard Merritt, director of George Washington University's Intergovernmental Health Policy Project, which tracks AIDS legislation, expects that state lawmakers will be considering more than 400 bills by the end of May (1987)" (USNW, 4/20/87). Physicians, too, are becoming increasingly involved in the legislative determination of testing. In March of 1987, the California Medical Association adopted a resolution challenging a state law that guarantees confidentiality in AIDS cases. The position of the group is to allow positive test results to be shared with all MDs involved in the care of the infected patient. In addition, the American Medical Association is considering a resolution to invoke immunity for a physician who warns a contact of an infected patient.

To what extent mandatory testing will affect a health care provider's practice is not known. How well they (MDs and NPs) comply with any further regulation is a question which may soon be faced, given the number of AIDS bills being debated before the various legislatures.

Reporting. At the heart of the controversy regarding testing for HIV is the basic conflict between individual liberty and protection of the general good. The right to privacy may be threatened when AIDS test results are reported.

Watson, in his commentary on "AIDS and a duty to protect," cites the American College of Physicians Ethic Mantle which states:

> The physician shall keep secret all that he knows about the patient and release no information without the patient's consent, unless required by law or unless resulting harm to others outweighs his duty to his patient. (1987)

The laws of most states do require reporting of sexually transmitted diseases such as syphilis and gonorrhea as well as other infectious diseases such as hepatitis-B and tuberculosis.

A significant development related to AIDS testing was the licensed ELISA antibody test kits in March, 1985. The test kits enabled researchers and clinicians to ascertain antibody status in a way never before available. With this development, came increased concern about potential violations of privacy. This concern has prompted several states to consider and/or enact legislation to protect disclosure of test results. "California has been the only state that has passed legislation that specifies confidentiality standards for using the antibody test in

AIDS research, requiring informed consent and a description of intended disclosures prior to participation and establishing a civil cause of action, as well as criminal penalties for violations of confidentiality" (Matthews and Neslund, 1987).

Disease surveillance, which includes reporting and screening, can be defined as "the continuing scrutiny of all aspects of occurrence and spread of a disease that are pertinent to effective control" (Fox, 1986). In his comprehensive review, Fox outlines the history of surveillance and reporting of infectious disease, primarily in the United States. He notes that the "history of physician's reports of cases to public health officials is usually presented as a struggle" (1986). The historical arguments for and against reporting are as follows: (1) Advocates of reporting justify their stance with arguments about its scientific necessity and cite the ethics of collective responsibility. (2) Those opposed to reporting, generally private physicians, accord a higher priority to the protection of their patient's privacy.

Fox goes one step further and advances the notion that reporting of disease is actually a political problem, "as a series of accommodations among people with different beliefs about the public interest, patient's interests, and their own self-interest" (1987). Fox goes on to say:

> The critical issues have never been scientific or technological. Debates about reporting have always been about ideology, about the distribution of authority within the medical

> profession, about the relationship between medical and general politics, and about competing social values. (p. 15)

Historically, reporting was not always so controversial. Fox outlines the history of mandatory disease reporting in New York City during the mid-1980's under the direction of Hermann N. Biggs whom he describes as an "extraordinary political talent." The compliance for reporting, first for TB and then venereal disease was extremely high. Biggs offered local physicians certain of the health department's resources in exchange for their consistent and accurate reporting. This led to a mutually advantageous relationship for both parties. The separation of public and private medicine began in the 1920's when public health physicians gave up their clinical practices and became "professionally oriented public health workers who emphasized increased efficiency within a scientifically defined area of responsibility. . . ." (Fox, 1986)

The division between public and private medicine continues today according to Fox, and is responsible, in part, for underreporting of diseases in general. With respect to AIDS, it is Fox's contention, however, that reporting of the disease to the CDC has been unusually effective. This may be due to the nature of AIDS versus other sexually transmitted diseases in that AIDS is a potentially fatal disease. Also physicians may be more aware of the need for population-based data in dealing with a new epidemic such as AIDS. Finally, Fox suggests that the compliance may be higher because the actual reporting is done by nurse-epidemiologists as opposed to physicians. Aside from the actual reporting of the disease, the controversy seems to be concerned with what is done with the results.

Confidentiality of reported case results has not been guaranteed. In fact, Altman (1987) notes that "documented cases of breaches of confidentiality have occurred as when the CDC turned over lists of AIDS patients to public health departments and the New York Blood Center, or when a list of people undergoing treatment for AIDS symptoms was circulated among Seattle policemen." One aspect of reporting, wherein confidentiality is of prime importance, is contact tracing.

"The purpose of tracing sexual or needle-sharing contacts of infected people is to trace the chain of transmission to its terminus" (Francis and Chin, 1987). The hope is that with appropriate education, infected contacts will alter behavior which leads to further transmission of the HIV.

Properly done, contact tracing enables health care providers to identify and treat infected persons and educate both seropositive and seronegative individuals to curb high-risk behavior. Two drawbacks to contact tracing are: (1) the cost, which is significant because it is a highly labor-intensive endeavor, and (2) the difficulty of the task (i.e., finding contacts). Francis and Chin suggest that contact tracing is best done by an experienced health department when an individual is uncomfortable with notifying his or her own contacts.

Confidentiality and Duty to Warn. The privileged confidence which exists between health care provider and patient precludes the disclosure of information revealed in the course of their relationship. As Perkins and Jonsen review in their discussion of a sexually active hepatitis-B carrier, "the law and code of professional conduct in medicine view the physician-patient relationship as fundamentally different from most other relationships in which people conduct their business" (1981). Part of the difference is the issue of confidence; the other is the dependence the patient has on the medically knowledgeable health care provider. Traditionally, the physician-patient relationship has been described as fiduciary. Webster defines fiduciary as "held or founded in trust or confidence" (1976). In other words, the patient trusts that the physician will make the best judgment for him and entrusts himself to the physician's care. This tradition has long been upheld in nursing as well. The second tenet of the ANA Code for nursing practice states that the nurse safeguards the patient's right to privacy by protecting confidential information (ANA, 1985). The difference is that the physician-patient relationship has legal protection (in most states) whereas nursing has not had that recognition.

As Jonsen and Perkins relate, there is a strong position in medicine to advocate for community protection as well as individual patient confidence. Occasionally, however, a conflict exists between the patient's right to confidence and the interests of others. They suggest that a physician (or health care worker) should usually honor his or her fiduciary responsibilities, but acknowledges that the law makes some exceptions. ". . . It requires physicians to breach confidentiality to report cases of certain contagious diseases like syphilis, gonorrhea, or hepatitis-B to the health department."

Another instance in which health care providers may consider or be obligated to violate patient confidence is when a patient's behavior threatens the health of others. "Duty to warn" is, in fact, an established ethical and legal principle.

The principle that a treating professional has an obligation to warn attending medical personnel, family members or other persons known to be at risk of becoming infected has legal precedent. "The courts have held that health care professionals must disclose confidential information to those in foreseeable danger of serious harm to patients" (Gostin et al., 1987). The concept of a professional's duty to warn was introduced in the 1976 case of Tarasoff v Regent of the University of California.

In Tarasoff, a psychologist was held to have a duty to warn a woman his patient threatened to kill and did eventually murder. It also noted that "a doctor is liable to persons infected by his patient if he negligently fails to diagnose a contagious disease or, having diagnosed the illness, fails to warn members of the patient's family" (Winston, 1987). However, Gostin et al. state that "the duty to protect third parties from contracting an infectious disease predates Tarasoff" and that early courts have held that "a physician owes a duty to warn specific individuals in foreseeable danger of contracting an infection from his patient" (1987). While the Tarasoff decision is widely held as establishing the principle of "duty to warn," Winston believes that interpretation is incorrect (1987). He believes it creates a "duty to protect" that can be executed in various ways (i.e., criminal or civil prosecution of the potentially dangerous patient).

As Gostin and Neslund note, "a reasonably specific and high degree of potential harm is required before courts will find an affirmative duty to disclose confidential information." They cite a recent United States Court of Appeals case, in which there was no legal obligation to warn the public of hepatitis-B in the community: ". . . Before a duty to warn exists, a physician must be aware of specific risks to specific persons."

