The barriers to the care of patients with AIDS in long-term care facilities

by

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CHAPTER ONE

Introduction

This thesis evaluates factors affecting the care of patients with acquired immune deficiency syndrome (AIDS) in the midwestern United States. AIDS is a disease that presents a particular set of problems for treatment. Many of the acute symptoms associated with AIDS produce a range of functional disabilities affecting the ability of patients with AIDS (PWA) to perform activities of daily living. They are not, however, generally severe enough to require continual hospitalization. In the larger urban centers of the United States this growing treatment need tends to be met with the development of specialized AIDS facilities. In the midwestern United States, and particularly the rural areas, there are not adequate numbers of cases of AIDS to support this type of dedicated facility.

The component of the rural health care system best positioned to respond to many of the care needs of PWA is the long-term care system. But the general public stigma associated with AIDS, and inaccurate perceptions of the risk of contracting this fatal disease, suggest that this solution may face some resistance. The willingness to care for PWA is expected to be strongly influenced by the attitudes of persons administrating or providing direct care in the long-term care facilities. This study examines the relationship between attitudes toward AIDS and the willingness to

provide care within the context of the theory of reasoned action (Fishbein & Ajzen, 1980).

Literature Review

The AIDS Epidemic

AIDS was first reported in 1981 by Dr. Michael Gottleib. As of June 1990, there were 135,765 cases of AIDS and 85,430 deaths due to AIDS in the United States (American Health Consultants Inc., 1990b). The number of cases will continue to increase as the Center for Disease Control (CDC) estimates 1.5 to 2 million individuals are infected with the human immunodeficiency virus (HIV). These individuals may remain asymptomatic for years while having the potential to transmit the disease to others (Bowen, 1987). The CDC is predicting close to 99 percent of all individuals infected with the HIV virus will develop AIDS (Schmidt, 1989). It is expected that 20 to 30 percent of the individuals testing positive for the HIV virus will develop AIDS in the first five years after exposure (Bowen, 1987). The average incubation period from HIV infection to AIDS is 9.8 years (Lemp et al, 1990). The long-term prognosis for PWA remains poor but the short-term length of survival has improved. Once symptoms have appeared the average death occurs within two years

(Rothstein, 1989). The mean survival time is predicted to increase to 30 months in 1993 (Hellinger, 1990).

Cases of this fatal disease continue to increase because there is no cure and individuals who are unaware they are infected with the HIV virus continue to spread it to others. The CDC and other researchers predict from 365,000 to 500,000 cases of AIDS in the United States by the end of 1992 (Cox, 1988). It is now believed that cases of AIDS may be underreported. The CDC estimates that reported deaths from AIDS may represent less than 80 percent of actual deaths (Schmidt, 1989). The projected estimated cases of AIDS to be diagnosed are 70,000 in 1991, 87,000 in 1992, and 104,000 in 1993 (Hellinger, 1990).

The Political Response to AIDS

The high incidence of AIDS has resulted in the historically traditional reactions to epidemics of denial, then anxiety and hysteria, followed by a search for a scapegoat or someone to blame (Silverman, 1990). A scapegoat was very quickly identified, with homosexuals and intravenous drug users being the first two groups linked to the outbreak of AIDS. These two groups were already stigmatized by our society. The lack of an effective response on the part of the conservative administration of President Reagan contributed to these reactions to AIDS. This administration assisted in a large segment of our society developing strongly negative feelings towards AIDS. A brief review of the limited federal support and lack of

fiscal resources for AIDS research and treatment will demonstrate the influences behind the negative attitudes towards AIDS. The existence of these attitudes towards AIDS may be influencing the willingness of long-term care professionals to care for PWA.

In the early phases of the AIDS epidemic, adequate resources were not allocated for either AIDS research or the education of the public regarding AIDS. Educational programs about the transmission of AIDS and the disease process could have not only assisted in the control of AIDS but would have possibly diminished the level of anxiety.

According to Benjamin (1988), our nation did not respond to AIDS with either the necessary political will or fiscal resources. The political response to AIDS was slow and dominated by the New Right agenda which emphasized strengthening the military while weakening the role of the state in protecting social welfare and civil rights. The federal support given to AIDS was limited, as it was viewed as a disease of homosexuals. The right-wing politicians in power had raised their political funds in part by campaigning against homosexuals and homosexual rights.

Governmental response to AIDS was influenced by the policies of Reagan and the New Right agenda. The support of the New Right agenda only strengthened the government's slow negative response to the AIDS epidemic. The attitude of Reagan's administration towards AIDS was demonstrated by the Director of White

House Communication's statement in 1983 that "AIDS is nature's revenge on homosexual men" (Buchanan, 1983).

AIDS was viewed as a minor problem until it was discovered that AIDS could be transmitted through blood transfusions. Knowing that AIDS was now affecting other members of the society besides homosexuals, Dr. Brandt, Assistant Secretary for Health of the United States Department of Health and Human Services, requested new funds for AIDS and declared that it was the administration's top health priority. When AIDS was declared the administration's top health priority, in 1983, 1450 Americans had been diagnosed with AIDS and 558 had died (Shilts, 1988). Although the Department of Health and Human Services (DHHS) had designated AIDS as a number one priority, this priority was implemented at the Public Health Service (PHS) but not at the Departmental level. The Department's position was that funds for AIDS activities should be transferred from other PHS activities. Funding increases for AIDS had come from the initiative of Congress, not the DHHS (Panem, 1988).

It was not until 1986 that President Reagan even mentioned AIDS in public (Fox, 1987). He presented his first speech on the AIDS epidemic in 1987, by which time there were 36,058 individuals diagnosed with AIDS and 20,849 deaths from AIDS (Shilts, 1988). In this speech little attention was paid to the need for education to assist in controlling the spread of AIDS. His speech stressed HIV testing without

mentioning the need of confidentiality and civil rights protection for those who tested positive (Shilts, 1988).

Reagan responded after the Senate unanimously passed a resolution calling for a national AIDS commission. Maintaining the support of the New Right agenda, Reagan appointed persons having conservative ideologies and limited knowledge of AIDS to six of the seven positions. These appointments included an Illinois legislator who was a protege of Phyllis Schafly and New York City's conservative John Cardinal O'Connor, who had been outspoken against gay civil rights (Shilts, 1988).

The conservative ideology of the administration was also visible in the limited fiscal support for AIDS. The Reagan administration did not request funds for AIDS research until 1984. Under the threat of a Congressional subpoena of budget documents in 1985, the administration began to recommend increasing funds for AIDS research and treatment (Westmoreland, 1987). In January 1986, at the same time President Reagan was calling AIDS one of the highest public health priorities, he proposed to reduce the spending for AIDS research by $41 million, with an additional $10 million being cut by the Gramm-Rudman-Hollings Act (Fox, 1987). The administration's only response to Surgeon General C. Everett Koop's report on AIDS (1986) regarding the lack of funding for AIDS research was the NIH officials' continued reassuring statements of having adequate funding for AIDS. The need of funding became evident when, under oath, the director of the NIH and other NIH

and FDA officials admitted to the lack of funds and staffing prohibiting adequate research for AIDS treatments (Shilts, 1988).

The limited availability of resources for education was demonstrated in 1985 when the Reagan administration allocated $120,000 for risk reduction education. This limited amount of money was allotted for the education of the public at a time when one page of advertising in a major newspaper cost $25,000. Corporations were routinely spending $50 million just to market a new product (Queen, 1987). This conservative power was evident in the Senate when it approved a bill introduced by Senator Helms to deny federal funds to organizations which counsel safe sex (Poirier, 1988).

The lack of any coordinated educational campaign to prevent the spread of AIDS in the United States is documented in several reviews (Altman, 1986; Bayer, 1989; Panem, 1988; Shilts, 1988; Queen, 1987). By 1987 the United States was the only major Western industrialized nation that had not launched an education program regarding AIDS (Shilts, 1988).

Health Policy Response to AIDS

The initial health policy response to AIDS ranged from being nonexistent to being ineffective. The bases of this poor response were tied to both the political climate and the general focus of health policy at that time. In many respects the

onset of the AIDS crisis could not have occurred at a worse time in terms of health policy.

The initial phases of the AIDS epidemic occurred at the same time the responsibility of financing health care for the poor was being shifted from the federal government to the state and local governments and to the private sector. This process of decentralization resulted in the health polity being more fragmented than it had been at any time since the 1930's.

This decentralization and fragmentation is particularly problematic for a disease such as AIDS. The decentralization resulted in the bulk of the responsibility of supplying care and resources for PWA falling on the local, county, and city governments. Resources at these levels tended to be limited even before the impact from the additional responsibility of AIDS. The lack of support for PWA was most evident in Florida. In 1984, the legislature passed a bill providing special monies for research and treatment of PWA which was vetoed by the Governor (Altman, 1986). Decentralization also influenced the sharing of knowledge and policies between the states being affected by AIDS. According to Shilts (1988), cases of illnesses later tied to AIDS were being identified in San Francisco, Los Angeles, and New York as early as 1980. The lack of centralized health reporting and policy coordination contributed to the year delay in the CDC identifying the communality between these cases.

Presently, there is no cure or vaccine to combat the spread of AIDS. The only way to combat AIDS is with education. However, due to the facts that sexual contact

is the primary mode of transmission and that the United States population is generally resistant to public sex education, efforts to inform people how to avoid AIDS have been impeded. Thus, limited education allows cases of AIDS to increase and reinforces negative attitudes towards AIDS.

Characteristics of Persons with AIDS

Although AIDS is a disease of all ages, ninety percent of the cases in the United States are found in men between the ages of 20-50 years (Cox, 1988). The long incubation period of AIDS is responsible for the prevalence in these years. An individual can be infected in her or his teens but not develop any symptoms until years later. The primary risk groups for AIDS in the United States are homosexuals, bisexuals, and intravenous drug users. These three groups account for 89% of AIDS cases (American Health Consultants, 1990b). While homosexuals and IV drug abusers are the high risk groups in the United States, AIDS is not a disease limited to these two groups. The fastest growing subgroup of AIDS cases in the United States is now women, who account for over 10 percent of all AIDS cases (Stuntzner-Gibson, 1991). On a world-wide basis AIDS is primarily a black heterosexual disease (Pierce & VanDeVeer, 1988).

As previously mentioned, the majority of the individuals at risk for AIDS in the United States belong to two groups who are not accepted by society, homosexuals and illegal IV drug users. Not only is their behavior considered to be immoral but in

some states gay sex is still illegal. IV drug use without a prescription is illegal in all states. The public's strong need to associate this life-threatening disease with homosexuality is evident with the limited recognition of the diagnosis of the first case of AIDS resulting from a man contracting it from a woman in 1982. The CDC did not establish a reporting category for AIDS acquired by heterosexual contact until 1984 (Pierce & VanDeVeer, 1988). The prevalent negative attitudes towards homosexuals and IV drug addicts resulted in AIDS being viewed as a punishment for the individual's behavior. Individuals with AIDS not only face the emotional problems of coping with their disease but also face discrimination, stigmatization, and rejection by our society.

Even though intravenous drug users are a high risk group for AIDS, the public tends to view AIDS as more of a disease of gay males. This is due, in part, to the strongly negative view of homosexuality in our society and the early public identification of AIDS with the gay community. This link has been reinforced by the fact that gays have strongly organized themselves in response to the threat of AIDS.

Perceptions of AIDS

The concept of AIDS being a disease of homosexuals was accepted by both the media and scientists. For a time it was popularly known as "GRID" or "gay-related immune deficiency" (Altman, 1986). The media made limited attempts to correct this widely accepted perception. In 1983 almost a third of those with AIDS

were not homosexuals, yet when New York magazine ran a cover story about AIDS, non-gays were barely acknowledged. The first Newsweek cover story regarding AIDS, in April 1983, did devote some space to non-gay AIDS patients, including photographs of individuals who were not white, male, and homosexual. But four months later Newsweek returned to the "gay disease" orientation with a cover picture of two homosexuals and virtually no mention of anyone else (Altman, 1986). The generally negative attitudes present in our society towards homosexuals allowed the conser atives to create an ideology of AIDS as a homosexual disease which was a deserved outcome of deviant behavior. Because AIDS is primarily transmitted through sexual activity, it is thought of as the consequence of a more willful act and, therefore, it is readily believed that persons with AIDS deserve more blame. The strong connection drawn between AIDS and homosexuality is demonstrated in all aspects of our society. The following are examples of this attitude evident in the media, the political arena, and religion.

- A **New York Times** journalist, "The groups most recently found to be at risk for AIDS present a particularly poignant problem. Innocent bystanders caught in the path of a new disease, they can make no behavioral decisions to minimize their risk: hemophiliacs cannot stop taking blood clotting medication; surgery patients cannot stop getting transfusions; women cannot control the drug habits of their mates; babies cannot choose their mothers" (Marantz, 1983).

