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Report to Congressional Requesters

February 1991

**DEFENSE HEALTH
CARE**

**Procurement of an
Interactive Videodisc
Program for AIDS
Education**





Human Resources Division

B-242273

February 13, 1991

The Honorable John Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

The Honorable Martin Olav Sabo
House of Representatives

This report responds to your April 6, 1990, request that we review the Department of Defense's (DOD) efforts to initiate an education program for the military services on acquired immunodeficiency syndrome (AIDS). As agreed with your offices, we (1) identified and evaluated several key decisions regarding the program's development and management, (2) evaluated the legality of DOD's procurement of the AIDS education program, and (3) obtained data on program expenditures through August 1990 and DOD's plans for further expenditures.

Detailed information on program development and management issues is in appendix I. Legal issues related to the procurement are addressed in appendix II.

Background, Scope, and Methodology

The Fiscal Year 1988 Continuing Resolution appropriated \$3 million each to the Army, Navy, and Air Force to initiate an interactive videodisc (IVD) education program on AIDS. IVD instruction uses the technologies of a microcomputer and a videodisc player to form an interactive system that requires the student's participation.

The Office of the Assistant Secretary of Defense for Health Affairs initially assumed responsibility for coordinating the project with the three services in early 1988. The Uniformed Services University of the Health Sciences ultimately managed the project through a contract with the Henry M. Jackson Foundation for the Advancement of Military Medicine for program development and implementation. The Jackson Foundation is a statutorily authorized nonprofit corporation established by the Congress to support the mission of the university and to carry out medical research and education projects in cooperation with the university.

Much of the information we obtained came from discussions with the university's project officer and with officials in the Office of the Assistant Secretary of Defense for Health Affairs and the university's Offices of General Counsel and Contracting. We also reviewed project files to

document the actions taken and to assess whether actions were in compliance with appropriate laws, regulations, and procedures.

Our work was conducted from May to December 1990 in accordance with generally accepted government auditing standards.

Results in Brief

In our view, DOD has adopted a sound and reasonable approach to the acquisition of an IVD program to educate military personnel about the human immunodeficiency virus (HIV) and AIDS. Service officials have been actively involved in the program's direction and management, and program decisions, actions, and expenditures have complied with applicable laws and regulations.

Several key decisions and actions taken in the early stages of the effort appear to have increased the likelihood of success. First, because of its education mission and experience with IVD technology, the university was chosen to manage the project. Second, an oversight committee was established that included representatives from the services and, thus, allowed each service to influence program decisions throughout. Third, a needs assessment was made to identify the target audiences, program and equipment needs, and other requirements. Fourth, existing commercial IVD products were thoroughly and objectively evaluated for potential utility, in view of the needs assessment determinations, before the commencement of program development and production.

DOD's actions concerning the transfer and use of appropriated funds complied with applicable laws and regulations. Its decision to transfer the appropriated IVD funds from the services to the university was permissible. The university reasonably concluded that it had authority to enter into a sole-source contract with the Jackson Foundation to provide the programs and IVD equipment. In addition, funds that were obligated under the 1988 contract still may be spent and may be used to purchase IVD equipment.

As of August 1990, about \$4 million of a \$9 million appropriation had been spent on program production and equipment. The first of four IVD products was delivered to the services in September 1990. All IVD programs are expected to be completed and delivered to the services by August 1992. In all, about \$4.1 million of the funds is expected to be spent on equipment and \$3.7 million on program development. The remaining funds were uncommitted as of August 1990.

As you requested we did not obtain written comments on this report. However, we discussed the report with key DOD officials, who agreed with the information presented.

We are sending copies of this report to various congressional committees, the Secretary of Defense, and other interested parties. If you have any questions please call me on (202) 275-6207. Appendix III lists other major contributors to this report.

A handwritten signature in black ink that reads "David P Baine". The signature is written in a cursive style with a large, looping 'D' and 'B'.