How to proceed, when a health care provider is faced with an HIV-infected person who continues to engage in practices where an intimate exchange of bodily fluid is likely to occur, is a dilemma. Although <u>Tarasoff</u> set forth a "duty to warn" principle, it is unclear how the courts will respond to issues of liability when a third party "fails" to inform a sexual partner of his/her patient's positive antibody status. Perkins and Jonsen discuss this principle in the theoretical case of a hepatitis-B carrier-dialysis nurse who continues to care for patients and engage in sexual relationships while refusing to inform her employer and sexual partners of her status. Their comprehensive review of the ethical obligations of health care providers yields no decisive answers. They do, however, conclude that, in this case ". . . the obligations to serve the patient's best interests and to keep patient confidences-almost always outweigh the physician's obligations to protect others." The health care provider's obligation to protect others is greater only when "the harm is very certain, very severe and specific to others (Perkins and Jonsen).

With respect to AIDS, Gostin et al. advise that "physicians should consider maintaining confidentiality by counseling patients to inform their sexual contacts." However, they recommend that positive antibody status should be reported to public health authorities to protect an uninformed contact if there is strong clinical evidence to suggest it has not been done.

It is interesting to note that formal publications such as "The Surgeon General's Report on Acquired Immunodeficiency Syndrome" (1987) and the position paper on

AIDS of the American College of Physicians and The Infectious Diseases Society of America, do not specifically address "duty to warn" issues. They emphasize confidentiality of test results and recommend that positive HIV results should not be "communicated by health professionals to any other party except the patient."

Research Aims. Presently little is known about the beliefs of health care providers regarding testing for HIV. In that health care providers may well be influenced by rules and/or legislation affecting such testing, it is critical that their beliefs be taken into account in the formation of any such policy.

The purpose of this research is to describe what health care providers believe about testing for HIV. This study will add to the literature by addressing a gap in the knowledge of health care providers' beliefs about testing for HIV. The research questions are:

1. Do health care providers believe that mandatory or voluntary testing will alter behavior related to the transmission of HIV?

2. Do health care providers believe that testing for HIV should be required for selected groups of persons?

3. Do health care providers believe that names of infected persons should be reported to state health authorities?

4. Do health care providers support confidentiality and duty to warn?

5. Do the beliefs of health care providers regarding testing for HIV reflect an "individual liberty" point of view or a "common good" stance?

6. Do nurse practitioners and physicians differ in their beliefs regarding testing for HIV?

The remainder of this report is organized into three additional chapters. Chapter 2 describes the methodology employed in the conduct of this study, chapter 3 reports the findings, and chapter 4 discusses the results and makes recommendations about future research.

Chapter 2

Methods

Design

This study was designed to provide information about the beliefs of health care providers related to testing for HIV. Data for this study were obtained from a random sample of nurse practitioners and physicians. The data describing beliefs of the health care providers were collected to determine the consistency of beliefs within the group and to determine the distribution of beliefs between or within the population of physicians and nurse practitioners. Explanations were sought for any variations in beliefs about testing.

Sample

The accessible population to be studied was Portland-area physicians and Oregon nurse practitioners who may have encountered questions related to testing for HIV in their practices. Specifically, criteria for inclusion in the sample included: (1) Oregon certification as an adult, family or women's health care nurse practitioner, or (2) practice as an internal medicine, infectious diseases or family physician.

A form of probability sampling, stratified random sampling, was utilized to ensure an equal percentage from each subgroup. The population was divided into two subgroups: nurse practitioners and physicians who met the above criteria. The population size of Oregon nurse practitioners in the selected specialty area is 313. The population of Portland-area physicians is 317. From each group, a 32% random sample produced a sample of 100 members. Therefore, n equals approximately 100 NPs and 100 MDs.

The physician sample was drawn from listings found under the headings: internal medicine, infectious diseases and family practice in the 1988 Portland Yellow Pages. Each element (i.e., physician) was numbered consecutively and a table of random numbers was used to draw the sample of 100. The nurse practitioner sample was selected from lists of certified nurse practitioners from the Oregon State Board of Nursing. Each element was numbered consecutively and a table of random numbers was used to draw the sample of 100.

Variables and Measurement

The questionnaire was designed to obtain data of the following types of variables: (1) demographic variables, (2) beliefs about testing, and (3) other factors that could affect beliefs such as experience with AIDS patients. The items on the questionnaire and their scaling are described in detail below. A copy of the questionnaire is in the appendix.

Demographic Variables. The variables of age, years in practice, type of health care provider and type of specialty are demographic characteristics that were used to describe the sample. Physicians with specialty practices in internal medicine, family medicine and infectious disease were targeted because, as primary care physicians and infectious disease specialists, it is likely they have the greatest exposure to patients requesting tests and information related to HIV. The categories of nurse practitioners selected were adult, family and women's health care practitioners because all three constitute primary care specialists which interface with groups targeted as most likely to have concerns about or have had actual exposure to HIV.

Beliefs about Testing. The beliefs of interest in this survey were grouped into four areas: (1) mandatory and voluntary testing, (2) reporting of positive HIV results, (3) confidentiality of test results, and (4) the likely spread of AIDS in the United States.

Items assessing respondents' beliefs about mandatory versus voluntary testing included the following:

(1) Effects of testing on transmission of disease (items 4 and 5) and effects of mandatory versus voluntary testing on client behaviors which increase transmission of HIV were also studied (items 6 and 7). Range of responses were from 1 to 5, with 1 indicating a great decrease in

transmission to 5 indicating a great increase in the transmission of HIV.

(2) Support of mandatory testing for selected groups of low-risk and high-risk clients. The low-risk groups included marriage license applicants, health insurance applicants and patients admitted to hospitals. The high-risk groups were IV drug abusers, sexually transmitted disease (STD) patients and prison inmates. Answers ranged from 1 to 4 with 1 indicating strong agreement with mandatory testing and 4 indicating strong disagreement.

Support of a number of issues related to reporting, confidentiality and the providers' responsibilities in these areas were studied (items 11-17). This group of items was used to measure the extent to which respondents indicate a "civil libertarian" versus a "public good" point of view. Individual items were weighted so that 1 indicated a "public good" point of view and 4 indicated a "civil libertarian" point of view. The scores on these items were summed to develop a sense of the respondents' beliefs about reporting and contact tracing and whether they reflected a perspective favoring either individual rights or the common good. The summed scores have a range of 7 to 28. Scores in the range of 7-12.55, the lower range, indicated a public good perspective. Scores in the range of 12.25-22.25 indicated a mid-range of mixed views. Scores in the range of 22.25-28, the upper range, indicated an individual rights/civil libertarian perspective.

The beliefs about the spread of AIDS in the United States was studied. Respondents were asked to indicate what changes they foresaw. Their responses were grouped into mutually exclusive, exhaustive categories.

Other factors sought to identify the respondent's own experiences with screening for HIV and caring for AIDS-ARC patients (items 18-21). This is useful in describing any differences in responses within the sample.

Data Collection Procedures

As described in the preceding section, the instrument was designed by the researcher (see Appendix). Pre-tests were administered to a group of 6 nurse practitioners and physicians before the final surveys were mailed. This was done to identify any ambiguity or bias in the questionnaire for the purpose of correcting it before the final mailing. No problems with ambiguity or bias were identified.

Questionnaires were mailed to the sample with a cover letter briefly explaining the purpose of the survey and asking for the respondent's cooperation (see Appendix). Also enclosed was a self-addressed, stamped envelope in which the surveys were returned. Fourteen days after the survey had been mailed, follow-up letters were sent to the entire sample in an attempt to increase the rate of return. Surveys returned within 35 days were utilized in data analysis.

Implied informed consent was obtained by attaching a cover letter to the questionnaire which outlined the purpose and the distribution of the results. The confidentiality of the participants was protected by numbering each questionnaire and having a third party document responders and non-responders for the purpose of follow-up. The author did not know the names of the responders or non-responders. Results of the study in the form of an abstract will be sent to each participant who so requested by writing "copy of results" on the back of the survey.

While it is recognized that mail surveys often have a low return rate, a return rate of less than 50% was considered unacceptable. A return rate of less than 50% would have likely produced results not representative of either the sample or population. The percentage of the sample who responded to the survey was 68.5%. It is possible that bias was introduced on the basis of the responders versus the non-responders; however, there is not sufficient data on the sample in order to determine if the respondents differed in any systematic way from non-respondents.

Chapter 3

Results and Discussion

The purpose of this study was to describe the beliefs of health care providers in Oregon regarding testing for HIV. This chapter is a presentation of the results organized around the four conceptual issues that provide the framework for the study: AIDS as an epidemic, testing for HIV, reporting and confidentiality. The data will be presented in several ways. Data answering the research questions are presented under the four major content areas identified in the review of the literature. In addition, other relevant findings associated with the problems under study are presented and discussed.

