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WASHINGTON, D.C. 20548

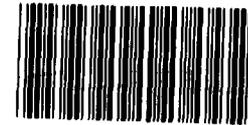
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HUMAN RESOURCES  
DIVISION

September 30, 1982

B-209129

The Honorable Caspar W. Weinberger  
The Secretary of Defense



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Attention: Director, GAO Affairs

Dear Mr. Secretary:

**Subject: Better Planning and Funding Approach Needed for  
Military Medical Facilities Construction and  
Modernization Projects in Germany (GAO/HRD-82-130)**

During the past several months, we conducted a survey to assess the condition of military medical facilities in Europe-- primarily Army facilities in Germany--as well as plans for their renovation and replacement. This report summarizes the results of that work and is provided to you because of the recent increased emphasis being given to medical facility construction and modernization in Europe.

Army medical facilities in Germany generally are housed in buildings that date back to World War II and earlier. Locations of many facilities were dictated by the availability of existing buildings following World War II and most were not originally built as health care facilities. Most have functionally inefficient layouts with obsolete wiring, and heating and plumbing systems. Efforts to undertake even the most basic modernization program have been constrained by funding limitations imposed on European construction. Collectively, the above factors have contributed to medical facilities that are old, deteriorated and often do not meet life safety code standards.

The recent emphasis placed on European construction projects and the programming of significantly higher amounts of funds provide the Army with an opportunity to correct the deficiencies, eliminate past inadequacies in facility geographic distribution, and consider construction alternatives. In addition, our review indicates that consolidation of facilities in some military communities appears to be a cost-effective way to improve quality of care. To take advantage of these opportunities, the Army needs (1) detailed information on the condition of existing facilities, (2) detailed economic justification for proposed projects, and (3) guidance as to the optimum size and location of medical facilities.

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In addition, improvements are needed in the way related maintenance and repair costs are estimated and total project costs are funded. Estimates of maintenance and repair costs associated with the project are not always based on a detailed analysis of all deficiencies, thus, the Congress is not provided with complete cost information. Also, funding medical facility modernization in Germany for two appropriations does not ensure that the required funding will be available.

#### BACKGROUND

Twelve U.S. military medical hospitals and about 180 medical and dental clinics are located in the Federal Republic of Germany. The majority of these medical facilities--9 hospitals, 74 health and 87 dental clinics--are operated by the 7th Medical Command of U.S. Army, Europe. In addition, 20 Army troop medical clinics and numerous aid stations provide limited medical services to tactical units in peacetime. The U.S. Air Force operates three hospitals and five clinics in Germany, most of which are located on U.S. air bases.

Military medical facilities in Europe have suffered for over 25 years from inadequately funded programs. For example, from fiscal years 1974 through 1981, the Army received only about \$93.8 million for European medical facility modernization. To correct existing deficiencies, the Army's 7th Medical Command plans to replace or renovate every fixed Army health and dental facility in Europe. This modernization program has gradually evolved from a program of minimal maintenance and repair funding and no new construction projects, through a period of "austere" projects, to the currently planned major modernization program. The Command plans to renovate or replace over 30 medical facilities in Germany at a cost of about \$325 million during fiscal years 1983-88. An additional 50 facilities have been identified as needing replacement or renovation.

Many of the Air Force's medical facilities are also substandard and contain numerous fire/life safety code deficiencies. For the 7-year period from fiscal years 1976 to 1982, the Air Force medical construction averaged only about \$4 million per year in Europe, and none of the funds were for facilities in Germany. For fiscal years 1983-89, the Air Force plans to spend about \$187 million to upgrade and modernize medical facilities in Germany.

#### OBJECTIVE, SCOPE, AND METHODOLOGY

Our objective was to assess the impact of past funding limitations on the condition of Army medical facilities in Germany and the initiatives underway to improve the facilities. We examined the physical condition of selected medical facilities; the efforts

being made to improve the condition of these facilities; and the project approval process to determine if facilities' planning and programming insured effective and efficient use of funds provided for medical facilities' maintenance, repair, and construction.

We limited our work to medical facilities in Germany and primarily to Army facilities because of the size of the Army's medical program and facilities' modernization efforts in Germany. We also briefly surveyed the U.S. Air Force's plans to modernize its medical facilities in Germany.

We met with officials of the 7th Medical Command Headquarters in Heidelberg, Germany, and discussed (1) the impact of past funding limitations on medical facilities in Germany, (2) the facilities' planning and project approval process, (3) geographic distribution of health care facilities in Germany, and (4) efforts to improve the system. We reviewed construction project files, special studies, and other pertinent documents and correspondence to evaluate whether consolidation of facilities had been considered in the past and to validate and add to the information we received orally.