David P. Baine
Director, Federal Health Care
Delivery Issues

Contents

Letter		1
Appendix I		6
Program Development	Key Decision 1: IVD Project Transferred to the University	6
and Management	Key Decision 2: Oversight Committee Created	7
Issues	Key Decision 3: Assessing the Services' Needs	8
	Key Decision 4: Commercial IVD Programs Evaluated	9
	Description and Status of IVD Programs	9
	Expenditures	12
Appendix II		13
Legal Issues on the	Transfer of Funds From the Services to the University	13
Transfer and Use of	University's Sole-Source Contract With the Jackson	14
Appropriated Funds	Foundation	14
	Funds Available to Complete the Contract	15
	IVD Technology Not Procured as Expressed in 1989	15
	Conference Committee Report	15
	Use of Operation and Maintenance Funds for Equipment	16
	Purchase Proper	16
	Procurement Not a Research and Development Effort	17
Appendix III		18
Major Contributors to		
This Report		

Abbreviations

AIDS	acquired immunodeficiency syndrome
DOD	Department of Defense
HIV	human immunodeficiency virus
IVD	interactive videodisc

Program Development and Management Issues

In reviewing DOD's development and management of its AIDS IVD project, we (1) identified key decisions and evaluated their reasonableness, (2) obtained data on expenditures from inception of the project through August 1990 and plans for future expenditures, and (3) determined the production time and estimated cost of the IVD products under development. The following sections discuss key management decisions; our views on the actions taken; and the IVD products, production times, and estimated costs.

Key Decision 1: IVD Project Transferred to the University

Under a continuing resolution for fiscal year 1988, the Army, Navy, and Air Force each received \$3 million in appropriated funds to initiate an IVD program for educating military personnel about AIDS. The services transferred the appropriated funds to the Uniformed Services University of the Health Sciences to manage the AIDS IVD program. In turn, the university awarded a sole-source contract to the Henry M. Jackson Foundation for the Advancement of Military Medicine for development of the program.

Several factors contributed to the services' collective decision to transfer responsibility for the project to the university. One factor was the university's experience in developing computer-based IVD training programs. Another was that a contract between the university and the foundation to undertake a cooperative project to acquire the program would ensure the obligation of the funds before the expiration of the authority for expenditure of those funds.

Shortly after the funds were appropriated in December 1987, an official from the Office of the Assistant Secretary of Defense for Health Affairs met with representatives from the services and the Armed Forces Information Service to discuss implementing an HIV/AIDS education program using IVD technology. Options included (1) having each service procure its own program, (2) consolidating each service's requirements into a joint purchase in the interest of realizing cost savings, and (3) using the university to manage the acquisition project.

In May 1988, representatives from each of the services' HIV program, Health Affairs, Defense Audiovisual Policy, Surgeons General offices, audiovisual information offices, the university, and the foundation met to discuss how best to proceed with the project. The consensus was to transfer responsibility for managing the project to the university, which would then contract with the foundation to provide the program, including all necessary equipment.

To the extent feasible, the foundation, under its nonprofit cost reimbursement contract, was to accomplish the necessary acquisitions through subcontracting. In view of the program envisioned by service representatives to meet the specific needs of the military, and their knowledge of available commercial programs, it was contemplated that development and production efforts would be required. Thus, as stated in the contract with the university, the foundation was "to research, design, develop, test and evaluate a fully functional interactive videodisc (IVD) system."

The group agreed that transferring the project to the university was the most viable option for several reasons. First, the university had the needed expertise. Since 1984, the university had designed and managed development of five computer-based IVD programs to support the education and training of military physicians, nurses, and enlisted personnel. Second, the university had a longstanding relationship with the foundation in carrying out medical research and education projects, and had broad authority to contract with the foundation. Thus, the appropriated funds could be obligated before they expired at the end of fiscal year 1988, which otherwise may not have been accomplished.

The Assistant Secretary of Defense for Health Affairs and the Surgeons General concurred with the group's decision. Using a military inter-agency purchase request, the services transferred the funds to the university in June and August 1988. Military interagency purchase requests are a common DOD procedure when one DOD component obtains services from another DOD component or other federal agency. The university awarded an \$8.9 million cost reimbursable contract to the foundation on September 30, 1988, to provide programs and user equipment for educating and training DOD personnel in the diagnosis and treatment of HIV infection and AIDS.