- The Reagan administration's attitude was evident by Patrick Buchanan's, Director of White House Communications statement in 1983 that "AIDS is nature's revenge on homosexual men" (Buchanan, 1983).

- Corey Ser Vaas, who as one of the thirteen members of the President's Commission on AIDS, was quoted as saying "that she hopes scientists will discover the genetic predisposition to being homosexual so we could minimize that behavior, thereby reducing AIDS" (Poirier, 1988).

- Cardinal Kroll, the American cleric closest to the pope, refers to the AIDS epidemic as an act of vengeance against the sin of homosexuality. The Pope had referred to homosexuality as the moral source of AIDS (Poirier, 1988).

All of these attitudes reinforced the view that you can get rid of, or reduce, AIDS if you can get rid of homosexuality.

According to Susan Sontag (1989), AIDS is viewed as a disease not only of sexual excess but of perversity. AIDS is viewed as a punishment for the individual's sexual behavior. Because an individual's sexual practice is viewed as more willful, persons with AIDS deserve more blame. Results from the analysis of 53 national and international opinion surveys conducted between 1983 and 1988 supported this concept that PWA deserved their illness. The analysis indicated that approximately 20 percent of Americans see AIDS as a deserved punishment for offensive or immoral behavior and show signs of intolerance and outright hostility to persons with AIDS (Blendon, 1988).

According to Dr. Robert Bendon of the Harvard School of Public Health, the national attitudes towards AIDS of mistrust, fear, and misunderstanding of the person's with AIDS needs and problems have been demonstrated in a number of polls. He states that one-third of the people who live in the South feel persons with AIDS should be treated with hostility, anger and resentment. A typical response to

people with AIDS is seen as: "You're getting what you deserve, you should have watched your behavior, we don't want to do any more than we have to for you, or to prevent the disease, we don't owe anything to you because you have a form of behavior that ought to be corrected anyway" (Lauerman, 1989).

A review of twenty-two public opinion surveys on AIDS conducted between June 1983 and November 1986 was completed by Singer, Rogers and Corcoran (1987). The percentage of the population aware of AIDS increased from seventy-seven percent to ninety-nine percent during this time. There was a positive correlation between the individual's level of education and her or his knowledge regarding the methods of transmission of AIDS. Individuals with lower levels of education are more likely to say they or someone they know will avoid places frequented by homosexuals. According to data collected in the National Health Interview Survey (NHIS), people fifty years and older were substantially more likely to fear contagion from casual contact (Advance Data, 1990). Data collected from the NHIS also indicated that individuals 50 years of age and older were less informed and less accepting of AIDs than were other age groups.

Both the tendency of individuals with lower levels of education and individuals over the age of 50 tending to believe AIDS can be transmitted by casual contact may affect the willingness of long-term care facilities to care for PWA. The majority of the staff providing direct care for patients in long-term care facilities are nurses' aids. These individuals usually tend to have concluded their education at the high school

level. Patients in long-term care facilities will generally be over the age of fifty. Thus, the patients and staff may be less receptive to providing care for PWA in their long-term care facilities.

Predictors of Attitudes Toward AIDS

The public opinion surveys on AIDS indicate that individuals who are at a greater risk for AIDS are more likely to express concern about AIDS. This group includes individuals under thirty, single people, those living in urban areas in which a high number of cases have been identified, and blacks. They were also more likely to say they had changed their behavior, including sexual behavior, to avoid acquiring AIDS.

The literature clearly demonstrates that negative attitudes towards persons with AIDS are due to the perception that AIDS is caused by homosexuality. Homosexuality is neither morally nor legally accepted by much of our society. It is against the law in twenty-four states and the District of Columbia (Poirier, 1989). Homosexuality was still listed in the Diagnostic and Statistical Manual of the American Psychiatric Association in the early 1970's as a form of mental illness. According to a 1983 public opinion poll, only one-third of the adults in the United States felt that homosexuality was an acceptable alternative lifestyle (Newsweek, 1983). Negative attitudes towards homosexuality are more prevalent among males than females (Kite, 1984). Herek (1984) demonstrated that negative attitudes

towards homosexuality are inversely related to level of education, and to personal experience with homosexuals. A positive relationship was evident between conservative religious values, conservative views regarding sexuality, and traditional attitudes. Research has shown a trend for individuals with negative attitudes towards gay men to be less well informed regarding AIDS and be more inclined to accept ineffective policies of treatment such as quarantine of PWA (Herek, 1988). These findings clearly imply that individuals who do not accept homosexuality will tend not to be willing to provide care for patients with AIDS.

Another factor which tends to influence attitudes towards AIDS is the perception of the threat represented by AIDS. Persons who see AIDS as a personal threat are likely to have stronger attitudes. Threat may be seen in a variety of life areas. Persons may feel that AIDS represents a threat to their sexual behavior, producing changes in behavior or general insecurity about the possibility of contagion. Threat may also be seen in regards to health care, concerns about where AIDS patients are treated and about contact with blood. In general, it is expected that the more threatened a person is, the more likely he or she will have negative attitudes towards AIDS. Nursing home personnel will tend to feel more threatened by AIDS when their facility is willing to provide care for PWA.

Long-Term Care Facilities as a Care Option

The severe lack of non-hospital based, long-term care was recognized in the Report of the Intragovernmental Task Force as one of the major service gaps for persons with AIDS and ARC. The Task Force of the District Columbia Government estimated that approximately 11 percent of persons with AIDS will require residential long-term care (Report of the Intragovernmental Task Force, 1988). This need was also recognized by the department of Health and Human Services, which provided $7 million for construction of non-acute long-term care facilities (Contemporary Long-Term Care, 1989). Public officials in Texas estimate that 50 to 75 percent of PWA in Texas would require long-term care at some point in their illness (Adams, 1989). The results of a study in New Jersey (1985) demonstrated that 25 percent of PWA in hospitals could have been treated with a lower level of care provided in long-term care facilities (Adams, 1989). In 1987, physicians at John Hopkins, were only able to discharge 7 out of 41 PWA to appropriate alternate care settings. The seven were transferred to a Baltimore nursing home, while the rest remained in the hospital (AAHA, 1987).

Patients with AIDS tend to remain in acute care settings because of the lack of alternative settings. According to Cliff Morrison, of the University of California's, San Francisco Institute for Health Policy Studies, acute hospital care is not always the appropriate setting for PWA, it is costly, uses up resources, and doesn't allow the

patient the best quality of life. He estimates that PWA may need acute hospital care for only 10 percent of the duration of their illness (Bereford, 1989).

There is agreement among providers that at any given time 10 to 25 percent of persons with AIDS could appropriately utilize the care provided by skilled nursing facilities (Benjamin, 1988). Nursing home placement for patients with AIDS can be seen as either a permanent or temporary placement.

Permanent placement in long-term care facilities would be appropriate for PWA with dementia, patients who are homeless, or PWA in the later stages of the disease process. The main reason for permanent placement would be AIDS dementia. Extended care facilities are generally the setting of choice for patients with dementia and other neurological disorders. Similar to the elderly afflicted with dementia, AIDS dementia can manifest itself in various combinations of extreme mental impoverishment, organic psychosis, apathy, mutism, weakness, gait unsteadiness, general hypokinesia, and incontinence. As with other dementia patients, these individuals need twenty-four hour supervision and assistance to maintain their activities of daily living.

Providing adequate medical assistance at home is only possible when the patient has adequate residence. Adequate housing is a problem in both rural and urban areas. More than one-half of the nation's substandard housing is in rural areas (Smith et al., 1990). It is difficult to provide extensive patient care in a home that

does not have running water. Estimates of HIV infection and AIDS among the homeless in urban areas range from 5 to 10 percent (Smith et al., 1990).

Long-term care facilities are appropriate settings for AIDS patients in the end stages of their disease. Hospice environments can be established to assist the patients and their families or loved ones with death.

Long-term care facilities are also suitable for temporary placement of patients with AIDS for rehabilitation or nonacute medical problems. Persons recovering from an acute illness can be placed in a nursing home to complete their rehabilitation. Nonacute medical problems, such as dehydration or titration of medication, currently being managed in hospitals can be managed by nursing homes. A clinically stable PWA may have temporary placement to complete a course of antibiotic treatment or chemotherapy that requires twenty-four-hour monitoring.

Temporary placement in a nursing home can also provide respite care for the primary caregivers of people with AIDS. A week of institutional care could help prevent demoralization and burnout of a spouse, lover, or parent attempting to hold down a job or maintain a household with other dependents while providing care for an increasingly dependent person with AIDS.

Long-term care facilities need to be prepared not only for the younger PWA but also for the elderly. About 10 percent of AIDS cases each year are individuals fifty years of age or older (Crystal, 1989).

Barriers to Care

Very few patients with AIDS have been admitted to long-term care facilities. Reasons for this exclusion include the inability of many long-term facilities to handle patients with contagious diseases, the lack of adequate reimbursement, and the fear of contagion present in the staff and residents (Adams, 1989; Benjamin, 1989; Bereford, 1989; Boales, 1988; Crystal, 1989; Levine, 1990; Sarvela, 1989). The reluctance to provide care for people with AIDS, and in some cases the outright discrimination against patients with AIDS on the part of other patients, staff, and managers of long-term care facilities, are other reasons PWA have not been admitted to long-term care facilities.

A survey of nursing homes (1988) located in rural small towns in southern Illinois demonstrated negative attitudes towards PWA. Forty-six percent of the employees felt hospitals and nursing homes should have the right to refuse care for PWA. Fear of contagion was indicated, with 32 percent of the employees stating they felt their health would be put in danger by being around someone with AIDS (Sarvela, 1989). Eighty-eight percent of the nursing homes responding in a survey of nursing homes (1988) belonging to the Ohio Health Care Association refused to care for PWA (Boales, 1988). Efforts of placement of PWA in nursing homes have often met with resistance either on the part of the facilities elderly patients and their relatives or on the part of the facilities' managers. In 1988, 120 beds of a 240-bed

nursing home in New Jersey were to be used for PWA. The plans were suspended because of protests. The press described these protests as an angry mob led by the town's mayor (Crystal, 1989). Moreover, the high occupancy rate of many long-term care facilities provides little incentive to accept patients who may need services that are different, and possibly more costly, than those required by the typical long-term care patient.

The Office for Civil Rights has received several complaints alleging discrimination against persons with AIDS. Several of these cases involved service delivery matters (Report of the Intragovernmental Task Force, 1988). Nursing homes in the states of Texas, Minnesota, and Indiana were investigated by the Department of Health and Human Services for possibly discriminating against PWA. In Texas, fifty-three nursing homes have been investigated as a result of possible discrimination against persons with AIDS. These facilities entered into voluntary compliance plans with the office of Civil Rights and agreed to develop admission policies that include equal access for persons with communicable or infectious diseases, to adopt and implement infection control procedures, and to train staff in the care of patients with AIDS (AAHA, 1988). In Minnesota, sixteen nursing homes were charged with discrimination against persons with AIDS. Agreements were negotiated in which the cases were dropped in exchange for agreements to conduct staff training regarding the care of persons with AIDS and to treat persons with AIDS in the future. Indiana also had several nursing homes investigated by the Department of Health and Human

Services for allegedly refusing to admit a person testing positive for HIV (AAHA, 1987b).

Homophobia and the fear of contagion of AIDS extends into the medical profession. Studies have shown that prejudice and homophobia are present in the medical profession. Kelly et al. (1987, 1988) found that both medical students and nurses had stigmatizing negative attitudes towards homosexuals and persons with AIDS. The measurement of attitudes towards AIDS patients and identically described patients with leukemia, indicated more attitudinal negativity towards the AIDS patient. Results of this study also demonstrated that gay patients, regardless of their disease, were stigmatized with negative attitudes similar to those shown towards AIDS patients. A survey conducted in a large urban teaching hospital which cared for homosexuals with AIDS demonstrated that both physicians and nurses were somewhat homophobic and felt PWA were responsible for their disease. Nearly ten percent of the respondents agreed with the statement that "homosexuals who contract AIDS are getting what they deserve" (Douglas et al., 1985). There have been numerous reports of prejudicial attitudes and behaviors among health professionals toward homosexuals with AIDS. Nicknames such as "the gay plague" or "WOG" (wrath of God) have been heard in medical centers. Reports have been made about persons with AIDS who have been neglected by Emergency Room staff and who have not been bathed or assisted with meals. In general, these patients have not always

been treated with care and respect (Bennett, 1987; Cecchi, 1986; Douglas et al., 1985; Hamilton, 1988; Mallory, 1988; Shilts, 1988).

