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Effects of AIDS in the Military

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The Honorable Beverly B. Byron
Chairman, Subcommittee on Military
Personnel and Compensation
Committee on Armed Services
House of Representatives

The Honorable Ron Wyden
Chairman, Subcommittee on Regulation,
Business Opportunities and Energy
Committee on Small Business
House of Representatives

In response to your request, this report discusses the effects of AIDS in the military. Specifically, it provides information on (1) what the Department of Defense (DOD) is doing to assess and monitor the prevalence of the disease, (2) what action DOD has taken to prevent and control the spread of AIDS in the military, (3) how AIDS has affected DOD's operations and medical treatment facilities, and (4) what plans DOD has for dealing with an increased incidence of AIDS. We are making several recommendations to the Secretary of Defense aimed at improving DOD's AIDS education program and its plans for dealing with the disease in the future.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time copies of this report will be sent to the Secretary of Defense, appropriate congressional committees, and other interested parties.

This report was prepared under the direction of David P. Baine, Director, Federal Health Care Delivery Issues, who may be reached on (202) 275-6207 if you or your staffs have any questions. Other major contributors are listed in appendix III.

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Executive Summary

Purpose

Acquired immunodeficiency syndrome (AIDS) is a fatal disease caused by the human immunodeficiency virus (HIV). As of December 1989, nearly 118,000 AIDS cases had been reported in the United States, and approximately 1 million additional individuals are estimated to be infected with the virus. AIDS affects every segment of the population, including the military. The Chairmen of two House Subcommittees requested that GAO review the effects of AIDS in the military. Specifically, they asked:

- What the Department of Defense (DOD) is doing to assess and monitor the prevalence of the disease.
- What action DOD is taking to prevent and control the spread of AIDS in the military.
- How AIDS has affected DOD's operations and medical treatment facilities.
- How DOD plans to deal with an increased incidence of AIDS.

Background

In October 1985, DOD developed a comprehensive HIV policy to achieve a consistent approach for dealing with the disease. DOD's policy includes (1) testing all active duty and reserve personnel and civilian applicants for military service, (2) educating personnel about HIV/AIDS, (3) retaining on active duty HIV positive members who are capable of performing their duties, and (4) providing necessary health care to infected personnel.

Results in Brief

DOD has done a good job of assessing and monitoring the prevalence of HIV infection among military personnel. As of August 1989, DOD had tested over 90 percent of its active duty personnel at least once, and it plans to retest them periodically.

Besides testing, DOD has offered varied education programs for the general military population and has provided counseling for HIV-infected members to help control the spread of AIDS. These education programs, however, do not focus on modifying high-risk behaviors that place individuals at greater risk of infection. DOD has not attempted systematically to judge the effectiveness of its HIV/AIDS education program.

Thus far, AIDS has had a minimal impact on overall DOD operations; its impact is unlikely to increase because a very small percentage of active duty members are likely to be infected by HIV.

AIDS has had a significant impact on military hospitals, however, primarily because of the strain placed on resources during mass testing. The

hospitals responsible for evaluating and providing care to HIV-infected members experienced an even greater strain on resources. The impact on these hospitals is likely to increase as the size of the HIV-infected population grows.

DOD has collected data on HIV/AIDS and recognizes the disease's potential impact. However, it is unclear how DOD plans to provide the resources needed to deal with the expected increase in demand for HIV/AIDS-related health care services.

Principal Findings

Testing

As of August 1989, DOD had tested about 2.1 million of its almost 2.3 million active duty members for HIV. In addition, as of June 1989, DOD had tested over 2.1 million applicants for military service. DOD requires that at minimum, active duty members be retested for HIV in conjunction with their periodic physical examinations. It also requires HIV testing for service members who are assigned overseas, or seek treatment at alcohol, drug, prenatal, or sexually transmitted disease clinics. The services' HIV testing programs generally exceed the minimum DOD requirements. (See pp. 12-14.)

Education and Counseling

DOD designed its education program for general audiences, which is one element of AIDS intervention recommended by HIV/AIDS prevention experts. The programs covered the definition of HIV and AIDS, modes of transmission, and service policies related to HIV. They did not, however, focus on modification of high-risk behavior, a topic that experts have suggested be presented. (See pp. 18-19.)

DOD emphasized disseminating information quickly and did not include an evaluation component in the education programs. A DOD survey showed that most service members know about HIV/AIDS, but some still have misconceptions about HIV transmission. (See pp. 19-20.)

Medical personnel counsel HIV-infected members on such matters as stress management and safe sex. They also instruct HIV-infected members not to give blood and to inform potential sex partners and medical personnel of their HIV status. (See p. 20.)

Effects on Operations

As of August 1989, 6,269 of about 2.3 million active duty members had been reported as HIV infected. Fewer than 2,100 of the 6,269 infected members were still on active duty. The remainder had retired, separated, or died. There has been minimal effect on units' ability to perform their missions. (See pp. 13 and 28.)

From the inception of DOD's preinduction screening in October 1985 through June 1989, DOD identified and denied entry to 2,752 HIV-infected applicants for military service. Preinduction screening and the retirement of service members unable to perform their duties should continue to minimize the impact of HIV/AIDS on military operations in the near future. (See pp. 13 and 28.)

Effects on Hospitals

Military hospitals initially did not receive additional resources to implement HIV testing and evaluation. Hospitals sometimes borrowed staff from other areas of the hospital, contracted out laboratory work, and/or deferred some equipment purchases to redirect funds to HIV efforts. (See p. 23.)

Based on incidence rates calculated by the services to date, and the current active duty population, DOD may identify about 1,500 to 1,700 new HIV infections annually among active duty service members. Most cases are identified in the early stages of infection, when they require primarily outpatient treatment. DOD reevaluates HIV-infected active duty members annually. They are expected to progress to the latter stages of the disease, requiring more acute and chronic care. (See pp. 24-26.)

Early treatment with the anti-AIDS drug AZT will prolong life but not cure the disease. It will also increase treatment costs and the use of medical staff resources. (See pp. 25-28.)

Planning

DOD and the services have collected information on the incidence and progression of HIV in the military. Based on the data collected to date, DOD expects an increase in the demand for HIV-related health care, including the need for more outpatient services, inpatient acute care, chronic care, and prescription drugs. It has not, however, made decisions and plans to accommodate these growing health care needs, particularly as they relate to medical personnel, facilities, and budgets. (See pp. 26-28.)

Recommendations

GAO recommends that the Secretary of Defense:

- Modify DOD's HIV/AIDS education programs to focus on changing high-risk behaviors associated with HIV transmission.
- Evaluate the effectiveness of the education efforts.
- Develop financial, staffing, and facility resources plans for handling the projected increases in (1) outpatient and inpatient work load and (2) demand for prescription drugs and chronic care services.

Agency Comments

DOD agreed with GAO's findings, conclusions, and recommendations and has initiated actions in response to the recommendations. (See pp. 21, 22, 29, and 30.)

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Tables

Abbreviations

AIDS	acquired immunodeficiency syndrome
AZT	azidothymidine or zidovudine
CDC	Centers for Disease Control
DOD	Department of Defense
ELISA	Enzyme-Linked Immunosorbent Assay
GAO	General Accounting Office
HIV	human immunodeficiency virus
IV	intravenous
RDDB	Reportable Disease Data Base
USAF	United States Air Force

Introduction

Acquired immunodeficiency syndrome (AIDS) is a relatively new disease that impairs the body's immune system and leaves infected individuals susceptible to infections. There is no known cure for AIDS; nor is there a vaccine to prevent the spread of the human immunodeficiency virus (HIV) that causes AIDS. However, at least one drug, azidothymidine or zidovudine (AZT), prolongs the lives of people with HIV infection and AIDS.

The United States Surgeon General has reported that the virus is not spread by casual contact, but primarily through intimate sexual contact and the use of shared hypodermic needles and syringes by intravenous (IV) drug users. In addition, infected pregnant women can transmit the disease to their unborn children. AIDS can also be spread via contaminated blood to persons receiving blood transfusions.

Although AIDS was initially discovered in the homosexual community, AIDS is not a disease that affects only homosexuals. AIDS is increasingly found in heterosexual people as well. The percentage of heterosexual contact cases increased from 1 to over 4 percent of the total cases between 1982-83 and 1988-89. The AIDS virus generally infects persons who expose themselves to high-risk behaviors, such as certain types of sexual activities or sharing IV drug needles. In the United States, the groups with the highest likelihood of HIV infection are male homosexuals and IV drug abusers.

As of December 1989, 117,781 cases of AIDS and 70,313 known deaths have been reported by the Centers for Disease Control (CDC). CDC estimates that 1 million Americans are infected with HIV. Epidemiological research, as of June 1989, indicates that more than half of those who carry the virus will develop AIDS within 10 years of their initial infection. Some scientists, however, believe that all individuals infected with HIV will eventually develop AIDS or AIDS-related complex, a condition that can also be debilitating or fatal. CDC projects that by the end of 1992, 365,000 Americans will have developed AIDS and 263,000 will have died from the disease.[1]

The costs of treating AIDS vary across the nation. Most studies that estimate treatment costs have focused on the direct costs associated with hospitalization. Estimates of average hospital costs over the lifetime of

[1]GAO in its report, AIDS Forecasting: Undercount of Cases and Lack of Key Data Weaken Existing Estimates (GAO/PEMD-89-13, June 1, 1989), estimated that only about two-thirds of all cases of AIDS and other fatal HIV-related illnesses were captured in CDC's data. As such, AIDS surveillance data should be adjusted upwards by an estimated 50 percent.

an AIDS patient have ranged from $25,000 to $147,000.[2] A 1988 review of several studies of the costs associated with AIDS treatment suggests that the lifetime per-patient costs of medical care will not exceed $80,000 and will be comparable to the costs of treating other serious illnesses.[3]

Because of the potential impact on military operations and hospitals, the Chairmen of the Subcommittee on Military Personnel and Compensation, House Committee on Armed Services, and the Subcommittee on Regulation, Business Opportunities and Energy, House Committee on Small Business, requested that we examine the effects of AIDS in the military.

