

June 1998

DEFENSE HEALTH CARE

Fully Integrated Pharmacy System Would Improve Service and Cost-Effectiveness





**United States
General Accounting Office
Washington, D.C. 20548**

**Health, Education, and
Human Services Division**

B-277613

June 12, 1998

The Honorable Dirk Kempthorne
Chairman
The Honorable Max Cleland
Ranking Minority Member
Subcommittee on Personnel
Committee on Armed Services
United States Senate

The Honorable Steve Buyer
Chairman
The Honorable Gene Taylor
Ranking Minority Member
Subcommittee on Military Personnel
Committee on National Security
House of Representatives

As required by the fiscal year 1998 National Defense Authorization Act (P.L. 105-85), this report examines the Department of Defense's pharmacy programs and opportunities to improve their cost-effectiveness and beneficiary service quality.

As agreed with your offices, we are sending copies of this report to the Secretary of Defense, the Director of the Office of Management and Budget, and interested congressional committees. We will also make copies available to others upon request.

This work was performed under the direction of Stephen P. Backhus, Director, Veterans' Affairs and Military Health Care Issues, who can be reached at (202) 512-7101 if you or your staff have any questions. Other GAO contacts and staff acknowledgments are listed in appendix VIII.

Richard L. Hembra
Assistant Comptroller General

Executive Summary

Purpose

The rapid rise in health care costs, the closure of military treatment facilities (MTF), and the rising number of retired military beneficiaries have required the Department of Defense (DOD) to continually seek to reengineer its health care delivery system. Today, modeled after civilian managed care, DOD's TRICARE health care system provides most care in Army, Navy, and Air Force MTFs, supplemented by civilian health care services arranged by regional TRICARE contractors. Among the health care services, the pharmacy benefit is most in demand by military beneficiaries. DOD currently provides prescription drug benefits through three programs: MTF outpatient pharmacies, TRICARE contractors' retail pharmacies, and a national contractor's mail-order service. As in the private sector, DOD's pharmacy costs have continued to grow relative to total health care costs. GAO estimates that DOD pharmacy costs increased 13 percent between 1995 and 1997, while its overall health care costs increased 2 percent for that period.

During the past several years, the Congress has grown concerned about the costs and quality of DOD's pharmacy benefit. Beneficiaries have complained that some of their prescribed medications are no longer available at MTF pharmacies because of cost-cutting. As a result, the Congress, in the fiscal year 1998 National Defense Authorization Act (P.L. 105-85), required GAO to evaluate DOD's pharmacy programs, focusing on (1) the adequacy of the information that DOD and its contractors have to manage the pharmacy benefit; (2) the merits and feasibility of DOD and its contractors applying commercial best practices, including a uniform formulary,¹ in managing its pharmacy programs; (3) the merits and limitations of recent mail-order and retail pharmacy initiatives to secure discounted DOD drug prices; and (4) the potential effects the MTFs' funding and formulary management decisions can have on beneficiaries' access to pharmacies and TRICARE contractors' costs. The act also requires the Secretary of Defense to respond to GAO's findings and conclusions in a report to the Congress 90 days after the GAO report's issuance.

Background

In operating a system of military health care delivery, DOD has twin missions: care and treatment of military personnel where and when they need it and cost-effective and accessible health care benefits for active duty families and retired military personnel and their families. Pharmacy programs represent about 9 percent of the \$14.7 billion Defense Health Program budget. The largest DOD pharmacy program is the outpatient

¹A formulary is a list of prescription drugs, grouped by therapeutic class, that a health plan prefers its physicians and beneficiaries to use. Drugs are chosen for a formulary on the basis of medical value and price.

pharmacies operated in the direct care system of 587 Air Force, Army, and Navy MTFs. In fiscal year 1997 these pharmacies dispensed about 55 million prescriptions at an estimated cost of \$1 billion. MTFs get most of their prescription drug supplies through the Defense Supply Center in Philadelphia (DSCP). DSCP uses a contracted wholesale distributor to deliver pharmaceutical products to individual MTFs. In addition, DSCP negotiates discounted drug prices through distribution and pricing agreements (DAPA) with more than 200 drug manufacturers. According to DSCP, DAPA prices are from 24 to 70 percent below average wholesale prices.

The MTF direct care system is supplemented by DOD's TRICARE managed care support contracts, which also provide retail pharmacy benefits to eligible military beneficiaries. DOD's national mail-order pharmacy program contractor is another way DOD augments MTF pharmacy services. This program delivers 30- to 90-day supplies of medications taken for longer-term, chronic health problems to eligible beneficiaries' homes. In 1997, DOD's contractor-supported retail and mail-order pharmacy programs cost about \$245 million.

In the private sector, pharmacy benefit managers (PBM) administer prescription drug coverage on behalf of health plan sponsors. PBMs are a relatively new type of firm whose objective is to provide high-quality prescription drug services at the lowest possible cost. PBMs provide their customers with services such as (1) formulary development and management, (2) retail pharmacy networks and mail service, (3) drug rebate negotiation with manufacturers, (4) generic substitution, (5) therapeutic interchange programs, (6) claims processing, and (7) drug utilization review. PBMs' ability to control pharmacy benefit costs for their customers has led to their increasing involvement in private sector plans and the Federal Employees Health Benefits Program (FEHBP).

Results in Brief

Despite ongoing efforts to improve its pharmacy benefit programs, DOD and its contractors lack basic prescription drug cost and beneficiary use information as well as integrated pharmacy patient databases needed to effectively manage military beneficiaries' pharmaceutical care. Because of these problems, as well as formularies that differ among its pharmacy programs, DOD is unable to fully apply proven PBM commercial best practices that could save millions of dollars each year. Recent DOD mail-order and retail pharmacy initiatives aimed at achieving savings by using DAPA drug prices could cause financial and other problems for TRICARE contractors because pharmacy care would be separated from

the contractors' management of medical care. Moreover, MTFs' efforts to hold down costs by restricting the prescription drugs available on formularies could reduce beneficiaries' access to certain prescription drugs at MTF pharmacies and allegedly has increased TRICARE contractors' pharmacy costs. Such efforts can be particularly hard financially on retirees over age 64 with no prescription drug coverage under Medicare or any plan.

The significant problems DOD is experiencing in delivering its pharmacy benefit result largely from the way DOD manages its three pharmacy programs. Rather than viewing the programs as integral parts of a single pharmacy system, DOD manages the programs as separate entities, not taking into account, for example, the merits of establishing a uniform DOD formulary and integrated databases, or the effects that new initiatives, such as implementing a separate mail service pharmacy program, will have on the other programs. GAO believes that unless DOD begins to manage the various components of the pharmacy programs as a single system, the problems identified will continue and potentially worsen in the future. Accordingly, it is making several recommendations to achieve this objective.

Principal Findings

DOD and the Contractors Lack Information Needed to Effectively Manage Pharmacy Programs

DOD lacks the comprehensive prescription drug cost and use data that the private sector routinely tracks and analyzes to manage pharmacy benefits and control costs. MTF pharmacy cost and use data are unreliable at both local and headquarters levels, and the limited data TRICARE contractors are providing are not merged with MTF data or used to manage pharmacy benefits. For example, GAO had to piece together data from multiple sources to estimate DOD's fiscal year 1997 total pharmacy costs—\$1.3 billion—because summary cost data were not available.

A root cause of the problem is that existing pharmacy patient databases at the 587 MTFs, regional TRICARE contractors, and national mail-order pharmacy contractor are not integrated, and patients' complete medication histories are unknown. DOD and contractor pharmacy officials told GAO that because DOD cannot fully apply automated drug utilization review techniques that require integrated patient profiles, it is likely that millions of dollars in unneeded costs are being incurred and patients are

being exposed to unnecessary safety risks. Such automated review systems are widely employed by FEHBP plans to reduce inappropriate prescription drug use, which can cause adverse reactions leading to illness, hospitalization, and even death. While DOD plans to overhaul its medical information systems by fiscal year 2003, it could immediately install a readily available system—the Universal Pharmacy Patient Profile (UP3)—that DOD pharmacy officials repeatedly have proposed. DOD pharmacy officials said that at an estimated 10-year cost of \$43 million, UP3 would save \$424 million over the same period and substantially reduce patient safety risks.

Applying Commercial Best Practices Could Reduce Costs and Enhance Care Quality

In addition to integrated databases, PBMS use other practices to control costs and provide quality service. For example, PBMS offer health plan sponsors uniform formularies for beneficiaries as well as help in designing standard beneficiary eligibility criteria and cost-sharing to provide incentives for physicians to prescribe and beneficiaries to use formulary drugs. While DOD's goal is to provide uniform pharmacy benefits, a number of barriers—regulatory, policy, and contractual—have kept this from occurring. MTF, TRICARE retail, and national mail-order formularies do not include the same prescription drugs. And, although all military beneficiaries obtain drugs from MTFs free of charge, the national mail-order and TRICARE contractors' programs require copayments. Also, most of DOD's 1.2 million Medicare-eligible beneficiaries lack a systemwide prescription drug benefit and thus have a serious coverage gap because Medicare does not cover outpatient prescriptions.² Such problems prevent other PBM practices—referred to as physician and pharmacist interventions—from being fully and systematically applied in DOD's pharmacy programs.