Research also demonstrates that the fear of contagion of AIDS is present in the medical profession (Blumenfield et al., 1987; Whalen, 1987). Incidents were reported in which staff members were reluctant to enter a room during a cardiac arrest, or staff nurses requesting reassignment to avoid working with AIDS patients. Two-thirds of the nurses reported friends or family concerned about associating with hospital personnel who have had contact with PWA. There are incidents in which medical staff have made career choices because of AIDS. Researchers from Columbia University in New York City reported that AIDS has played a role in the career choices made by residents. Fewer students chose primary and surgical specialties and programs in locations with high concentrations of AIDS cases in 1987, than in 1980 and in 1983 (American Health Consultants Inc., 1990a). Fager (1989) reported that in one out of five teaching hospitals in the United States staff have quit for fear of contracting AIDS. The chief of orthopedic surgery at San Francisco General Hospital resigned because of her fear of AIDS (Fager, 1989; American Health Consultants Inc., 1989).

Functional age, as well as chronological age, is an important issue in caring for patients with AIDS. In the advanced stages of AIDS a person's functional abilities become limited. Thus, AIDS is a disease which in some ways mimics the functional limitations associated with chronic illnesses of old age. It is also important to note

that AIDS is not restricted to young populations. According to the 1987 CDC report, 10 percent of the persons with AIDS are 50 years old or older. One-fourth (25%) of these cases are in the age group of 60 years and older, and 4 percent are 70 years of age or older. If this age distribution holds, in 1991 there will be 27,000 people with AIDS 50 years of age or more, and 1,100 at least 70 years of age (Moss and Miles, 1987).

Increasing health care personnel's knowledge of AIDS appears to decrease the barriers to care for persons with AIDS. Studies have indicated that the individual's knowledge base and attitudes are affected by education. A study conducted by Weitz tested respondents before and after an educational seminar on AIDS (Weitz, 1987). Respondents demonstrated a significant improvement in their knowledge and attitudes towards persons with AIDS in the post-test. There was a significant improvement in the accuracy of knowledge on seven of the fifteen modes of transmission of AIDS, and on seven of eleven means of infection control. Attitudes also shifted in the desired direction on six of nine questions about caring for persons with AIDS. A follow-up questionnaire was administered six months after the seminar, and the results indicated that the knowledge and attitude gains found in the post-test administered after the seminar were maintained over time. Education, then, is suggested to be an important component in reducing negative attitudes towards AIDS.

CHAPTER TWO

Theory

Social psychological research and theory has clearly demonstrated the linkage of behaviors to attitudes. The relationship between attitudes and behavior has been an issue in the history of social psychology. As early as 1918 Thomas and Znanieck viewed attitudes as individual mental processes that determine a person's actual and potential responses (Fishbein & Ajzen, 1980).

Until the late 1960s, attitudes were viewed as behavioral dispositions. It was assumed that attitudes could be used to explain human action (Fishbein & Ajzen, 1980). However, in the sixties, both sociologists and psychologists were conducting research demonstrating the limited relationships between attitudes and behavior (Hill, 1981). McGuire (1966) stated, "Attitude research has long indicated that the person's verbal report of his attitudes has a rather low correlation with his action behavior toward the object of the attitude" (McGuire, 1966). DeFleur, in 1968, argued that "while attitude may not be entirely obsolete for sociologists, it may very well become largely irrelevant (Hill,1981). This emerging sociological view was supported by Wicker, a psychologist, in his 1969 review of attitudes and actions. He concluded that "taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that

attitudes will be closely related to actions" (Wicker, 1969). In the research he reviewed, the correlations between attitudinal and behavioral measures were rarely larger than .30, and quite commonly were near zero (O'Keefe, 1990).

Fishbein and Ajzen (1977) reanalyzed the literature on the attitude-behavior relationship. In this analysis, only the target and action elements of the attitudinal and behavioral entities were considered. They found that when the target and behavior are the same as those that have been incorporated in the measure of attitude, a consistent relationship was found between attitudes and behavior. Thus, the relationship between attitudes and behaviors is enhanced if the attitudinal measurements and behavioral criteria are at an equivalent level of specificity (Fishbein and Ajzen, 1974; Liska, 1974; Weigel and Newman 1976). Hill (1981) states that a moderated relationship between attitudes and behaviors have been found consistently when attitudinal measures and behavioral criteria correspond on the dimensions of target and action. This relationship is demonstrated in the ability of attitudinal surveys to predict United States election outcomes within 2 or 3 percent of the actual vote.

Reasoned Action Theory

A contemporary view of the behavior-attitude relationship is presented in Reasoned-Action Theory (Figure 1) (Fishbein & Ajzen, 1980). Fishbein and Ajzen

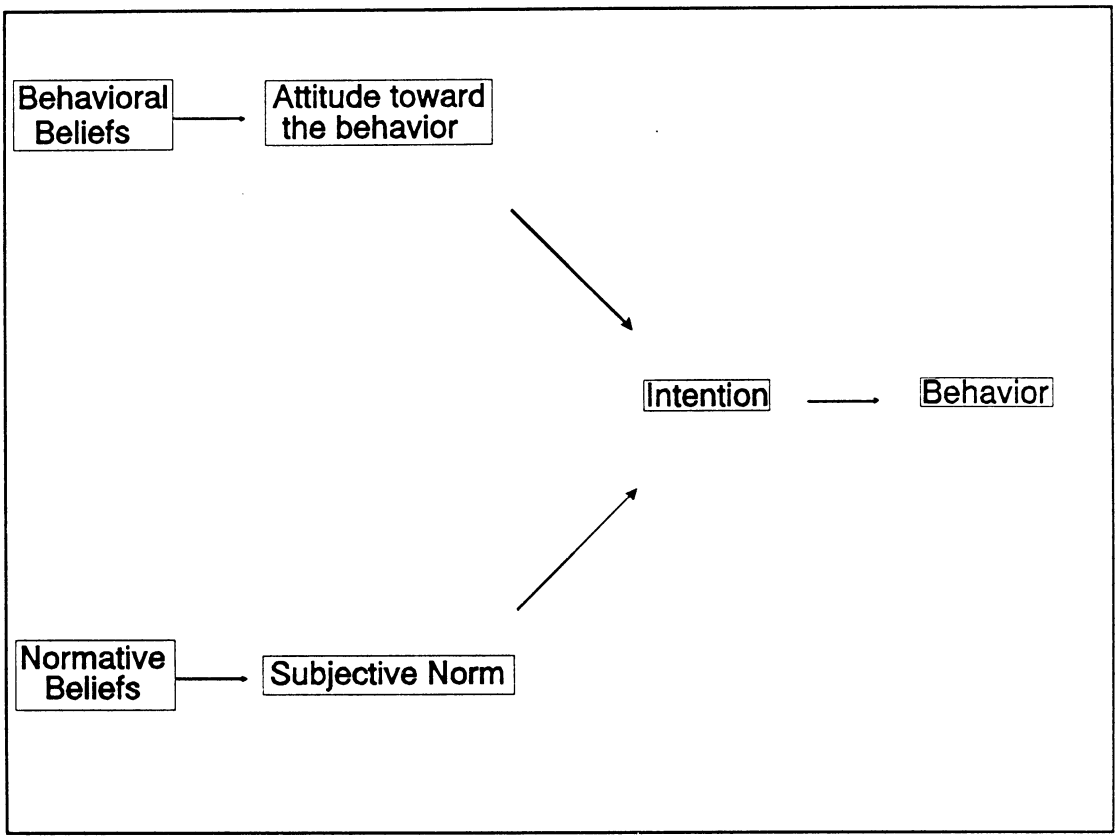

Figure 1 Theory of reasoned action

refer to this theory as the theory of reasoned action because they feel that people consider the implications of their actions before they decide to engage or not to engage in a given behavior. This theory proposes that the intention to perform a behavior is determined by two factors: the individual's personal attitude toward the behavior and the individual's subjective norm.

The personal attitude is the individual's positive or negative evaluation of performing the behavior. It refers to the person's judgement that performing the behavior is good or bad, that she is in favor of or against performing the behavior. Consider the example of deciding what type of car to buy. One behavioral decision

would be to buy a domestic or foreign-made car. In predicting the purchasing of a foreign car, some people have a favorable attitude while others have an unfavorable attitude toward this behavior. This would represent the personal attitude toward the specific behavior.

The subjective norm represents how he or she perceives the attitudes of others who are viewed as important. If she feels that important others favor the performance of a specific behavior, then the subjective norm will support that behavioral outcome. Likewise, if important others are seen as opposing a behavior, the subjective norm would oppose the person engaging in that behavior. In effect, the subjective norm is the person's perception of the social pressures put on her behavioral decision. The individual who is deciding whether to buy a foreign-made car or an American-made car will consider the opinions of significant others. Thus, if a person believes that most people who are important to her feel she should not buy a foreign car, then that will influence her behavior in the direction of not buying foreign-made cars.

The intentions to perform the behavior are not necessarily equally influenced by personal attitudinal judgements and subjective norms. In some situations, normative considerations are more important than attitudinal considerations in determining behavioral intentions. In other situations the reverse may be true. According to Fishbein and Ajzen (1980), there is some evidence that attitudinal considerations are more important for competitive behaviors than for cooperative

behaviors, while normative considerations are more important for cooperative than for competitive situations. O'Keefe's (1990) review of the research on the determinants of behavioral intention states that, in most applications of this model, the attitudinal component influences the intention more than does the normative component.

There are three conditions which are expected to influence the final relationship between the intention to perform a behavior and performing the behavior. First, the measures of intention and the behavior must correspond to one another. The measures of intention and behavior must be specific. If you were measuring the behavior of buying Diet Coke, you would measure the intention of buying Diet Coke, not buying diet cola.

The second condition which will influence the relationship between the intention and performing the behavior is the length of time between the assessment of intention and the behavior. The intention to perform the behavior will be a poor indicator of the behavior if the intention changes in the period between the assessment of intention and assessment of behavior. The voters' intention in late October will produce superior predictions of the November election results than voters' intentions in August.

The third condition involves the degree to which the behavior is under volitional control. If the behavior is not under volitional control, the predictor will not have a strong relationship with the behavior.

Personal attitudes and subjective norms are both functions of beliefs in the Theory of Reasoned Action. Behavioral beliefs are the beliefs that underlie a person's attitudes toward the behavior. To illustrate, an individual who feels that foreign made cars are more reliable or have a higher resale value is more likely to evaluate positively purchasing a foreign car. Similarly, an individual is likely to hold an unfavorable attitude towards buying a foreign-made car if she or he believes it is over-priced or that it is important to buy American-made products.

Subjective norms are influenced by the individual's normative beliefs. Normative beliefs are the individual's beliefs that specific individuals or groups think he should or should not perform the behavior. Generally, if a person believes that most referents she is motivated to comply with think she should perform the behavior, then there will be a greater influence to do so. Conversely, if it is perceived by the individual that most referents she or he is motivated to comply with feel the behavior should not be performed, then there will be a lesser influence to do so. If this individual perceives that her or his friends and family favorably view buying a foreign car, her or his subjective norm will exert pressure to perform this behavior.

This theory can be examined on three levels. The first level is the relationship between the intention to perform the behavior and the behavior itself. The next level consists of the relationship between the personal attitudes towards the behavior, the

subjective norms, and the intentions to perform the behavior. The third level explains attitudes and subjective norms in terms of beliefs.

As beliefs influence personal attitudes and subjective norms, which in turn influence the intention to perform behavior, the person's behavior can be explained by reference to the individual's beliefs. Fishbein and Ajzen (1980) viewed a person's beliefs as representing the information (be it correct or incorrect) the person has about his or her world. According to this theory behavioral change is the result of changes in beliefs. To influence behavior, people need to be exposed to information which will produce changes in their beliefs.

The AIDS Care Model

Caring for patients in Long-Term Care Facilities is presently a very rare behavior. Providing such care is not an established policy in most areas. In addition, the incidence of AIDS is still relatively low in areas included in this study. Thus, there has been little opportunity to observe actual behaviors of long-term care facilities, or individuals within these facilities, providing care to persons with AIDS. Since this behavior is not prevalent enough to observe, it is necessary to examine factors that are most likely to be predictive of this behavior. The theory of reasoned action (Ajzen & Fishbein, 1980; Hill, 1981; and O'Keefe, 1990) will be used to develop a model explaining the factors which will determine the behavior of caring for patients with AIDS in long-term care facilities.

The reasoned action theory emphasizes that beliefs and the information, whether correct or incorrect, the individual has regarding the behavior will influence both the personal attitudes and the subjective norms. In the present study, beliefs are explained in terms of accurate knowledge concerning AIDS. Knowledge variables are included as key belief elements in this model since they depict the prior learning pertaining to medical care. Beliefs based upon this knowledge are expected to affect directly both personal attitudes and subjective norms. They are expected to have both an indirect and direct effect on the dependent variables. The individual's feelings of being prepared to care and their willingness to provide care will be directly and indirectly influenced by their knowledge regarding the care to be provided.

Both personal attitudes and subjective norms will determine the intention, the willingness to provide care, or the feeling of being prepared to provide care. This study considers four basic dimensions of personal attitudes which are expected to influence the intention directly. Four variables are assessed to determine personal attitudes towards providing or being prepared to provide care to PWA in long-term care facilities.