Key Decision 2: Oversight Committee Created

To oversee the project, the Assistant Secretary of Defense for Health Affairs established an oversight committee composed of representatives from the services and the university. The committee consists of one representative each from the Army, Navy, and Air Force and two representatives, including the chairman, from the university. The committee reviews project plans, progress, and the financial status of the project. The committee is also responsible for ensuring that the HIV/AIDS IVD project is conducted in accordance with applicable laws, directives, and regulations. It will be disbanded within 6 months after project completion—scheduled for September 1992.

At its first meeting in December 1988, the oversight committee established operating procedures and discussed the project management plan developed by the chairman, including project phases and target dates. The committee also agreed that each service, not the university, would identify the target audiences to be educated, develop training objectives, and identify the location and availability of existing audiovisual equipment for HIV/AIDS education.

Our review of committee meeting minutes and discussions with its chairman indicated that the committee has been actively involved in the direction and management of the entire project. Major decisions were discussed at regularly scheduled monthly meetings and approved by the committee before action was taken. Also apparent was that the services, through the committee, have exercised considerable direction and control over the project.

Key Decision 3: Assessing the Services' Needs

In January 1989, before the commencement of production activities, the oversight committee initiated a needs assessment to determine (1) the target audiences or groups that should receive HIV/AIDS IVD training, (2) their training needs, and (3) the availability of IVD user equipment. Committee members contacted appropriate officials in each of the services to obtain this information.

Between January and March 1989, the services submitted memorandums to the committee chairman identifying the audiences. Target audiences selected by the committee were based on these responses. They included personnel seeking services at sexually transmitted disease clinics, all active duty personnel, supervisors, medical personnel, and personnel receiving prenatal care.

The needs assessment also showed that the services used different types of IVD equipment and did not have enough equipment to accommodate an HIV/AIDS training program. The services informed the committee of their needs and the locations at which the equipment was needed.

In July 1989, the oversight committee allocated \$2 million to purchase IVD equipment. The chairman estimated that this would procure about 70 IVD systems per service, unless a quantity discount could be obtained. As equipment prices were lower than expected, the number of systems was increased to over 100 for each service. However, the services' stated needs for IVD equipment greatly exceeded the budgeted amount.

Key Decision 4: Commercial IVD Programs Evaluated

Following the needs assessment, panels reviewed and evaluated existing commercially available programs for possible purchase. The process appeared to be reasonable, thorough, and objective.

To determine the availability of commercial IVD programs, a Request For Information was published in the Commerce Business Daily on January 9, 1989. Vendors were asked to submit written descriptions of their programs for initial evaluation. Nine companies responded to the request but only two had existing programs. The committee then asked to see the programs from the two companies for evaluation.

During April and May 1989, the chairman of the oversight committee convened three review panels of service officials to evaluate the two available IVD programs. The reviewers had expert knowledge in such areas as the medical aspects of AIDS, IVD technology, education, and personnel management. The panels used a process similar to the one the National Institutes of Health uses to evaluate research proposals, the chairman told us. They evaluated the IVD programs in five areas—medical accuracy, educational design, applicability to the military, technical quality, and behavior modification potential.

The review results showed that panel members believed that neither of the two commercial products was acceptable for use by any of the identified target audiences. The panels rejected the commercial IVD products because of inaccurate and dated AIDS information, substandard educational design, limited military relevance, the lack of a behavior modification component, and inferior production quality.

From the results of the evaluation process, the oversight committee concluded that the available products did not satisfy the military's needs and that suitable IVD programs would have to be developed.

Description and Status of IVD Programs

A series of IVD educational programs on HIV/AIDS is being produced that includes separate videodisc programs for (1) sexually transmitted disease clinic patients, (2) the general military population, (3) supervisors, and (4) medical personnel.¹ To minimize development time and cost and maintain quality, the committee directed simultaneous product development. Although production dates for individual programs have changed,

¹Initially, five programs were to be produced, including one for active-duty females. However, this program will be included with the general military population program.

overall, the project completion date has not changed from September 1992.