Description of the Sample

Two hundred surveys were mailed to a sample of nurse practitioners (NPs) and physicians, with 100 in each group. A 68.5% return rate (N=137) was obtained within the 28-day period of data collection. An acceptable return rate was set at 50%. An actual return rate of nearly 70% increases the confidence that the results are an accurate reflection of the views of the sample. The response rate was similar for the two provider samples: 70% for nurse practitioners and 67% for physicians. Therefore, in the combined sample (n=137), the respondents were almost equally divided by health care provider (HCP) type. Fifty-one percent of the respondents were NPs (N=70) and 48.9 (N=67) were MDs. Since the split between type of health care providers who answered the survey was nearly equal, the combined sample can be used in the analysis without biasing the results by provider type. Therefore, the results will be reported for the sample as a whole. Any differences between provider-types will be addressed specifically.

The mean age for the sample was 44 years. The mean number of years in practice was 12.6. Years in practice and age were calculated for the two groups of health care providers. The average ages for nurse practitioners and physicians were 41 and 47 years, respectively. A significant difference existed between years in practice for the two groups, with physicians having been in practice twice as long as nurse practitioners, on average (see Table 1). This is an expected finding inasmuch as nurse practitioners have only been practicing for the past twenty years.

Table 1

Characteristics of the Sample (N=137)

Characteristic	NP (N=70)	MD (N=67)	Total (N=137)
Age			
mean	41	47	44 years
range			27-71 years
Years in Practice			
mean	8.6	16.6	12.5 years
range			5-39

The following is a discussion and presentation of the results as organized around the four major conceptual areas previously described. Issues pertinent to each of the areas will be raised in the appropriate sections.

AIDS as an Epidemic

AIDS has been characterized as an epidemic both like and unlike other epidemics in recent time. Presently, the majority of AIDS victims are gay men and/or IV drug abusers. It is not yet known if or how this distribution will change in the United States though beliefs about these possibilities may affect positions on other policy issues. In response to the question about the future distribution of AIDS in the population, 27 (19.5%) respondents said they believed the pattern would not deviate whereas 110 (80.15%) believed it would change, including 83 who believed that the change would be an increasing spread into the heterosexual community. Other changes mentioned were: (a) a decrease in the gay population, (b) an increased incidence in children, and (c) an increase in the adolescent population. Some respondents mentioned two changes: increase in heterosexual transmission and increase in infection in children.

Table 2

Health Care Provider's Beliefs About How the Transmission of HIV Will Change in the United States (N=137)

Belief	Number	Percent
No change	27	19.85
Change	110	80.15
Increase in hetero	72	52.94
Increase in children	3	2.21
Increase in hetero/child	11	8.09
Decrease in gay men	7	5.15
Increase in adolescents	2	1.47
Other	12	8.82
no specified change	3	2.20
	137	100.00%

A small percentage of respondents (8.82) expected that the pattern would change in a way not defined in the above table. Some of their comments included the opinions that: (1) there will be an increase in the number of health care workers who are infected because of their contact with HIV-positive patients; (2) there will be viral adaptation or mutation that will alter the pattern of transmission; and (3) fear of certain death will prompt those at risk (IV drug users) to refrain from dangerous practices, thereby decreasing the incidence in that group. Finally, two respondents felt the pattern of transmission in the United States would change but "didn't know" how the change would be manifested.

The perception of how this epidemic is progressing may influence what health care providers believe about other aspects of testing for HIV. A controversial topic is the issue of mandatory or voluntary testing for HIV. The following section describes how the sample answered questions related to this issue.

Testing for HIV

Several issues surrounding testing for HIV were raised in the review of the literature. Those issues chosen for study were reflected in the following research questions: (#2) Do health care providers believe that mandatory or voluntary testing will alter behavior related to the transmission of HIV? (#3) Do health care providers believe that testing for HIV should be required for selected groups of persons? (#4) Do nurse practitioners and physicians differ in their beliefs regarding testing for HIV?

The effect of mandatory or voluntary testing on the transmission of AIDS is presently not known. HCPs were asked to indicate their level of agreement first with the statement that voluntary testing would decrease transmission of the virus and then with a similar statement about mandatory testing. The majority (66.42%) believed voluntary testing would "somewhat" decrease transmission. Twenty-seven percent felt <u>voluntary</u> testing would have no effect on transmission. Less than 1% felt that <u>voluntary</u> testing would increase transmission of AIDS. There was no significant difference between provider types in their beliefs regarding voluntary testing and the effect it might have on the transmission of the virus.

A high proportion (62%) of the sample agreed that <u>mandatory</u> testing would decrease the transmission of AIDS, with the majority of respondents indicating the decline in transmission would be "somewhat" decreased as opposed to "greatly" decreased. Thirty-seven percent of the sample believed there would be no effect of <u>mandatory</u> testing on transmission of AIDS. Only one respondent felt that mandatory testing would greatly increase transmission.

Related questions polled respondents' beliefs about the effects of voluntary and mandatory testing on <u>behavior</u> thought to increase the transmission of the disease. The question of how <u>voluntary</u> testing might influence behaviors associated with transmission of HIV will first be examined. A larger percent of the sample felt voluntary testing would negatively influence behaviors leading to transmission of the virus (66.9%). Most of those respondents believed the effect would be to decrease the behaviors "somewhat." Approximately 32% felt there would be no effect on such behaviors, and less than 2% felt voluntary testing would lead to an increase in risky behaviors.

The majority (58.09%) of the sample believed that <u>mandatory</u> testing would decrease behaviors leading to transmission of the virus. Most of those respondents (48.5%) felt such behaviors would "somewhat" decrease. A substantial number (40.4%) believed mandatory testing would have no effect on transmission. Less than 2% believed that mandatory testing would have a positive effect of transmission.

Beliefs about the influence of <u>mandatory</u> testing on behaviors leading to transmission of HIV varied by provider group. A larger percentage of MDs (65%) felt transmission of HIV would decrease with mandatory testing as compared to of NPs (51%). The greatest difference seemed to be in the group that believed mandatory testing would decrease behaviors leading to HIV transmission. MDs were clearly stronger in their views that mandatory testing would reduce transmission. A correspondingly lower number of MDs felt mandatory testing would have no effect (33%) compared to

NP'(47%). Table 3 illustrates the variation in responses by HCP.

Table 3

<u>HCPs' Beliefs about the Influence of Mandatory Testing on Behaviors Affecting Transmission of HIV</u>

HCP	GD	SD	N	SI	GI
NP	2 (2.86%)	34 (48.57%)	33 (47.14%)	0	1 (1.43%)
MD	11 (16.67%)	32 (48.48%)	22 (33.33%)	1 (1.52%)	0

KEY: GD=Greatly Decrease SD=Somewhat Decrease
N=No Effect SI=Somewhat Increase
GI=Greatly Increase

The beliefs of HCPs regarding <u>voluntary</u> testing and its effect on behaviors leading to HIV transmission also varied by provider type, though not as greatly. Clearly, the respondents believed that voluntary testing would not increase transmission. A substantial number believed it would have no influence on transmission, while the majority of respondents indicated that voluntary testing would "somewhat decrease" transmission of HIV.

Table 4

HCPs' Beliefs about the Influence of Voluntary Testing on Behaviors leading to Transmission of HIV

	GD	SD	N	SI	GI
HCP	13 (9.56%)	66 (48.53%)	55 (40.44%)	1 (0.74%)	1 (0.74%)

Another aspect of the issue of mandatory testing is for whom should it be mandated. HCPs were asked to indicate the extent to which they agreed that testing for HIV be mandated for a set of groups for which it has been proposed (item 8). The six groups are (1) prison inmates, (2) marriage license applicants, (3) hospital patients, (4) health insurance applicants, (5) patients treated for a sexually transmitted disease, and (6) patients undergoing treatment for IV drug abuse. These distinct groups were chosen because they reflect a range of risk for contracting AIDS. Also the issues of freedom and civil liberty are different for the groups. Whereas prison inmates are deliberately denied freedom, groups such as marriage license applicants are likely to view mandatory testing as a greater infringement of their civil liberty.