We visited 7 Army hospitals, 14 medical/dental clinics, and 6 troop medical clinics in Germany to observe their physical condition. We met with various hospital officials and medical and dental clinic commanders and discussed facilities' modernization plans and consolidation opportunities. We also met with Army Deputy Community Commanders and V Corps medical officials and discussed the quality of care in military communities and the impact that clinic consolidations might have on such care.

We also met with officials of the Office of the Deputy Chief of Staff, Engineering, U.S. Army, Europe, and U.S. Army Engineering Division, Europe, and discussed the approach used to fund projects and obtained relevant regulations and other pertinent documentation. We discussed the Air Force's facilities' modernization programs in Germany with Health Facilities Planning officials, Surgeon's Office, U.S. Air Force, Europe.

In Washington, D.C., we met with officials of the Army's Surgeon General Health Facility Planning Division and the Office of the Chief Engineer and discussed construction programs and obtained relevant construction program documentation.

Our review was conducted in accordance with the Comptroller General's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."

NEED FOR A SYSTEMATIC APPROACH TO  
MEDICAL FACILITY PLANNING IN GERMANY

The 7th Medical Command's Health Facility Modernization Program is essentially an effort to replace or renovate existing buildings whose location was dictated primarily by the availability of buildings after World War II rather than through a planned allocation of resources.

In the past, the 7th Medical Command allocated its limited resources among heavily competing demands without sufficient information on the condition of existing facilities in local communities, detailed economic justification for projects, or guidelines related to size and location of planned projects so that they could best satisfy the military communities' medical needs.

Command officials have long recognized shortcomings in the project approval process. Members of the Command's Construction Review Board, responsible for prioritizing medical projects, noted in June 1981 that inadequate data and insufficient criteria exist to determine the relative need for the projects submitted by medical activities commanders. The Chief of the Command's Health Facility Planning Division told us that there is no comprehensive data base for determining the relative needs of the Army medical facilities in Europe. The Construction Review Board has to rely on members' personal observations acquired through staff visits and on information submitted as part of the project approval process. That information varies because initial project submissions by medical activities commanders are required to contain only general statements on the condition of facilities and the population they serve while more detailed information on the condition of facilities is subsequently developed as projects proceed towards congressional consideration. Because of this lack of comparable and detailed information on the condition of facilities and the projects' economic justifications, the Command does not have a good basis for determining the relative need for individual projects, establishing priorities, or for considering whether there are more cost-effective alternatives to the planned projects.

Army regulations state that health clinics "will be programmed only when insufficient capabilities exist in hospital outpatient clinics or where the provision of a health clinic can be supported by medical need and economic analysis." Guidelines do not exist to assist community and command officials in determining "medical need" for projects. Also, no guidance exists on acceptable distance or travel time in establishing accessibility to medical facilities. Therefore, no good basis exists to determine if the military population is being effectively served and Command medical assets are being optimally distributed. Until recently, the Office of the Surgeon General exempted medical projects in Europe from the

economic analysis requirement because new construction dollars were not available for Europe and renovating existing facilities was the only alternative available.

The 7th Medical Command plans to study the Army's current health care system in Germany to determine the best distribution and use of medical assets, such as facilities, units, equipment, personnel, and funds. The Command tentatively plans to study (1) present and projected distribution of beneficiary population and available medical resources, (2) extent and location of specialized treatment capabilities and workload and staffing ratios, (3) acceptable limits for accessibility to specific services, (4) availability of alternate sources of care, and (5) evacuation capabilities and impact of recommended changes in the distribution of medical assets on readiness. As of June 1982, the study had not been fully staffed, but the project officer estimated a March 1983 completion date. The study results might not have an effect on projects for fiscal years 1983-85 because of the 5-year planning process for medical projects, but should provide a good basis for systematically determining the number, the size, and best location of facilities planned for replacement in fiscal years 1986-89.

CONSOLIDATION OF CLINICS  
SHOULD BE CONSIDERED

Opportunities appear to be available for consolidating Army medical clinics that would be cost effective and improve quality of care. In addition, closer interservice coordination could result in more efficient use of medical facilities.

In a February 1982 message to field commanders, the Commander in Chief, U.S. Army, Europe, supported the consolidation of medical care whenever possible to avoid duplication of facilities, effort, and staffing. The message stated that "In many cases, consolidation can make best use of limited medical resources and enrich the quality of patient care and the quality of training of medical personnel." Consolidation of clinics, for instance, can be cost effective through more efficient use of medical resources and savings in administrative costs. Data provided by the Frankfurt Hospital Comptroller showed that the cost per patient visit greatly increases for smaller outlying health care facilities. For example, 1/ the cost per clinic visit at Hanau, which had approximately 6,700 patient visits per month, was about \$24, while the cost was about \$46 at the outlying Dexheim health clinic which had about 700 patient visits per month.