One of the personal attitude variables considers how attitudes towards AIDS will affect an individual's right to medical care. This is assessed by looking at attitudes towards PWA's access to medical treatment.

The second and third personal attitude variables address the degree to which persons with AIDS are seen as being responsible or blamed for their disease. That is, does this population of long-term care professionals feel persons with AIDS are getting what they deserve?

The fourth personal attitude variable attempts to assess general prejudice towards homosexuals and individuals with an IV drug addiction. Does this population of long-term care givers have negative feelings about personally providing care to homosexuals or individuals who are IV drug addicts?

The subjective norm component of the reasoned action theory is also incorporated in this model. Subjective norms are the perception of selected referents' attitudes towards providing care to patients with AIDS. The respondents' perceptions of the attitudes of their staff, their coworkers, members of their community, physicians in their community, and family members of patients towards the care of PWA in their facility were included as the subjective norms.

Hypotheses

As noted earlier, the model to be tested examines the intention to behave rather than the actual behavior. Thus, the dependent variables in this model are attitude reports of behavioral intentions toward the behavior of interest. The intention variables in this model are the willingness to provide care for PWA in long-term care facilities and the feeling of being prepared to care for PWA in long-term care facilities.

The AIDS Care Model to be tested is presented in Figure 2. As depicted in the figure, two variables are posited as influencing respondents' personal attitudes toward the intention. Both of these variables concentrate on the knowledge of AIDS. According to the theory of reasoned action, personal attitudes are influenced by the knowledge (correct or incorrect) of the intention to engage or not to engage in the behavior under consideration. The attitudes of professional medical care providers towards AIDS are also expected to be affected by their knowledge of AIDS (Blumenfield, 1983; Flaskerud, 1989; Hartnell, 1987; O'Donnell, et al., 1987; Valenti et al., 1986; and Wertz, 1989).

The knowledge level concerning the modes of transmission of AIDS will be measured. This relationship is associated with Path A. If the person has an accurate

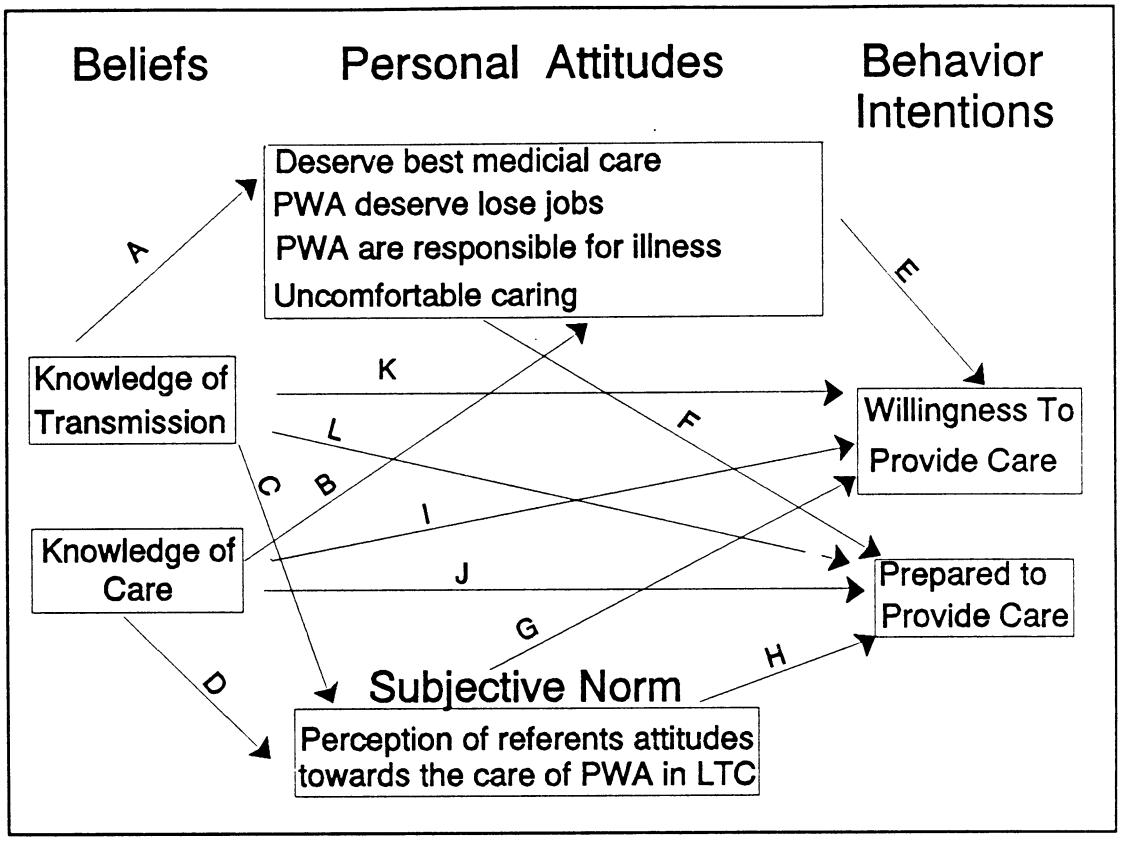

Figure 2 AIDS care model

knowledge base of the transmission modes of the AIDS virus she or he will have a more positive attitude towards persons with AIDS.

The second variable for this concept is the knowledge level concerning the care of PWA. This relationship is represented by Path B. If the person has an accurate knowledge base of the care of patients with AIDS, she or he will have a more positive attitude towards persons with AIDS.

These same two knowledge variables are expected to influence the subjective norms as well. If the person has an accurate knowledge base of the transmission

modes of the AIDS virus, then her or his perception of the attitudes of others towards persons with AIDS will be more positive (Path C). Similarly, if the person has an accurate knowledge base of the care of patients with AIDS, then her or his perception of the attitudes of others towards persons with AIDS will be more positive (Path D).

Next, the variables expected to influence the intention of the willingness to provide care or the feeling of being prepared to care for PWA will be examined. The willingness to provide care to PWA in long-term care facilities is expected to be determined by both personal attitudes and subjective norms. Four variables involving personal attitudes and one variable involving subjective norms are considered in this model.

Positive personal attitudes are predicted to increase the willingness to provide care (Path E) and feeling prepared to care (Path F). The four variables assessing personal attitudes are the responses to the following statements: PWA deserve the best medical care, PWA deserve to lose their jobs, PWA are responsible for their illness, and being uncomfortable caring for homosexuals. Health care professionals who feel PWA deserve the best medical care will be more willing to provide care. Similarly, if a person feels individuals with AIDS deserve the best medical care she will feel more prepared to provide care for PWA in long-term care facilities. The personal attitudes of PWA deserving to lose their jobs and of being responsible for their illness each assess the health care professional's view of AIDS as a punishment

for the individual's behavior. If an individual feels persons with AIDS are responsible for their disease, then there will be less willingness to provide care for PWA in long-term care facilities. Similarly, if an individual feels persons with AIDS are responsible for their disease she will feel less prepared to provide care for PWA in long-term care facilities. The personal attitude of being uncomfortable caring for homosexuals is the variable that is designed to indicate acceptance of homosexuals. As noted in the prior review, persons with negative attitudes towards homosexuals tend to have negative attitudes towards AIDS. The greater the homophobia, the less likely the health care professional will be willing to provide care for PWA in long-term care facilities. Similarly, the greater the homophobia, the less likely she or he will feel prepared to care for PWA in long-term care facilities.

The relationships between intentions to behave and the subjective norm are represented by Path G and H in Figure 2. If an individual perceives positive support from her referents she will feel more prepared to care for PWA and be more willing to provide care for PWA in long-term care facilities.

The model suggests that knowledge level concerning the care of PWA and transmission modes of AIDS have both a direct and indirect effect on the dependent variables. As noted above, these variables influence intention indirectly through their impact upon the subjective norm and personal attitudes. In addition, knowledge beliefs are expected to have a direct effect upon behavior intentions (Path I and J). An individual who is knowledgeable concerning the policies associated with caring for

a PWA will be more willing to provide care for PWA in long-term care facilities. Similarly, an individual who is knowledgeable concerning the policies associated with providing care for PWA will feel more prepared to care for PWA.

The hypothesized direct effect of the knowledge of transmission modes upon behavioral intentions is shown in PATHS K and L. An individual who has a correct understanding of the transmission modes of AIDS will be more willing to provide care for PWA in long-term care facilities. Similarly, an individual with an accurate understanding of the transmission modes of AIDS will feel more prepared to care for PWA.

CHAPTER THREE

Methodology

Sample

The sample for this study consists of administrators and licensed primary care givers who work in long-term care facilities in the north-central region of the United States. Facilities were selected in four midwestern states which vary in population size and number of diagnosed AIDS cases: Iowa, Minnesota, Missouri, and Illinois. As noted in the review, AIDS is more commonly found in urban centers. Illinois, with the third-largest metropolitan area, Chicago and its suburbs, had 2077 diagnosed cases of AIDS by 1988 (Cox, 1988). Missouri, with the metropolitan centers of Kansas City and St. Louis, had 686 diagnosed cases, the second-highest among these four states. Iowa and, to a lesser extent, Minnesota, have a greater proportion of their populations in rural or small towns. In Minnesota, there were 401 cases of AIDS. Iowa reported a total of 90 diagnosed cases.

A stratified random sample was selected of eight hundred long-term care facilities. Two hundred facilities were selected from each of the four states. Facilities which were part of hospitals were not included in the study. Within each state, the sample was stratified by type of facility and size of community. Thus, within each state there are a proportional number of intermediate and skilled care

facilities located in urban and rural settings. The community size categories were: 0 to 2500 for rural communities, 2501 to 10,000 for small towns, 10,001 to 25,000 for large towns, 25,001 to 50,000 for small cities, 50,001 to 100,000 for large cities, and greater than 100,000 for large metropolitan areas. The distributions across facility type and community size are presented for each state in Tables 1 through 4. Facilities were selected from directories obtained from each state furnishing the classification and location of each facility.

The data for this study were collected through a mail survey. The design and procedures were developed using Dillman's Total Design Method (Dillman, 1978). Dillman uses social exchange theory to explain why respondents respond or fail to respond in his Total Design Method. Respondents are motivated to participate in response to the returns they expect. The costs of the respondent must be considered when constructing a questionnaire. The costs include the time and psychological costs the respondent incurs in completing the questionnaire. A clear and well-organized questionnaire will be easy to complete and will minimize the respondents' costs.

A cover letter informs the respondent of the purpose of the study and the importance of her participation (Appendix A). According to Dillman, the respondent can perceive a reward in the cover letter if the researcher shows she has a positive opinion of the respondent. Besides providing a positive opinion of the respondent

Table 1 The number of facilities in Iowa chosen, according to the classification of the facility and the size of the community in which it is located

	Skilled		Intermediate	
	Total	Mailed	Total	Mailed
0-2,500	4	4	162	73
2,501-10,000	1	1	127	53
10,001-50,000	5	5	69	30
50,001-100,000	5	5	37	12
+ 100,000	6	6	36	13
Total	21	21	431	181

Table 2 The number of facilities in Minnesota chosen, according to the classification of the facility and the size of the community where it is located

	Skilled		Intermediate	
	Total	Mailed	Total	Mailed
0-2,500	63	36	38	36
2,501-10,000	61	31	14	13
10,001-50,000	49	25	3	1
50,001-100,000	14	15	1	1
+ 100,000	86	29	14	12
Total	273	136	70	63

Table 3 The number of facilities in Missouri chosen, according to the classification of the facility and the size of the community where it is located

	Skilled		Intermediate	
	Total	Mailed	Total	Mailed
0-2,500	53	20	77	24
2,501-10,000	85	22	67	25
10,001-50,000	65	18	44	23
50,001-100,000	18	17	4	4
+ 100,000	63	23	39	24
Total	284	100	231	100

Table 4 The number of facilities in Illinois chosen, according to the classification of the facility and the size of the community where it is located

	Skilled		Intermediate	
	Total	Mailed	Total	Mailed
0-2,500	52	14	48	13
2,501-10,000	101	28	68	22
10,001-50,000	117	39	52	14
50,001-100,000	25	7	12	2
+ 100,000	158	40	82	25
Total	453	128	262	76

the results of the study were also offered as a reward for participating in this study in the cover letter (Appendix A).

The cover letter and mailing address were personalized by directing them to the administrator listed in the directory. To allow for changes in administration, both the salutation on the cover letter and the addresses were directed to the administrator listed in the directory or to the current administrator.

The questionnaires were printed in a booklet form presenting an attractive, well-organized questionnaire that appears easy to complete and shorter in length

than it is. The front cover of the booklet presented the subject of the questionnaire and who was to complete it. The inside of the questionnaire booklet cover contained a cover letter to the respondent (Appendix B). The back cover presented a return address and postage.