In addition to the primary programs, four knowledge assessment programs will be developed to augment, evaluate, and reinforce the skills and concepts taught in the primary programs. The knowledge assessments, designed in a quiz format, will be used in conjunction with the primary programs.

The university's Center for Interactive Media, in conjunction with subcontractors engaged by the Jackson Foundation, is producing the IVD programs. Neither the center nor the foundation had sufficient resources or technical capabilities to produce all the programs. Thus, technical services, such as filming, editing, acting, and duplication, were subcontracted to private sector organizations. The center will codevelop three IVD programs with the private sector, and the private sector will develop one program in its entirety.

The time and cost of producing an IVD program depends upon many variables. Program complexity, filming sophistication and location, number of IVD disk sides,² required reviews, and number of personnel working on the program significantly affect IVD production time and cost, the project officer said. The length of time to produce an IVD can range from 6 to 48 months. Simple IVD programs may cost about \$115,000 per side, and complex programs as much as \$400,000 per side. The costs of DOD's programs range from \$125,000 to \$1.4 million or \$125,000 to \$350,000 per side.

The IVD programs are in various stages of production. As of September 1990, one project—targeted at the sexually active, particularly those seeking services at sexually transmitted disease clinics—had been completed. The following sections describe the educational programs that will be produced for each audience and include information on production times and estimated costs.

²A videodisc resembles a music record in that both have two sides that contain tracks or sections that can be randomly accessed.

**Sexually Transmitted
Disease Clinics**

This program, targeted at every sexually active service member, is composed of three 30-minute modules—entitled “Risks,” “Protection,” and “Buddy System.” Production was started in August 1989 and completed in August 1990, about one month earlier than projected. The cost of this three-sided program was \$807,000.

Supervisors

This program will provide training for military and civilian supervisors dealing with HIV/AIDS issues in the workplace. It is a single-sided 30-minute disk that will be produced by the private sector at an estimated cost of \$310,000. Production started in October 1989, and delivery is projected for March 1991.

**General Military
Population**

This program will be targeted to all military personnel and composed of four modules that cover the facts and myths of HIV transmission, risky behavior, perinatal transmission, and prevention methods. Each module may be used independently or in combination with the others. The estimated cost of this four-sided program is \$1.4 million. Production began in February 1990, and delivery is projected for October 1991.

Medical Personnel

This program will teach medical personnel the proper preventive measures and precautions to be taken when treating HIV/AIDS patients in military health care facilities or when dealing with body fluids or blood products. It will also include instruction in the treatment and medical management of patients injured by natural disaster or by acts of war whose HIV status is unknown. The estimated cost of this two-sided program is \$400,000. Production started in August 1990, and projected delivery is January 1992.

Knowledge Assessment

The knowledge assessment products will consist of four 30-minute disks and will cost about \$125,000 per product. The assessment programs are scheduled for delivery between the first quarter of fiscal year 1991 and the first quarter of fiscal year 1992.

Expenditures

As of August 1990, about \$4 million had been spent on the program production and equipment, about \$1.5 million of this on the direct development of IVD programs or subcontracts for program development or services. Each of the three military services will receive 200 copies of each IVD program. The other \$2.5 million has been used to purchase 367 IVD display platforms that are needed to show the IVD programs and on equipment needed to produce the videodiscs.

IVD equipment includes videodisc players, computers, and monitors. To ensure compatibility with existing hardware, the services requested the same type of equipment that they had purchased for other military programs. A total of 367 units have been purchased and will be distributed to the locations designated by the services. The Army will receive 120 units to operate on its Electronic Information Delivery System; the Air Force, 105 Sonyview 5000 units; and the Navy, 72 Sonyview 5000 and 40 Computer Assisted Medical Information System units. In addition, 30 more units were ordered for training and demonstration, of which the university will receive 10 units to train its students.

The distribution of funds is projected at \$4.1 million for IVD equipment and \$3.7 million for program development and delivery. Any remaining funds will be used to pay unanticipated program costs or buy additional equipment, or the funds may be returned to the U.S. Treasury.