DOD's HIV Program

In 1985, the Department of Defense (DOD) established an HIV policy that, among other things, required all applicants for military service and all active duty, reserve, and National Guard personnel to undergo blood tests for HIV infection. In 1987, the policy was revised to include periodic retesting of all personnel. The HIV policy is designed to protect both infected and healthy service members. The policy provides that personnel infected with HIV cannot be deployed overseas. It also limits the use of information obtained from individuals who are HIV infected.

DOD policy also requires each service to develop an education program that includes information about the prevention and transmission of HIV for its active duty population. DOD has adopted other preventive measures, such as counseling individuals who test positive for HIV infection. DOD also conducts research on the disease and provides treatment.

Within DOD, responsibility for administering and implementing HIV policy is shared by medical and personnel offices. The Office of the Assistant Secretary of Defense (Health Affairs) is primarily responsible for developing and coordinating health policy for the program. The Office of the Assistant Secretary of Defense (Force Management and Personnel) is responsible for developing and coordinating personnel policy issues. The military services are responsible for implementing DOD policies.

[2]J. E. Sisk, "The Costs of AIDS: A Review of the Estimates," Health Affairs, Vol. 6, No. 2 (Summer 1987), pp. 5-21.

[3]D. Bloom and G. Carliner, "The Economic Impact of AIDS in the United States," Science, Vol. 239, No. 4840 (Feb. 5, 1988), pp. 604-10.

Objectives, Scope, and Methodology

The Chairmen asked us to determine:

- what DOD is doing to assess and monitor the impact of AIDS in the military,
- what action DOD is taking to prevent and control the spread of AIDS,
- how AIDS has affected DOD's operations and medical treatment facilities, and
- whether DOD has developed plans for dealing with an increased incidence of AIDS.

We addressed these issues at DOD and military headquarters offices and at eight installations and 11 hospitals. Appendix I contains a list of the DOD organizations, hospitals, and installations we visited and our rationale for selecting them. We limited our review to the active duty force.

To determine what DOD is doing to assess, monitor, and control the impact of AIDS, we reviewed DOD's HIV policies and each service's HIV instructions on screening procedures, controls, and actions taken concerning personnel identified as HIV infected. We also obtained data on testing costs, the number of active duty members and civilian applicants for military service tested, and the number that tested positive for HIV infection. (We did not independently verify the number of individuals tested or the number that tested positive.) We also discussed AIDS education, attended AIDS education briefings, and reviewed samples of educational materials provided to service members.

To determine how AIDS has affected DOD's operations, we obtained documentation and interviewed commanders who had HIV-infected active duty personnel assigned to them. Our discussions focused on the effects that such personnel have on the ability of units to accomplish their missions, including the flexibility of assigning or deploying personnel. We also discussed the impact of testing and education on operations.

To determine how AIDS has affected the military hospitals we visited, we obtained information on each hospital's HIV/AIDS work load and on costs associated with the program that could be readily identified. Our discussions focused on the ability of the hospitals to meet the requirements of the HIV program and the program's impact on each hospital.

At each organizational level, we discussed the potential effect of HIV on hospitals and operations and whether plans for dealing with an increased incidence of AIDS in the military were being developed.

We conducted our review from January 1988 to July 1989 in accordance with generally accepted government auditing standards.

DOD Has Effectively Implemented a Testing Program

DOD's HIV testing program has succeeded in screening applicants for military service and the vast majority of active duty military personnel to detect and monitor HIV infection. The program includes initial testing, retesting, and testing for other reasons, such as overseas deployment. As of August 1989, the services had screened over 2 million active duty personnel and reported over 6,200 members infected with HIV.[1] Each of the services follows similar procedures to identify personnel for testing and uses a central information system to monitor testing. Also, DOD has established rigorous quality control standards to produce highly accurate test results.

Development of a Comprehensive Testing Policy and Program

Recognizing that HIV could significantly affect military personnel and potentially affect military operations, DOD established a comprehensive testing program to assess and monitor the prevalence of HIV infection. DOD based its HIV testing policy on a number of factors designed to protect HIV infected and uninfected members. Through mandatory HIV testing, DOD can (1) protect HIV-infected service members from being assigned to areas where they might be at risk to endemic disease, (2) help assure that HIV-infected members will not receive live vaccine inoculations that could be hazardous to their health, (3) help ensure the safety of the blood supply and decrease the potential transmission of the virus to other individuals under battlefield or contingency conditions, and (4) respond to the requirement of some foreign countries that the military certify that its personnel are free of HIV infection before entry into those countries.

The testing program consists of three components. First, all civilian applicants for military service are tested to prevent HIV-infected individuals from appointment or enlistment into the military. Second, all active duty, reserve, and National Guard members undergo both initial HIV tests and periodic retests in conjunction with periodic physical examinations. Third, DOD also requires testing of active duty personnel who seek prenatal care, seek services for sexually transmitted diseases, or are enrolled in drug and alcohol programs.

Retesting policies of the services differ and are designed to meet the individual needs of each service. Also, according to service officials, the retesting policies were based on cost and rate of incidence of HIV infection. The Army and Air Force plan to retest all personnel every 2 years.

[1] Reserve and National Guard personnel who serve 30 or more days on active duty are included in this group.

The Navy plans to retest all personnel serving in overseas and deployable units annually and will retest the remainder of its personnel in conjunction with their routinely scheduled physical examinations, which vary according to rank, age, and occupation. If the Air Force's rate of incidence remains low, it may adopt the Navy's retesting policy.

Since October 1985, the Army has conducted applicant screening for all branches of military service and tests about 750,000 recruit applicants annually. From October 1985 to June 1989, over 2.1 million applicants were tested under this program and 2,752 individuals were diagnosed as HIV infected and declared ineligible for military service.

The services also began HIV screening of active duty members in October 1985. As of August 1989, the services had screened over 2.1 million of their approximately 2.3 million active duty members at an average cost of $4 per HIV test. They reported 6,269 HIV infections among members; 2,000 of the infected members were still on active duty, as shown in table 2.1. The remainder had retired, separated, or died.

Table 2.1: HIV Testing of Active Duty Members as of August 1989

Service	Eligible population	Number tested	Cumulative number of HIV infected	Number of HIV infected on active duty
Army	866,426	792,072	2,390	575
Navy	831,027	792,496	2,942	1,160
Air Force	583,711	537,625	937	334
Total	**2,281,164**	**2,122,193**	**6,269**	**2,069**

Methods Used to Accomplish Testing

Service officials responsible for implementing the testing program developed similar methods to carry out testing requirements. At each location we visited, service officials responsible for testing used a personnel roster to schedule HIV testing. Active duty personnel reported to designated locations to have blood drawn by medical staff. Personnel on ships and submarines usually had their blood drawn by medical personnel on board. Alternate test dates were available for personnel who could not report on their scheduled date. In each service, the member presented a military identification card to the medical personnel who drew the blood sample and recorded each member's identifying information (such as name, rank, social security number, and unit) on the required forms and sample containers.

Systems Used to Track Testing of Personnel

In 1985, the Assistant Secretary of Defense for Health Affairs established a central management information system—the Reportable Disease Data Base (RDDB) to provide DOD and service management with information on infectious diseases. In addition to providing information on other communicable diseases, each service supplies HIV test data on all military personnel to the RDDB.

The services also use their personnel information system to monitor testing coverage. A Naval Medical Command official informed us that in December 1988, the office of the Chief of Navy Personnel compared the master personnel files with the RDDB HIV data to determine which Navy personnel had not been tested. Navy commands were notified of personnel without a recorded HIV test date and requested to either furnish information documenting members' test dates or have the individuals tested. The Air Force plans to cross-check the RDDB's HIV data against other Air Force-wide data systems.

Other HIV Testing

DOD's policy requires that all members have a current HIV test before assignment to overseas locations. All military members seeking services at sexually transmitted disease, prenatal, and drug and alcohol clinics must also undergo HIV tests. Further, the services screen blood donors before accepting blood and offer HIV testing to dependents of military personnel on a voluntary basis.

DOD policy does not preclude the services from imposing additional testing requirements. For example, the Army requires active duty members admitted to Army hospitals to undergo an HIV test if the latest HIV test occurred more than 12 months before admission. The other services do not require hospital admission testing.

DOD's Quality Control Testing Requirements

DOD has established several quality control measures to help assure the accuracy of its AIDS testing program. DOD uses two different tests to detect HIV. The first is called the Enzyme-Linked Immunosorbent Assay (ELISA) test, a Food and Drug Administration-approved screening test. The ELISA test is simple to perform and interpret but produces a relatively high rate of false positive results; that is, positive test results for individuals who have not actually been infected with the virus. Therefore, a positive ELISA test must be confirmed by a more specific test, the Western Blot.

DOD requires two positive ELISA test results and one positive Western Blot test result on two different blood samples before an individual is considered to be HIV positive. The initial HIV-positive test result is confirmed by performing ELISA and Western Blot tests on a new blood sample. Commercial laboratories perform ELISA and Western Blot tests for the services.[2]

Because of the possibility of errors in interpreting HIV tests, DOD requires the services' laboratories and their contract laboratories to meet certain standards. The contract includes stiff penalties for poor performance; failure to meet a 95-percent accuracy rate on tests obligates the contractor to repeat every Western Blot test performed during the preceding month free of charge. One laboratory within each service monitors the accuracy of HIV test results.