An envelope containing a cover letter to the administrator and a questionnaire to the administrator and to the licensed care provider was sent to each facility. The cover letter to the administrator explained the survey and requested that he give the licensed care provider questionnaire to the appropriate person (Appendix A). The questionnaires were color-coded, to assist in distinguishing between the administrators and licensed care providers.

Low response rates are a constant problem with mail surveys. Giving the respondent the responsibility of addressing and providing postage for the return envelope increases a low response rate. This questionnaire was constructed in a booklet form with the return address and postage on the back cover. Instructions to close the questionnaire with tape were furnished after the last question (Appendices C and D).

Both reminder letters and telephone calls were made to promote responses to this study. All of the facilities in Minnesota who had not responded within two weeks were called. In the other three states, reminder letters were sent to facilities who had not responded within two weeks (Appendix E).

A response rate of 27 percent for this survey was low. According to Babbie (1986) a response of at least 50 percent is adequate for analysis and reporting. There is a possibility of a response bias with this low response rate. For example, it could be that facilities which have not yet considered the possibility of caring for patients with AIDS would be least likely to respond. Similarly, administrators in some facilities may have been reluctant to respond if their formal or informal procedures exclude the considerations of PWA. Since this type of policy may be illegal, or at least expose a facility to possible legal action, it could be expected that facilities which practice exclusionary policies would be less likely to respond. If these assumptions are correct, the marginal distributions on policy decisions are likely to represent an over-estimate of the actual formulation of AIDS-related policy formation. However, the low response rates will be less problematic for using these data to study the hypothesized relationships.

The participants in this study consist of one hundred and ninety-three licensed nurses and two hundred and forty-one administrators. Nurses ranged in age from twenty-three to sixty-seven, with a median age of 42. Administrators ranged in age from twenty-three to seventy, with a median age of 42.

One-half of the nurses worked in intermediate care facilities and the other half worked in skilled care facilities. Among the administrators, forty-five percent were employed by intermediate care facilities and fifty-five percent were employed by skilled care facilities (Table 5).

Table 5 The percent of nurses and admiinistrators reporting corresponding to the classification of the facility

Facility Classification	Nurses n = 193	Administrators n = 241
Intermediate	49.0%	45.0%
Skilled	50.0%	55.0%
Total	99.0%	100.0%

Table 6 The percent of nurses and administrators responding corresponding to facility size

Facility Size	Nurses n = 193	Administrators n = 241
0 - 50 Beds	12.5%	8.3%
51 - 100 Beds	54.2%	52.3%
101 - 150 Beds	20.3%	22.8%
151 - 200 Beds	7.8%	8.7%
201 - 250 Beds	2.6%	4.1%
More than 250 Beds	2.6%	3.7%
Total	100.0%	99.9%

Long-term care facilities are categorized in the following five sizes: 0 to 50 beds, 51 to 100 beds, 101 to 150 beds, 151 to 200 beds, 201 to 250 beds and more than 250 beds (Table 6). The majority of both nurses and administrators were employed in facilities with 51 to 100 beds (54.2% and 52.3%, respectively). Only 5.2 percent of the nurses and 7.8 percent of the administrators were employed in facilities with more than 200 beds. Approximately one-fifth (20.3%) of the nurses and 22.8 percent of the administrators worked in facilities with 101 to 150 beds. Relatively few, 7.8 percent of the nurses and 8.7 percent of the administrators, worked in facilities with 151 to 200 beds. Facilities with 50 beds or less were represented by 12.5 percent of the nurses and 8.3 percent of the administrators.

Facilities located in communities with less than 2500 residents were represented by 30.7 percent of the nurses and 28.2 percent of the administrators. Approximately one-fourth of both the nurses and administrators were employed in facilities located in communities with 2500 to 10,000 residents (26.0% and 24.1%, respectively). Facilities located in communities with 10,001 to 50,000 residents were represented by 22.4 percent of the nurses and 21.2 percent of the administrators. More administrators (12.0%) than nurses (7.8%) responded from facilities located in communities of 50,001 to 100,000 residents. Facilities located in metropolitan areas with more than 100,000 residents were represented by 13 percent of the nurses and 14.5 percent of the administrators (Table 7).

The education level of nurses ranged from a Licensed Practical Nurse degree

Table 7 The percent of nurses and administrators responding, by size of the community in which the facility is located

Population of Community	Nurses n = 193	Administrators n = 241
0 - 2,500	30.7%	28.2%
2,501 - 10,000	26.0%	24.1%
10,001 - 50,000	22.4%	21.2%
50,001 - 100,000	7.8%	12.0%
More than 100,000	13.0%	14.5%
Total	99.9%	100.0%

Table 8 The highest level of education among responding nurses

Level of Education	Percent
Licensed Practical Nurse	11.9%
Associate Degree in Nursing	25.4%
Diploma in Nursing	40.4%
Bachelors Degree in Nursing	10.4%
Other	11.9%
Total n = 193	100.0%

Table 9 The highest level of education among responding administrators

Level of Education	Percent
Associate Degree in Nursing	4.6%
Diploma in Nursing	10.4%
Bachelor's in Nursing	6.2%
Licensed Nursing Home Administrator	60.2%
Master's in Nursing	5.4%
Master's in Public Health Administration	4.1%
Other	9.1%
Total n = 241	100.0%

Table 10 The percent of nurses and administrators responding, by gender

Gender	Nurses n = 193	Administrators n = 241
Female	90.6%	51.0%
Male	9.4%	48.5%
Total	100.0%	100.0%

to a Baccalaureate Degree in Nursing (Table 8). The most common degree was held by registered nurses who had completed a three-year diploma program in nursing (40.4 %). Approximately one-fourth (25.4%) had completed an associate degree in nursing, compared to only 9.3 percent with a bachelor's degree in nursing. A small proportion of the nurses were Licensed Practical Nurses (11.9%).

Education levels for the administrators varied from an Associate Degree in Nursing to a Licensed Nursing Home Administrator. The majority of the administrators were Licensed Nursing Home Administrators (60.2%). Approximately one-fourth (26.6%) of the administrators had nursing degrees. Of these, 10.4 percent had completed a diploma program in nursing, 6.2 percent had completed a Bachelor's in Nursing, 5.4 percent had completed a Master's in Nursing, and 4.6 percent had completed an Associate Degree in Nursing (Table 9).

As would be expected, the majority (90.6%) of the nurses were females. Administrators presented a more equal representation of gender; 51 percent were females and 48.5 percent were males (Table 10).

Measurement

Scales were developed to assess knowledge about the mode of transmission of AIDS and on the care of patients with AIDS. Research has established that AIDS can be transmitted by an infected person through their sexual behavior and contact with their blood. AIDS can be transmitted by either anal or vaginal intercourse and

through introduction of infected blood (or blood products) into the bloodstream. The introduction of infected blood may occur in IV drug use, blood transfusions, or in the treatment of hemophilia. An infected mother can also transmit AIDS to her infant during pregnancy or at the time of birth.

Knowledge of Transmission

Respondents were asked a set of questions in terms of the following four-point scale: I know this is true, I believe this is true, I believe this is false, I know this is false. The knowledge of mode of transmission of AIDS was measured by the following statements:

a. AIDS can be transmitted through contact with saliva.

b. AIDS can be transmitted through contact with emesis.

c. AIDS can be transmitted through contact with vaginal secretions.

d. AIDS can be transmitted through contact with feces.

e. AIDS can be transmitted through contact with semen.

A factor analysis of these questions indicated there were two factors. One factor included statements a, b, and d, which are each incorrect. AIDS is not transmitted through saliva, emesis, nor feces. These items were summed into a scale, TRANW, representing incorrect modes of transmission. The second factor consisted of statements c and e, which are correct modes of transmission. These two items

were combined into a correct modes scale, TRANR. The reliability coefficient alpha of TRANR scale was .8923 for the nurses and .8612 for the administrators. The reliability coefficient alpha of the TRANW scale for the nurses was .8300, and for the administrators it was .8415.

Knowledge of Care

Questions regarding how to care for PWA were based on the guidelines recommended by the CDC and AHA (Webster, 1987). These items were presented with a four-point scale. The respondent was asked if she strongly agreed, agreed, disagreed, or strongly disagreed with each of the following items.

a. All patients with AIDS need to be placed in a private room.

b. A gown needs to be worn if patients' blood or body fluids might soil your clothes.

c. A mask needs to be worn only if blood or body fluids might splash your face.

d. Pregnant workers are thought to be at a higher risk for contracting AIDS.

e. A bleach solution of one part household bleach in ten parts water is used to clean all spills, and universal infection control precautions adequately protect staff from contracting AIDS.

f. Universal infection control precautions adequately protect staff from contracting AIDS.

g. Patients with AIDS can share the same room with patients who have non-AIDS related infections.

h. Patients with AIDS can use the same bathroom as other patients who do not have transmittable diseases.

In developing these scales the answers for statements A and G were recoded so the correct responses for all items would be on the same end of the scale. A factor analysis was performed on these statements, resulting in three factors. The first factor included questions a, g, and h. Each of these items is concerned with placement of patients with AIDS. The two items which present situations where isolation of PWA is not required, statements a and h, loaded positively on the first factor. The third item, statement g, loaded a negative factor coefficient. This item represents a situation where isolation of the PWA is required. Based on these analyses, items a and h were combined into a PLACEMENT scale. The reliability coefficient for this scale was .6839 for nurses and .7131 for the administrators. Item g was selected as a single item indicator referred to as INFECT.

The second factor from this section contained items, b, c, e, and f. These statements each related to types of care precautions. These items were summed into a scale named KNOWCARE. This scale had an alpha reliability coefficient of .5730 for the nurses and .5675 for the administrators.

Statement d, on the potential risks for pregnant workers, did not load on to either of the primary factors. This item does not appear to measure the same dimensions and was excluded from further analyses.

Deserving Best Medical Care

All of the personal attitudinal variables were measured on a Likert scale asking if the respondents strongly agreed, agreed, disagreed, or strongly disagreed to the item presented. One statement measured how attitudes towards AIDS affect the individual's right to medical care:

I feel persons with AIDS deserve the best medical care possible.

This item, titled DESERVE for the analysis, was used as a single-item indicator for attitudes towards the medical care PWA should receive.

Blame for Illness

Two attitudinal items loaded onto one factor which developed into the BLAME scale.

I feel that most persons with AIDS are responsible for their illness.

I feel people with AIDS deserve to lose their jobs.

This scale appears to measure the degree to which persons with AIDS are seen as being responsible or blamed for their disease. The reliability coefficient alpha of the BLAME scale was .4948 for the nurses and .5163 for the administrators.

Uncomfortable Providing Care

The following items from the nurses survey loaded onto one factor:

I would feel uncomfortable providing care for a person who is homosexual.

I would feel uncomfortable providing care for a person who uses IV drugs illegally.

These two items were summed into the DISCRIM scale. This scale attempts to assess general prejudice towards homosexuals and individuals with an IV drug addiction. The reliability coefficient alpha was .8374 for the nurse's DISCRIM scale. Administrators were asked to respond to the following statements on the same issue.

I feel my staff would be uncomfortable providing care for a person who is homosexual.

I feel my staff would be uncomfortable providing care for a person who uses IV drugs, illegally.

These items loaded onto one factor and were summed to create a DISCRIM scale for the administrators. The reliability coefficient alpha for the administrator's DISCRIM scale was .7133.

Perception of Referent's Attitudes

The PERCEIVED scale was developed to measure the respondents' perceptions of the attitudes of staff, coworkers, community members, physicians in the community, and family members of patients towards the care of PWA in their facility. Items in this scale were measured on a four-point scale. Respondents were asked if they strongly agree, agree, disagree, or strongly disagree to the following items.

I feel my co-workers will accept caring for patients with AIDS.

I feel my staff will accept caring for patients with AIDS.

I feel our patients' families will accept our facility caring for patients with AIDS.

I feel the physicians in our community will support our facility caring for patients with AIDS.

These items loaded onto one factor. The reliability coefficient of the PERCEIVED scale for nurses was .8213, and for administrators it was .8491.

Availability of Physician

Nurses and administrators were asked the following item to determine if there their community has a physician who is prepared to care for PWA.

I feel the physicians in our community are prepared to care for PWA. They were asked to respond to this item on a four-point agree scale. This item will be used as a single-item indicator, DOC. DOC will be a demographic item to determine if the availability of a prepared physician will influence the preparedness or willingness to care for PWA.

CHAPTER FOUR

Results

Both the nurses and administrators were asked the following question about their facility: Does your facility provide care for PWA, would your facility be willing to provide care for PWA, is your facility prepared to provide care for PWA, and does your facility have policies for the admission and care of PWA? A limited number of both nurses and administrators reported their facility had cared for PWA (2.2% and 2.5%, respectively). Less than 10 percent (8.9%) of the administrators reported their facilities have refused to care for PWA. Over half of both the nurses (55.4%) and administrators (54.9%) reported their facilities would be willing to provide care for PWA. Less than a third of the nurses (30.9%) and administrators (32.5%) felt their facilities were prepared to provide care for PWA.