For the groups of persons associated with an increased risk of contracting and/or transmitting the virus (prison inmates, IV drug users and sexually transmitted disease (STD) patients), respondents agreed with the concept of mandatory testing. As shown in Table 5, 80% of respondents agreed with mandatory testing for IV drug abusers, 57% indicating strong agreement, and only 19% disagreed with mandatory testing for known IV drug abusers. For inmates of correctional facilities, a similar percentage (78.8) of the sample agreed with mandatory testing. Again, most of the respondents (47.3%) agreed strongly. Twenty-two percent disagreed with mandatory testing for correctional inmates. The percent agreeing with mandatory testing for the third group with an increased risk of contracting HIV, patients treated for sexually transmitted diseases, was somewhat lower though still a large majority. Seventy percent of the sample agreed with mandatory testing, 38% agreed strongly. Table 5 summarizes the beliefs of HCPs with respect to mandatory testing for the three high-risk groups.

Table 5

Beliefs of HCPs about Mandatory Testing for Three High-Risk Groups

Group	SA	A	D	SD
IV drug abusers	78 (56.90%)	32 (23.36%)	22 (16.6%)	5 (3.65%)
Prison Inmates	62 (47.33%)	40 (30.53%)	22 (16.76%)	7 (5.34%)
STD Patients	52 (37.90%)	43 (31.39%)	34 (24.82%)	8 (5.84%)

Key: SA=Strongly Agree, A=Agree, D=Disagree,
SD=Strongly Disagree.

It is interesting to note that, while official agencies such as the Centers for Disease Control and the Public Health Service oppose a mandatory testing policy, the sample indicated agreement for mandatory testing for the above three groups. It is possible that since individuals at greater risk of contracting _and_ transmitting AIDS comprise these groups, the majority of the sample agreed with mandatory testing. In addition, the denial of civil liberty to individuals by imposing mandatory testing may be seen as less of an issue for these groups. The relationship of these results to the question of civil liberties will be examined later in this paper.

Health care providers were also polled with respect to their beliefs about mandatory testing for the three remaining groups: (1) patients admitted to hospitals, (2) marriage license applicants and (3) health insurance applicants. The data indicate that the sample was nearly divided as to whether they agreed with mandatory testing for hospitalized patients. Nearly 57% agreed with mandatory testing and 43% disagreed. Almost a quarter of the sample (23.88%) <u>strongly agreed</u>. Slightly less than 10% <u>strongly disagreed</u> with the concept of mandatory testing for patients being admitted to the hospital. In view of the fact that routine screening for HIV on admission to health care facilities has not been widely proposed or adopted, the results are somewhat surprising. They may indicate a fear among health care providers of exposure to the virus.

For the two remaining groups, marriage license and health insurance applicants, the majority of respondents (67% and 65%, respectively) disagreed with mandatory testing. However, as Table 6 indicates, over one-third of the sample did agree; of those who did, almost twice as many physicians as nurse practitioners agreed.

Table 6

The Number and Percentage of Health Care Providers' Beliefs about Mandatory Testing for Three Low-Risk Groups (N=137)

Group	SA	A	D	SD
Marriage lic. applicants	17 (12.69%)	32 (23.88%)	57 (42.54%)	28 (20.90%)
Hospitalized patients	32 (23.88%)	44 (32.84%)	45 (33.58%)	13 (9.70%)
Insurance applicants	18 (13.53%)	28 (21.05%)	57 (52.86%)	30 (22.56%)

KEY: SA=Strongly Agree, A=Agree, D=Disagree,
SD=Strongly Disagree

Table 7 shows the mean values of responses for the two provider groups for two low-risk groups.

Table 7

Mean Values of Agreement with Mandatory Testing for Three Low-Risk Groups by Provider Type

Selected Groups	MD	NP
marriage license applicants	3.2	2.85
health insurance applicants	2.55	2.93
	(p=0.08)	(p=0.02)

Scores are based on a range of 1-4: 1=strongly agree, 2=agree, 3=disagree and 4=strongly disagree.

In summary, beliefs about mandatory testing for a variety of groups were assessed. A set of six groups was chosen to poll respondents on their views about mandatory testing. Of the six, three are defined as high-risk groups: prison inmates, IV drug users and STD patients. The remaining three groups, marriage license and health insurance applicants and all patients admitted to hospitals, are recognized as being at low risk for encountering the virus

For the high-risk groups, the sample agreed with mandatory testing. For the remaining three groups, the responses varied. The sample was nearly divided about mandatory testing for hospitalized patients, while the majority of respondents disagreed with mandatory testing for marriage license and health insurance applicants. There was a significant difference between MDs and NPs for these two groups (see Table 7) in that physicians were twice as likely to agree that patients should be tested as were nurse practitioners. One factor which may account for this difference is that most nurse practitioners work in outpatient settings whereas physicians go between both inpatient and ambulatory care facilities. Thus, it is less likely that nurse practitioners would be exposed to the virus because, in general, the nature of ambulatory care involves less direct contact with body fluids by NPs and MDs.

Mandatory testing for any group of individuals is controversial. One of the arguments against mandatory testing is that it will discourage those individuals targeted for testing from seeking health care. The argument that follows is that mandated testing would actually increase the rate of transmission of HIV by forcing those at increased risk to avoid appropriate health care and/or counseling that might actually reduce transmission. The issue of how utilization of health care might be influenced by mandatory testing will be discussed in the following section.

Respondents were asked to predict how mandatory testing might influence a person's utilization of health care. Slightly more than one-half (54.%) believed mandatory testing would have no effect on utilization of health care. A sizeable proportion of the sample (36%) indicated they believed that required testing would discourage individuals from seeking health care. Slightly less than 10% believed it would increase utilization of health care.

If health care providers believe that mandatory testing would have a negative effect on utilization of health care, it seems reasonable that they would not favor mandatory testing for groups at increased risk of contracting or transmitting HIV. Three, one-way analyses of variance (ANOVAs) were conducted to look at how the respondents' positions on testing are linked to their beliefs about the effect of testing on utilization of health care. Three groups of persons for whom mandatory testing has been proposed (two high-risk and one low-risk group) were analyzed. The two high-risk groups were patients seeking treatment for IV drug abuse and sexually-transmitted disease patients. The possible effect of utilization of health care was divided into three categories: a) discourage utilization, b) no effect, and c) encourage utilization. Health care providers' were asked to indicate their level of agreement with mandatory testing for the above named groups by selecting one of four responses (1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree). The results of the ANOVA for the effects of utilization of health care and beliefs about mandatory testing for selected groups are presented in Table 8.

Table 8

Mean Scores on Agreement with Mandatory Testing for Selected Groups by Beliefs about Effects of Testing on Health Care Utilization

Groups	Effects on Health Care Utilization			F value (p)
	Discourage	No Effect	Encourage	
STD Patients	2.6	1.6	1.7	F=19.9 (p=0.00)
IV Drug Abuse patients	2.3	1.3	1.2	F=26.1 (p=0.00)
Marriage License	2.3	2.5	2.2	F=11.9 (p=0.00)

The results show that there is a link between the belief about the effect of utilization of health care with mandatory testing. Specifically, those persons who believe that mandatory testing would discourage patients from seeking treatment also are more likely to disagree with mandatory testing for patients with sexually transmitted disease and IV drug abusers than those who believe testing would have no effect or a positive effect on health care utilization.

The results of a second ANOVA which examined the link between beliefs about utilization of health care and mandatory testing for a second high-risk group, IV drug abusers, were similar (Table 8). Again, the argument follows that those respondents who believe that mandatory testing will exert a negative influence on utilization of health care are more likely to disagree with mandatory testing for this group of patients.

A third distinct group for whom mandatory HIV testing has been proposed (and instituted in some states) is marriage license applicants. Generally regarded as a low-risk group for transmitting and identifying the virus, both the American Medical Association and the Public Health Service condemn the use of mandatory testing for this group. It was predicted and confirmed that the sample would disagree with mandatory testing for this group to a greater extent than it did for the high-risk groups (see Table 6).

The relationship between beliefs about mandatory testing for marriage license applicants and beliefs about the effect of mandatory testing on utilization of health care was tested using a one-way ANOVA (see Table 8).

Once again, there appeared to be a relationship between the belief about the effect of mandatory testing on utilization of health care and the respondent's level of agreement with mandatory testing. Specifically, those who believed mandatory testing would discourage utilization of health care had an increased mean score indicating greater disagreement with the concept of required testing for marriage license applicants. This supports the argument against required testing, which is that it inhibits persons from seeking health care. The consequences of mandatory HIV testing for marriage license applicants may be to drive applicants out of state to jurisdictions where there is no such law. This, in fact, has occurred in Illinois where mandatory testing of marriage license applicants is required. "This law appears to have discouraged marriage within the state by encouraging couples to apply for marriage licenses in nearby states without testing requirements" (Institute of Medicine, National Academy of Sciences, 1988, p. 78).