In 1987, DOD's Inspector General conducted an audit of HIV testing in each service to determine compliance with the quality assurance requirements.[3] The report concluded that the services followed procedures that adequately ensured conformity with DOD standards for producing reliable test results.

Conclusions

DOD's HIV testing program, which incorporates quality control standards to ensure accurate test results, has enabled DOD to effectively assess and monitor the prevalence of HIV infection within the military.

Through its initial force testing, periodic retesting, and other HIV testing programs, DOD has screened the vast majority of its personnel. DOD's HIV testing program includes provisions that help ensure that service members who may have engaged in activities that place them at a higher risk for exposure to HIV infection (such as those requiring services at drug and alcohol and sexually transmitted disease clinics) are tested.

The mandatory testing program helps DOD to identify HIV-infected members, enabling DOD to protect them from (1) assignments to areas with high endemic disease and minimal medical care and (2) live virus inoculations, which could be life threatening.

[2]Before June 1989, 27 Navy laboratories performed the Navy's ELISA analyses.

[3]DOD, Office of the Inspector General, Report on the Audit of Testing for Acquired Immune Deficiency Syndrome (Oct. 2, 1987).

The testing program has also enabled DOD to (1) identify HIV-infected applicants for the military and deny them entry into the services and (2) help ensure the safety of the blood supply in battlefield situations by requiring that military personnel deploying overseas have a recent HIV test with a negative result.

Methods Used to Control the Spread of HIV/AIDS

In addition to its testing program, DOD has instituted an HIV education program intended to control the spread of HIV/AIDS in the military. A variety of methods are used for educating the active duty force, including briefings, printed materials, and counseling. As in the civilian sector, the effectiveness of these educational efforts in changing behavior has not been evaluated. A DOD survey indicates, however, that most military personnel understand the basic facts about the transmission and prevention of HIV, but they still have misconceptions.[1]

Policies on Education

DOD policy requires that an HIV/AIDS education program be offered to all beneficiaries of the military health care system. Each of the services included provisions in its HIV policy to implement DOD's HIV/AIDS education policy. While each service's policy requires that education be provided, those policies vary with respect to the amount and frequency of the education required.

Between October 1985 and August 1988, DOD policy guidance on HIV/AIDS education instructed the services to implement an "appropriate AIDS education program." In addition, DOD developed a list of approved films and materials for use by the services. DOD issued additional guidance based upon the results of the 1988 survey of health behaviors of military personnel. DOD instructed the services in an October 1988 memorandum to ensure that commanders receive general educational information about HIV. Further, in November 1988, DOD provided the services with an HIV/AIDS information and education program framework that (1) specified groups that should receive HIV/AIDS education, (2) identified methods or mediums to provide education, and (3) established time frames for educating the selected groups.

Each service's HIV policy has slightly different HIV/AIDS education requirements. The Army stipulates that commanders are responsible for assuring that at least 4 hours annually of unit-level instruction on the Army's HIV/AIDS testing and education program be provided. The Air Force requires that HIV/AIDS prevention education be provided to all active duty personnel and civilian supervisors. The Navy's HIV policy does not require mandatory AIDS education for its active duty personnel, but the policy requires that informational programs be conducted to inform service members of ways to prevent the disease and the risks of HIV infection. Further, the Navy has included HIV/AIDS in certain other

[1]DOD, 1988 Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel.

mandatory training programs. For example, new recruits are to receive HIV/AIDS information during orientation.

Various HIV/AIDS Education and Information Provided at Service Installations

The methods used by the installations we visited to provide HIV/AIDS education varied although they provided similar information. Education programs generally did not focus on modifying high-risk behaviors, such as IV drug use and homosexuality. Rather, they were designed for the general military population. The education sessions covered the definitions of HIV and AIDS, the modes of transmission of HIV, measures for preventing transmission, and the service's policy as it relates to HIV. The services did not centrally monitor education. Accordingly, information on the number of individuals who received education and the types of education was not available.

At the Army installations we visited, health care workers or commanding officers trained by preventive medicine service personnel provided HIV/AIDS education. The length of the education sessions and the method used to deliver them varied from a 15- to 20-minute briefing when blood samples were collected for testing, to 60- to 90-minute sessions that were provided semiannually. Army officials advised us that their education requirement is being reviewed and will be revised once they determine the appropriate type and amount of education that should be provided.

The Air Force's policy on AIDS education was not uniformly interpreted as a mandatory requirement. Some Air Force personnel interpreted the policy to mean that it was mandatory that HIV/AIDS education be provided to all active duty members, and others believed it was mandatory to offer it. At Air Force bases we visited, the Environmental Health and the Infectious Disease Services provided AIDS education. The education was provided using a 35-minute training session that included a lecture, film, and question-and-answer period or briefings during a commander's call (meeting) and by distributing HIV/AIDS information pamphlets.

At the Navy installations we visited, Navy physicians, upon request, provided HIV/AIDS education to active duty members when available to do so. The methods used included (1) providing education to certain enlisted personnel reporting to a facility, (2) showing films, (3) distributing pamphlets, and (4) providing 2-hour sessions, including lectures and slides.

Experts' Suggestions Regarding Education

The United States Surgeon General and the National Academy of Sciences' Institute of Medicine advocate that education is the most effective way to significantly reduce the spread of HIV infection. Both suggest providing general educational information about the disease, as well as specifically focused information on modifying high-risk behaviors, such as IV drug use and homosexual or bisexual activity. They advocate educating individuals on ways to protect themselves and others from infection. Also the Institute warned that it is important to communicate broadly the message that specific, high-risk sexual practices increase the probability of AIDS transmission. Further, because the virus can be spread through unprotected heterosexual intercourse, clear and direct messages about transmission routes and safer sexual practices are important in preventing the spread of HIV infection.

Effectiveness of Education Unknown

Research on AIDS education is inconclusive because the disease is relatively new and there has not been sufficient time to establish research plans and measure the effectiveness of educational campaign efforts. Neither DOD's program nor many public AIDS education programs include an evaluation component that would facilitate assessment of the program's effectiveness.

Experts have suggested that an evaluation component be integrated into education programs to assess the effect of efforts on controlling the spread of HIV infection. These experts suggest that if assessments of the impact of education on the spread of the epidemic show that it is not sufficiently slowed, determinations of the need for additional or redirected funding for prevention measures could be made. In a September 1988 report, GAO also stressed the need to evaluate education programs.[2]

Although the effectiveness of DOD's HIV/AIDS education programs has not been evaluated, to obtain information on the knowledge military personnel have of AIDS, DOD conducted a 1988 survey of health behaviors that included questions on HIV/AIDS. The survey indicated that military personnel are aware of the major means of transmission and prevention but still have some misconceptions. The survey showed that about 95 percent of the personnel knew that HIV/AIDS could be transmitted by needle sharing or having sex with someone who has AIDS. About 35 percent realized that HIV could be transmitted through blood transfusions. Approximately 20 percent believed HIV could be transmitted by donating blood, and 25 percent believed it could be transmitted by dining in a

[2]AIDS Education: Reaching Populations at Higher Risk (GAO/PEMD-88-35, Sept. 16, 1988).

facility where a cook has AIDS. About 90 percent of the military personnel believed abstinence and monogamous sex are effective means of prevention; however, 25 percent believed asking sexual partners if they had the disease was effective.

Counseling Provided to HIV-Infected Members

To contain the spread of HIV, DOD requires preventive medicine counseling for active duty personnel who test positive for the infection. Individuals identified as HIV infected receive in-depth counseling during the initial evaluation. For example at two locations we visited, counseling included discussions concerning such matters as interpretation of laboratory test results, low-risk and safe sex, diet, and stress management. In addition, HIV-infected personnel receive orders to follow preventive measures, including informing potential sex partners and medical personnel of their HIV status. They are also directed not to donate blood. Each HIV-infected individual is required to sign a statement acknowledging counseling and an understanding of the information and the safeguards to follow to prevent transmission of the virus. Failure to comply with these orders is grounds for disciplinary action, including discharge.

Other Prevention Efforts

DOD offers HIV/AIDS education to dependents and other DOD beneficiaries. In addition to classroom educational instruction, DOD and the services distribute pamphlets and other literature on AIDS, print articles in military publications, and display AIDS informational posters.

Health care workers receive education on prevention of transmission and caring for HIV-infected patients. Military hospital officials told us they also follow the Centers for Disease Control's universal precautions to prevent transmission in health care settings by treating all patients as if they have a transmittable disease. Health care workers use rubber gloves when handling certain body fluids and excretions and do not reuse needles. DOD hospitals also closely monitor needlestick injuries in health care workers caring for HIV-infected patients by periodically testing the workers for HIV.

DOD policy also requires that Food and Drug Administration guidelines, Armed Services Blood Program Office policies, and accreditation requirements of the American Association of Blood Banks be followed to ensure the safety of the blood supply. In addition, DOD hospitals are to review blood donations to determine whether HIV-infected individuals had received or donated blood. The military bases we visited make condoms readily available for sale and some provided them free of charge.

Conclusions

DOD has taken several steps to control the spread of HIV within the military. The preventive measures taken by DOD, including HIV/AIDS education, will undoubtedly help control the spread of HIV infection.

DOD's education programs have been designed for a general audience, which is one element of HIV/AIDS prevention recommended by experts. DOD's programs, however, do not focus on modifying high-risk behaviors that place individuals at greater risk of infection—IV drug use, homosexuality, and bisexuality—an element that is also recommended by experts.

We recognize that because of the seriousness of HIV/AIDS, it was important that DOD disseminate information quickly to the general military population. Without an evaluation component, however, DOD does not know if it is (1) effectively communicating the message to those individuals at greater risk of becoming infected and (2) spending prevention funds in the most effective manner.

Since experts believe that education and appropriate behavior modification are currently the only tools to prevent the spread of HIV infection, DOD should provide an HIV/AIDS education program that clearly addresses high-risk behavior modification. DOD should also incorporate an evaluation component that will provide valid information on the effectiveness of its programs.