Over one-third of the nurses (37.9%) and almost half (45.1%) of the administrators reported their facilities had an admission policy concerning PWA. Fifteen percent of the administrators reported their admission policy stated PWA would not be admitted. Less than one-half of the nurses (36.5%) and administrators (36.8%) reported their facilities have established policies for the care of PWA.

A limited number (11.8%) of the nurses reported having provided care for PWA. Nearly one-half (45.7%) of the nurses reported they were unsure if they would

agree to care for PWA, while 11.2 percent reported they would not care for PWA. More than one-third (35.1%) of the nurses and 32.9 percent of the administrators reported knowing someone outside of work who has AIDS.

Multiple regression was used to test the AIDS Care Model. Multiple regression analyzes the collective and separate effects of two or more independent variables on a dependent variable. The relationship of each of the hypothesized consequences will be determined while controlling for the effects of the other independent variables. The coefficient of multiple determination, or R squared, reflects the total amount of variance in the dependent variable that is explained by the simultaneous predictive power of all independent variables in the equation.

The paths in the AIDS Care Model will be presented in terms of the standardized regression coefficient, beta. The first models to be reviewed will report coefficients for the regression of the demographic and belief measures on the intermediate blocks of variables representing personal attitudes and subjective norms. These measures will then be combined as independent variables in the regression for measuring the direct effects on the final dependent variables of being prepared to care and the willingness to provide care for PWA in long-term care facilities.

Table 11 presents the standardized regression coefficients of the demographics and beliefs on the personal attitudes and subjective norm for nurses. Column one of Table 11 represents the regression of the demographic and knowledge items on the personal attitude, DESERVE. None of the individual regression coefficients was

significant. The largest effects were for PLACEMENT, GENDER, and KNOWCARE. The demographic and knowledge variables predict almost 14 percent (R^2 = .13988) of the variance in DESERVE. Column two of Table 11 presents the regression of the demographic and knowledge items on the personal attitude, BLAME. TRANR and PLACEMENT display a significant association with BLAME (beta = -.17797 and -.22966, respectively). Thus, nurses who understand the transmission modes of AIDS and the policies concerning the placement of PWA in regard to infection control are less likely to feel PWA are responsible for their disease. The demographic and knowledge variables predict 20 percent (R^2 = .20233) of the variance in BLAME.

Column three of Table 11 presents the regression of the demographic and knowledge items on the personal attitude, DISCRIM. TRANW and INFECT both displayed significant relationships with DISCRIM (beta = .16613 and .19342, respectively). Thus, nurses who are not knowledgeable regarding the modes of transmission or the placement of AIDS patients with other patients with an infectious disease are significantly less likely to feel comfortable caring for homosexuals. The demographics and knowledge variables predict 11 percent (R^2 = .11060) of the variance in DISCRIM.

Column four of Table 11 presents the regression of the demographic and knowledge items on the subjective norm, PERCEIVED. DOC and PLACEMENT

Table 11 Standardized regression coefficients for personal attitudes and subjective norms for nurses.

	DESERVE	BLAME	DISCRIM	PERCEIVED
DOC	.11644	-.08564	-.02074	.63691**
KNOW	.11278	-.12922	.07976	.04516
Classification	-.05378	.06562	.05003	-.02557
Facility Size	.00061	-.02278	.08095	-.09870
Community Size	-.05048	.08322	.09509	-.04864
Education	.08614	-.05722	.02705	-.07170
Gender	-.14926	.05294	-.07142	.04761
Age	-.06685	-.11465	.03247	.02869
TRANR	.09838	-.17797*	-.05616	-.00022
TRANW	-.06315	.09077	.16613*	.00056
KNOWCARE	.14330	-.09881	-.01052	.00047
PLACEMENT	.18683	-.22966*	-.17033	.17067*
INFECT	-.09242	.05815	.19342*	-.02301
R^2	.13988	.20233	.11060	.54549

n = 193

*Significant at .05 level
**Significant at .001 level

both presented significant relationships with PERCEIVED. A perception that physicians are prepared to care for PWA is positively associated with the perception of significant others having supportive attitudes towards the care of PWA. Nurses who are knowledgeable regarding the placement of PWA to maintain infection control are more likely to feel that their significant others will accept the care of PWA. Knowledge variables and demographics predict almost 55 percent (R^2 = .54549) of the variance in the subjective norm, PERCEIVED.

Table 12 presents the standardized regression coefficients of the demographics, beliefs, personal attitudes, and the subjective norm on the feeling of being prepared to provide care and the willingness to provide care for PWA. Column one of Table 12 presents the regression of these variables on the feeling of being prepared to care for PWA. A significant relationship is present with PERCEIVED (beta =.35954), PLACEMENT (beta = .24173), KNOWCARE (beta = .20742) and KNOW (beta = .15420). Nurses who perceive their significant others accepting the care of PWA feel more prepared to care for PWA. When nurses are knowledgeable of the care and placement of PWA they tend to feel more prepared to care for PWA. If the nurse personally knows someone with AIDS she tends to feel more prepared to care for PWA. Demographics, knowledge variables, personal attitudes, and subjective norm predict 39 percent (R^2 = .39094) of the variance in feeling prepared to provide care.

Column two of Table 12 represents the regression of the independent variables on the willingness to provide care. PERCEIVED (beta = .45610),

PLACEMENT (beta = .29692), and GENDER (beta = -.13353) display significant relationships with willingness to provide care. Thus, nurses who perceive their significant others accepting the care of PWA are more willing to provide care for PWA. Nurses who are knowledgeable concerning the policies of placement for PWA are more willing to provide care. In this group of professional medical caregivers men tend to be more willing to provide care for PWA than women. Demographics, knowledge variables, personal attitudes, and subjective norms predict 47 percent (R^2 = .47350) of the variance in the willingness to provide care.

Table 13 presents the standardized regression coefficients of the demographics and beliefs on the personal attitudes and subjective norm for administrators. Column one of Table 13 represents the regression of the demographics and knowledge items on the personal attitude, DESERVE. None of the individual regression coefficients was significant. The largest effects were for KNOW, Community Size, and Age. The demographic and knowledge variables predict 7 percent (R^2 = .07016) of the variance in DESERVE.

Column two presents the regression of the demographic and knowledge items on the personal attitude, BLAME. A significant relationship is present with KNOW (beta = -.16127), Community Size (beta = .17178), Gender (beta = -.22800), Age (beta = -.14300), and PLACEMENT (beta = .32604). Administrators who have

Table 12 Standardized regression coefficients for feeling prepared to provide car and being willing to provide care for nurses

	Prepared to Provide Care	Willing to Provide Care
DOC	-.01527	.00095
KNOW	.15420*	-.03176
Classification	-.02243	-.07343
Facility Size	.02980	.12329
Community Size	.09105	.02049
Education	-.03872	.08339
Gender	.02816	-.13353*
Age	.08723	-.02698
TRANR	-.04357	-.02019
TRANW	-.01204	.09295
KNOWCARE	.20742*	-.01916
PLACEMENT	.24173*	.29692**
INFECT	-.02598	.09803
PERCEIVED	.35954**	.45610**
DISCRIM	-.07571	.00068
BLAME	-.03377	-.07370
DESERVE	-.07257	.03048
R^2	.39094	.47350

n = 193

*Significant at .05 level

**Significant at .001 level

known someone with AIDS outside of their work environment are less likely to feel PWA are responsible for their disease. In this sample, administrators from communities with less than 10,000 residents are more likely to feel PWA are responsible for their disease. Of these administrators, men were more likely than women to blame PWA for their disease. The older the administrator the more likely she or he will feel PWA are responsible for their disease. Administrators who are not informed concerning the placement of PWA with patients with infectious diseases are more likely to blame PWA for their disease. The demographic and knowledge variables predict 27 percent (R^2 = .27445) of the variance in BLAME.

Column three, of Table 13, presents the regression of the demographic and knowledge items on the personal attitude, DISCRIM. Community Size and PLACEMENT both display significant relationships with DISCRIM (beta = .32779 and -.18359, respectively). Thus, administrators working in facilities in larger cities tend to feel their staff are comfortable caring for homosexuals. Administrators who are informed concerning the placement of PWA with other patients with an infectious disease tend to feel their staff are comfortable caring for homosexuals. The demographic and knowledge variables predict 19 percent (R^2 = .19410) of the variance in DISCRIM.

Column four presents the regression of the demographic and knowledge items on the subjective norm, PERCEIVED. DOC, Gender, and PLACEMENT present

Table 13 Standardized regression coefficients for personal attitudes and subjective norms for administrators.

	DESERVE	BLAME	DISCRIM	PERCEIVED
DOC	.00012	-.03455	-.08895	.49771**
KNOW	.14136	-.16127*	.02948	.06004
Classification	.00056	-.10698	-.00083	-.09648
Facility Size	.07374	-.03819	.00051	-.06910
Community Size	-.11742	.17178*	.32779**	.01196
Education	.00014	.01183	-.01346	.08160
Gender	.10875	-.22800*	-.04293	-.15035*
Age	.11020	-.14300*	-.03217	.01543
TRANW	-.04817	.01704	.10282	.01089
TRANR	.03813	-.00079	.13572	-.01332
KNOWCARE	.00044	-.08604	.02753	.02937
PLACEMENT	.05079	-.32604**	-.18359*	.15891*
INFECT	-.01194	.06168	.08193	.04586
R^2	.07016	.27445	.19410	.46400

n = 241

*Significant at .05 level

**Significant at .001

significant relationships with PERCEIVED (beta = .49771, -.15035, and .15891, respectively). The perception of physicians being prepared to care for PWA is associated with a positive perception of significant others' attitudes towards the care of PWA. In this sample of administrators, men are more likely to perceive significant others supporting providing care for PWA than women. Administrators who are knowledgeable regarding the placement of PWA with other patients who have an infectious disease perceive their significant others will accept the care of PWA. Knowledge variables and demographics predict almost 46 percent (R^2 = .46400, of the variance in the subjective norm, PERCEIVED.

Table 14 presents the standardized regression coefficients of the demographics, beliefs, personal attitudes, and the subjective norm on the feeling of being prepared to provide care and the willingness to provide care for PWA. Column one of Table 14 presents the regression of these variables on the feeling of being prepared to care for PWA. A significant relationship is present with PERCEIVED (beta =.40033), Community Size (beta = .15251), and DOC (beta = .17805). Administrators who perceived their significant others accepting the care of PWA felt more prepared to care for PWA. Administrators from larger communities tend to feel less prepared to care for PWA. If the administrators feel the physicians in the community are prepared to care for PWA, they tend to feel prepared to provide care for PWA. Demographics, knowledge variables, personal attitudes, and subjective norm predicts 42 percent (R^2 = .42433) of the variance in feeling prepared to provide care.

Table 14. Standardized regression coefficients for feeling prepared to provide car and being willing to provide care for administrators.

	Prepared to Provide Care	Willing to Provide Care
DOC	.17805*	.06198
KNOW	-.00028	-.04140
Classification	.01138	-.01323
Facility Size	-.10917	.03487
Community Size	.15251*	-.02702
Education	.02823	.12257
Gender	-.13023	-.07629
Age	-.10657	.00073
TRANR	-.02251	-.04849
TRANW	-.05806	.10751
KNOWCARE	.00031	.00059
PLACEMENT	.02777	.32352**
INFECT	.05104	.09890
PERCEIVE	.40033**	.28749**
DISCRIM	-.10218	-.05212
BLAME	-.01665	-.03090
DESERVE	.00087	.07337
R^2	.42433	.40214
n = 241		

*Significant at .05 level

**Significant at .001 level

Column two of Table 12 represents the regression of these variables on the willingness to provide care. PERCEIVED (beta = .28749) and PLACEMENT (beta = .32352) display significant relationships with willingness to provide care. Thus, administrators who perceive their significant others accepting the care of PWA are more willing to provide care for PWA. Administrators who understand the policies concerning the placement of PWA with patients having infectious diseases are more willing to provide care. Demographics, knowledge variables, personal attitudes, and subjective norm predict 40 percent (R^2 = .40214) of the variance in willingness to provide care.

CHAPTER FIVE

Discussion

This research examined what factors effect long-term care facilities providing care for PWA. The effect of long-term care facilities' staff and administrators feelings of being prepared to care for PWA and being willing to provide care for PWA were studied. The theoretical approach in the study predicted that being prepared and being willing to provide care for PWA would be determined by subjective norms, personal attitudes and knowledge of AIDS. The findings of this study provide support to the contention that subjective norms and knowledge of AIDS influence the preparation or willingness to care for PWA on the part of both nursing staff and administrators.