Establishing a uniform formulary with incentives for physicians to prescribe and beneficiaries to use formulary drugs could help reduce current benefit variability and increase cost-effectiveness. But, for systemwide effectiveness, such a formulary may require MTF prescription drug copayments that DOD believes it lacks the authority to impose. Nonetheless, the existing pharmacy benefit variation combined with nonintegrated databases prevents DOD from (1) controlling costs through formulary management; (2) fully analyzing drug use to curb inappropriate use and introduce less costly generic and therapeutic substitutes; and (3) identifying and, as appropriate, educating physicians who prescribe too

²About 400,000 Medicare-eligible DOD beneficiaries have TRICARE retail and national mail-order pharmacy benefits under separate authorities for base closure actions and a Medicare-DOD demonstration program beginning in 1998.

many or nonformulary drugs. Such approaches have enabled private sector health plans to reduce their costs by an estimated 10 to 20 percent. DOD and contractor officials told GAO that a uniform formulary could save as much as \$61 million to \$107 million, and other PBM practices could save about another \$99 million to \$197 million annually.

Mail-Order Program and Retail Pharmacy Proposal Further Fragment Health Care Services and Raise Costs

In 1998, DOD replaced the TRICARE contractors' mail-order pharmacy services with a separate national contract to help control the contractors' rising prescription drug costs. The purpose was to extend to contractors' mail-order services the DAPA drug prices previously available only to MTF pharmacies' prescription drug services. The TRICARE contractors now pay for the new mail-order contractor's costs. Also, when the next round of TRICARE managed care support contracts phases in between fiscal years 2000 and 2003, DOD plans to carve out and provide under one national contract the TRICARE contractors' retail pharmacy services. These initiatives, however, may further fragment DOD's health care services, add nonintegrated databases, likely increase systemwide costs and offset expected savings, pose added patient safety risks, and make TRICARE contract management even more complex. An alternative would allow TRICARE contractors to continue providing beneficiaries with retail pharmacy services while providing DOD the data it needs to obtain DAPA prices from the drug companies. This approach would keep pharmaceutical and medical care administration together under existing contracts. And such an approach may offer savings in addition to those achievable by integrating patient databases to support drug utilization review and applying other commercial best practices in MTF, TRICARE retail, and national mail-order pharmacy programs.

MTF Funding and Formulary Management Decisions Can Affect Beneficiary Access and Other Pharmacy Costs

Following DOD's early 1990s downsizing efforts, which reduced medical personnel and the number of MTF pharmacies, remaining MTFs began experiencing funding reductions that made pharmacy services an attractive target for cost-cutting. At that time, the demand for prescription drugs began increasing. Also, policy changes required that beneficiaries be treated alike in dispensing formulary drugs. To control costs, MTFs dropped certain prescription drugs from their formularies and did not add others. This prevented beneficiaries from obtaining certain drugs at MTFs. According to TRICARE contractors, many beneficiaries responded by buying their prescription drugs at contractor pharmacies, thereby increasing the volume of prescription drug purchases beyond what the TRICARE contractors projected in their original bids. Blaming their cost

overruns on MTF formulary changes, the contractors told GAO they intend to seek additional compensation from DOD. A DOD consultant concluded that the contractors' drug use had risen at the same time MTFs' use had dropped somewhat. DOD and the contractors disagree about the cause of the contractors' cost increases and continue to study the matter.

Matters for Congressional Consideration

To help DOD establish a more systemwide approach to managing its pharmacy benefit, the Congress may wish to consider directing DOD to establish a uniform formulary across its pharmacy programs and, as appropriate, using non-active duty copayments at MTFs to create incentives for physicians to prescribe and beneficiaries to use formulary drugs. Also, the Congress may wish to provide systemwide pharmacy eligibility for Medicare-eligible retirees not now entitled to such benefits.

Recommendations

GAO recommends that the Secretary of Defense direct the Assistant Secretary of Defense (Health Affairs) to undertake a top-to-bottom redesign of the prescription drug benefit across the MTF, TRICARE contractors' retail, and national mail-order pharmacy programs. In undertaking this redesign, DOD should consider, among other elements, implementing a uniform formulary; using copayments at MTFs to create incentives for physicians to prescribe and beneficiaries to use formulary drugs; integrating pharmacy patient databases to provide for automated prospective drug utilization review (PRODUR) system use; and providing systemwide eligibility for all Medicare-eligible retirees not now entitled to such benefits. Some changes may require additional legislative authorities and, as appropriate, the Secretary should seek such authorities from the Congress.

Agency and Contractors' Comments

In commenting on a draft of this report, DOD agreed with the report and each of its recommendations and described various actions planned and under way to address the recommendations. DOD also stated that although MTF pharmacy copayments are valid and effective, beneficiaries will resist them and perceive benefit erosion. GAO believes the benefit has already eroded because of MTF funding reductions and formulary restrictions; that GAO's collective recommendations will help reverse this troublesome course; and, as advocacy group representatives told GAO, that beneficiaries would not oppose reasonable copayments if assured they can reliably satisfy their prescription drug needs through DOD's programs. DOD also stated that extending systemwide drug eligibility to Medicare-eligible

retirees will require added funding, but GAO believes the savings from overhauling the pharmacy system will help offset such costs.

The TRICARE contractors also agreed with the report's findings and recommendations. The national mail-order pharmacy contractor stated that DOD should contract with PBMS rather than seeking to develop MTFS' proficiency in applying best pharmacy practices, but GAO does not have enough evidence that PBMS would cost less than the MTFS. GAO believes DOD needs a system-oriented pharmacy management structure in place and needs to acquire experience with best practices before further "make or buy" decisions can prudently be made.

DOD's and the contractors' comments are discussed further in chapter 6.

Contents

Executive Summary		2
Chapter 1		14
Introduction	The Military Health Care System and Its Pharmacy Benefit Objectives, Scope, and Methodology	14 19
Chapter 2		21
DOD and the Contractors Lack Information Needed to Effectively Manage Pharmacy Programs	Overall Pharmacy Cost and Use Data Are Not Readily Available Lack of Integrated Pharmacy Databases Increases Prescription Drug Costs and Risks	21 24
Chapter 3		30
Applying Commercial Best Practices Could Reduce Costs and Enhance Care Quality	Program Requirements Create Inconsistent Pharmacy Benefits Different Formularies Create Benefit Uncertainties and Increase Costs Use of Other Cost-Saving, Care-Enhancing PBM Strategies Not Fully Possible in Current Environment	30 34 38
Chapter 4		40
Mail-Order Program and Retail Pharmacy Proposal Further Fragment Health Care Services and Raise Costs	Mail-Order Pharmacy Program Fragments Services Retail Pharmacy Proposal May Have Unanticipated Systemwide Costs and Other Consequences	40 44

<p>Chapter 5 MTF Funding and Formulary Management Decisions Can Affect Beneficiary Access and Other Pharmacy Program Costs</p>	<p>MTF Funding and Formularies Affect Beneficiaries' Access 48 Contractors Allege Their Pharmacy Costs Are Increasing as a 48 Result of MTF Formulary Management 51</p>	<p>48 48 51</p>
<p>Chapter 6 Conclusions, Recommendations, and Agency Comments</p>	<p>Conclusions 53 Matters for Congressional Consideration 53 Recommendations to the Secretary of Defense 54 Agency and Other Comments and Our Evaluation 55</p>	<p>53 53 54 55</p>
<p>Appendixes</p>	<p>Appendix I: Drug Therapy Problems Screened by Automated 58 Prospective Drug Utilization Review Systems Appendix II: Drug Products Included on the Basic Core 61 Formulary Appendix III: Therapeutic Classes Proposed for Closure on the 68 Basic Core Formulary Appendix IV: Comments From the Department of Defense 71 Appendix V: Comments From Foundation Health Federal 75 Services, Inc. Appendix VI: Comments From TriWest Healthcare Alliance 76 Appendix VII: Comments From Merck-Medco Managed Care, 78 L.L.C. Appendix VIII: GAO Contacts and Staff Acknowledgments 80 Selected Bibliography 81</p>	<p>58 61 68 71 75 76 78 80 81</p>
<p>Tables</p>	<p>Table 2.1: GAO's Estimate of DOD's Pharmacy Costs, by 23 Program, Fiscal Years 1995-97 Table 3.1: DOD Prescription Drug Benefits and Eligible 32 Beneficiary Categories Table 3.2: Pharmacy Benefit Management Strategies Involving 39 Physician and Pharmacist Interventions</p>	<p>23 32 39</p>

Contents

	Table I.1: Drug Therapy Problems Screened by Automated PRODUR Systems	58
	Table III.1: Prescription Drugs Currently Available in Therapeutic Classes Proposed for Closure	68
Figures	Figure 1.1: DOD Pharmacy Benefit Management Organizational Structure as of January 1998	18
	Figure 4.1: National Mail-Order Program Flow Chart	42

Abbreviations

BCF	basic core formulary
BRAC	Base Realignment and Closure Commission
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
	Services
CHCS	Composite Health Care System
DAPA	distribution and pricing agreement
DOD	Department of Defense
DSCP	Defense Supply Center-Philadelphia
FDA	Food and Drug Administration
FEHBP	Federal Employees Health Benefits Program
HMO	health maintenance organization
MTF	military treatment facility
P&T	pharmacy and therapeutic
PBM	pharmacy benefit manager
PRODUR	prospective drug utilization review
TMA	TRICARE Management Activity
TSF	Tri-Service Formulary
UP3	Universal Pharmacy Patient Profile
VA	Department of Veterans Affairs

Introduction

In operating a system of military health care delivery, the Department of Defense (DOD) has twin missions: care and treatment of military personnel where and when they need it, and cost-effective and accessible health care benefits for their families as well as retired military personnel and their families. Today, the military health care system provides coverage for about 8.2 million people; more than half of those covered are retirees and their dependents and survivors. Under the terms of its authority (10 U.S.C. 1074 and 1076), DOD may provide health care to the families of active duty military and retirees of any age in its medical facilities as long as space and resources are available. Beneficiaries receive such space-available care at little or no cost. The statute, however, does not entitle these beneficiaries to that care.