Recommendations

We recommend that the Secretary of Defense

- modify the Department's HIV/AIDS education programs to focus on changing high-risk behaviors and
- evaluate the effectiveness of the HIV/AIDS education efforts.

Agency Comments

In a letter dated February 16, 1990, the Principal Deputy Assistant Secretary of Defense (Health Affairs) stated that DOD concurred with our conclusions and recommendations (see app. II). However, DOD cautioned that even with the additional efforts we recommended, the HIV incidence rates may have reached an irreducible minimum without the availability of further interventions, such as vaccines.

DOD stated that it is in the process of finalizing a directive consolidating HIV-related DOD policies that it expects to issue in April 1990. DOD will direct the services to implement an information and education program

that focuses more specifically on sexual practices and needle sharing. DOD stated that this type of targeted education, which presumably will require strategies involving one-to-one counseling and small group instruction, is expected to require more resources. DOD stated that inherent in the proposed DOD directive is the expectation that the services will budget specifically for HIV education in their Defense budget submissions.

DOD also stated it will direct the services to add an evaluation component to their educational programs to determine their effectiveness. DOD noted that the correlation between effective education and behavior change is unknown. DOD officials told us, however, during a meeting to discuss their response to this report, that evaluating the HIV/AIDS education program is, in their judgment, the best means available for judging how to tailor a program to fit the audience.

HIV/AIDS Significantly Affects Hospitals, but Military Operations Are Minimally Affected

The impact of HIV/AIDS on hospitals has been significant. DOD health care officials, however, do not believe the disease has impaired the quality of health care delivery to other patient populations. Implementing the HIV/AIDS program strained hospital resources to varying degrees, and tradeoffs had to be made to accomplish HIV testing, conduct medical evaluations, and provide treatment. The demands for and costs of health care services are expected to increase in the future as (1) more people are identified as HIV positive, (2) those infected begin to exhibit symptoms requiring treatment, and (3) emerging drug treatments prolong the lives of HIV-infected patients. It is unclear how DOD and the services will accommodate the future demand for AIDS-related care.

In contrast, HIV/AIDS has not had a significant effect on military operations and has not prevented military units from accomplishing their missions. If, as DOD believes will be the case, the rate of HIV infection does not increase, the future impact on military operations should continue to be minimal.

Hospitals Have Been Affected Significantly

Implementing DOD's HIV program affected military hospitals because the program was a major undertaking that involved testing, medical evaluation, and treatment. In most instances, the added duties were performed without additional staff or funds. While all hospitals were affected, those with responsibilities for evaluating HIV-infected patients generally experienced the greatest impact.

Testing Program

The HIV testing program constituted a major challenge and placed a strain on military hospital resources. Hospitals had to redirect personnel from other areas of the hospital to conduct HIV testing and to perform medical evaluations. Staff worked long hours over extended periods of time; hospitals contracted out laboratory work previously performed in house and deferred equipment and supply purchases because funds were diverted to the HIV program.

Hospital laboratories coordinated HIV testing, drew blood specimens, prepared specimens for shipment to contractors for analysis, and performed a variety of administrative tasks associated with the program. In addition, one hospital laboratory in each service served as a quality control monitor (e.g., checking the accuracy of HIV test results). Navy laboratories experienced greater impact because they performed the initial HIV test in house and, for the most part, absorbed the work load with existing resources.

Medical Evaluations and Treatment

Medical evaluations and outpatient treatment accounted for most of the services that hospitals provided to HIV-infected members. The medical condition of each HIV-infected member is assessed and periodically reevaluated at 1 of 10 designated DOD hospitals, as shown in table 4.1.

Table 4.1: Hospitals Designated to Evaluate HIV-Infected Service Members

Service	Hospitals
Army	Brooke, Madigan, Fitzsimons, Walter Reed, and Eisenhower
Navy	Bethesda, Oakland, Portsmouth, and San Diego
Air Force	Wilford Hall

Note: Before November 1988, Beaumont, Letterman, and Tripler Army Medical Centers also performed medical evaluations.

From 1985 through July 1989, the services had conducted about 13,000 medical evaluations, including initial and subsequent reevaluations of HIV-infected members. Army hospitals conducted 6,645 evaluations of HIV-infected service members, while the Navy and Air Force hospitals conducted 5,307 and 830, respectively. Conducting evaluations placed a strain on staff resources in the evaluation hospitals we visited, as they had to reassign physicians from other areas of the hospital to the HIV program, use graduate medical students, or delay evaluations.

DOD requires annual evaluations of HIV-infected active duty members. Individuals who are placed on temporary disability retirement are required to be evaluated every 18 months. Any patient, however, may be evaluated more frequently if a physician believes such evaluations are necessary.

The initial evaluation consists of examinations, extensive tests, orientation, and preventive health counseling that includes (1) a complete medical history and thorough physical examination; (2) extensive laboratory tests, such as urinalysis, total lymphocyte count, hepatitis screen, skin tests, chest X-rays, and additional tests as needed, based on the results of initial tests; and (3) numerous consultations with health care providers from departments and services throughout the hospital, such as dermatology, ophthalmology, psychosocial, epidemiology, dental, and preventive medicine. An Air Force laboratory official commented that the average HIV-infected patient requires about 70 laboratory tests for each evaluation. At the six hospitals with evaluation responsibilities we visited, the length of time to conduct initial evaluations ranged from 1 to 3 weeks.

During the evaluation, patients are categorized by the stage of infection according to a classification system developed at the Walter Reed Army Institute of Research. The classification system consists of six stages ranging from stage one, identifying only exposure to the virus and denoting no physical symptoms or signs of illness, to stage six, denoting the most serious stage of the disease. Individuals found fit for duty are returned to active duty. HIV-infected personnel who are determined to be unfit for duty are either temporarily or permanently retired on disability and are eligible for medical care in any military hospital. Individuals who are permanently retired (as well as other service members who are discharged) also have the option of obtaining care at Department of Veterans Affairs hospitals.

In addition to performing evaluations, hospitals provided inpatient and outpatient treatment. Since the majority of HIV-infected members are in the early stages of infection, most of the treatment provided has been on an outpatient basis, relying heavily on services provided by such departments as infectious disease, laboratory, social services, and dermatology.

HIV/AIDS Effects Likely to Increase

It seems inevitable that the demand for patient services and the costs of providing these services will increase for several reasons. First, the size of DOD's HIV-infected population who are eligible to obtain care from DOD hospitals will probably increase. As of August 1989, about 3,700 HIV-infected service members were eligible for care in the DOD health care system. Based on a constant active duty population of 2.3 million, and incidence rates of 0.67/1,000 and 0.76/1,000, developed by the Navy and Army respectively, about 1,500 to 1,700 new HIV infections are expected to be identified annually. An unknown number of dependents for whom HIV testing is voluntary is also expected to be identified. (Testing of the active duty force will continue to be mandatory.)

Secondly, AZT, which increases the life expectancy of HIV/AIDS patients, will result in patients obtaining services for a longer period.

Third, service medical officials stated that most of DOD's HIV-infected population who are eligible to receive care from a DOD hospital are expected to continue seeking care in DOD's system rather than the Department of Veterans Affairs system. In the Army and Navy, officials stated that at least 60 percent of HIV/AIDS patients who are no longer on active duty return to designated DOD evaluation hospitals for treatment.

Lastly, HIV-infected patients will become sicker, requiring more inpatient care. Research indicates that at least 50 percent and perhaps all HIV-infected individuals will eventually develop AIDS or AIDS-related illnesses. Physicians at the medical centers we visited maintain that the future treatment work load will greatly increase as HIV-infected personnel progress through the stages of the disease and become AIDS patients.

HIV program and infectious disease physicians at Bethesda Naval Hospital told us in January 1989, that experience has shown that (1) 15 percent of their HIV-infected patients develop AIDS within 2 years of being identified as HIV infected, (2) 85 percent will develop AIDS within about 8 years, and (3) 10 percent of the symptomatic or AIDS population will die annually. Infectious disease physicians also estimated that patients with AIDS-related complex may be admitted to a hospital about once a year, whereas AIDS patients may require hospitalization as frequently as once a month.

Two HIV program physicians at Wilford Hall Medical Center believe that the work load created by individuals progressing to the later stages of the disease over the next 3 to 5 years will necessitate significant increases in hospital personnel to provide care for these patients. Wilford Hall is the only Air Force hospital designated to perform evaluations of HIV-infected service members.

The HIV program coordinator at Walter Reed advised us that HIV/AIDS patients comprised about 90 percent of the infectious disease clinic's outpatient work load at Walter Reed. In July 1989 about 85 percent of the Army's HIV-infected patients were in one of the first three stages of infection. The HIV program coordinator advised us that within 5 to 6 years, he expects most of these patients will likely need inpatient care.

Hospital officials also expressed concern about increasing expenditures for drugs, such as AZT and pentamidine, commonly used in HIV/AIDS treatment. AZT, which has been proven to prolong the life of an HIV-infected individual and is now recommended for individuals in the early stages of the disease, costs about $6,400 annually per patient. The services estimate that 60 percent of their HIV-infected populations qualify for early treatment with AZT. The Army's estimated fiscal year 1990 AZT budget is $13.1 million compared to $1.1 million in fiscal year 1989. We estimate the cost of providing AZT to Air Force and Navy personnel will be about $10 million.

Pentamidine, a drug used to treat the pneumonia prevalent among AIDS patients, costs about $2,000 per treatment. Individuals may require multiple treatments of pentamidine. Interferon, a relatively new drug sometimes used to treat an AIDS patient with Kaposi's sarcoma, a cancer, is also expensive. It costs $1,000 per week and a patient can be treated with interferon from a few weeks to a few months.