In summary, an argument that has been advanced against mass screening is that such testing would have the effect of discouraging persons targeted for testing from seeking health care and counseling. It follows then, that those who subscribe to that theory would be more likely to oppose mandatory testing. The preceding results suggest that such a link does exist in this sample such that respondents believe that mandatory testing would decrease utilization of health care which would then cause an increase in the transmission of the virus.

An issue related to the effect of mandatory screening on utilization of health care is the beliefs about the effect of mandatory testing on the <u>transmission</u> of the virus. In other words, if it is believed that mandatory testing, in general, will affect transmission of the virus (in either a positive or negative way), then the beliefs about <u>how</u> it is affected may be linked to the belief about utilization of health care with mandatory testing.

Table 9 displays the results of the ANOVA conducted to determine the link between the beliefs regarding mandatory testing's effect and the transmission of HIV and the utilization of health care.

Table 9

<u>Mean Score on Belief that Testing Would Decrease Transmission by Its Believed Effects on Utilization of Health Services</u>

	Effects on Utilization		
	Discourage N=49	No Effect N=74	Encourage N=13
x score	2.5	2.2	1.6

F=6.44 p=0.00

The mean scores are based on a range of 1-5, with 1 indicating the belief that transmission will be greatly decreased and 5 indicating the belief that transmission of

HIV will be greatly increased. Three is the midpoint and indicates there is no effect on transmission. Those who agree that testing would decrease transmission also believed that it would encourage or have a positive effect on utilization. The higher mean score which corresponds to the belief that mandatory testing would increase transmission of HIV, was linked to the belief that mandatory testing would interfere with utilization of health care. The conclusion that can be drawn is that a link exists within the sample in that those who oppose mandatory testing are likely to believe that such testing will reduce utilization of health care and thus increase the transmission of the virus, although this finding is by no means unanimous. In order to document such a trend, a prospective study would need to be undertaken.

In summary a link appears to exist between the beliefs that forced testing and its effects on transmission of the disease and on utilization of health care. As policy or laws are enacted which define testing procedures, it will be critical to examine the change (if any) in utilization of health care by those at risk for contracting HIV. Of equal importance will be the change (if any) in the transmission of the virus. The complexity of the testing issue contributes to its controversial nature. How and when these testing controversies are resolved are critical to both policy makers and health care providers.

Confidentiality and Reporting

Equally controversial and of no less importance to health care providers and policy makers are the issues of confidentiality and reporting. At the heart of the controversy are similar concerns and problems related to the testing question: At what expense do we impose restrictions or laws to control and document the spread of AIDS? Confidentiality and reporting will be discussed together because both involve issues related to infringement on civil liberties.

Three research questions will be examined in this section. First, the providers' views on reporting names of infected persons will be summarized. Next, the providers' views with respect to confidentiality and duty to warn will be examined. Finally, their stance on the individual versus common good dilemma will be explored.

Before the dilemma of protecting civil liberties versus promoting the common good is further explored, the results of specific questionnaire items which refer to confidentiality and reporting will be briefly examined.

A group of items, numbers 11-17, questioned health care providers about their beliefs and responsibilities regarding reporting of HIV results. Table 10 lists the individual results of these items. The first three items in Table 10 refer to questions about reporting of HIV test results. Item 11 focused on the responsibility of health care providers to report names of infected individuals whereas items 12 and 13 focused on the health care providers' rights to be informed of test results. Item 11 ascertained the level of agreement with the statement that names of HIV infected patients should be reported. Sixty-two percent of respondents (n=78) agreed with this statement. A smaller, but notable percent (n=38) disagreed, with 10% opposing the statement "strongly." Although, the majority agreed with reporting names, a large minority did disagree with the concept. This may reflect the continuing debate within the professions regarding issues of reporting.

Table 10

Results of Items 11-17

KEY:
SA = Strongly agree
A = Agree
D = Disagree
SD = Strongly disagree

		SD	A	D	SD
11[a]	When confirmed cases of AIDS are reported, names should also be reported.	36	42	35	13
12[b]	Positive HIV results should be shared with all health care providers involved in direct patient care with an infected patient.	76	48	13	0
13[c]	Positive HIV results should be shared with all professional health care providers involved in the care of infected patients, even those with only indirect contact with the patient.	29	42	54	11
14[d]	Health care providers are obligated to warn the contacts of HIV-infected patients who do not wish to disclose their antibody status to their sexual partner(s).	44	49	34	4
15[e]	Oregon state law should require that sexual contacts of seropositive individuals be traced.	60	51	16	13
16[f]	Confidentiality (meaning complete anonymity of test results) should be guaranteed to all patients requesting an HIV test.	17	45	40	32
17[g]	Oregon has enacted legislation to ensure the confidentiality of HIV test results and establish criminal penalties for violations of confidentiality. To what extent do you agree with this legislation?	33	35	38	28

---

[a] number of missing data = 11.
[b] number of missing data = 1.
[c] number of missing data = 6.
[d] number of missing data = 7.
[e] number of missing data = 3.
[f] number of missing data = 6.
[g] number of missing data = 3.

Items 12 and 13 ascertained the respondents' level of agreement with statements indicating that health care providers should be informed of HIV results. Over 90% (n=126) agreed that HIV results should be made available to HCPs involved in direct patient care. Of those who indicated agreement, the majority "strongly agreed." Ten percent of respondents disagreed with the concept of sharing HIV results with HCPs involved in direct patient contact. Slightly more that one-half of respondents felt that HCPs who have indirect contact with patients should be given information about HIV results. This is a striking difference from the group's view of the right to know antibody status for HCPs involved in direct patient care versus indirect care. The sample clearly favors sharing HIV results with those HCPs involved in "hands-on" care.

A related aspect of reporting is "duty to warn," the obligation on the part of a health care provider to protect contacts of affected patients. In the case of AIDS, the need to warn sexual contacts of HIV-infected patients has been debated. A majority of the sample, 71% agreed that HCPs are obligated to warn contacts of seropositive patients who do not wish to disclose their antibody status. This is surprising because, as of yet, the courts have failed to establish this as a precedent for AIDS patients. The literature reviewed would not predict such a level of agreement for the duty to warn issue. It is important to note that a sizeable minority (29%) did disagree with the statement that HCPs are obligated to warn contacts of HIV positive patients.

Two possible reasons for a relatively strong level of agreement for the concept of duty to warn are: (1) With the increased awareness of HCPs about medical malpractice in a litigious society, the consequences of failing to warn an innocent person may drive a physician or nurse practitioner to violate a formerly sacred confidence. The fear of being sued by an injured third party may be responsible for the belief in the obligation to warn. (2) Because AIDS is, thus far, a fatal disease, the consequences of failing to notify a potential "victim" of his or her risk may be viewed as a fatal omission. When assessing the risks and benefits of disclosing confidential information, the ability to <u>prevent</u> the transmission of HIV to a seronegative individual may prompt the HCP violate this confidence. It is not possible to say from the data whether these theories or others were responsible for the high level of agreement with item 14. It would be an interesting research study to elucidate the feelings behind an agreement with duty to warn, if these findings were reproduced.

Contact tracing is another issue of reporting which infringes on affected persons' confidentiality. Item 15 polls respondents' beliefs about whether contact tracing should be required in Oregon for seropositive persons. An overwhelming majority, 85.4% agree that contact tracing should be required in Oregon. Of note is the fact that two respondents wrote comments regarding the "staggering costs" attached to contact tracing, although both agreed with the concept.

That confidentiality of test results should be guaranteed was agreed with in about one-half of respondents (item 16). Forty-six percent indicated agreement with the statement that confidentiality should be assured. A slight majority disagreed with this statement, but the difference was small. The fact that the split was nearly fifty-fifty probably reflects the continuing debate both in the professional literature and the popular press.

A final question (item 17) related to confidentiality is the issue of the establishment of penalties for health care providers who violate the confidentiality of HIV results. The division among those who agreed or disagreed with this law (already in place in Oregon) is essentially equal. This finding is not surprising in view of the preceding results. Again, the fact that the sample is divided only underscores the knowledge that there is not a consensus among HCPs on these two issues related to confidentiality.