The Military Health Care System and Its Pharmacy Benefit

Pharmacy programs represent about 9 percent of the \$14.7 billion Defense Health Program budget—about \$1.3 billion. Among the health care services, the pharmacy benefit is most in demand by military beneficiaries. DOD currently provides prescription drug benefits through three programs: military treatment facility (MTF) outpatient pharmacies, TRICARE contractors' retail pharmacies,³ and a national contractor's mail order service. The largest DOD pharmacy program is the outpatient pharmacies operated in the direct care system of 587 Air Force, Army, and Navy MTFS. The program spent an estimated \$741 million for prescription drugs in fiscal year 1997. About 4,000 military and civilian pharmacists and technicians run the pharmacies, and in 1997 they dispensed about 55 million prescriptions.

MTFS get most of their prescription drug supplies through the Defense Supply Center in Philadelphia (DSCP). DSCP provides over \$3.4 billion in food, clothing, medicines, and medical supplies to military personnel worldwide and other federal customers. DSCP's pharmaceuticals group, the single manager for DOD purchases and supplies, had fiscal year 1996 sales of over \$700 million. DSCP uses its prime vendor program to deliver medicines and other pharmaceutical supplies to MTFS. A prime vendor is a distributor that has been awarded a contract to store and distribute pharmaceutical products to individual MTFS, reducing the need for DOD wholesale and retail systems.⁴ Under this concept, DSCP negotiates prices

³In June 1998, DOD replaced the remaining Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) in three regions encompassing 20 states with TRICARE. Before June, CHAMPUS reimbursed beneficiaries for prescription drugs obtained at retail pharmacies.

⁴For more information on DOD's pharmaceutical distribution and inventory management systems for MTFS, see our report, *Inventory Management: DOD Can Build on Progress in Using Best Practices to Achieve Substantial Savings* (GAO/NSIAD-95-142, Aug. 4, 1995).

for pharmaceutical products directly with manufacturers. DSCP then contracts with the prime vendor to buy the products at these prices and distribute them directly to the MTF within 24 hours of receiving an order.⁵ DSCP negotiates discounted drug prices through distribution and pricing agreements (DAPA) with over 200 drug manufacturers.⁶ According to DSCP, DAPA prices have been between 24 and 70 percent less than average wholesale prices.⁷

The direct care system is supplemented by DOD's TRICARE managed care support contracts, under which retail pharmacy benefits are provided to eligible military beneficiaries.⁸ TRICARE contractors offer both network and nonnetwork retail pharmacy services. A network pharmacy contracts to fill prescriptions at the same discounted retail price to anyone covered by TRICARE. If beneficiaries have no other health insurance, network pharmacies file claims on beneficiaries' behalf for prescriptions filled. Beneficiaries using nonnetwork pharmacies pay full retail costs and submit claims to get reimbursed. DOD's national mail-order pharmacy program contractor is another way DOD augments MTF pharmacy services. This program delivers 30- to 90-day supplies of medications taken for longer-term, chronic health problems to eligible beneficiaries' homes.

In the private sector, pharmacy benefit managers (PBM) administer prescription drug coverage on behalf of health plan sponsors. Their objective is to provide high-quality pharmaceutical care at the lowest possible cost. PBMs, a relatively new type of firm, became a major market force only during the late 1980s. Their precursors were firms that provided prescription claims processing or mail-order pharmacy service on behalf of insurers. While PBMs continue to provide these services, many provide additional services, such as formulary development and management, development of pharmacy networks to serve health plan enrollees, drug rebate negotiation with manufacturers, generic substitution, therapeutic

⁵In most cases, the prime vendor charges a distribution fee for these services. Once the products are delivered to the MTFs, DSCP pays the prime vendor within 15 days.

⁶Under the Veterans Health Care Act of 1992, as amended, manufacturers must sell brand-name drugs covered by the act to four agencies—the Department of Veterans Affairs, DOD, the Public Health Service, and the Coast Guard—at no more than 76 percent of the nonfederal average manufacturer's price. This price is the weighted average price of each single form and dosage unit of a drug that is paid by wholesalers to a manufacturer, taking into account any price reductions (prices paid by the federal government are excluded from this calculation). For more information related to the act, see our report, *Drug Prices: Effects of Opening Federal Supply Schedule for Pharmaceuticals Are Uncertain* (GAO/HEHS-97-60, June 11, 1997).

⁷Drug manufacturers suggest a list price that wholesalers charge pharmacies. The average of the list prices, collected for many wholesalers, is called a drug's average wholesale price.

⁸Through seven multiregional contracts, TRICARE managed care support contractors augment MTFs' capabilities by arranging for civilian health care services.

interchange, and drug utilization review. Many PBMs are also developing products called “disease management” programs, which will attempt to provide the most cost-effective treatments for specific diseases.⁹

Like a growing number of health insurers who have experienced rapidly rising prescription drug costs, the military health care system has experienced prescription drug demand and cost increases.¹⁰ DOD pharmacy costs increased 13 percent between 1995 and 1997, compared with DOD’s overall health care cost increase of 2 percent for that period. While DOD pharmacy costs are estimated at less than 10 percent of health program spending, drug therapy can affect a larger share of the total \$14.7 billion defense health care costs. That is, drug treatment can sometimes help avoid the use of more costly medical treatments involving hospitalizations and surgeries or reduce other outpatient medical costs associated with chronic diseases. Accordingly, DOD has taken steps to improve pharmacy program management. In 1993, for example, DOD Health Affairs established the DOD Pharmacoeconomic Center (at Fort Sam Houston, San Antonio) to improve the overall use of pharmaceuticals. In 1995, Health Affairs increased the Center’s responsibilities¹¹ and created a Pharmacy Board of Directors¹² to provide guidance to the Center. Since October 1997 the Board has been looking at ways to improve the formulation of DOD pharmacy policies.

Before February 1998, no single DOD organization had overall responsibility for all MTF and contractor-supported pharmacy programs and operations (see fig. 1 for organization chart as of January 1998). However, since January, Health Affairs has undergone leadership changes and reorganized its TRICARE management group into the new TRICARE

⁹For more information on PBMs’ services and cost-control practices, see our reports, *Pharmacy Benefit Managers: Early Results on Ventures With Drug Manufacturers* (GAO/HEHS-96-45, Nov. 9, 1995) and *Pharmacy Benefit Managers: FEHBP Plans Satisfied With Savings and Services, but Retail Pharmacies Have Concerns* (GAO/HEHS-97-47, Feb. 21, 1997).

¹⁰Demand and costs are increasing for several reasons. Today, more elderly beneficiaries are likely to be taking multiple prescription drugs. Promotional prescription drug advertising by drug companies in the media may also be spurring consumer demand. Also, new drugs are increasingly becoming available to treat more diseases.

¹¹The Pharmacoeconomic Center’s role includes identifying cost-effective drug therapies, providing educational and policy guidance to MTF medical and pharmacy staff, assisting the DOD Pharmacy Board of Directors, and updating the Tri-Service Formulary. In fiscal year 1998, the Center has 14 active duty pharmacists, physicians, and civilian employees and a \$1.1 million budget.