Military hospitals do not budget or account for costs by specific illness or diagnosis. Therefore, the total costs of HIV/AIDS treatment are not known but are absorbed in hospitals' operating budgets.

In response to a growing concern over AIDS, in 1986 the Army began allocating and tracking some HIV/AIDS expenditures. Using these data, it has estimated that the lifetime cost (10 years) to DOD to provide medical care to each HIV-infected service member will range from $157,000 to $208,000. This estimate assumes that the incidence rate for personnel testing HIV positive will remain constant and that 60 percent of the patients will seek health care within the DOD health care system. Using the same assumptions the Army projects that HIV/AIDS will cost DOD $3 billion over the next 10 years.[1] The Army also projected HIV/AIDS costs using alternative assumptions for incidence rates. For example, over a 10-year period, a 20-percent increase in HIV infections would cost DOD about $10 billion, while a 20-percent decrease would bring the cost down to about $1 billion.

Medical officials at the hospitals we visited expressed concern about their ability to handle the increased work load and costs. They said it is unclear how the expected demands for HIV-related health care will be met, from a personnel, facility, or budgetary perspective. For example, medical officials stated that military hospitals are generally designed to handle acute care patients rather than chronic, long-term care patients. However, in addition to acute care, AIDS patients in the later stages often require chronic or long-term care facilities. Medical officials said that treating AIDS patients in an acute care setting when acute care is not required increases costs and reduces the number of acute care beds for those who need them.

[1]Civilian sector cost estimates have generally been lower. One reason for the difference may be attributed to the exclusion of certain services, such as outpatient care. Another factor is that the care and treatment of HIV-infected military members begins sooner than in the civilian sector because of early detection in the military. Further, the civilian sector also offers alternative methods of care, such as home health care, hospices, and nursing homes, that are not available in the DOD health care system.

Also, medical officials expressed concern over whether there would be sufficient health care personnel to care for the increased hospital load that will occur as the number of HIV-infected patients grows and as the number progressing to the later stages increases (requiring more care). According to these military hospital officials, personnel resources for treating the current number of HIV patients are already stretched.

The Office of the Assistant Secretary of Defense (Health Affairs) monitors the number of active duty personnel that have tested positive for HIV infection to assess the potential impact on military operations. DOD also monitors the number of service members on the temporary disability retirement list, the number that have separated, and the number that have permanently retired. It also collects information on the HIV/AIDS disease and recognizes that increased treatment demands will be placed on hospitals as infected individuals become sicker and as the number of infected individuals increases. DOD officials stated that the increased demand for health care will have to be met because health care in DOD is an entitlement. It is unclear to them, however, how to address the need for additional budgetary and personnel resources or the impact that the increased demand will have on DOD facilities.

Little Impact on Military Operations

The impact of HIV/AIDS on military operations has been minimal because only about 2,000 HIV-infected personnel were on active duty as of August 1989, less than 0.1 percent of the active duty force. Those who are HIV infected and who are found to be unfit for active duty are medically retired. Denying individuals entry into the military who test positive for HIV infection and retiring personnel unfit for duty should continue to minimize the future impact on operations.

Unit commanders expressed differing views about the impact that HIV-infected members have on their unit's operations, but none believed that these individuals affected the unit's ability to perform its mission. Some commanders indicated that HIV-infected personnel were good performers. A few commanding officers expressed concern about potential accidents and administering first aid to HIV-infected persons. This was of particular concern to commanding officers overseeing industrial operations. Others expressed concern about duty restrictions and the potential adverse impact on unit cohesiveness in the event the unit was deployed. Some also expressed concern about HIV-infected personnel being absent from duty for medical evaluations, while others expressed concern about all personnel being absent from duty for HIV testing and education.

Conclusions

There are several indications that the impact of HIV/AIDS on DOD's health care system will increase, especially in those hospitals designated as evaluation hospitals. DOD Health Affairs and the services have collected a great deal of data on HIV/AIDS. While DOD recognizes the disease's potential effect, it is unclear how DOD plans to accommodate the increased demand for health care services as a result of HIV/AIDS from a budgetary, personnel, or facility perspective.

Even though DOD does not normally plan or budget by specific disease or diagnosis, the complexity of this disease and the potential effect it could have on DOD's health care system may warrant an exception to this practice. AIDS is an expensive disease to treat and treatment is labor intensive. Both the financial and staffing resources that may be required of DOD to provide care to its HIV-infected beneficiaries may adversely affect DOD's health care system if plans are not made to accommodate these increased demands for resources.

The impact of HIV/AIDS on military operations has not been severe since the number of personnel infected is relatively small compared to the total active duty population. The impact on operations during the next few years will likely be minimal as well. DOD would have to experience a large increase in the number of active duty members testing HIV positive and remaining on active duty to pose a significant problem for military operations. With preinduction screening and other preventive efforts, this occurrence is unlikely.

Recommendation

We recommend that the Secretary of Defense develop plans for dealing with the increased demand for HIV-related care. Such plans should address the need for financial, staffing, and facility resources, including:

- budgeting for treatment costs, especially prescription drugs;
- assessing which hospitals, based on staffing and bed capacity, could accommodate the projected work load; and
- determining how DOD will meet needs for chronic care since its hospitals are currently better suited to provide acute care.

Agency Comments

DOD concurred with our conclusions and recommendation. In April 1990, the Assistant Secretary of Defense for Health Affairs will task the services with developing financial, staffing, and facility resources plans for dealing with the increased demand for HIV-related services. DOD stated

that long-range planning may be complicated by uncertainty surrounding what percentage of infected military health care beneficiaries will continue to seek care from the military system rather than the Department of Veterans Affairs. They said they would continue to monitor the extent to which HIV/AIDS-infected patients use DOD facilities.

Organizations and Facilities Visited by GAO

We conducted our work at DOD and service headquarters, eight installations, and 11 hospitals. At DOD, we obtained information from officials of the Offices of the Assistant Secretaries of Defense for Health Affairs and Force Management.

At the service headquarters level, we obtained information from officials responsible for HIV medical and personnel issues. We met with officials from each service's Office of the Surgeon General. In the Army, we met with officials from the Health Services Command, Fort Sam Houston, Texas, and the Office of the Deputy Chief of Staff for Personnel, Washington, D.C. In the Navy, we met with representatives of the Naval Medical Command, Washington, D.C., and the Office of the Chief of Naval Operations, Arlington, Virginia. In the Air Force, we met with officials from the Office of the Deputy Chief of Staff for Personnel, Washington, D.C.; the Air Force Military Personnel Center, Randolph Air Force Base, Texas; and the Air Force School of Aerospace Medicine and the Air Force Human Systems Division, Brooks Air Force Base, Texas.

At the installations, we obtained information from commanders and unit commanders. At the hospitals, we obtained information from the hospital commanders or their representatives in the following or comparable departments or divisions:

- Community and Mental Health.
- Dentistry.
- Financial/Resource Management.
- Infection Control.
- Infectious Disease.
- Internal Medicine.
- Medicine.
- Nursing.
- Pathology.
- Patient Administration.
- Pharmacy.
- Preventive Medicine.
- Psychiatry.
- Psychology.
- Radiology.
- Social Work.

The hospitals and installations we visited represented a range of size, mission, number of HIV-infected personnel, involvement in the HIV program, and geographic location. Six of the 11 hospitals play a significant

role in the HIV program because they conduct medical evaluations and provide medical care to HIV/AIDS patients. Other hospitals selected had limited involvement in the program, but were collocated with installations that have large active duty populations and high priority for military deployment or both. We visited the hospitals and installations listed below.

Department of the Army

- Brooke Army Medical Center, San Antonio, Texas.
- Walter Reed Army Medical Center, Washington, D.C.
- Darnall Army Community Hospital and Fort Hood, Kileen, Texas.
- Kimbrough Army Community Hospital and Fort Meade, Fort Meade, Maryland.
- Womack Army Community Hospital and Fort Bragg, Fort Bragg, North Carolina.

Department of the Navy

- National Naval Medical Center, Bethesda, Maryland.
- San Diego Naval Hospital, San Diego, California.
- San Diego Naval Station, San Diego, California.
- Portsmouth Naval Hospital, Portsmouth, Virginia, and Norfolk Naval Base and Shipyard, Norfolk, Virginia.

Department of the Air Force

- Langley USAF Hospital and Langley Air Force Base, Hampton, Virginia.
- Malcolm Grow USAF Medical Center and Andrews Air Force Base, Andrews Air Force Base, Maryland.
- Wilford Hall USAF Medical Center, Lackland Air Force Base, Texas.
- Air Force Military Personnel Center, Randolph Air Force Base, Texas.

Comments From the Department of Defense

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

HEALTH AFFAIRS

16 FEB 1990

Mr. David P. Baine
Director, Federal Health Care
Delivery Issues
Human Resources Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Baine:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE HEALTH CARE: Effects of AIDS in the Military," dated December 19, 1989 (GAO Code 101327/OSD Case 8208). The DoD concurs with the GAO findings and the recommendations.

Guidance on the identification, surveillance, and administration of personnel infected with the Human Immunodeficiency Virus (HIV) is contained in an August 4, 1988, Deputy Secretary of Defense memorandum. The memorandum recognizes that current scientific knowledge about this disease is essential to the formulation of sound DoD policy. HIV-infected individuals are denied appointment or enlistment for military service and periodically evaluated for medical fitness for duty for continued service in the same manner as personnel with other progressive illnesses. The policy ensures the safety of the blood supply and establishes aggressive disease surveillance and health education programs. The DoD is in the process of issuing this policy in Directive format. The Directive will be forwarded to the Secretary of Defense within 60 days.