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1/The example shows extremes pertaining to the largest (Hanau) and the smallest (Dexheim) clinics in the Frankfurt medical area.

In March 1982, the Command requested that each medical center validate its requirements for proposed projects to upgrade clinics and review them for possible consolidation into more efficient facilities. The instructions stipulated that clinics located near each other or hospitals should be considered for consolidation. Although not all responses had been received by early June 1982, the Chief of Health Facility Planning Division told us that only some medical center officials had considered consolidation possibilities and none had recommended that projects be consolidated.

Our review of proposed projects for the facility modernization program showed that possibilities for consolidation exist. For example:

--In fiscal year 1981, funds were appropriated for a medical/dental clinic replacement in the Hanau Military Community that combined three dental clinics and one medical clinic. But another troop medical/dental clinic, 4 miles away at Fliegerhorst Kaserne, was not included although it was in the Command's long-range construction program for replacement. Two other clinics in the Hanau Community, at Gelnhausen and Buedingen, were also programmed for modernization in fiscal years 1988 and 1987, respectively. These two clinics are only 9 miles apart and appear to be good candidates for consolidation.

--In the Stuttgart Military Community, several medical/dental clinics--at Panzer Kaserne, Patch Barracks, Robinson Barracks, and Kelly Barracks--were programmed for replacement during the next several years. Also, the medical/dental clinic at Krabbenlock Kaserne is to be renovated in fiscal year 1985. All of these facilities are located from 3 to 12 miles from Stuttgart Hospital, which is also programmed for replacement in fiscal year 1987. An economic analysis planned for the hospital project will examine the need for a new clinic at Krabbenlock Kaserne. The analysis should, in our opinion, encompass all clinics to determine the best number and location for new facilities in the community.

We recognize that cost is not the only factor to be considered in planning medical facilities. Quality and accessibility of health care must also be considered. The Command's Chief of Professional Services, responsible for health care quality assurance in 7th Medical Command health care facilities, told us that consolidation would provide better quality assurance over services, mainly because of more efficient use of personnel and facilities. He said quality control is easier to maintain in larger clinics.

Time lost by active duty personnel and uncertain transportation for military dependents who would have to travel to more distant clinics were the most often mentioned objections to clinic consolidation. We believe, however, that these concerns can be accommodated with proper planning and coordination. For example, the Pirmasenz Military Community clinic at Muenchweiler serves many subcommunities, including one about 16 miles away. The clinic commander told us that the military provided bus service that adequately provides transportation to the clinic. Also, the Hanau Deputy Community Commander told us that he fully expects more extensive bus service will satisfy transportation needs to the consolidated medical/dental clinic in that area. He considered the advantages to be gained from a more efficient consolidated clinic to outweigh the additional cost of transportation.

We also noted that time lost by active duty personnel can be minimized by integrating existing troop aid stations with clinic operations. We were told that in the Mainz, Pirmasenz, and Hanau communities, for example, aid stations located in troop areas act as initial screening points for soldiers reporting for sick call. Physician assistants at aid stations are able to satisfy most medical needs and therefore, the referrals to the medical clinics are limited.

Opportunities may also exist for interservice sharing of facilities. According to a U.S. European Command Directive dated October 23, 1980, U.S. military facilities in Europe are available to all eligible beneficiaries and are to be utilized jointly to the maximum extent. We noted during our review that certain existing facilities were used by both Army and Air Force personnel and dependents. The Wiesbaden Air Force Hospital and Landstuhl Army Regional Medical Center are examples. The Wiesbaden Air Force Hospital is used extensively by Army beneficiaries and the Landstuhl Army hospital, located near several air bases, is the principal referral hospital for Air Force personnel in the area. Current U.S. Air Force, Europe, plans for wartime medical support call for off-base siting of medical facilities for greater survivability in war. This may put some Air Force clinics very close to Army medical facilities programmed for some areas.

Both services' medical facilities' modernization programs for Germany indicate that major replacement projects are programmed in the same general area. For example, in the Kaiserslautern/Ramstein area, the Army plans to replace its Kleber Kaserne, medical/dental clinic in fiscal year 1986 at a cost of about \$4.5 million. The Air Force also plans to replace its Ramstein medical/dental clinic in fiscal year 1989 at a cost of about \$28 million. In the Weisbaden area, the Air Force hospital is scheduled for upgrade in fiscal year 1989 at a cost of about \$40 million while the Army has several long-range medical projects planned for the nearby Mainz area.