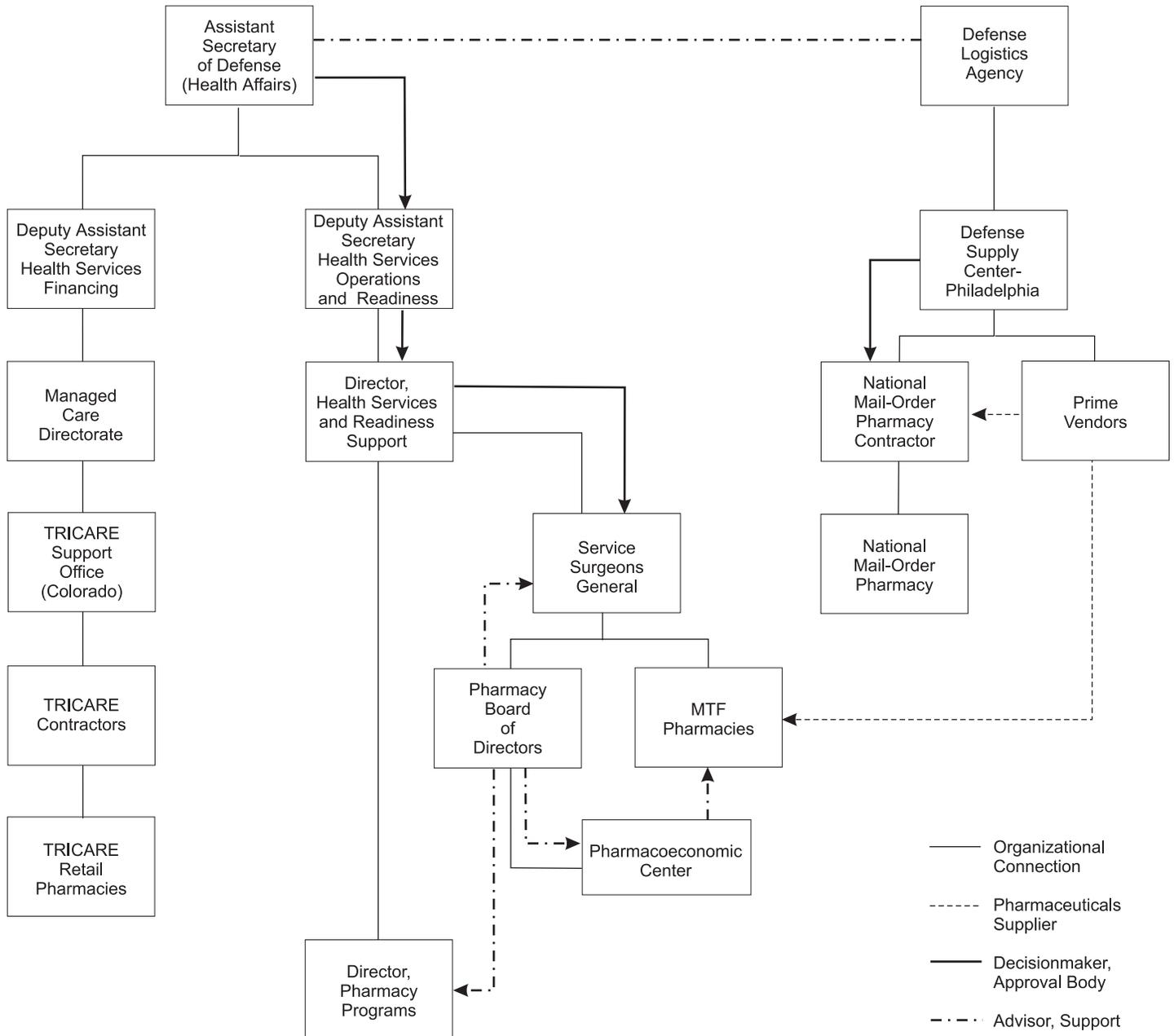
¹²The Air Force, Army, and Navy surgeons general, as well as the head of the Coast Guard, designate their most senior and experienced officer pharmacists to serve as their respective service leaders in DOD pharmacy benefit management.

Chapter 1
Introduction

Management Activity (TMA).¹³ Whether and how overall pharmacy program responsibility will be consolidated in the reorganized activity remain to be seen.

¹³The Deputy Secretary of Defense, in his 1997 Defense Reform Initiative, directed establishment of a TRICARE Management Activity to strengthen TRICARE's oversight and performance. The new organization now includes several former offices of Health Affairs, the Defense Medical Program Activity, and the TRICARE Support Office.

Figure 1.1: DOD Pharmacy Benefit Management Organizational Structure as of January 1998



Objectives, Scope, and Methodology

Growing increasingly concerned about the costs and quality of DOD's pharmacy benefit, the Congress, in the Fiscal Year 1998 National Defense Authorization Act (P.L. 105-85), required us to review DOD's pharmacy programs, focusing on (1) the adequacy of the information that DOD and its contractors have to manage the pharmacy benefit; (2) the merits and feasibility of DOD and its contractors applying commercial best practices, including a uniform formulary, in managing DOD's pharmacy programs; (3) the merits and limitations of recent mail-order and retail pharmacy initiatives to secure discounted DOD drug prices; and (4) the potential effects MTF funding and formulary management decisions can have on beneficiaries' access to pharmacies and TRICARE contractors' costs. The act also requires the Secretary of Defense to report to the Congress no later than 90 days after our report is issued on the feasibility and advisability of implementing changes to DOD's pharmacy programs, based on our findings and conclusions.

To do our work, we reviewed laws, regulations, and policies applicable to DOD pharmacy programs and obtained cost and workload data from relevant DOD sources and databases. We interviewed and obtained documents from DOD officials at the Office of the Assistant Secretary of Defense (Health Affairs) and at TMA offices in Washington, D.C.; Aurora, Colorado; and San Antonio, Texas; the Deputy General Counsel (Personnel and Health Policy), Washington, D.C.; DSCP; and TRICARE lead agent offices in San Antonio; Fairfield, California; and Colorado Springs. We also interviewed and obtained documents from pharmacy consultants at the Army's Surgeon General's Office, the Navy's Bureau of Medicine and Surgery, and the Air Force Surgeon General's Office and from head pharmacists at 15 MTFs in California, Colorado, Florida, Kansas, Louisiana, Maryland, Missouri, Texas, and Washington, D.C. We interviewed and obtained documents from three TRICARE managed care support contractors: Foundation Health Federal Services, Inc. (Rancho Cordova, Calif.), Humana Military Healthcare Services (Louisville, Ky.), and TriWest Healthcare Alliance (Phoenix, Ariz.). We also interviewed and obtained documents from the national mail-order pharmacy program contractor (Merck-Medco Managed Care, L.L.C.) and its parent (Merck & Co.) in Washington, D.C. To obtain the perspectives of outside affected parties, we interviewed representatives of two military beneficiary groups and several pharmaceutical manufacturers. We also interviewed representatives of the Pharmaceutical Research and Manufacturers of America. DOD, three TRICARE contractors, and the national mail-order pharmacy contractor commented on a draft of this report. We address their comments in chapter 6; their comments are reprinted in appendixes

Chapter 1
Introduction

IV through VII. We conducted our review between June 1997 and May 1998 in accordance with generally accepted government auditing standards.

DOD and the Contractors Lack Information Needed to Effectively Manage Pharmacy Programs

Timely, accurate, and complete data on prescription drug use and costs are essential to effectively manage pharmacy benefits. But DOD and its contractors lack such data, largely because their computerized pharmacy patient databases are not integrated. Thus, their ability to manage the MTF, TRICARE retail, and national mail-order pharmacy programs is significantly impaired. In the private sector, where PBMS manage more than 2.4 billion prescriptions per year, computer databases connect thousands of retail and mail-order pharmacies electronically. Such on-line capabilities enable PBMS to achieve cost-efficiencies and enhance patient care. Currently, higher priority plans to upgrade DOD's Composite Health Care System (CHCS)¹⁴—with planned fiscal year 2003 implementation—have kept DOD from installing a readily available automated drug utilization review system known as the Universal Pharmacy Patient Profile (UP3).

Overall Pharmacy Cost and Use Data Are Not Readily Available

DOD cannot readily access information on basics such as MTFs' and contractors' drug costs and use, dispensing costs, MTF or civilian physicians who frequently prescribe high-cost drugs, or beneficiaries with large prescription drug expenses. MTF pharmacy cost and use data are generally unreliable, and the types of pharmacy data DOD requires TRICARE contractors to report are not useful for management purposes. To estimate DOD's systemwide pharmacy program costs, we pieced together data from several DOD entities. In so doing, we found conflicting pharmacy cost reports differing by millions of dollars for the same activity. For example, while the TMA Resource Management Office reported to us that fiscal year 1996 Army pharmacy program costs were about \$198 million, the Army Pharmacy Consultant (who is also a member of DOD's Pharmacy Board of Directors) reported that such costs were about \$249 million. Also, some sources were and others were not trying to account for MTFs' drug-dispensing costs, including pharmacy personnel and other direct and indirect costs to provide pharmacy services.

On the basis of fiscal year 1997 data provided by five separate DOD pharmacy and budget management entities, we estimated that MTF pharmacies spent between about \$741 million and about \$776 million for drugs alone, and about \$305 million on drug-dispensing costs—for a fiscal year 1997 total of about \$1 billion. We obtained contractor pharmacy costs

¹⁴CHCS is a medical information system DOD developed, at an estimated cost of \$2.8 billion, to provide automated MTF support (such as for patient registration and eligibility checking, appointment scheduling, and physician prescription writing and pharmacy dispensing). Its upgrade, CHCS II, is envisioned as DOD's "system of systems." DOD officials stated that when CHCS II is completed, at an estimated cost of \$7.2 billion, it will provide a computer-based patient record for all beneficiaries.

Chapter 2
DOD and the Contractors Lack Information
Needed to Effectively Manage Pharmacy
Programs

from two other DOD organizations, which, when added to estimated MTF costs, amounted to a systemwide fiscal year cost estimate of about \$1.3 billion. Cost data are not available on matters such as (1) over-the-counter drugs, (2) MTF prescriptions for Medicare retirees, and (3) the top 50 drugs, in terms of DOD expenditures or numbers of prescriptions dispensed. Such information could be used to make policy and managed care decisions needed to address cost savings and service quality. Table 2.1 contains our estimates of DOD's pharmacy costs for fiscal years 1995 through 1997.