The findings of this study support the idea that long-term care facilities are not recognizing the need of PWA for supportive care. Less than one-half of the facilities reporting had taken steps to establish policies of admission or care for PWA. There is evidence that providing medical care for PWA is not accepted by all professionals in long-term care. A total of 11.2 percent of the nurses said they would refuse to care for PWA and 8.9 percent of the administrators reported their facilities have refused to care for PWA. Even this limited number of nurses (11.2 %) refusing to care for PWA is significant, as no professional in the field of medicine should refuse

to provide medical care to another person. This is a smaller percent of nurses refusing to care for PWA than was found in a mail survey conducted of nurses in California in 1987. In the California study 23 percent of the nurses said they would refuse to care for a PWA (Van Servellen et al., 1987).

The results in this study were mixed in the support of the hypothesis that persons with an accurate knowledge base of the transmission modes of AIDS will have a more positive attitude towards PWA. For the nurses in this study, two of the six relationships were significant in support of this hypothesis. It was shown that nurses with an accurate understanding of the transmission modes of AIDS tended to feel PWA are not responsible for their disease. These nurses do not tend to blame PWA for their disease. It was also demonstrated that nurses who understand the transmission modes of AIDS do not tend to feel uncomfortable caring for homosexuals. As presented in the literature review, a negative attitude towards homosexuality correspond to negative attitudes towards AIDS. A significant relationship was present between knowledge concerning the transmission modes of AIDS and feelings that PWA deserve the best medical care.

There was no support of this hypothesis for the Administrators. Not one of the six relationships between personal attitudes and knowledge of transmission modes of AIDS was significant.

The findings in this study were mixed in support of the hypothesis that persons with an accurate knowledge base of the care for PWA will have a more positive

attitude towards persons with AIDS. Only two of the nine relationships between personal attitudes and knowledge of care were significant. The results demonstrate that a nurse who is informed on the policies concerning the placement of PWA to maintain infection control will not tend to feel a PWA is responsible for the disease.

For the administrators in this study, two of the nine relationships between knowledge of care and personal attitudes were significant. Administrators who demonstrated an accurate understanding of the placement of AIDS patients for infection control were less likely to feel the PWA was responsible for the disease. They also tended to feel their staff would not feel uncomfortable caring for a homosexual.

The results of this study did not support the hypothesis that persons with accurate knowledge of the transmission modes of AIDS will perceive their significant others' attitudes towards providing care for PWA as more positive. A significant relationship between knowledge of transmission and the perception of others' attitudes was not present for either the nurses or administrators.

The findings of this study are mixed in the support of the hypothesis, that persons with accurate knowledge of the care of patients with AIDS will perceive their significant others' attitudes towards providing care for PWA as more positive. Only one of the three relationships was significant for either the nurses or the administrators. An individual who is aware of the correct placement of PWA to

maintain infection control will tend to feel that significant others support providing care for PWA.

The results of this study did not support the theoretical perspective of personal attitudes determining the intention to provide care. A significant relationship was not present between the four personal attitude variables and the willingness to provide care or feeling of being prepared to provide care for PWA. This finding held for both nurses and administrators. Thus, the feeling of being uncomfortable caring for a homosexual or blaming PWA for their disease did not determine the preparedness or the willingness to care for PWA.

The findings of this study strongly support the hypothesis that individuals who perceive positive support from their referent will feel more prepared to care for PWA. A significant relationship was present, for both nurses and administrators, between the independent variable, PERCEIVE, representing the subjective norm and the dependent variable, prepared to provide care for PWA. A nurse who feels her co-workers, patients, patients' family, and the community support providing care for PWA will tend to feel more prepared to care for PWA. Similarly, an administrator who perceives the support of his staff, patients, patients' family, and community will tend to feel more prepared to care for PWA.

The results of this study strongly support the hypothesis that individuals who perceive positive support from their referent will be more willing to provide care for PWA. For both the nurses and administrators there was a significant relationship

between PERCEIVE and the willingness to provide care for PWA. Nurses who feel their significant others support providing care for PWA will tend to be more willing to provide care for PWA. Similarly, administrators who feel their significant others support providing care for PWA will tend to be more willing to provide care for PWA.

Knowledge of AIDS indirectly affects the willingness to care for PWA and directly affects the feeling of being prepared to care for PWA. The indirect effect is found in the significant relationship between the knowledge of care and the subjective norm. The hypotheses suggesting that knowledge of transmission modes will influence the preparation or the willingness to care for PWA was not supported by the results of this study for either the nurses or administrators.

The findings of this study are mixed in support of the hypothesis that an individual knowledgeable concerning the policies associated with providing care for PWA will feel more prepared to provide care for PWA. For the nurses there was a significant relationship present between two of the three variables measuring this concept. A nurse who is informed concerning infection control policies used in direct care and placement of PWA will feel more prepared to provide care for PWA. There is not a significant relationship between these variables for the administrators.

The results of this study are also mixed in support of the hypothesis that an individual knowledgeable concerning the policies associated with providing care for PWA will be more willing to provide care for PWA in long-term care facilities. A

significant relationship was present in one of the three variables for both the nurses and administrators. Individuals who are aware of the policies concerning placement of PWA tend to be more willing to provide care in long-term care facilities.

One of the demographic variables displayed a significant indirect effect while two demonstrated a direct effect on the dependent variables for the nurses. The demographic variable DOC, or nurses feeling that the physician in the community was prepared to care for PWA, indirectly affected the dependent variables through PERCEIVED. Knowing a person with AIDS outside of the work environment was significantly related to feeling prepared to provide care for PWA among the nurses. A significant demographic variable in determining the willingness to provide care was gender. Women tended to be more willing to provide care for PWA in long-term care facilities than men.

For the administrators, two demographic variables significantly affected being prepared to provide care and none affected the willingness to provide care. The demographic variable, DOC, demonstrated both indirect and direct effects on the feeling of being prepared to care and an indirect effect on the willingness to provide care. A significant relationship was demonstrated between DOC and PERCEIVED, thus having an indirect effect on both dependent variables through PERCEIVED. A significant relationship was present between the independent variables of DOC and Community Size with the feeling of being prepared to provide care. Administrators who felt the physicians in the community were prepared to care for PWA and those

who lived in larger communities tended to feel more prepared to provide care for PWA. Gender presented an indirect effect on both dependent variables due to the significant relationship between Gender and PERCEIVED.

Limitations of the Study

Limitations of the present study mainly concentrate on the low response rate of this survey and the drawbacks of a mail survey. There could be some bias in the sample with a response rate around 25 percent. Factors which may have influenced this low response rate include: busy professionals who did not see any benefit in responding, individuals who have not recognized that long-term care facilities may be an appropriate care setting for PWA, or individuals who have not recognized a need for providing care for PWA in their area. Individuals may have felt that the costs of completing the questionnaire were greater than the benefits. The costs may have been either the time in completing the questionnaire or the psychological costs of dealing with the issues related to AIDS. Individuals in these types of positions tend frequently to be included in surveys. Several of the refusals commented on the number of surveys that crossed their desks and the difficulty of finding time to complete them. There may also be strong negative feelings regarding AIDS which are dealt with by ignoring the issues concerning AIDS.

Each of these possible sources of non-response represent some areas of caution for interpreting these results. For example, if nurses who have the least time to fill out the survey are also those with the greatest direct patient care responsibilities, then the results may reflect more of an administrative, rather than a direct care, perspective. If, as suggested, nurses and administrators who have the strongest negative feelings toward PWA are less likely to respond, then the results are likely to be conservative in the estimate of the number of persons who would be unwilling to care for PWA. While there is no method available to detect and correct for these potential biases, they should be considered in drawing implications for practice and policy from this study.

Limitations of a mail survey include not knowing who completed the survey or how it was completed. Did the administrator complete the survey himself or did he ask his secretary or another staff person to complete it? Did the administrator give the licensed professional questionnaire to a licensed professional, or did he fill it out himself, or did he give this to his secretary? This limitation is not specific to this study, but is a general problem faced when conducting mail surveys. Other than changing to another mode of administration of the survey, there is no way to control for this potential problem in mail surveys.

Another limitation of this study is that the personal attitudes and intention of behavior were not measured at the same level of specificity. This lack of specificity in the personal attitudes may partially explain the limited support of the personal

attitudes in the AIDS CARE Model. It may have been better to have included personal attitude questions which were more specific in their relationship to the intention to behave measures. For example, a question concerning the right of nurses to refuse to treat patients with AIDS might have been more specific to the willingness to provide care.

Conclusion

AIDS is a fatal epidemic with the development of new therapies increasing the length of survival. Death is no longer as swift as it was in the early years of this epidemic. The extended survival time causes persons with AIDS to have the needs of a chronic illness as well as an acute illness. Long-term care facilities are one form of care setting available to meet the chronic needs of PWA. This study demonstrated factors which may affect the availability of this service.

This study demonstrated that both attitudes and knowledge affected the feeling of preparedness and willingness to provide care for PWA in long-term care facilities. The strongest factors influencing long-term care facilities care for PWA is how the administrators and nurses perceived their significant referents would accept their facility caring for PWA. Nurses and administrators aware of how to determine correct room assignments in maintaining infection control strongly affected their willingness to provide care for PWA. Nurses' feelings of preparedness and

willingness to care for PWA was effected by their knowledge level of maintaining infection control during direct care and room assignments.

Subjective norms were shown to be a factor in determining the intention of providing care for PWA as theorized in Fishbein-Ajzen's theory of reasoned action. However, personal attitudes did not demonstrate any effect on determining the intention of providing care for PWA. Perhaps other types of personal attitude measures need to be developed which would demonstrate an effect on the intention to provide care for PWA.

Follow-up research needs to be conducted with a sample of nursing homes which produces a higher response rate avoiding the possible biases in representativness. In addition, as more nursing homes are directly faced with the question of admitting PWA, research can be expanded to analyze models which include behavior outcomes.

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APPENDIX A: COVER LETTER

August 18, 1990

^F1^
^F2^
^F3^
^F4^

Dear ^F5^ or current administrator:

Long-term care facilities are increasingly being looked to as potential placement sites for people with AIDS. Very few studies have identified the possible barriers to providing care for this population from the administrator's or primary nurse's viewpoint. The purpose of this study is to identify these potential barriers and possible solutions in order to facilitate the care of people with AIDS in nursing homes and like environments.

Your facility has been randomly selected as one of the several to represent the views of administrators and nurses in your state on this important topic. Your responses will be pooled with those of other professionals in the midwest and presented as collective concerns. Individual responses will be confidential and in no way will your answers be identified or tied to your facility. It is important that you respond so that representative information is obtained and input is provided by all types of facilities.

Our research team has conducted pilot studies in this area and found that concerns about caring for people with AIDS in long-term care facilities are not the same as those identified in acute care institutions. Because most of these types of studies have been conducted in acute care facilities the concerns of long-term care professionals are not well-known.

We ask that you and a nurse who primarily is involved in direct patient care in your facility complete the two questionnaires enclosed and return them to us as soon as possible. Your cooperation is voluntary. It will take you approximately 15 minutes to complete each of these questionnaires. When each of you have completed your questionnaire, please follow the directions at the end of each questionnaire for return mailing.

Thank you for your assisting us in this crucial study. Your support and responses are appreciated. If you have any questions about the study please feel free to contact me at 515-294-2444.

Sincerely

Dr. Dan Hoyt
Associate Professor

APPENDIX B: COVER LETTER INSIDE COVER OF BOOKLET

July 15, 1990

Dear Respondent:

This survey is designed to identify possible barriers to providing care for persons with AIDS in long-term care facilities and similar environments. We are interested int he thoughts and opinions on this important issue of persons like yourself who have experience in providing care in this type of facility.

Your responses will be combined with those of other professionals in the midwest and presented as collective concerns. All responses will be confidential. It is important that you respond so that representative information is obtained from all types of facilities.

We ask that you complete this questionnaire and return it to us as soon as possible. Your cooperation is voluntary. It will take you approximately 15 minutes to complete this questionnaire. Whey you are finished, please follow the directions on the last page for return mailing.

If you have any questions about the study please feel free to contact me at 515-294-2444.

Thank-you

Dr. Dan Hoyt
Associate Professor

APPENDIX C: ADMINISTRATORS QUESTIONNAIRE

Patients with AIDS in Extended Care Facilities
Administrators

1. Does your facility have a policy for the admission of patients with AIDS?

   1 = Yes
   2 = No **Skip to question Number 3**

2. Which statement best describes your facilities policy?

   1 = Patients with AIDS will be admitted.
   2 = Patients with AIDS will not be admitted.
   3 = Other **(Please specify)**_____

3. Does your facility have a policy for the care of patients with AIDS?

   1 = Yes
   2 = No

4. Do you feel your facility is prepared to care for patients with AIDS?

   1 = Yes, definitely
   2 = Yes, probably
   3 = No, probably not
   4 = No, definitely not

5. Has a patient with AIDS been cared for in your facility?

   1 = Yes

   2 = No ------> Would your facility be willing to provide care for patients with AIDS?