The DoD is pleased that the GAO found the Services implementing an appropriate and comprehensive testing program with a quality control program that ensures the accuracy of its HIV testing. The GAO further noted that HIV/AIDS has had little impact on military operations. The GAO specifically recommended that the DoD modify current education programs to focus on changing high risk behaviors and discussing safe sex practices, while evaluating these education efforts. The DoD concurs with these recommendations and will direct their implementation in April 1990, in a memorandum from the Assistant Secretary of Defense for Health Affairs to the Services. However, the successful implementation of these

recommendations may be impeded, because some behaviors associated with transmission of the virus are currently considered illegal or incompatible with military service. In April 1990, the DoD will also direct the Services to develop plans for the perceived increased demand for HIV-related medical care.

The detailed DoD comments on the report findings and recommendations are provided in the enclosure. The Department appreciates the opportunity to comment on the GAO draft report.

Sincerely,

Enrique Mendez, Jr., M.D.
Principal Deputy Assistant Secretary

Enclosure
as stated

GAO DRAFT REPORT - DATED DECEMBER 19, 1989
(GAO CODE 101327) OSD CASE 8198

"DEFENSE HEALTH CARE: EFFECTS OF AIDS IN THE MILITARY"

DEPARTMENT OF DEFENSE COMMENTS

* * * * * *

FINDINGS

FINDING A: Acquired Immunodeficiency Syndrome. The GAO explained that acquired immunodeficiency syndrome (AIDS) is a relatively new disease that impairs the body's immune system and leaves infected individuals susceptible to infections. The GAO observed that there is currently no known cure for AIDS--nor is there a vaccine to prevent the spread of the human immunodeficiency virus (HIV) that causes AIDS. The GAO observed, however, there is at least one drug, azidothymidine or AZT, that prolongs the lives of people with the HIV infection and AIDS. The GAO noted that the U.S. Surgeon General stated that the virus is not spread by casual contact--rather, it is primarily spread through intimate sexual contact and the use of shared hypodermic needles and syringes by intravenous drug users. The GAO further noted that AIDS can also be spread via contaminated blood to persons receiving blood transfusions and by infected pregnant women transmitting the disease to their unborn children. The GAO emphasized that the disease affects every segment of the U. S. population--including the military.

According to the GAO, by July 1989, 102,621 cases of AIDS and over 59,000 known deaths had been reported by the U.S. Centers for Disease Control. The GAO indicated that the Centers for Disease Control estimates that from 1 to 1.5 million Americans are infected with HIV--and epidemiological research indicates that more than half of those who carry the virus will develop AIDS within 10 years of their initial infection. (The GAO observed that medical experts believe that, eventually, almost all individuals infected with HIV will develop AIDS or AIDS-related complex--a disease that can also be debilitating or fatal.)

The GAO indicated that reports of hospital costs over the lifetime of an AIDS patient have ranged from $25,000 to $147,000--although a 1988 review of overall studies of the costs associated with AIDS treatment suggests that the lifetime per patient costs of medical care will not exceed $80,000 and will be comparable to the costs of treating other serious illnesses. (p. 2, pp. 13-15/GAO Draft Report)

Now on pp. 2 and 8-9.

DoD Response: Concur. The DoD recognized the potential impact of HIV/AIDS in the military in late 1985 and early 1986, when it began a program of screening applicants for military service and active duty personnel, provided counseling and physical

Enclosure

examinations for its infected members, and mandated an education program directed at preventing transmission of the virus.

FINDING B: Development of a Comprehensive DoD Testing Policy and Program. The GAO found that, recognizing the significant affect HIV could have on military personnel and the potential for impacting military operations, the DoD established a comprehensive testing program to assess and monitor the prevalence of HIV infection. The GAO observed that the DoD based its HIV testing policy on a number of factors--designed to protect HIV-infected and uninfected members. The GAO observed that, through mandatory HIV testing, the DoD can (1) protect HIV-infected Service Members from being assigned to areas where they might be at risk to endemic disease, (2) help assure that HIV-infected members will not receive live vaccine inoculations that could be hazardous to their health, (3) help ensure the safety of the blood supply and decrease the potential transmission of the virus to other individuals under battlefield or contingency conditions, and (4) respond to the requirement of some foreign countries that the military certify that its personnel are free of HIV infection before entry into those countries.

The GAO described the DoD testing program as consisting of three components, as follows:

- first, all civilian applicants for Military Service are tested to prevent HIV-infected individuals from appointment or enlistment into the Military;

- second, all Active Duty, Reserve, and National Guard members undergo both initial HIV tests and periodic retesting; and

- third, the DoD also requires testing of active duty personnel who (1) seek prenatal care, (2) obtain services for sexually transmitted disease, or (3) are enrolled in drug and alcohol programs.

The GAO found that the retesting policies of the Military Services differ and are designed to meet the individual needs of each service--based on cost and the rate of incidence of HIV infection. The GAO reported that the Army and Air Force plan to retest personnel every 2 years--while the Navy plans to retest personnel serving in overseas and deployable units annually and the remainder of its personnel in conjunction with their routinely scheduled physical examinations (which vary according to rate, age, and occupation).

The GAO reported that, since October 1985, the Army has conducted applicant screening for all branches of Military Service--testing about 750,000 recruits annually. The GAO

observed that, from October 1985 to June 1989, over 2.1 million applicants were tested under this program and 2,752 individuals were diagnosed as HIV-infected and declared ineligible for Military Service. The GAO further reported that, in October 1985, the Military Services also began HIV screening of Active Duty members; as of October 1989, the Services had screened over 2.1 million of their approximately 2.3 million Active Duty members at an average cost of $4 per HIV test--identifying 6,269 HIV-infected members (2,390 Army; 2,942 Navy; 937 Air Force). The GAO concluded that the DoD has done a good job of assessing and monitoring the prevalence of HIV infection among military personnel. (p. 3, p. 5, p. 15, pp. 19-21/GAO Draft Report)

Now on pp. 2, 9, and 12-13.

DoD Response: Concur. The applicant and active duty screening programs continue to be integral parts of the DoD effort to monitor the status of HIV infection among applicants for military service and active duty personnel. As of December 1989, the rates of infection in both populations remain constant. The DoD will continue to monitor the infection among its applicant and military populations. The Navy and Marine Corps will initiate a third all force screening in FY 1990.

FINDING C: Methods Used to Accomplish Testing. The GAO found that Service officials responsible for implementing the testing program developed similar methods to carry out testing requirements. At each location it visited, the GAO found that those Service officials responsible for testing used a personnel roster to schedule HIV testing--with alternate test dates available for personnel who could not report on their scheduled dates. The GAO reported that in each Military Service the member presented a military identification card to the medical personnel drawing the blood sample--who recorded each member's identifying information, such as name, rank, social security number, and unit, on the required forms and sample containers. (p.15, p.22/GAO Draft Report)

Now on pp. 12-13.

DoD Response: Concur. The DoD continues to use this same method to accomplish testing.

FINDING D: Systems Used to Track Testing of Personnel. The GAO reported that, in 1985, the Assistant Secretary of Defense for Health Affairs established a central management information system--the Reportable Disease Data Base--in order to provide DoD and Service management with information in infectious diseases. The GAO observed that, in addition to providing information on other communicable diseases, each Military Service also supplies HIV test data on all military personnel to the Reportable Disease Data Base. The GAO noted that the Services also used their personnel information system to monitor testing coverage. (pp. 22-23/GAO Draft Report)

Now on p. 14.

DoD Response: Concur. The Reportable Disease Data Base provides management information on HIV to each Service and prevalence data to the Office of the Assistant Secretary of Defense (Health Affairs). It is being expanded to include other diseases of military importance.

Now on p. 14.

FINDING E: Other HIV Testing. The GAO found that the DoD policy requires that all members have a current HIV test before assignment to overseas locations. The GAO further found that all military members seeking services for sexually transmitted diseases, prenatal care, and drug and alcohol abuse must also undergo HIV tests. The GAO found that, in addition, the Military Services screen blood donors before accepting blood and offer HIV testing to dependents of military personnel on a voluntary basis. The GAO observed that the DoD policy does not preclude the Services from imposing additional testing requirements, as determined to be appropriate. (pp. 23-24/GAO Draft Report)

DoD Response: Concur. A draft Directive consolidating the August 4, 1988, Deputy Secretary of Defense memorandum and other HIV-related DoD policies proposes to continue to mandate testing for individuals potentially at greatest risk of infection, and monitoring of the blood supply. The draft Directive is currently out for comment and will be forwarded for Secretary of Defense signature within 60 days.

FINDING F: DoD Quality Control Testing Requirements. The GAO found that the DoD has established several quality control measures to help assure the accuracy of its AIDS program. The GAO observed that the DoD uses two different tests to detect HIV--the first is called the Enzyme-Linked Immunosorbent Assay (or ELISA) test--a Food and Drug Administration-approved screening test. The GAO described the ELISA test as simple to perform and interpret, but producing a relatively high rate of false positive results--that is, positive test results for individuals who have not actually been infected with the virus. The GAO observed that a positive ELISA test must, therefore, be confirmed by a more specific test--the Western Blot. The GAO found that the DoD requires two positive ELISA test results and one positive Western Blot test result on two different blood samples before an individual is considered to be HIV positive.

The GAO reported both Military Service and commercial laboratories perform the ELISA and Western Blot tests for the Services. Because of the possibility of errors in interpreting HIV tests, the GAO observed that the DoD requires the Service laboratories, as well as those with whom they contract, to meet certain standards. The GAO observed that the contract includes stiff penalties for poor performance--failure to meet a 95 percent accuracy rate on tests obligates the contractor to repeat every Western Blot test performed during the preceding month free of charge. The GAO noted that one laboratory within each Service monitors the accuracy of HIV test results. The GAO also reported that, in 1987, the DoD Inspector General conducted an audit of HIV testing in each Military Service to determine compliance with the quality assurance requirements--and concluded the Services followed procedures that adequately ensured conformity with DoD standards for producing reliable test results. The GAO concluded that the DoD HIV testing program, which incorporates quality control standards to ensure accurate test results, has enabled the DoD

Page 4

Now on pp. 14-15.

to assess and monitor the prevalence of HIV infection within the Military. (pp. 24-25/GAO Draft Report)

DoD Response: Concur. The DoD will continue to monitor quality control aspects of the testing program. The draft Directive referred to in the DoD response to Finding E further mandates quality control efforts in the area of CD-4 cell counts.