In summary, the items 11-17 described this sample's beliefs about aspects of confidentiality and reporting with respect to testing for HIV. The sample felt strongly that health care workers involved in <u>direct</u> patient care be advised of a patient's seropositive status. Roughly half of the sample felt health care providers involved <u>indirectly</u> in patient care be allowed knowledge of HIV test results. Slightly more than three-quarters of the respondents believe that names of infected persons should be reported to health authorities, while an overwhelming majority agreed that contact tracing should be undertaken in Oregon. Seventy percent of health care providers felt that there exists a duty to warn the contacts of seropositive patients who are unwilling to disclose their antibody status to their partners. About one-half of the sample indicated agreement with the statement that confidentiality of test results should be guaranteed. Similarly, one-half of the sample agreed with legislation which establishes criminal liabilities for violation of the confidentiality of HIV test results.

A final focus of this chapter is the discussion of a civil liberty versus a common good stance among HCPs with respect to testing for AIDS. Inherent in the questions and controversies about HIV testing is the tension between protecting an individual's personal rights and freedom and ensuring the greatest good for the greatest number of people. The issues of mandatory versus voluntary testing, reporting, duty to warn and confidentiality all involve violation of personal liberty. These issues and the fact that AIDS is a deadly disease make testing a controversial and sensitive issue.

In order to get a sense of the respondents' beliefs with respect to protection of civil liberty at the expense of the common good or vice versa, a civil libertarian scale was devised. Items 11-17 were used to develop the scale. Respondents indicated their level of agreement on a scale of 1 to 4 on each issue. Items were weighted so that a score of 1 reflected a "public good" point of view and 4 indicated a "civil libertarian" point of view. Scores were summed to develop a sense of the respondents' overall beliefs about these two conflicting ideals. The summed scores had a possible range of 7 to 28 with the low scores reflecting a "public good" view and the high scores reflecting a "civil libertarian" stance. Table 11 displays the distribution of scores on the civil libertarian scale.

On the scale of 7 to 28, the midpoint is 17.5. The group mean of 14.9 is somewhat lower than the midpoint indicating a tendency of the respondents to support protection of the common good over that of the individual. The distribution of the C.L. scores is not symmetrical. Of a possible range of 7 to 28, the actual range was 7 to 25. There is greater concentration toward the lower scores or a "public good" point of view. In fact, only one-quarter of the respondents had scores indicating a tendency to support civil libertarian over common good positions. This finding is not surprising given the responses to individual items reported previously. Specifically, the strong agreement with the belief that HCPs involved direct patient care be provided with HIV results and that contact tracing be undertaken in Oregon was indicative of the orientation toward the "public good."

Table 11

Distribution of Civil Liberty Scores by Interquartile Range and Scale Scores.

Scale Scores Scores		f	cumulative %	Interquartile Range
7.000		4	2.92	First
8.000	public	6	7.30	Quartile
9.000	good	9	13.87	
10.000	orient-	8	15.33	
11.000	tion	3	21.90	
12.000		5	25.55	
13.000		11	33.58	Second
14.000		14	43.80	Quartile
15.000		9	50.36	
16.000		17	62.77	Third
17.000	midpoint	15	73.72	Quartile
18.000		12	82.48	
19.000		6	86.86	
20.000		8	92.70	
21.000		8	98.54	
22.000		0	98.54	
23.000		0	98.54	
24.000	civil	1	99.27	
25.000	liberty	1	100.00	
26.000	orient-	0	-	
27.000	tation	0	-	
28.000		0	-	Fourth Quartile
		137	100%	

For the purpose of presentation, the C.L. scores were rounded to nearest whole number. Mean scores were substituted for missing values.

The C.L. scale was developed in order to determine consistency of orientation over all items. An important finding is that approximately 75% of the respondents fell on the public good side of the scale. In other words, 75% of the scores are above the median, while only 25% are below the median, or toward the civil libertarian end of the scale. The responses at the extreme ends of the scale indicate consistency, within one ideological position, while those in the mid-range are mixed responses. Those respondents whose C.L. scores were very high or very low may have answered more often from an ideological focus (i.e., "civil libertarian" or "common good") than from a circumstantial viewpoint. These responses may have implications for policy makers in that health care providers may have difficulty in following through with regulatory mandates which conflict with their ideologic beliefs. For example, an individual whose C.L. score is in the fourth quartile may have a very strong belief that the protection of personal freedom is of primary importance. If it were mandated that names of HIV positive patients be reported, this HCP might ignore or circumvent this requirement. However, since the majority of respondents presented a "mixed" or public good view, policies that support this perspective are likely to meet with acceptance from providers. It is difficult, based on the present findings, to predict with accuracy such a scenario but it is one policy makers may wish to consider.

Of interest was the statistically significant difference between physicians and nurse practitioners on their mean C.L. scores. Table 12 illustrates those results.

Table 12

Mean C.L. Score by Health Care Provider

	M.D.'s	N.P.'s	Group
Mean score	14.14	15.59	14.88
S.D.	3.7	4.1	3.98

F=4.642 p= 0.03

The data indicate that nurse practitioners, as a group, had a greater orientation towards a civil libertarian stance, than physicians but nurse practitioners still did not score on the civil libertarian side of the scale (on the whole). The difference in standard deviations between the two groups indicate greater variation in positions within the nurse practitioner group as compared with the physicians. Nowhere is there a more prominent difference between these two groups than the finding reported here.

In summary, a civil libertarian scale was devised to sum a number of items which relate to personal freedom and protection of the public good. The scores indicate a wide range of responses among the sample, with a greater cluster of responses at the lower end of the scale consistent with a public good orientation. There was a significant difference between the sample's mean scores by provider type. The implications of these findings as well as those previously discussed will be reviewed in the following chapter.

Respondents' Experience with AIDS and Testing for HIV. In order to ascertain the level of experience with testing for AIDS, respondents were asked four questions about their experience with patients at risk of contracting the HIV antibody and those already diagnosed with AIDS. Eighty-five percent of the sample had seen five or fewer AIDS patients in the 24 months preceding the survey. The distribution was somewhat different in terms of experience with patients who requested testing for HIV. The majority of providers had some experience with patients requesting the AIDS test. It is unknown what number had no experience with patients requesting testing because of the way the question was asked, though 43% had little, if any, such experience.

Table 13

Health Care Providers' Experience with Patients Requesting Testing for HIV

Number of Patients Requesting Screening for HIV	Frequency
0-5	43
6-10	34
11-20	26
21 or more	31

In general, the sample had little experience caring for AIDS patients. Because the numbers who had such experience were so small, the influence of experience with AIDS on various beliefs was not examined.

Chapter 4

Summary, Conclusions and Recommendations

Introduction

Chapter 4 is a review of the purpose and findings of this study. The implications of this research for both providers and policy makers will be discussed. Finally, suggestions for future research will be advanced.

AIDS is a deadly disease of epidemic proportions which poses many challenges for health care providers. Of the utmost importance is the control of the disease by the prevention of the viral transmission. One way this can be accomplished is by the use of testing for HIV to identify carriers as well as non-infected individuals. Testing, however, is fraught with complications because of the potential for violation of individual civil liberties. The purpose of this research is to identify the beliefs of health care providers with respect to testing for HIV. This information is potentially valuable, not only to health care providers themselves, but also to policy makers who are in a position to regulate various aspects of testing.

Summary

A brief summary of the results is presented below and organized around each of the seven research questions.

(1) Do health care providers believe that mandatory or voluntary testing will alter behavior related to the transmission of HIV? In the case of both voluntary and mandatory testing for HIV, health care providers indicated that such testing would decrease behaviors leading to the transmission of the disease. The beliefs about the influence of mandatory testing on behaviors leading to transmission of HIV varied by provider group, with a larger percentage of physicians as compared to nurse practitioners indicating that mandatory testing would decrease HIV transmission.

(2) Do health care providers believe that testing of HIV should be required for selected groups of people? For three high-risk groups, IV drug abusers, sexually transmitted disease patients and prison inmates, the sample agreed with mandatory testing. For three low-risk groups, the responses varied. The sample was divided about testing for patients admitted to a hospital, whereas there was general disagreement for marriage license applicants and health insurance applicants. Physicians were more likely to agree with the concept of mandatory testing for these two groups than were nurse practitioners.

(3) Do health care providers believe that names of infected persons should be reported to state health authorities?