Chapter 2
DOD and the Contractors Lack Information
Needed to Effectively Manage Pharmacy
Programs

Table 2.1: GAO's Estimate of DOD's Pharmacy Costs, by Program, Fiscal Years 1995-97

Dollars in millions			
Program	1995	1996	1997
Military treatment facilities			
Drug costs ^a	\$625.4	\$728.1	\$741.4
Other costs ^b	347.3	337.8	305.2
Subtotal	\$972.8	\$1,065.9	\$1,046.6
TRICARE/CHAMPUS			
TRICARE ^c	3.4	68.3	162.6
CHAMPUS ^c	165.2	123.4	70.7
Subtotal	\$168.5	\$191.7	\$233.4
Mail order			
National mail-order pharmacy	d	d	d
Base Realignment and Closure Commission mail order ^e	f	2.8	9.4
Demonstration ^e	6.6	15.0	2.4
Subtotal	\$6.6	\$17.8	\$11.8
Total, all pharmacy programs	\$1,147.9	\$1,275.4	\$1,291.8
Defense Health Program ^g	\$14,346.0	\$14,694.0	\$14,658.0
Pharmacy programs' estimated share of Defense Health Program budget	8.0%	8.7%	8.8%

Notes: Totals may not add because of rounding.

Estimates are subject to the following limitations: **MTF drug costs:** Each MTF updates changing prices for thousands of drugs, a huge data-entry task fraught with the potential for error. MTF pharmacy database updates lag drug price increases by months, contributing to understated drug costs. DOD organizations are discussing a centralized mechanism for down-loading current drug prices systemwide so that MTFs no longer have to update prices in individual databases. **MTF other costs:** Database source is the Medical Expense and Performance Reporting System. Other costs include pharmacy personnel salaries, utilities, housekeeping, furniture, and other equipment. To an unknown extent, data-entry or cost allocation errors by reporting facilities, such as floor space for storing pharmaceutical supplies, may overstate or understate actual facility costs related to outpatient pharmacy services. **TRICARE/CHAMPUS costs:** Data for fiscal years 1995 and 1996 are essentially complete, while data for fiscal year 1997 (Oct. 1996 through Sept. 1997) are estimated to be 94-percent complete (with data collected through Dec. 1997).

^aData sources are Army, Navy, and Air Force Pharmacy Consultants.

^bData sources are TMA Office of Resource Management and Corporate Executive Information Customer Service Office.

^cData source is TMA Office of Acquisition Management and Support.

^dNot applicable. This program did not start until fiscal year 1998.

^eData source is DSCP.

^fNot applicable. This program did not start until fiscal year 1996.

^gData are from Budget of the United States Government: Appendix (fiscal years 1997, 1998, and 1999).

While DOD requires the TRICARE contractors to report monthly prescription drug volume and claims costs for their retail pharmacy programs, DOD uses the reports primarily to oversee “cash disbursements” at the completion of the claims adjudication process. Contractor officials told us, however, they would not recommend such reports to their commercial clients for use in controlling pharmacy costs. For example, the reports do not include national drug codes, physician identification numbers, or patient-level drug use. Such information is needed to target high-cost drugs, in terms of DOD expenditures, that should be subject to utilization management restrictions; prepare doctor “report cards” used to educate or provide incentives to those who prescribe too many or nonformulary drugs; and identify patients who are getting too many or the wrong mix of medications. One contractor’s (Humana) officials told us they successfully worked with regional DOD pharmacy managers to expand the required reports’ scope and detail. But, they told us, those reports were of far less management value than reports they provide their commercial customers.

Lack of Integrated Pharmacy Databases Increases Prescription Drug Costs and Risks

Although most military beneficiaries regularly obtain prescription drugs from multiple dispensing outlets across DOD’s three programs, no centralized computer database exists with each patient’s complete medication history. The hundreds of MTF pharmacy databases are not linked, nor are the TRICARE contractors’ retail pharmacies’ and the national mail-order pharmacy patient medication records linked together or with the MTF databases. Contractor and DOD pharmacy officials told us that millions of dollars in unnecessary costs from overutilization and patient safety problems from adverse reactions to prescription drugs are likely occurring because DOD lacks the databases needed to support automated prospective drug utilization review (PRODUR) systems to review DOD prescriptions before they are dispensed. Such systems are widely used to reduce inappropriate prescription drug use that can cause adverse reactions leading to illness, hospitalization, and even death.¹⁵ In addition to promoting patient safety, PRODUR systems can be used to better identify patterns of fraud, abuse (including overuse), or other inappropriate or medically unnecessary care.

¹⁵Patients may inadvertently be given a prescription for the wrong drug or dosage, or for a drug that interacts adversely with another they are taking. Estimates of the extent of hospitalization from inappropriate drug therapy range from 3 percent for the general population to 28 percent for the elderly. A Food and Drug Administration (FDA)-sponsored, voluntary reporting system revealed that about 5,700 of the about 176,000 cases of adverse drug reaction reported between 1990 and 1992 resulted in death.

Chapter 2
DOD and the Contractors Lack Information
Needed to Effectively Manage Pharmacy
Programs

Such systems, moreover, are now used in some Medicaid programs and the Federal Employees Health Benefits Program (FEHBP).¹⁶ For example, between 1994 and 1995, five state Medicaid programs saved \$5 million by appropriately canceling early refill prescriptions.¹⁷ Also, three FEHBP plans, with about 4.5 million beneficiaries, estimated combined savings of about \$19 million in 1995 by using automated PRODUR systems.¹⁸ Another PBM told us that, for the FEHBP plans it represents, 1997 savings from using PRODUR were \$46 million. While those savings were significant, other major dollar savings may be achieved, in all likelihood, by avoiding hospitalizations resulting from inappropriate drug therapy. (App. I provides details on how PRODUR systems work.)

DOD's lack of integrated pharmacy patient databases, and thus its inability to use PRODUR systemwide, are the most significant cost-effectiveness and patient safety obstacles in its pharmacy system. Now, DOD's ability to use a PRODUR system is limited to local systems at specific MTF pharmacies that do not have the patient's complete history. PRODUR would enable DOD, as is done in FEHBP, the Medicaid program, and the private sector, to perform cost-saving and safety-enhancing drug reviews with consistency throughout the drug distribution system (MTFs, TRICARE retail, and national mail order). For example, each of these pharmacies, when presented with a new or refill prescription by a DOD beneficiary, could check the patient's complete medication profile to ensure that the new drug will not adversely react with the patient's other drugs. The review could also disclose whether the prescription is being refilled too soon. DOD pharmacy officials told us that integrated program databases would allow MTFs to convert from an inefficient manual third-party billing process to an electronic billing system, annually saving an estimated \$25 million.¹⁹

¹⁶Prescription Drugs and Medicaid: Automated Review Systems Can Help Promote Safety, Save Money (GAO/AIMD-96-72, June 11, 1996). The Office of Personnel Management contracts with almost 400 health plans to operate FEHBP. See Pharmacy Benefit Managers: FEHBP Plans Satisfied With Savings and Services, but Retail Pharmacies Have Concerns (GAO/HEHS-97-47, Feb. 21, 1997).

¹⁷Early refills include prescriptions submitted (1) for the same drug, (2) for the same person, and (3) by either the same or a different pharmacy before a predetermined amount of the drug, such as 75 percent, has been consumed. While a legitimate need may exist for an early refill in some situations, early refills also include duplicate prescriptions submitted for purposes of fraud or abuse.

¹⁸The Blue Cross and Blue Shield Association, Government Employees Hospital Association, and Rural Carrier Health Benefit plans estimated saving \$10 million, \$8 million, and \$1 million, respectively, by using PRODUR.

¹⁹According to DOD, only about 10 percent of MTFs pursue third-party billing to collect payment for beneficiaries whose prescription drug costs are covered by other health insurance plans. The analysis indicates that the current manual process is time-consuming and costly, and pharmacies typically do not bill for prescriptions of less than \$25.

Several DOD pharmacy officials told us that the lack of PRODUR has allowed beneficiary prescription drug stockpiling to become so pervasive among patients using MTF pharmacies that pharmacists commonly refer to the problem as “polypharmacy”—or the practice of visiting multiple pharmacies to accumulate more prescription drugs than needed. To illustrate, they provided the following examples:

- During a 10-week period, a sickle cell anemia patient being treated at an Army base for chronic pain obtained 14 prescriptions (a 1-year supply) of potentially addictive narcotics. Several civilian and two Army and Navy doctors wrote the prescriptions, which were filled at the Army medical center pharmacy, a Navy hospital pharmacy, and several of the TRICARE contractor’s regional retail pharmacies. The lack of a common, computerized patient drug profile and PRODUR prevented the Army, the Navy, and the TRICARE contractor’s PBM company from detecting the prescription abuse and drug stockpiling. By happenstance, an Army medical center pharmacist came upon the problem during an unrelated regional pharmacy cost review.
- At an Air Force base, a young patient’s mother obtained 260 prescriptions in 15 months from several on-base doctors. The prescriptions were filled at the base hospital and clinic pharmacies. In effect, she amassed a 5-year supply of inhalant asthma drugs (Proventil and Ventolin) and inhalation devices. When an investigation was conducted as a result of the mother’s aggressive behavior toward pharmacy staff, the base hospital pharmacy staff had to manually compile the patient’s medication profile from the hospital and clinic pharmacies to determine the extent of the mother’s drug stockpiling.
- At another Air Force base, the clinic pharmacy collected old and unused prescription drugs from beneficiaries’ houses as part of a poisonous waste cleanup project. The pharmacy recovered several unopened drug packages, which suggested that these MTF prescriptions were not needed. In three instances, for example, they recovered 12 packages of Proventil asthma inhalers; 7 tubes of Cyclocort anti-inflammatory ointment; and a 6-month supply of Norvasc (a drug used to treat high blood pressure). All the drug packages were past their printed expiration dates.
- Upon her husband’s death from chronic lung disease, a widow returned several boxes of inhalant drugs and supplies to an Army base’s pharmacy. Obtained from several MTF pharmacies over a 2-year period, the drugs were valued at about \$5,000. In responding to why she and her husband obtained drugs that were not used, the widow pointed out that her husband was entitled to them, he feared his benefits might be curtailed, and so they stocked up.