FINDING G: DoD Policies on HIV/AIDS Education. The GAO observed that DoD policies require that an HIV/AIDS education program be offered to all beneficiaries of the military health care system. The GAO found, however, that while the regulation for each Military Service requires the education be provided, the Military Service policies vary with respect to the amount and frequency of the education required. The GAO noted that, between October 1985 and August 1988, DoD policy guidance on HIV-AIDS education instructed the Services to implement an "appropriate AIDS education program." In an October 1988 memorandum, the DoD further instructed the Military Services to ensure that commanders receive general educational information about HIV. In November 1988, the DoD provided the Military Services with additional HIV-AIDS information and an education program framework (1) specifying groups that should receive the HIV-AIDS education, (2) identifying methods or mediums to provide the education, and (3) establishing time frames for educating the selected groups. (p. 4, pp. 27-29/GAO Draft Report)

Now on pp. 17-18.

DoD Response: Concur. The DoD has placed the responsibility to educate its members with each Service. The framework, developed by a Tri-Service working group, provides goals for the Services.

FINDING H: Various HIV-AIDS Education and Information Provided at Service Installations. The GAO found that, at the installations it visited, the methods used to provide HIV/AIDS education varied--although similar information was provided. The GAO concluded, however, that the education programs generally did not focus on high risk behaviors--rather, they were primarily designed for the general military population. The GAO noted that, because the Services do not centrally monitor education, information on the number of individuals who received education and the types of education received was not available.

- Experts' Suggestions Regarding Education--The GAO noted that the U. S. Surgeon General and the National Academy of Sciences Institute of Medicine advocate education as the most effective way to reduce significantly the spread of HIV infection. The GAO pointed out that both suggest providing general educational information about the disease--as well as specifically focused information on modifying high risk behaviors, such as IV drug use and homosexual or bisexual activity.

- Effectiveness of Education Unknown--The GAO reported that research on AIDS education is inconclusive because the disease is relatively new and there has not been sufficient time to establish research plans and measure the effectiveness of educational campaign efforts. The GAO noted that neither the DoD education programs nor many public AIDS education programs include an evaluation component-- which would facilitate assessment of the program's effectiveness.

- DoD 1988 Health Behaviors Survey. The GAO did note, however, that although the effectiveness of the DoD education programs has not been evaluated, the DoD conducted a 1988 survey of health behaviors--which included questions on HIV-AIDS. The GAO reported that the survey indicated military personnel are generally aware of the major means of transmission and prevention--but still have some misconceptions. The GAO noted, for example, that about 25 percent wrongly believed the infection could be transmitted by dining in a facility where a cook has AIDS.

The GAO concluded that the DoD education program will undoubtedly assist in controlling the spread of the disease. The GAO further concluded, however, that in addition to the general information program, the education efforts should focus on the high risk groups. The GAO also concluded that, without an evaluation component, the DoD does not know if it is (1) effectively communicating the message to those individuals at greater risk of becoming infected and (2) spending prevention funds in the most effective manner. (p. 6, p. 32, p. 34, p. 35/GAO Draft Report)

Now on pp. 3 and 18-21.

DoD Response: Concur. The DoD agrees that education is the only method currently available to reduce the spread of HIV infection. In November 1988, the DoD provided the Services with an educational and informational framework that specified which groups should receive education. This framework is an enclosure to the draft Directive referred to in the DoD response to Finding E. In April 1990, the DoD will direct the Services to budget for and to add an HIV evaluation component to their educational programs to determine their effectiveness.

Several factors regarding the GAO's findings must be considered. First, the DoD agrees that educational efforts are best addressed toward behaviors that put individuals at risk rather than solely at groups. Second, certain high risk behaviors are incompatible with military service and/or are illegal, thus educational efforts may be more difficult. Third, the correlation between effective educational efforts, as measured by evaluation efforts, and changes in attitude and behavior are unknown. The evaluation program will strive to identify those messages that are most effective. Fourth, even

with the additional efforts recommended by the GAO, the incidence rates may have reached an irreducible minimum without further interventions, i.e., vaccines.

FINDING I: Counseling Provided to HIV Infected Members. The GAO found that, to contain the spread of HIV, the DoD requires preventive medicine counseling for active duty personnel who test positive for the infection. The GAO observed that, in addition, HIV-infected personnel receive orders to follow preventive measures--including informing potential sex partners and medical personnel of their HIV status--and they are directed not to donate blood. The GAO further observed that each HIV-infected individual is required to sign a statement (1) acknowledging the counseling was received and (2) confirming an understanding of the information and safeguards to follow to prevent transmission of the virus. The GAO reported that failure to comply with these orders is grounds for disciplinary action, including discharge. The GAO concluded that the DoD has taken several steps to control the spread of HIV within the military. The GAO further concluded that the preventive measures taken by the DoD will undoubtedly assist in controlling the spread of HIV infection. (p. 33, p. 34/GAO Draft Report)

Now on p. 20.

DoD Response: Concur. Counseling measures are emphasized in the August 4, 1988, Deputy Secretary of Defense memorandum and are emphasized in the proposed DoD draft Directive referred to in the DoD response to Finding E.

FINDING J: Other DoD Prevention Efforts. The GAO found that, in addition, the DoD offers HIV/AIDS education to dependents and other DoD beneficiaries. The GAO also found that health care workers receive education on prevention of transmission and caring for HIV-infected patients. The GAO reported that, according to military hospital officials, they follow the Centers for Disease Control universal precautions to prevent transmission in health care settings by treating all patients as if they have a transmissable disease. The GAO further found that DoD hospitals closely monitor needlestick injuries in health care workers caring for HIV-infected patients by periodically testing the worker for HIV and offering AZT.

The GAO also found that DoD policy requires that Food and Drug Administration guidelines, Armed Services Blood Program Office policies, and accreditation requirements of the American Association of Blood Banks be followed to ensure the safety of the blood supply. The GAO noted the DoD hospitals also review blood donations to determine whether HIV-infected individuals had received or donated blood. The GAO further noted that some military bases also make condoms readily available for sale or provide them free of charge.

The GAO concluded that the DoD has taken numerous steps to control the spread of HIV within the military and that the preventive measures will undoubtedly assist in controlling the spread of HIV infection. (pp. 33-34/GAO Draft Report)

Now on pp. 20-21.

DoD Response: Concur. The DoD will continue to develop applicable preventive medicine strategies, in cooperation with the U.S. Public Health Service and other federal and non-federal agencies.

FINDING K: DoD Hospitals Have Been Affected Significantly by HIV Program. The GAO found that implementing the DoD HIV program has affected military hospitals because the program was a major undertaking--involving testing, medical evaluation and treatment. The GAO noted that, in most instances, the added duties were performed without additional staff or funds. The GAO found that hospitals had to redirect personnel from other areas of the hospital to conduct HIV testing and to perform medical evaluations.

- Testing Program--The GAO observed that the HIV testing program constituted a major challenge and placed a strain on military hospital resources. According to the GAO, to implement the testing program, staff worked long hours over extended periods of time, hospitals contracted out laboratory work previously performed in-house, and purchases of equipment and supplies were deferred because funds were diverted to the HIV program. The GAO noted that Navy laboratories experienced the greatest impact because they performed the initial HIV test in-house and, for the most part, absorbed the workload with existing resources.

- Medical Evaluation and Treatment--The GAO observed that medical evaluations and outpatient treatment accounted for most of the services that hospitals provide to HIV-infected members. The GAO noted that the medical condition of each HIV-infected member is assessed and periodically re-evaluated at one of the ten designated DoD hospitals, currently as follows:

--	Army	Brooke, Madigan, Fitzsimmons, Walter Reed, and Eisenhower;
--	Navy	Bethesda, Oakland, Portsmouth, and San Diego; and
--	Air Force	Wilford Hall.

The GAO indicated that, from 1985 through July 1989, the Military Services conducted about 13,000 medical evaluations, including initial and subsequent re-evaluations of HIV-infected members--Army hospitals conducted 6,533 evaluations, while the Navy and Air Force conducted 5,307 and 830, respectively.

The GAO concluded that the impact of HIV-AIDS on military hospitals has been significant, primarily because of the mass testing--straining hospital resources to varying

Now on pp. 3 and 23-25.

degrees and requiring tradeoffs. The GAO observed, however, that according to DoD health care officials, the HIV-AIDS program has not impaired the quality of health care delivery to other patient populations. (p. 4, pp. 37-41/GAO Draft Report)

DoD Response: Concur.

FINDING L: *HIV-AIDS Effects on Military Hospitals Likely to Increase*. The GAO observed it seems inevitable that the demand for patients services and the costs of providing the services for HIV-AIDS patients will increase--for several reasons:

-- first, the size of the DoD HIV-infected population, who are eligible to obtain care from DoD hospitals, will probably increase (as of August 1989, about 4,000 HIV-infected Service Members were eligible for care in the DoD health care system--with about 1,400 new cases of HIV infection expected to be identified annually, along with an unknown number of dependents;

-- second, AZT, which increases the life expectancy of HIV/AIDS patients, will result in patients obtaining medical services for longer periods of time;

-- third, Military Service medical officials expect that most of the DoD HIV-infected population, who are eligible to receive care from a DoD hospital, will continue seeking care in the DoD system rather than in the Veterans Administration medical care system; and

-- lastly, HIV-infected patients will become sicker, requiring more inpatient care (medical experts believe that almost all HIV-infected individuals will develop AIDS or AIDS -related illnesses).