Legal Issues on the Transfer and Use of Appropriated Funds

We reviewed several legal issues bearing on the transfer to and use of appropriated funds by the Uniformed Services University of the Health Sciences for the acquisition of IVD training programs.

The following are our conclusions.

- Funds were transferred properly to the university from the Army, Navy, and Air Force.
- The university has authority to contract with the Henry M. Jackson Foundation for the Advancement of Military Medicine for cooperative enterprises in medical education, which arguably may include the development of IVD programs for the training of military personnel.
- Appropriated funds obligated under a 1988 contract remain available for completion of the contract.
- Funds have been expended in a manner consistent with the statute under which the appropriation was made, although contrary to subsequent congressional expressions of intent.
- The use of operation and maintenance funds to procure video equipment for viewing the videodiscs was proper.
- The contract between the university and the foundation is not a research and development effort as that term is generally used and thus was properly funded with operation and maintenance funds as a contract for supplies and services.

Transfer of Funds From the Services to the University

Under a continuing resolution for fiscal year 1988, the Army, Navy, and Air Force each received \$3 million in appropriated funds to initiate a self-guided IVD program for educating military personnel about AIDS. These funds, totaling \$9 million, were transferred properly to the university for the purpose of contracting for a uniform program that would meet DOD's specific needs.

The funds were transferred under the provisions of 31 U.S.C. 1535(a), which authorizes the head of an agency or major organizational unit to place orders for goods or services that an agency or unit filling the order may be able to provide or procure by contract. To exercise this authority, the head of the ordering agency or major organizational unit must decide that placement of the order is in the best interests of the government and that the ordered goods or services cannot be provided as conveniently or more economically by a commercial enterprise.

DOD made the required determinations to permit the transfer. It decided that transfer to the university was in the best interests of the government in that it would permit procurement of a coordinated program meeting the specific needs of all the services and would be compatible with the services' existing IVD equipment and consistent with a departmentwide standard for IVD programs (under development at that time). Moreover, DOD determined that the joint acquisition of the HIV/AIDS IVD program would result in a more efficient and economical use of the appropriated funds than would be accomplished through separate purchases by the three services.

University's Sole-Source Contract With the Jackson Foundation

Following its receipt of the funds from the military departments, the university awarded a contract to the Jackson Foundation to provide the IVD programs and procure related equipment. The university's Center for Interactive Media, in cooperation with the foundation, and subcontractors engaged by the foundation are producing the IVD programs. The university has authority to contract with the foundation for cooperative enterprises in medical education, consultation, and research, which arguably may include the production of an HIV/AIDS IVD program for training military personnel.

The university trains medical officers for the armed services and provides continuing medical education to military members of the health professions. Under 10 U.S.C. 2113(j)(1)(A), the university board of regents may contract with the foundation for carrying out cooperative enterprises in medical research, consultation, and education. Statutorily authorized to be established as a private nonprofit corporation, the foundation may accept private donations and is intended to support the work of the university. 10 U.S.C. 178; 129 Cong. Rec. S3783 (daily ed. Mar. 23, 1983). The university's authority to enter into contracts with the foundation for cooperative enterprises in medical education could be construed narrowly to refer only to the education of medical personnel of the armed services. But the term "medical education" arguably permits the broader interpretation the university has adopted, encompassing the education of all personnel of the armed services on medical and health-related matters. The university concluded that it is authorized to contract with the foundation on a sole-source basis by construing its authority under 10 U.S.C. 2113(j)(1)(A), to enter into a cooperative contract with the foundation for cooperative enterprises in medical education, along with 10 U.S.C. 2304(c)(5), which authorizes the use of other than competitive contracting procedures when a statute expressly permits a procurement to be made from a specified source. We believe

the university reasonably concluded that it could contract with the foundation on a sole-source basis.

Funds Available to Complete the Contract

The authority for the expenditure of the subject appropriated funds has not expired. Thus, funds remain available to complete the contract by which funds were obligated during fiscal year 1988.