- On a Monday afternoon, a patient and his wife tried to fill prescriptions worth \$400 at an Air Force base pharmacy. Somewhat suspicious, the pharmacist called the out-of-state base that wrote the prescriptions. He found that the couple had gotten a 90-day supply of each drug from that out-of-state base pharmacy the previous Friday, and, checking further, that they had gotten 90-day supplies of the drugs at another base pharmacy that same Monday morning. The pharmacist refused to fill the prescriptions and alerted the other pharmacies. The couple left, threatening to formally complain that the Air Force had denied them their duly prescribed and needed medications.

The dollar and safety consequences of DOD's pharmacy programs' lack of integrated computer databases and PRODUR are likely significant. DOD and contractor officials told us they believe that systemwide drug use costs alone are a likely 10 to 20 percent higher than they should be because of inappropriate drug therapy and stockpiling. Applying similar percentages to the estimated 1997 total DOD drug costs would mean that some \$99 million to \$197 million may be unnecessary. The officials also told us that inappropriate drug therapy causes about 10 percent of hospitalization, emergency room, and doctor visit costs. According to a May 1998 Pharmacoeconomic Center analysis, 55,000 MTF hospitalizations per year may be caused by inappropriate drug therapy. This means that at a \$1,500 average daily cost, about \$83 million in MTF hospitalization expenses may be preventable.²⁰ More importantly, patient safety is in jeopardy without PRODUR. Other studies likewise estimated that hospitalizations caused by inappropriate drug therapy range from 3 percent of the general population to as high as 28 percent for the elderly.²¹

In November 1995, some DOD pharmacy officials proposed networking all MTF pharmacies to create a centralized patient medication record database so PRODUR could be applied. This system was estimated within DOD to save more than \$100 million over a 10-year period—more than offsetting the

²⁰The Pharmacoeconomic Center estimated that an automated PRODUR system would prevent only 10 percent of the 55,000 hospitalizations caused by inappropriate drug therapy. This amounts to an estimated annual MTF hospital cost savings of \$8.3 million.

²¹"Drug-Induced Illness Leading to Hospitalization," *Journal of the American Medical Association* (May 1974) and "The Role of Medication Noncompliance and Adverse Drug Reactions in Hospitalizations of the Elderly," *Archives of Internal Medicine* (Apr. 1990). See Selected Bibliography at the end of this report for these and other studies related to hospitalizations as a result of adverse drug events.

Chapter 2
DOD and the Contractors Lack Information
Needed to Effectively Manage Pharmacy
Programs

system's estimated \$21 million cost²²—and to markedly improve patient health care and safety. The proposed UP3 system would create for every patient a single electronic record of all inpatient and outpatient drugs that would be accessible by all pharmacies through a centralized database. The UP3 system would support automated functions such as prospective drug utilization reviews, drug recalls, third-party claims adjudication, and inventory control. The DOD pharmacy officials' 1995 proposal focuses on first integrating MTF pharmacies, but suggests eventual integration with contractor-supported retail and mail-order pharmacy databases. In May 1998, Pharmacoeconomic Center staff incorporated new information that substantially changes these earlier estimates: \$424 million in savings over 10 years, about 10 times greater than the revised \$43 million estimate of the system's cost over the same period.²³

The headquarters office responsible for finally approving all DOD health information technology investments, however, has declined to further fund the project. TMA Office of Information, Technology, and Reengineering officials told us that their aim is to avoid investing in redundant and “stovepipe” technologies. These officials told us that the planned acquisition of the CHCS II system in fiscal year 2003 and alternative improvements to the current CHCS system²⁴ before 2003 will meet the same needs identified in the UP3 proposal. But DOD pharmacy officials disagreed and told us that UP3 would amount to a low-cost, high-return investment in readily available commercial software. They further asserted that such software will be compatible with and required in capturing the pharmacy data component of the future CHCS II computer-based patient record. We agree with the pharmacy officials' assessment and believe the software application could also be immediately interfaced with existing DOD health information systems used to purchase and distribute pharmaceutical supplies—further ensuring future compatibility with the planned CHCS II upgrade.

²²The \$103 million in measurable savings developed by the DOD pharmacy workgroup's November 1995 economic analysis included just two new programs that could be expanded—systemwide volume drug purchase discounts from drug companies and third-party collections. Not estimated were the potential savings from reducing inappropriate prescription drug use and medication stockpiling or educating physicians to choose less costly drugs.

²³The Pharmacoeconomic Center updated DOD's 1995 economic analysis of the UP3 project in order to submit it to TMA headquarters officials to consider in approving project funding. The \$321 million additional savings compared with the 1995 \$103 million estimate include third-party collections (\$176 million increase) and avoided hospitalizations (\$83 million) and avoided MTF doctor visits to rewrite refill prescriptions (\$62 million).

²⁴Alternatives to modify CHCS include integrating report-writing capabilities and linking with a commercial third-party claims processor.

Chapter 2
DOD and the Contractors Lack Information
Needed to Effectively Manage Pharmacy
Programs

TRICARE retail pharmacy contractors told us that they were eager to integrate their databases with MTF pharmacy databases. Although they routinely use PRODUR to manage their commercial health plan pharmacy benefits, they are unable to do so with TRICARE or the national mail-order programs because of the lack of automated linkage to MTF pharmacy patient databases. They told us that they supported the DOD pharmacists' proposal to use PRODUR and would welcome collaborating with DOD as they have done on other TRICARE matters.²⁵ Humana's TRICARE program President and Chief Operating Officer told us that Humana would like to negotiate a contract with DOD whereby Humana would pay for setting up such interactive computer systems within its regions' MTFs and share with DOD the consequent savings—so sure is Humana of the cost-avoidance and patient safety advantages for all parties.²⁶ In April 1998, we informed DOD officials of Humana's proposal. TMA's Acting Executive Director told us that TMA would pursue the matter with Humana.

²⁵DOD is exploring new approaches with TRICARE contractors and others to plan the next generation of TRICARE contracts, expected to start in 2000.

²⁶Humana officials estimated that the technology would cost less than \$0.50 per prescription in TRICARE regions 3 and 4. If this estimate is extended systemwide, we calculate a total estimated cost based on a \$0.50 unit price of about \$27 million per year for MTF pharmacies and about \$4 million per year for TRICARE retail and national mail-order pharmacies.

Applying Commercial Best Practices Could Reduce Costs and Enhance Care Quality

Private sector fee-for-service and managed health care plans work with PBMS to provide well-defined prescription drug benefits to beneficiaries based on the coverage beneficiaries choose to purchase. The PBMS and the plans then work to ensure that the beneficiaries have easy access to their benefits, regardless of where they live. DOD's goal likewise is to provide a uniform, consistent drug benefit to the 8 million active duty personnel, retirees, and their families, regardless of residence. Despite DOD's intentions, however, this is not taking place. DOD's pharmacy policies and practices cause beneficiaries nationwide to encounter different and changing rules affecting their coverage and access to benefits. Also, DOD and its contractors are unable to fully apply widely used commercial best practices, such as retrospective drug utilization reviews, to reduce pharmacy costs, improve patient safety, and control other health care costs caused by drug mishaps.

Program Requirements Create Inconsistent Pharmacy Benefits

Standard business practice in private sector and federal civilian employee health plans is to devote considerable attention to designing the pharmacy benefit's many details. Details such as copayments and nonformulary drug costs can create the incentives or disincentives crucial to balancing the health plan's financial soundness with beneficiaries' freedom to choose pharmacies and drugs.²⁷ In contrast, DOD has not adopted such a systems view of its pharmacy operations. Rather, DOD's pharmacy programs are structured in a way that creates benefit inconsistencies among the programs and the various categories of military beneficiaries.

Lessons can be learned by contrasting DOD's requirements with those provided under the world's largest employer-sponsored health insurance program—FEHBP. FEHBP provided voluntary health insurance coverage for about 9 million federal civilian employees, retirees, and dependents in 1997. During that year, it spent about \$16.3 billion to cover its members.²⁸ To differing degrees, all FEHBP plans cover prescription drugs. In 1995, pharmacy benefit payments for five of the largest FEHBP plans were about

²⁷The rapid growth in PBM and health insurers working together to apply managed care principles to prescription drug programs for optimal, cost-effective drug prescribing and use is further described in a September 1996 study for the Health Care Financing Administration (K. Gondek, Ph.D, and others, *Assessment of the Impact of Pharmacy Benefit Managers*). See also our reports, *Pharmacy Benefit Managers: Early Results on Ventures With Drug Manufacturers* (GAO/HEHS-96-45, Nov. 9, 1995) and *Pharmacy Benefit Managers: FEHBP Plans Satisfied With Savings and Services, but Retail Pharmacies Have Concerns* (GAO/HEHS-97-47, Feb. 21, 1997).