The GAO reported that DoD hospital officials also expressed concern about increasing expenditures for drugs commonly used in HIV-AIDS treatment, such as AZT, pentamidine, and interferon. The GAO pointed out that AZT, which has been proven to prolong the life of an HIV-infected individual and is now recommended for individuals in the early stages of the disease, costs about $6,000 annually per patient. The GAO reported the Military Services estimate that about 69 percent of their HIV-infected populations qualify for early treatment with AZT. The GAO noted, for example, that the Army FY 1990 estimated budget for AZT is $13.1 million compared to $1.1 million for CY 1989. The GAO pointed out that, in addition, pentamidine costs about $100 per dose ($2,100 for a 21-day

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period)--with some patients requiring multiple treatments. The GAO estimated that interferon costs $1,000 per week--and treatment can last from a few weeks to a few months. The GAO noted that, because military hospitals do not budget or account for costs by specific illness or diagnosis, the total costs of HIV-AIDS treatment are not known--they are simply absorbed in the hospital operating budgets.

The GAO reported that medical officials at the hospitals it visited expressed concern about their ability to handle the increased workload and costs--indicating that it is unclear how the expected demands for HIV-related health care will be met from a personnel, facility or budget perspective. The GAO also reported there is concern over whether there will be sufficient health care personnel to care for the increased hospital case load--which will occur as the number of HIV-infected patients grow and the number progressing into the later stages of the disease process increase--thus requiring more care. The GAO observed that, at the DoD headquarters level, there is considerable monitoring of the number of Active Duty personnel who have been tested positive for the HIV infection--in order to assess the potential impact. The GAO reported that, according to DoD officials, notwithstanding the impact, the increased demand for health care will have to be met because health care in the DoD is an entitlement. The GAO concluded that there are several indications that the impact of HIV-AIDS on the DoD health care system will increase--especially in those hospitals designated as evaluation hospitals. The GAO further concluded, however, that although the Office of the Assistant Secretary of Defense for Health Affairs and the Military Services have collected a great deal of data on HIV-AIDS and recognize the potential effect of the disease, it is unclear how the DoD plans to accommodate the increased demand for health care services as a result of HIV-AIDS--from a budget, personnel, or facility perspective. (p. 4, pp. 41-47, p. 48/GAO Draft Report)

Now on pp. 4 and 25-28.

DoD Response: Concur. In April 1990, the Assistant Secretary of Defense for Health Affairs will task the Military Services to develop plans for dealing with the increased demand for HIV-related services. The plans will include the need for financial, staffing, and facility resources. The GAO cites an increased demand for patient services and increased costs (patients, therefore, will seek care from the DoD system rather than the Veterans Administration), and implies that, as patients become sicker they will require more inpatient care from the DoD system, rather than the Veterans Administration. Although these GAO findings are based on data currently available, this situation may change over time, thus making long-range planning difficult. The DoD will continue to monitor the situation carefully.

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FINDING M: HIV-AIDS Has Had Little Impact on Military Operations. The GAO found that, because only about 2,000 HIV-infected personnel were on active duty as of August 1989 (i.e., less than one-tenth of 1 percent of the Active Duty Force), the impact of HIV-AIDS on military operations has been minimal. The GAO reported that those who are HIV-infected and who are found to be unfit for active duty, are medically retired. The GAO concluded that denying entry into the Military Services of those individuals who test positive for the HIV infection and retiring personnel unfit for duty should continue to minimize the future impact on operations.

The GAO noted that individual unit commanders expressed differing views about the impact that HIV-infected members have on their unit operations--but none believed these individuals affected the unit's ability to perform its missions. The GAO found that a few commanding officers expressed concern about potential accidents and administering first aid to HIV-infected persons--this was of particular concern to commanding officers overseeing industrial operations. The GAO reported that some commanding officers also expressed concern about duty restrictions and the potential adverse impact on unit cohesiveness in the event the unit was deployed--some also expressed concern about HIV-infected personnel being absent from duty.

The GAO concluded that the impact of HIV-AIDS on military operations has not been severe because the number of personnel infected is relatively small compared to the total Active Duty population. The GAO further concluded that the impact on operations during the next few years will likely continue to be minimal as well. The GAO observed that the DoD would have to experience a large increase in the number of Active Duty Members testing HIV-positive and remaining on active duty to pose a significant problem for military operations--a situation unlikely to occur with current pre-induction screening and the other preventive efforts. (pp 7, pp. 47-48, p. 49/GAO Draft Report)

Now on pp. 4 and 28.

DoD Response: Concur. The percentage of personnel on active duty who are HIV-infected has remained at less than one-tenth of one percent for eighteen months. The DoD effort in the area of education, attitude change, and behavior modification with regard to the prevention of HIV infection may eventually aid in the reduction of the current incidence rate.

* * * * *

RECOMMENDATIONS

Now on pp. 5 and 21.

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense modify the DoD HIV-AIDS education programs to focus on (1) changing high risk behaviors and (2) discussing safe sex practices. (p. 9, p. 36/ GAO Draft Report)

DoD Response: Concur. The DoD agrees that education is the only method currently available to reduce the spread of HIV infection. In November 1988, the DoD provided the Services with an educational and informational framework that specified which groups should receive education. This framework is also readdressed in the draft Directive on HIV referred to in the DoD response to Finding E. The Directive is expected to be forwarded for Secretary of Defense signature within 60 days.

Implementing an information and education program that focuses more specifically on sexual practices and needle sharing presumably will require strategies involving behavioral medicine interventions for one-to-one counseling and small group instruction. This type of targeted education is expected to require more resources. Inherent in the proposed Directive on HIV is that the Services will budget specifically for HIV education and evaluation in the Defense Budget.

Several factors exist that may decrease the effectiveness of the GAO recommendations when they are implemented. First, the DoD agrees that educational efforts are best addressed toward behaviors that put individuals at risk, rather than solely toward groups. Second, certain high risk behaviors are incompatible with military service and/or are illegal, thus hampering educational efforts. Third, even with the additional efforts recommended by the GAO, the incidence rates may have reached an irreducible minimum without the availability of further interventions, i.e., vaccines.

Although the above may be potentially limiting factors, the DoD will direct the Services in April 1990, to make their education more specific.

Now on pp. 5 and 21.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense evaluate the effectiveness of the DoD HIV-AIDS education efforts. (p. 9, p. 36/GAO Draft Report)

DoD Response: Concur. In April 1990, the DoD will direct the Services to add an evaluation component to their educational programs to determine their effectiveness. However, the correlation between effective educational efforts, as measured by evaluation efforts, and changes in attitude and behavior are unknown.

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The DoD will also continue to monitor knowledge about HIV/AIDS through its survey of health behaviors. While not a measure of attitude or behavior, the 1988 survey results indicated that many Service personnel still had factual misconceptions about HIV and how it is transmitted.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense develop plans for dealing with the increased demand for HIV-related medical care. The GAO suggested that such plans should address the need for financial, staffing, and facility resources, including the following:

- budgeting for treatment costs, especially prescription drugs;
- assessing which hospitals could accommodate the projected workload--based on staffing and bed capacity; and
- determining how the DoD will meet needs for chronic care--since its hospitals are currently better suited to provide acute care. (p. 9, p. 49/GAO Draft Report)

Now on pp. 5 and 29.

DoD Response: Concur. In April 1990, the Assistant Secretary of Defense for Health Affairs will task the Military Departments to develop plans for dealing with the increased demand for HIV-related services. The plans will include the need for financial, staffing, and facility resources. Although the GAO cites data that may allow initial planning, long-range planning may be complicated by uncertainty surrounding what percentage of infected military health care beneficiaries will continue to seek care from the military system (rather than the Veterans Administration) as treatments and costs change.

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Related GAO Products

AIDS: Delivering and Financing Health Services in Five Communities (GAO/HRD-89-120, Sept. 13, 1989).

AIDS Education: Staffing and Funding Problems Impair Progress (GAO/HRD-89-124, July 28, 1989).

AIDS Forecasting: Undercount of Cases and Lack of Key Data Weaken Existing Estimates (GAO/PEMD-89-13, June 1, 1989).

Pediatric AIDS: Health and Social Service Needs of Infants and Children (GAO/HRD-89-96, May 5, 1989).

Public Health: Centers for Disease Control Staffing for AIDS and Other Programs (GAO/HRD-89-65, Apr. 27, 1989).

AIDS Education: Issues Affecting Counseling and Testing Programs (GAO/HRD-89-39, Feb. 3, 1989).

AIDS Research: NIH Review of Process and Outcome of Applications for Grants and Contracts (GAO/HRD-89-17, Feb. 3, 1989).

AIDS Education: Activities Aimed at the General Public Implemented Slowly (GAO/HRD-89-21, Dec. 16, 1988).

Federal Advisory Committee Act: Presidential Commission on AIDS—Compliance With the Act (GAO/GGD-89-17, Oct. 19, 1988).

AIDS Education: Reaching Populations at Higher Risk (GAO/PEMD-88-35, Sept. 16, 1988).

AIDS: Views on the Administration's Fiscal Year 1989 Public Health Service Budget (GAO/HRD-88-104BR, June 2, 1988).

Issues Concerning CDC's AIDS Education Programs (GAO/T-HRD-88-18, June 8, 1988).

AIDS Education: Printing and Distribution of the Surgeon General's Report (GAO/HRD-88-80FS, Apr. 27, 1988).

AIDS: Information on Global Dimensions and Possible Impacts (GAO/NSIAD-88-51FS, Oct. 28, 1987).

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