      1 = Yes
      Skip to question 8
      2 = No

6. How may patients with AIDS has your facility cared for in the last 12 months? _____

7. How many patients with AIDS is your facility currently providing care for? _____

8. Has your facility ever refused to care for a person with AIDS?

   1 = Yes
   2 = No

9. The following is a list of potential barriers which extended care facilities may face when giving care to a patient with AIDS. Please indicate how serious of a barrier you feel each is for providing care to patients with AIDS in long-term care facilities. A scale of 1 to 5 indicates how serious the barrier is. A **one** indicates that you **do not feel it is a barrier,** a **3 indicates it is somewhat of a barrier, and a 5 indicates it is a very serious barrier. (Circle one choice for each item).**

	Not A Barrier		Somewhat of a Barrier		A Serious Barrier
Community Attitudes	1	2	3	4	5
Infection Control	1	2	3	4	5
Financial	1	2	3	4	5
Staff Attitudes	1	2	3	4	5
Attitudes of Other Patients	1	2	3	4	5
Attitudes of Community Physicians	1	2	3	4	5
Number of private rooms	1	2	3	4	5
Number of bathrooms	1	2	3	4	5
Accessibility of immunologists as consults	1	2	3	4	5
Number of nursing staff	1	2	3	4	5
Knowledge level of nursing staff	1	2	3	4	4
Knowledge level of other staff	1	2	3	4	5
Availability of physical therapy	1	2	3	4	5
Availability of mental health consultation	1	2	3	4	5

10. Do you anticipate that providing care for persons with AIDS will be more costly than caring for persons with other disorders?

    1 = Yes
    2 = No -----> **(Skip to Question 12)**

11. Why do you anticipate an increase cost in caring for patients with AIDS?

    _____

    _____

    _____

    _____

12. The following section contains statements regarding the care given to patients with AIDS. Please circle the answer of your choice. **1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree.**

	SA	A	D	SD
a) All patients with AIDS need to be placed in a private room.	1	2	3	4
b) A gown needs to be worn if patients' blood or body fluids might soil your clothes.	1	2	3	4
c) A mask needs to be worn only if blood or body fluids might splash your face.	1	2	3	4
d) Pregnant workers are thought to be at a higher risk for contracting AIDS.	1	2	3	4
e) A bleach solution of one part household bleach in ten parts water is used to clean all spills.	1	2	3	4
f) Universal infection control precautions adequately protect staff from contracting AIDS.	1	2	3	4
g) Patients with AIDS can share the same room with patients who have non-AIDS related infections.	1	2	3	4
h) Patients with AIDS can use the same bathroom as other patients who do not have transmittable diseases.	1	2	3	4

13. The following are statements about caring for a person with AIDS in your facility. Please circle the answer of your choice. **1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree.**

	SA	A	D	DS
a) I feel my staff is prepared to care for a patient with AIDS.	1	2	3	4
b) I feel persons with AIDS can be cared for in a long-term care facility.	1	2	3	4
c) I feel my staff will accept caring for patients with AIDS.	1	2	3	4
d) I feel our patients' families will accept our facility caring for patients with AIDS.	1	2	3	4
e) I feel our community will support our facility caring for patients with AIDS.	1	2	3	4
f) I feel the physicians in our community will support our facility caring for patients with AIDS.	1	2	3	4
g) I feel the physicians in our community are prepared to care for persons with AIDS.	1	2	3	4
h) I feel persons with AIDS deserve the best medical care possible.	1	2	3	4
i) I feel that most persons with AIDS are responsible for their illness.	1	2	3	4
j) I feel people with AIDS deserve to lose their jobs.	1	2	3	4
k) I feel my staff would be uncomfortable providing care for a person who is homosexual.	1	2	3	4
l) I feel my staff would be uncomfortable providing care for a person who uses IV drugs, illegally.	1	2	3	4
m) I feel people who are HIV positive can work in long-term care facilities without posing a risk to patients or other staff.	1	2	3	4

	SA	A	D	DS
l) I feel that it is part of my role as administrator to actively seek out patients with AIDS for my residents in my facility.	1	2	3	4

14. The following statements concern transmission of AIDS. Please report the degree of certainty that you have about whether or not AIDS can be transmitted under the following conditions. **1 = I know this is true, 2 = I believe this is true, 3 = I believe this is false, and 4 = I know this is false.**

	KT	BT	BF	KF
a) AIDS can be transmitted through contact with saliva.	1	2	3	4
b) AIDS can be transmitted through contact with emesis.	1	2	3	4
c) AIDS can be transmitted through contact with vaginal secretions.	1	2	3	4
d) AIDS can be transmitted through contact with feces.	1	2	3	4
e) AIDS can be transmitted through contact with semen.	1	2	3	4

15. Do you think your staff should be informed that a patient has AIDS?

    1 = Yes
    2 = No

16. Do you think other patients should be informed that a patient has AIDS?

    1 = Yes
    2 = No

17. Have you ever known anyone outside of work who has AIDS?

    1 = Yes
    2 = No

18. Which of the following classifications is your facility?

1 = Residential Care
2 = Intermediate Care
3 = Skilled Care

19. What is the bed capacity of your facility?

1 = 0 to 50 beds
2 = 51 to 100
3 = 101 to 150
4 = 151 to 200
5 = 201 to 250
6 = Over 250

20. How long have you worked at this facility? _____

21. In what size of community is your facility is located?

1 = More than 100,000
2 = 50,000 to 100,000
3 = 10,000 to 50,000
4 = 2500 to 10,000
5 = Below 2500

22. In what state is your facility located?

_____

23. What is your highest level of education? **(Please circle all that apply)**

1 = Associate Degree in Nursing
2 = Diploma in Nursing
3 = Bachelors Degree in Nursing
4 = Licensed Nursing Home Administrator
5 = Masters Degree in Nursing
6 = Bachelors Degree in related field
7 = Masters in Public Health Administration
8 = Other **Please specify** _____

24. What is your gender?

1 = Female
2 = Male

25. What is your age? _____

26. Do you have any other concerns you would like to comment on regarding the care of patients with AIDS?

_____

_____

_____

Postage for the questionnaire is prepaid, so all you need to do is tape it shut and drop it in a mail box.

_____

APPENDIX D: LICENSED PROFESSIONAL QUESTIONNAIRE

Patients with AIDS in Extended Care Facilities
Licensed Professionals

1. Does your facility have a policy for the admission of patients with AIDS?

   1 = Yes
   2 = No

2. Does your facility have a policy for the care of patients with AIDS?

   1 = Yes
   2 = No

3. Do you feel your facility is prepared to care for patients with AIDS?

   1 = Yes, definitely
   2 = Yes, probably
   3 = No, probably not
   4 = No, definitely not

4. To your knowledge has a patient with AIDS been cared for in your facility?

   1 = Yes -----> How many in the last 12 months? _____

   2 = No -----> Do you think your facility would be willing to provide care for patients with AIDS?

      1 = Yes
      2 = No

5. Have you ever provided care for patients with AIDS?

   1 = Yes
   2 = No

6. If asked, would you be willing to provide care for patients with AIDS?

   1 = Yes
   2 = No
   3 = Unsure

7. Do you think the staff should be informed that a patient has AIDS?

   1 = Yes
   2 = No

8. Do you think that other patients should be informed that a patient has AIDS?

   1 = Yes
   2 = No

9. Have you ever known anyone outside of work who has AIDS?

   1 = Yes
   2 = No

10. The following is a list of potential barriers which extended care facilities may face when giving care to a patient with AIDS. Please indicate how serious of a barrier you feel each is for providing care to patients with AIDS in long-term care facilities. A scale of 1 to 5 indicates how serious the barrier is. A **one** indicates that you **do not feel it is a barrier,** a **3 indicates it is somewhat of a barrier, and a 5 indicates it is a very serious barrier. (Circle one choice for each item).**

	Not A Barrier		Somewhat of a Barrier		A Serious Barrier
Community Attitudes	1	2	3	4	5
Infection Control	1	2	3	4	5
Financial	1	2	3	4	5
Staff Attitudes	1	2	3	4	5
Attitudes of Other Patients	1	2	3	4	5
Attitudes of Community Physicians	1	2	3	4	5
Number of private rooms	1	2	3	4	5
Number of bathrooms	1	2	3	4	5
Accessibility of immunologists as consults	1	2	3	4	5
Number of nursing staff	1	2	3	4	5
Knowledge level of nursing staff	1	2	3	4	4

	Not A Barrier		Somewhat of a Barrier		A Serious Barrier
Knowledge level of other staff	1	2	3	4	5
Availability of physical therapy	1	2	3	4	5
Availability of mental health consultation	1	2	3	4	5

11. The following section is statements regarding the care given to patients with AIDS. Please circle the answer of your choice. **1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree.**

	SA	A	D	SD
a) All patients with AIDS need to be placed in a private room.	1	2	3	4
b) A gown needs to be worn if patients' blood or body fluids might soil your clothes.	1	2	3	4
c) A mask needs to be worn only if blood or body fluids might splash your face.	1	2	3	4
d) Pregnant workers are thought to be at a higher risk for contracting AIDS.	1	2	3	4
e) A bleach solution of one part household bleach in ten parts water is used to clean all spills.	1	2	3	4
f) Universal infection control precautions adequately protect staff from contracting AIDS.	1	2	3	4
g) Patients with AIDS can share the same room with patients who have non-AIDS related infections.	1	2	3	4
h) Patients with AIDS can use the same bathroom as other patients who do not have transmittable diseases.	1	2	3	4

12. The following are statements about caring for a person with AIDS in your facility. Please circle the answer of your choice. **1 = Strongly Agree, 2 = Agree 3 = Disagree, and 4 = Strongly Disagree.**

	SA	A	D	SD
a) I feel prepared to care for a patient with AIDS.	1	2	3	4
b) I feel persons with AIDS can be cared for in a long-term care facility.	1	2	3	4
c) I feel my co-workers will accept caring for patients with AIDS.	1	2	3	4
d) I feel our patients' families will accept our facility caring for patients with AIDS.	1	2	3	4
e) I feel our community will support our facility caring for patients with AIDS.	1	2	3	4
f) I feel the physicians in our community will support our facility caring for patients with AIDS.	1	2	3	4
g) I feel the physicians in our community are prepared to care for persons with AIDS.	1	2	3	4
h) I feel persons with AIDS deserve the best medical care possible.	1	2	3	4
i) I feel that most persons with AIDS are responsible for their illness.	1	2	3	4
j) I feel people with AIDS deserve to lose their jobs.	1	2	3	4
k) I would feel uncomfortable caring for a person who is homosexual.	1	2	3	4
l) I would feel uncomfortable caring for a person who has a history of IV drug use.	1	2	3	4

13. The following statements concern transmission of AIDS. Please report the degree of certainty that you have about whether or not AIDS can be transmitted under the following conditions. **1 = I know this is true, 2 = I believe this is true, 3 = I believe this is false, and 4 = I know this is false.**

	KT	BT	BF	KF
a) AIDS can be transmitted through contact with saliva.	1	2	3	4
b) AIDS can be transmitted through contact with emesis.	1	2	3	4
c) AIDS can be transmitted through contact with vaginal secretions.	1	2	3	4
d) AIDS can be transmitted through contact with feces.	1	2	3	4
e) AIDS can be transmitted through contact with semen.	1	2	3	4

14. Which of the following classifications is your facility?

1 = Residential Care
2 = Intermediate Care
3 = Skilled Care

15. What is the bed capacity of your facility?

1 = 0 to 50 beds
2 = 51 to 100
3 = 101 to 150
4 = 151 to 200
5 = 201 to 250
6 = Over 250

16. In what size of community is your facility located?

1 = More than 100,000
2 = 50,000 to 100,000
3 = 10,000 to 50,000
4 = 2500 to 10,000
5 = Below 2500

17. In what state is your facility located?

_____

18. What is your position in the facility?

_____

19. How long have you worked at this facility?

_____

20. What is your highest level of education?

1 = Licensed Practical Nurse
2 = Associate Degree in Nursing
3 = Diploma in Nursing
4 = Bachelors Degree in Nursing
5 = Other

21. What is your gender?

1 = Female
2 = Male

22. What is your age? _____

23. Do you have any other concerns you would like to comment on regarding the care of patients with AIDS?

_____

_____

_____

_____

_____

Postage for the questionnaire is prepaid, so all you need to do is tape it shut and drop it in a mail box.

APPENDIX E: REMINDER LETTER

September 10, 1990

^F1^
^F2^
^F3^
^F4^

Dear ^F5^ or current Administrator:

Two questionnaires were recently mailed to your facility seeking opinions of yourself and a primary care nurse on the care of persons with AIDS.

If you have already returned the questionnaires, please accept my sincere thanks. If not, please do so today. These surveys were sent to only a small representative sample of long-term care facilities and your response is important to accurately represent the opinions of persons in facilities like yours.

If by some chance you did not receive the questionnaires, or they got misplaced, please call me at (515) 294-2444 and I will get another set in the mail to you today.

Sincerely,

Dan Hoyt
Associate Professor