²⁸FEHBP offers several health plan types, including many managed care plans. Nationwide, 374 plans were available in 1997, but the number of plans offered to members varies by location. Under FEHBP, individual health plans establish their own relationships with providers, process individual claims, develop benefits, and devise marketing strategies.

\$2 billion. The standard FEHBP plan brochure includes a prescription drug benefit section reflecting various benefit design decisions that balance the plan's need for cost control with employees' need for the widest drug service selection. Since the brochure's drug benefit section is highly detailed, enrollees have a full explanation of benefits and what to expect in gaining access to pharmacy care and in filing a claim—no matter where they live.

In contrast, DOD's pharmacy programs operate under a complicated and confusing array of policies, regulations, and contractual requirements governing key benefit design elements such as eligibility, drug coverage, and cost-sharing. Understanding the full DOD pharmacy benefit requires a complex matrix displaying the eight beneficiary eligibility categories across the three pharmacy programs, as shown in table 3.1. One special population—the 1.2 million Medicare-eligible retirees²⁹—is about to be redivided into three eligibility categories—space available, Medicare BRACS,³⁰ and TRICARE Seniors.³¹ With the rollout of the Medicare subvention demonstration program later this year, an eighth category for TRICARE Seniors will be added to the DOD matrix. The Medicare program does not provide coverage for prescription drugs, a major expense for older people, who tend to use more prescriptions as they age. Thus, the lack of a DOD systemwide prescription drug benefit for most Medicare-eligible retirees opens a major gap in their health care coverage between Medicare and DOD.³²

²⁹Military retirees lose their TRICARE coverage when they become eligible for Medicare, the national health insurance program for people 65 years and older, certain younger disabled people, and people with kidney failure.

³⁰The National Defense Authorization Act for Fiscal Year 1993 required DOD to provide retail and mail-order pharmacy services to Medicare-eligible retirees and their families who reside where military base downsizing closed an MTF pharmacy (Base Realignment and Closure Commission [BRAC] actions). Such retirees became eligible for mail-order and retail pharmacy programs if they had used the MTF pharmacy in the year preceding its closure. As of March 1998, there were about 386,000 Medicare-BRAC retirees.

³¹The Balanced Budget Act of 1997 authorizes DOD and the Department of Health and Human Services to demonstrate a new option, "Medicare subvention," for military retirees. In general, the subvention option allows Medicare-eligible military retirees to be treated in MTFs, and DOD will be reimbursed by Medicare for medical care (but not prescription drug) costs. The demonstration sites are Biloxi, Miss.; San Antonio and Wichita Falls, Tex.; Lawton, Okla.; Colorado Springs, Colo.; Fort Lewis, Wash.; San Diego, Calif.; and Dover, Del.

³²For more information on this issue, see Military Retirees' Health Care: Costs and Other Implications of Options to Enhance Older Retirees' Benefits (GAO/HEHS-97-134, June 20, 1997).

Chapter 3
Applying Commercial Best Practices Could
Reduce Costs and Enhance Care Quality

Table 3.1: DOD Prescription Drug Benefits and Eligible Beneficiary Categories

	MTF	TRICARE retail pharmacy		National mail-order pharmacy
		Network retail pharmacy	Nonnetwork retail pharmacy	
Drug coverage				
Formulary	Closed	Open	Open	Closed
Generic substitution	Mandatory	Mandatory	Voluntary	Mandatory
Beneficiary eligibility category (eligible population in millions)				
Active duty (1.6 ^a)	\$0 for up to 90-day supply	Not eligible	Not eligible	\$0
Active duty family member enrolled in TRICARE Prime (0.9 ^b)	\$0 for up to 90-day supply	\$5 copayment for each 30-day supply, up to a 90-day supply	Point-of-service option: \$300 individual deductible ^c plus 50% of allowed charge for 30-day supply	\$4 for each 90-day supply
Active duty family member using TRICARE Extra or TRICARE Standard (1.2 ^b)	\$0 for up to 90-day supply	No deductible—15% of negotiated retail drug price for each 30-day supply, up to a 90-day supply	Deductible ^c plus 20% of allowed charge	\$4 for each 90-day supply
Retirees and their dependents under age 65 enrolled in TRICARE Prime (0.3 ^b)	\$0 for up to 90-day supply	\$9 copayment for each 30-day supply, up to a 90-day supply	Point-of-service option: \$300 individual deductible ^c plus 50% of allowed charge for 30-day supply	\$8 for each 90-day supply
Retirees and their dependents under age 65 using TRICARE Extra or TRICARE Standard (2.7 ^b)	\$0 for up to 90-day supply	No deductible—20% of negotiated retail drug price for up to a 90-day supply	Deductible ^c plus 25% of the allowed charge	\$8 for each 90-day supply
Medicare space-available retirees and their dependents aged 65 and older (1.2 ^d)	\$0 for up to 90-day supply	Not eligible	Not eligible	Not eligible

(continued)

Chapter 3
Applying Commercial Best Practices Could
Reduce Costs and Enhance Care Quality

	MTF	TRICARE retail pharmacy		National mail-order pharmacy
		Network retail pharmacy	Nonnetwork retail pharmacy	
Medicare BRAC retirees (0.4 ^d)	\$0 for up to 90-day supply	20% of negotiated retail drug price for up to a 90-day supply	Not eligible	\$8 for each 90-day supply
TRICARE Seniors ^d	\$0 for up to 90-day supply	\$9 copayment for each 30-day supply, up to a 90-day supply	Point-of-service option: \$300 individual deductible plus 50% of allowed charge for 30-day supply	\$8 for each 90-day supply

Note: DOD designed TRICARE as a triple-option program to give beneficiaries a choice among a health maintenance organization (HMO) (referred to as TRICARE Prime); preferred provider organization (TRICARE Extra); and a fee-for-service benefit (TRICARE Standard). TRICARE Prime is the only option for which beneficiaries must enroll and select a “primary care manager,” who will coordinate their health care. Except for active duty personnel, TRICARE Prime beneficiaries may choose to enroll with an MTF or with the TRICARE contractor (active duty personnel are automatically enrolled with an MTF). TRICARE Extra offers lower costs when beneficiaries receive care from network providers. With TRICARE Standard, beneficiaries are generally free to choose any provider.

^aWorldwide.

^bContinental United States only.

^cDeductibles: **Active duty family:** service categories E-1 through E-4: \$ 50/person and \$100/family; service categories E-5 and above: \$150/person and \$300/family. **Retirees:** \$150/individual and \$300/family. **Prime point-of-service option:** annual deductible applies to all covered services.

^d1. 2 million includes 400,000 Medicare BRACs worldwide and about 24,000 TRICARE Senior beneficiaries expected to enroll in the Medicare subvention demonstration program in 1998. Since DOD has not finalized its guidance to TRICARE contractors regarding their retail pharmacy services to TRICARE Seniors, this description is subject to change.

As shown in table 3.1, all beneficiaries are eligible for the no-cost MTF pharmacy program at any MTF, regardless of where they live. Since 1994, however, DOD Health Affairs has issued several policies governing MTF pharmacy services. These policy changes affected how each MTF determined its priorities in providing space-available prescription drug services to families of military personnel as well as to retired military beneficiaries. For example, a June 1994 DOD policy permitted MTF commanders, if necessary on the basis of available resources, to limit pharmaceuticals to non-active duty beneficiary classes in accordance with their priority for care (first, active duty family members, followed by retirees and their family members). In July 1995, the Assistant Secretary of

Defense (Health Affairs) changed the MTF pharmacy support policy and required MTFs to honor all prescriptions for formulary drugs regardless of beneficiary category.

In April 1997, the Acting Assistant Secretary of Defense (Health Affairs) issued a more explicit directive that MTF pharmacies not give preference to active duty and TRICARE prime beneficiaries over all other categories. Instead, the still current April 1997 policy requires that whatever prescription drugs are on the MTFs' formularies must be made available to all beneficiaries. Today, the only basis for turning beneficiaries away from the MTF pharmacy is when the medication is not on its formulary.

Different Formularies Create Benefit Uncertainties and Increase Costs

A key strategy private health plans and PBMs use to provide quality pharmacy care and control costs is consistent, coordinated formulary development.³³ A formulary is a list of prescription drugs, grouped by therapeutic class, that the health plan prefers its physicians to prescribe for its beneficiaries. Drugs are chosen for a formulary on the basis of medical value and price.³⁴ Formularies are used to help control prescription drug costs by (1) limiting the number of drugs a plan will cover; (2) encouraging the use of preferred drugs when coupled, for example, with programs to inform doctors and beneficiaries about the formulary drugs;³⁵ or (3) developing financial incentives to encourage formulary drug use.