REVISED FUNDING APPROACH AND  
BETTER COST ESTIMATES NEEDED FOR  
MEDICAL FACILITY MODERNIZATION

A combination of Military Construction, Army (MCA), and Operations and Maintenance, Army (OMA), funds are used to modernize Army hospitals in Germany. The two funding sources are provided through separate appropriations with different authorities and purposes. These differences cause project planning and implementation difficulties and could result in projects being funded at levels insufficient to meet renovation objectives. In addition, incomplete project cost estimates for associated maintenance and repair work provide the Congress with less than full project cost information.

New construction and major renovations of medical facilities are accomplished through the use of MCA funds, whereas OMA funds are used to correct maintenance and repair deficiencies outside a major project's scope. Quite often renovation projects also include maintenance and repair, and funds from the two sources are combined into a single project and remain crucial to the project completion.

The Congress provides MCA funding on a project-by-project basis, whereas, OMA funding is provided in a lump-sum appropriation without specific project identification. The OMA appropriation is allocated through the chain of command to the European community commanders, who are ultimately responsible for all real property maintenance (including health facilities).

The Office of Chief Engineer requires U.S. Army, Europe, to assure the availability of OMA funding for repair work associated with major hospital renovation projects in Europe before such projects are submitted to the Congress. While this provides some assurance that first year funds will be available, it does not guarantee that those resources will be available in future years to meet multiyear commitments. The MCA appropriation provides 5-year funding authority, whereas the OMA appropriation provides only 1-year authority. Thus, there is no assurance that future OMA funding levels will be sufficient to meet facility needs and changing priorities.

Cofunding of multiyear projects makes planning and implementation difficult. For example, work must be categorized as either new construction or repair work, and to insure continued funding, the Command must continue to maintain the project as a high priority despite changing and competing community priorities over time. In addition, delays in matching OMA and MCA funding can be costly. Delayed receipt of OMA funding can hold up contract award and completion of MCA work. The Office of Chief Engineer estimated for one project that delays could cost about \$220,000 a month because of inflation.

Army officials in Europe expressed dissatisfaction with the current funding approach for hospital modernization programs, but no consensus existed on an acceptable alternative. One alternative suggested, however, was for the Secretary of the Army to establish a policy for setting aside, each year, off the top of the annual Army or U.S. Army, Europe OMA appropriation, an amount of OMA funding to meet single-year maintenance and repair requirements of multiyear construction projects. This alternative or others which may exist would provide added assurance that congressionally approved MCA projects will be funded through completion.

The initial cost estimates associated with the maintenance and repair portion of hospital modernization projects are not always based on a detailed cost analysis. As a result, the Congress is provided with less than full project cost information. For example, a fiscal year 1982 project for the Frankfurt Army Regional Medical Center was estimated to cost \$33 million in MCA funds. At the time of congressional hearings on this project, the associated maintenance and repair costs were estimated to be \$18 million. A subsequent detailed analysis of all deficiencies increased this amount to \$33 million. A recent effort to prepare a detailed analysis of all associated project deficiencies before seeking funding approval should provide a better basis for estimating maintenance and repair requirements.

#### CONCLUSIONS AND RECOMMENDATIONS

Better coordination of Army projects with those proposed by the Air Force should benefit both services. To assure the most efficient use of the Army's and Air Force's military construction funds, we recommend that you direct the Secretaries of the Army and Air Force to coordinate medical construction programs for Germany with a view toward joint utilization of facilities where feasible.

Better planning should result in the Army's medical construction funds being used more effectively and efficiently to construct, renovate, and maintain health care facilities. Furthermore, economies and possibly enhanced medical care could be achieved through greater consolidation of facilities in some areas. Therefore, we recommend that the Secretary of the Army (1) give high priority to completion of the Resource Distribution Study so that it can be used in the Command's Health Facility Modernization Program and (2) insure that the study

--examines ways to compile detailed data on the condition of Army medical facilities in Europe;

- develops an evaluation criterion for proposed projects which considers the medical needs of the community, the condition of facilities, and efficient distribution of Command resources; and
- evaluates consolidation opportunities for clinics discussed in this report and other clinics located near each other or hospitals.

To better ensure the goals of the health facility modernization program in Europe will be met, we recommend that the Secretary of the Army develop (1) a method to more accurately estimate the amount of maintenance and repair costs to ensure that the Congress is made aware of the total project funding requirements and (2) a funding approach for future medical facility modernization projects which will assure that required OMA funding will be available throughout the project.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Chairmen of the House and Senate Committees on Appropriations, House Committee on Government Operations, Senate Committee on Governmental Affairs, and House and Senate Committees on Armed Services; and to the Director, Office of Management and Budget.

We appreciate the cooperation and assistance provided by DOD personnel during our survey.

Sincerely yours,

  
Gregory J. Anart  
Director