The contract between the university and the Jackson Foundation, signed on September 30, 1988, the last day of the fiscal year, was entered into within the period funds were available for obligation. Section 8006 of the DOD Appropriations Act of 1988, Public Law 100-202, December 22, 1987, by which this contract is funded, states:

"No part of any appropriation contained in this Act shall remain available for obligation beyond the current fiscal year unless expressly so provided herein."

The funds were properly obligated. The test is whether the goods or services are intended to meet an immediate need for the agency, regardless of when the work under the contract is completed and the money actually spent. Proper Fiscal Year Appropriation to Charge for Contract and Contract Increase, 65 Comp. Gen. 741, 743 (1986).

The contract established a delivery date of 48 months following the execution of the contract. Funds legally obligated within the period of their availability, as these were, may be spent for the contracts for which they were obligated even if those expenditures extend over a multiyear period. 31 U.S.C. 1502(a); 31 U.S.C. 1553 (1988).

IVD Technology Not Procured as Expressed in 1989 Conference Committee Report

Funds for developing an IVD program have been expended lawfully in a manner consistent with the statute under which the appropriation was made, although contrary to subsequent committee expressions of intent.

The conference committee report on fiscal year 1990 DOD appropriations expressed concern that, contrary to the intent of the conferees that IVD technology be made available very quickly to military personnel for AIDS educational training, DOD had embarked on a different course "not envisioned by the conferees," which was "cumbersome, expensive, and layered with bureaucracy." The conference committee directed DOD to use off-the-shelf IVD technology. H.R. Rep. No. 101-345 at 32-33 (1989). However, funds for the IVD program had been appropriated in fiscal year 1988 and no language from that appropriations act (P.L. 100-202,

Dec. 22, 1987) or its legislative history directed acquisition of off-the-shelf IVD technology.

We recognize that the Congress has a reasonable expectation that agencies spend appropriated funds in accordance with statements in committee reports and that agencies that ignore these statements do so at their peril. However, indicia in committee reports or other legislative history specifically as to how funds should or are expected to be spent impose no legally binding requirements on federal agencies. LTV Aerospace Corporation, 55 Comp. Gen. 307, 317 (1975). In addition, the legislative history of the 1990 appropriations act cannot be used to determine the meaning or intent of the 1988 appropriation that was the source of funds for the project. See Federal Judges IV-Reexamination of Appropriations Rider Limitation on Pay Increases, 65 Comp. Gen. 352 (1986).

Thus, although we agree that DOD is not procuring off-the-shelf IVD technology as directed by the conference committee report, we believe the obligation and expenditure of funds from DOD's fiscal year 1988 appropriations for the development and production of an IVD program on AIDS is consistent with the statute under which the appropriations were made.

Use of Operation and Maintenance Funds for Equipment Purchase Proper

Approximately \$2.5 million of the \$9 million available under the fiscal year 1988 operation and maintenance accounts of the Army, Navy, and Air Force for AIDS education of military personnel was used to purchase equipment necessary for user viewing of the videos, as well as equipment needed for the production of videodiscs. We believe that use of operation and maintenance funds for these purchases was proper.

The purchases would appear to be ancillary to the implementation of the IVD education program. The military departments already had some equipment needed for viewing the videos. The existing equipment, however, is being used for other purposes and, therefore, is not—and generally will not be—available for use in the HIV/AIDS education program. Thus, additional equipment is needed to provide individual IVD user stations.

Section 303 of the applicable Defense Authorization Act (P.L. 100-180, 101 Stat. 1019 (1987)) imposes a \$15,000 limitation on the purchase of individual "investment items," but neither the individual IVD stations

nor the items of equipment purchased for production of videodiscs cost more than \$15,000.

Procurement Not a Research and Development Effort

The contract between the university and the Jackson Foundation occasionally refers to certain contractual tasks as research and development efforts, thus raising the question whether this contract is a research and development project that should have been funded with moneys appropriated for research and development. However, the contract also describes itself as a contract for supplies and services, requiring the delivery of several hundred copies of the IVD programs, as well as user stations on which to view the programs. We believe that, in substance, the procurement is not a research and development effort as that term is generally used with reference to appropriations and acquisitions. Thus, we believe it was properly funded with operation and maintenance moneys as a contract for supplies and services.

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