(4) Do health care providers support confidentiality and duty to warn? The responses were mixed on items related to confidentiality. The sample felt strongly that HIV results be provided to HCPs involved in direct patient care. Only about one-half of the sample agreed that those results should be shared with HCPs involved in indirect care. There was strong agreement with the statement that names of infected persons should be reported to health authorities. An overwhelming majority of the sample believed that contact tracing should be undertaken in Oregon. In each case, one-half of the sample believed results of HIV testing should be guaranteed to be confidential and that criminal liabilities be established for violation of that confidence. A strong majority of the sample indicated that there exists a duty to warn the contacts of infected patients.

(5) Do the beliefs of health care providers regarding testing for HIV reflect an "individual liberty" point of view or a "common good" stance?

As discussed in chapter 3, the sample was mixed with respect to their beliefs in terms of an "individual liberty" or "common good" orientation. The majority were toward the lower end of the scale which indicates a view that is more consistent with a "common good" stance. It is not possible, however, to characterize the sample as uniformly in support of the public good at the expense of personal freedom. The responses were mixed which indicates differences in orientation between individual respondents and variation among items answered by an individual. The general orientation toward the common good is supported by the findings on individual items.

(6) Do nurse practitioners and physicians differ in their beliefs regarding testing for HIV? As noted above, physicians are more likely than NPs, to agree with the concept of mandatory testing in selected circumstances. In addition, physicians had a lower score than NPs on the civil liberties scale indicating an orientation toward the "common good" over support of "individual liberties." In general, the findings reveal that physicians in this study were more conservative in their responses than nurse practitioners.

Implications

Although there are several issues relating to testing for HIV, the study was organized around four major areas: (1) AIDS as an epidemic, (2) testing for HIV, (3) reporting and (4) confidentiality. These areas were chosen because of their relevance for health care providers. The discussion of the implications of this research have been organized around the four conceptual areas of study:

AIDS as an Epidemic. Nearly 80% of the sample indicated that the epidemiology of AIDS, with respect to distribution, would change, in that there would be an increasing spread into the heterosexual community. Because the spread of HIV cannot be predicted, it may be difficult for both policy makers and health care providers to develop meaningful policy. Because AIDS has an unknown incubation period and a number of carriers there is a mystery and fear attached to it. Both policy makers in the legislative and public health arena and health care providers must recognize what impact the fear and mystery have on legislation and its subsequent implementation. For example, it is possible that the unknown spread of AIDS may prompt legislation directed at confining those fears by requiring testing for certain groups of individuals. Perhaps the most important aspect of these findings is that policy makers and HCPs must monitor their own fear in order provide reasonable care and service to the public.

Testing for HIV. A majority of the sample felt that mandatory or voluntary testing would cause a reduction in the behaviors thought to be responsible for the transmission of HIV. The implications of this finding are that health care providers might be willing to support legislation and/or programs aimed at mass testing for HIV. This is most likely for those groups thought to be at increased risk of contracting the disease (i.e., IV drug abusers and STD patients). However, inasmuch as a significant portion of the sample felt that utilization of health care services would be inhibited by mandatory testing requirements, support for such a program would, by no means, be universal.

A question not addressed by this research is how the support (or lack thereof) for mandatory testing might change by the _way_ a program was implemented. For example, if legislation _required_ testing for HIV, would aspects of its implementation, such as assuring confidentiality, make it more or less acceptable to HCPs. Should mandatory testing for HIV be promulgated? Policy makers may want to consider this issue. They may also want to consider the findings of this study with respect to high-risk and low-risk populations.

The agreement by HCPs for mandatory testing for IV drug abusers, STD patients and prison inmates suggests that they would be supportive of policies which enacted these requirements. Since agreement was not unanimous, it is conceivable that a vocal minority might attempt to block legislation aimed at establishing mandatory testing for these groups. As discussed in the preceding paragraph, perhaps how mandatory programs are organized might positively influence those opposed to the concept of testing. Realistically, the notion of protecting civil liberties by AIDS advocates, HCPs and official health agencies suggests that operationally a program for mandatory testing would be complicated at best.

Reporting. There was a strong agreement among health care providers regarding reporting names of seropositive patients and undertaking contact tracing in Oregon. The implications of these findings are that HCPs would comply with these procedures.

Confidentiality. There were mixed responses with respect to items which polled the sample's beliefs about confidentiality. Strong support for sharing positive HIV results with HCPs involved in direct patient care leads to the conclusion that HCPs would support administrative rules or legislation enacting this possibility. On a practical level, it might mean that the information is communicated even though the possibility of criminal penalty exists for violation of the confidence. With respect to the sharing of positive HIV results for those involved in indirect patient care, support for legislation which allowed this might be mixed. Inasmuch as a person's medical records are supposed to be treated confidentially, but are often in the hands of those not involved in direct patient care, legislation allowing the sharing of results might effect very little change. I suspect that with strong opposition from AIDS advocates and those HCPs who oppose sharing HIV results with health workers involved in indirect care, a move to such legislation would be defeated. There was clear agreement with the concept of contact tracing, reporting names of seropositive patients and sharing test results with those involved in direct patient care. However, the sample was mixed with respect to beliefs about guaranteeing confidentiality of results and establishing criminal liabilities for violation of that confidence. Thus, the results are conflicting in terms of beliefs about confidentiality. The implications are that there would be mixed support for either position. Responses appear to vary according to the particular circumstance involved. In any case professionals are likely to want to preserve their prerogative to share results. Thus, for example, confidentiality might be supported for sharing test results with third party payers, life insurance companies, but not for HCPs involved in direct care which might put the individual HCP at risk of exposure.

A final implication for HCPs and policy makers involves the concept of duty to warn. A strong majority did indicate there exists such a duty. However, the belief that such a duty exists does not directly translate into the practical application of that belief. Because of the strong tradition of the fiduciary relationship between HCP and patient, the actual violation of a trust involving contacting the partners of patients might be difficult. Perhaps in an extreme case, an HCP might actually warn the contact of an infected person. The motivation might be a desire to protect another individual or the fear of liability from negligence.

Recommendations for Future Research

As with most research the findings of this study must be interpreted with caution. Although the return rate was nearly 70%, if 30% of the sample had views different from the respondents, conclusions might be different. Also, the data were collected over one year ago. In the ensuing time, there have been many changes in the areas of HIV legislation and treatment with constant and intense media coverage. It is possible that if the questionnaire were administered today, the results would be different. Due to the very nature of the disease and the attention it has received in both the scientific and political communities, opinions and policies are likely to be in a constant state of flux. Generalizing the results must be done with caution. A distinction must be made between generalizing the results to Oregon (the sampled group) and providers in general.

Further research is warranted in several areas. The effects on experience with AIDS patients and beliefs about testing for HIV should be explored. Whether beliefs about testing, reporting and confidentiality would change given increased experience with HIV positive patients is not known. In addition, health care providers' beliefs and this relationship should also be studied.

Future studies aimed at determining beliefs of HCPs about testing for HIV should include differences (if any) between rural and urban populations. Although this was not explored in the present study, a difference may exist in that rural HCPs may have less education and experience with positive HIV patients than those in urban settings.

Another issue not clearly developed in this study is that of duty to warn. Although the sample did indicate strong agreement with the concept, it is not known whether those beliefs would translate into actual practice. A survey aimed at exploring the link between beliefs and actions would provide valuable information because it could provide data leading to the formation of rules or laws which would protect HCPs who warned contacts of seropositive patients. Whether health care providers would conform to legislation which is antithetical to their beliefs is not known. Further documentation is needed to determine this as well.

A long-term prospective study to map the change in beliefs over time would benefit both provider and policy maker. It would be necessary to correlate the study with the changes in detections, epidemiology, treatments and scientific developments of the disease in order to make the study meaningful. In summary, very little research has been conducted which examines the beliefs of health care providers with respect to testing for HIV. This knowledge is important to both HCPs themselves and policy makers who are in the position of developing regulations which have an impact on HCPs and their patients.

References

Altman, D. (1986). AIDS in the Mind of America. Garden City, NY: Anchor Press/Doubleday.

American Nurses Association Committee on Ethics, 1983-1985. 1985. Code for Interpretive Statements. Kansas City, MO: American Nurses Association.

Bayer, R. (1986). The AIDS crisis: Review essay. Journal of Health Politics, Policy and Law, 11(1), 171-177.

Bayer, R., Levine, C., & Wolf, S. M. (1986). HIV antibody screening: An ethical framework for evaluating proposed programs. JAMA, 256 (13), 1768-1774.

Bazell, R. (1986, November 24). AIDS and the rest of us. The New Republic, pp. 20-23.

Broom, J. (1987). State residents back limited tests for deadly virus. Seattle Times.

Drotman, D. P. (1987). Now is the time to prevent AIDS. American Journal of Public Health, 77(2), 143.

Fox, D. B. (1986). From T.B. to AIDS: Value conflicts in reporting disease. Hastings Center Report, 16(6), Suppl. 11-16.

Francis, D. P. & Chin, J. (1987). The prevention of acquired immunodeficiency syndrome in the United States. An objective strategy for medicine, public health, business and the community. JAMA, 257(10), 1357-1366.

Gostin, L., & Curran, W. J. (1987). AIDS screening, confidentiality, and the duty to warn. American Journal of Public Health, 77(3), 361-365.

Institute of Medicine, National Academy of Sciences. (1988). Confronting AIDS. Update 1988. Washington DC: National Academy Press.

Krim, M. (1985). AIDS: The challenge to science and medicine. Hastings Center Report, 15(4), Suppl. 2-7.

Matthews, G. W., & Neslund, V. S. (1986). The initial impact of AIDS on public health law in the United States - 1986. JAMA, 257 (3), 344-352.

Mayer, K. H. (1985). The epidemiological investigation of AIDS. Hastings Center Report, 15(4), Suppl. 12-15.

McNeil, W. H. (1976). Plagues and People. Garden City, NY: Anchor Books/Doubleday.

Health officials fear 'sideshow' in AIDS efforts. (1987, June 8). New York Times, p. Y-11.

Perkins, H. S., & Jonsen, A. R. (1981). Conflicting duties to patients: The case of a sexually active hepatitis B carrier. Annals of Internal Medicine, 94(4), 523-530.

Quinn, T. (1989). In: AIDS: Profile of an Epidemic. World Health Organization.

Report of the Presidential Commissions of the Human Immunodeficiency Virus Epidemic. (1988). Washington, DC: U.S. Government Printing Office.

Rosenberg, C. (1987). The Cholera Years. Chicago, IL: University of Chicago Press.

Staver, S. (1987, June 5). Antibody testing won't cut risky behavior. American Medical News, p. 33.

AIDS - A time of testing. (1987, April 20). US News and World Report, pp. 56-62.

Webster's New Collegiate Dictionary. (1976). Springfield, MA: G. & C. Merriam Company.

Winston, M., & Landesman, S. H. (1987). AIDS and a duty to protect. Hastings Center Report, 17(1), 22-23.

Appendix

Health Care Provider's Beliefs About Testing for HIV

1. Please indicate your specialty area of practice:

   a. NP: ___Adult ____Family ____Women's Health Care

   b. MD: ___Internal Medicine ____Infectious Diseases ____Family Practice

2. What is your age in years? __________

3. How many years have you been in practice in your specialty area? _________

Please check the appropriate column to indicate your level of agreement, at this time, with the following questions.

KEY:
GD = greatly decrease transmission
SD = somewhat decrease transmission
N = neither increase nor decrease
SI = somewhat increase transmission
GI = greatly increase transmission

	GD	SD	N	SI	GI
4. What effect do you believe that widespread mandatory testing for human immunodeficiency virus (HIV) will have on the transmission of AIDS?					
5. To what extent do you believe that widespread voluntary testing for HIV will influence the transmission of AIDS?					
6. To what extent do you believe mandatory testing for HIV will alter behavior thought to increase the likelihood of transmission of the virus (e.g. unprotected sexual intercourse, sharing needles)?					
7. To what extent do you believe voluntary testing for HIV will alter the behavior thought to increase the likelihood of transmission of the virus?					

8. Mandatory testing for HIV is a controversial issue. Please indicate your current beliefs regarding whether testing should be required for each of the following groups. Check the appropriate column which corresponds to your beliefs.

KEY:
SA = strongly agree
A = agree
D = disagree
SD = strongly disagree

Groups	SA	A	D	SD
a. Inmates of correctional facilities				
b. Marriage license applicants				
c. Hospital patients				
d. Health insurance applicants				
e. Patients seen at sexually transmitted disease clinics				
f. Patients seeking treatment for IV drug abuse				

9. If mandatory testing for HIV became a requirement for certain groups of people (e.g. persons seeking treatment for drug abuse), what effect do you believe such regulation will have on those persons' utilization of health care?

___ 1. will discourage them from seeking health care

___ 2. no effect

___ 3. will encourage them to seek health care

10. In the United States thus far, AIDS has primarily affected gay men, IV drug abusers and their contacts. Do you believe this pattern will change?

_____ 1. Yes If yes, how? Please describe briefly: ____________________
_____ 2. No ____________________

Please check the appropriate column to indicate to what extent you agree or disagree with the following statements.

KEY:
SA = Strongly agree
A = Agree
D = Disagree
SD = Strongly disagree

	SA	A	D	SD
11. When confirmed cases of AIDS are reported, names should also be reported.				
12. Positive HIV results should be shared with all health care providers involved in direct patients care with an infected patient.				
13. Positive HIV results should be shared with all professional health care providers involved in the care of an infected patients, even those with only indirect contact with the patient.				
14. Health care providers are obligated to warn the contacts of HIV-infected patients who do not wish to disclose their antibody status to their sexual partner(s).				
15. Oregon state law should require that sexual contacts of seropositive individuals be traced.				
16. Confidentiality, meaning complete anonymity of test results, should be guaranteed to all patients requesting an HIV test.				
17. Oregon has enacted legislation to ensure the confidentiality of HIV test results and establish criminal penalties for violations of confidentiality. To what extent do you agree with this legislation?				

State legislatures have dealt with a number of issues regarding AIDS. It is likely that in the 1989 Oregon legislative session many bills will be introduced that may impact the practice of health care providers in caring for HIV-positive patients. Please indicate to what extent you agree or disagree with the following statements:

	SA	A	D	SD
18. Health care providers (i.e. RN's, MD's), as a condition of licensure should be required to care for HIV-infected patients.				
19. AIDS should be officially designated as a sexually transmitted disease (STD).				

20. In the past two years how many (approximately) patients have you seen in each of the following groups?

Group	0-5	6-10	11-20	21 or more
a. Patients treated for AIDS-ARC				
b. Patients who requested screening for HIV				
c. Patients screened for HIV at your recommendation				
d. Of those screened, number who were seropositive				

AN ABSTRACT FOR THE THESIS OF
HOLLY O. COIT

For the MASTER OF NURSING
Date of Receiving this Degree: June 7, 1989
Title: A Survey of Health Care Providers' Beliefs about Testing for Human Immunodeficiency Virus

APPROVED: [redacted]
Joyce Semradek, R.N., M.S.N., Thesis Advisor

This descriptive study examines various beliefs of MDs and NPs regarding aspects of testing for HIV. A questionnaire was mailed to a random, selected sample of 200 MDs and NPs. Of these, 137 responded with equal response rates for MDs and NPs (NP=70, MD=67).

A majority of the respondents believed that AIDS would increase in the heterosexual community. In general, respondents believed that mandatory testing would alter the course of the disease by decreasing HIV transmission and behaviors leading to transmission (unsafe sex, IV needle sharing, etc.). Both MDs and NPs were more likely to agree with mandatory testing for high-risk groups (IV drug users, STD patients, prison inmates) than for low-risk groups (marriage license applicants, hospital patients). They strongly disagreed with mandatory testing for low-risk groups, with the exception of hospital patients.

The believed effect of mandatory testing on utilization of health care was studied. Approximately one-third of the sample agreed with the statement that mandatory testing would decrease utilization of health care and about 50% believed mandatory testing would not influence utilization

of health care. Three ANOVAs were conducted to look at how the respondents' positions on testing were linked to their beliefs about utilization of health care. The results suggest that such a link does exist in that persons who believe mandatory testing would discourage utilization are more likely to disagree with mandatory testing for selected groups of people.

Beliefs about confidentiality of HIV test results and reporting of names of HIV infected persons were studied. Sixty-two percent believed names should be reported to state health authorities. Over 90% of the sample believed HIV test results should be available to HCPs involved in direct patient care. Slightly more than one-half believed HIV results should be available for HCPs indirectly caring for patients. Seventy-one percent of HCPs surveyed believed they have a "duty to warn" contacts of seropositive persons who do not wish to disclose their antibody status. Eighty-five percent of the sample supported mandatory contact tracing being required in Oregon. One-half of the sample believed that confidentiality of HIV results should be guaranteed. Fifty percent also agreed with criminal penalties for violations of confidentiality of HIV results.