Formularies can be categorized in three ways: open, incentive-based, or closed. Open formularies are most used by fee-for-service health plans and are often referred to as “voluntary” because neither beneficiaries nor

³³For more about private sector formulary development and management, see [GAO/HEHS-96-45](#), Nov. 9, 1995, and [GAO/HEHS-97-47](#), Feb. 21, 1997.

³⁴In developing formularies, health plans or PBMs rely on pharmacy and therapeutic (P&T) committees of pharmacists and doctors to analyze prescription drug safety, efficacy, and substitutability. They then rely on the P&T committee to recommend which drugs to include on the formulary to provide physicians a sufficient number of treatment options.

³⁵To encourage compliance, health plans provide doctors with their formularies, in print and electronic forms. These often use dollar sign designations to identify drugs according to their relative cost within a therapeutic class. For example, “\$” can signify a low-cost product, while “\$\$\$\$” signifies a high-cost product.

doctors are penalized if nonformulary drugs are prescribed.³⁶ Incentive-based (also referred to as managed) formularies are becoming increasingly popular because they combine flexibility and greater cost-control features than open formularies. Generally, incentive-based formularies offer beneficiaries lower copayments (if any) when their doctors prescribe the preferred formulary or generic drugs.³⁷ A closed formulary limits coverage to formulary drugs only.³⁸ In private health plans and FEHBP, closed formularies are uncommon. Recent studies have shown that such formularies, which are thought by some health plans to provide greater prescription drug cost control, may actually drive up other health care costs. For example, denying needed drugs could lead to illness and cause higher dissatisfaction levels among patients and doctors.³⁹

DOD's formularies vary depending on where the beneficiary gets his or her prescription drugs. This situation occurs because DOD's many policies and requirements create different formularies for its programs: closed formularies for MTF pharmacies and the national mail-order pharmacies, and open formularies for TRICARE retail. As a result, beneficiaries experience drug coverage and availability uncertainties and they, DOD, and the TRICARE contractors experience unnecessary costs. Each of DOD's 587 MTF pharmacies devises and maintains its own closed formulary.⁴⁰ Since

³⁶In 1994, over 90 percent of PBM-managed formularies were open, according to the American Pharmaceutical Association. For example, Blue Cross and GEHA, the fee-for-service plans covering about half of FEHBP's 9 million civilian beneficiaries, both had open formularies in 1998. However, open formularies are less used by managed care plans like health maintenance organizations (HMO). According to the Novartis Pharmacy Benefit Report: 1997 Trends & Forecasts (East Hanover, N.J.: Novartis Pharmaceuticals Corp., Apr. 1997), in 1996 only 33 percent of HMOs used open formularies.

³⁷With incentive-based formularies, the health plan sponsor still pays for nonformulary drugs but may require beneficiaries to make higher copayments than for formulary or generic drugs. Health plan sponsors may separately use a range of incentives aimed at doctors and pharmacists to promote preferred drugs' use.

³⁸With a closed formulary, when a doctor prescribes a nonformulary brand-name drug, the patient pays the full cost unless the doctor determines that the nonformulary drug is medically necessary for that patient. In 1996, partially closed formularies were most used by HMOs (39 percent). This means that reimbursement is blocked for certain nonformulary drugs, but payment is allowed for others, often depending on medical necessity and cost.

³⁹Susan D. Horn and others, "Intended and Unintended Consequences of HMO Cost-Containment Strategies: Results From the Managed Care Outcomes Project," The American Journal of Managed Care, Vol. II, No. 3 (Mar. 1996) and Richard A. Levy and others, Component Management Fails to Save Health Care System Costs: The Case of Restrictive Formularies (Reston, Va.: National Pharmaceutical Council, 1996).

⁴⁰With over 4,000 medications on the pharmaceutical market, each MTF-specific formulary represents several considerations, such as (1) the site commander's budget and fiscal responsibility, (2) the beneficiary population, (3) potential diagnoses, (4) mission and scope of care, and (5) physician interests and specialization. For more information, see Lt. Col. Vincent Carr and others, "Formulary Management in a Military Treatment Facility," Military Medicine, Vol. 162 (Mar. 1997).

1993, in an effort to improve pharmacy benefit uniformity across MTFs, DOD has required all MTFs to include on their formularies at least those 120 products on the Tri-Service Formulary (TSF).⁴¹ However, there are no restrictions or incentives for physicians, pharmacists, or beneficiaries to prescribe, dispense, or use TSF products.

Since 1997, DOD has considered more restrictive policies and centralized control over formulary decisions in response to congressional and beneficiary complaints about the lack of a consistent systemwide pharmacy benefit and nonstandardized MTF formulary management. However, DOD has not taken a systemwide approach to proposed policy changes. Instead, it has focused only on policies governing the MTF and national mail-order programs, not the TRICARE contractors' programs.⁴² In July 1998, DOD will replace the TSF policy with a more restrictive basic core formulary (BCF) policy (see app. II for the products included on the BCF). Like the TSF policy, the BCF would become the minimum list of products on each MTF outpatient pharmacy formulary. The policy calls for a DOD national P&T committee to decide which drug products to add to or drop from the BCF.⁴³ The BCF policy calls for potentially reducing the number of drugs available in certain high-cost therapeutic classes. These therapeutic classes will be designated on the BCF as "closed"⁴⁴ (see app. III for a list of prescription drugs currently available in therapeutic classes thus far targeted for closure). Under the policy, MTFs would not be allowed to dispense nonformulary products in those BCF therapeutic classes, although case-by-case exceptions would be allowed for medical necessity.

⁴¹Developed and maintained by the DOD Pharmacoeconomic Center, the TSF is a list of prescription and over-the-counter medications and devices under 56 therapeutic classes selected for their cost-effectiveness in treating certain diseases.

⁴²A systemwide approach was proposed in May 1997 but has not been acted upon. At the Acting Assistant Secretary of Defense for Health Affairs' request, the Pharmacoeconomic Center Director proposed a "semiclosed" national formulary that would designate each therapeutic class as closed or open. If the therapeutic class was closed, all three pharmacy programs would cover only the drugs listed on that class's formulary. Any drug not listed within a closed class would be nonformulary and covered only by special request. If the therapeutic class was open, the programs would cover any drug in the class.

⁴³The P&T committee would be composed of voting and nonvoting members, including DOD, Coast Guard, and Department of Veterans Affairs (VA) physicians and pharmacists and representatives from DSCP and a DOD medical standards board.

⁴⁴The BCF policy includes initiating a joint venture with VA to identify drug products to award "volume-based, committed use requirements" contracts to drug companies. DOD expects to receive even cheaper prices from several drug companies competing to win some or all of the military and veterans facility combined outpatient pharmacy market share. These drug products' therapeutic classes will be designated on the BCF as closed so that the contracts will become the mandatory source for all MTF pharmacies, regardless of doctors' and beneficiaries' preferences for competing drugs.

In this way, DOD seeks to ensure that more doctors, pharmacists, and beneficiaries actually use these formulary items.

The lack of a uniform formulary across MTF, TRICARE retail, and national mail-order pharmacy programs has unintended consequences for beneficiary costs and access as well as DOD and contractor costs. Effects include the following:

- Different closed formularies in the MTF pharmacies cause unpredictable cost-shifting among MTFs and allegedly may be causing cost-shifting from MTF pharmacies to TRICARE contractors' retail pharmacy programs. Both situations can create uncertain financial effects within the pharmacy programs and for beneficiaries, as well as cause overall program cost increases.
- TRICARE contractors' bid prices are unnecessarily inflated because, under their contract, they must use open formularies and thus have only limited influence over beneficiary prescription drug use. As a result, the TRICARE contractors told us, they are less able to negotiate deeper price discounts from drug companies without the ability to provide preferred or favorable status on a closed or incentive-based drug formulary. If they could, one contractor estimated, their retail pharmacy drug costs could be reduced between 10 percent and 20 percent (\$23 million to \$47 million on the basis of 1997 retail drug costs of \$233 million).
- Overall costs are higher than necessary for DOD because of its inability to share the TRICARE contractors' formulary savings through the applicable bid-price adjustment provisions of the contracts.⁴⁵

Despite the flexibility and cost-control advantages of incentive-based formularies, such an approach faces various policy, statutory, regulatory, and contractual barriers. For example, DOD believes it lacks authority to charge non-active duty beneficiaries copayments for MTF outpatient prescription drugs. Copayments at MTFs would create incentives for physicians to prescribe and beneficiaries to accept the formulary drugs. At the same time, beneficiaries could elect to make a copayment to obtain the nonformulary drugs at an MTF rather than shop at the contractor's outlets or the mail-order pharmacy with their copayments. An example of a contractual barrier is DOD's position on the formulary types to be used in the TRICARE retail and mail-order pharmacy programs. While DOD required that the new national mail-order pharmacy program contractor

⁴⁵TRICARE contracts are fixed-price, at-risk contracts, with the health care price subject to adjustments for changes in beneficiary population, MTF workload, risk-sharing, and other factors. The risk-sharing adjustment is prorated for both gains and losses; the government and the contractor share in underruns and overruns.

use a closed formulary, DOD's contracts with TRICARE contractors prohibit the use of closed formularies, although they are apparently permitted under TRICARE regulations.⁴⁶

DOD and contractor officials told us that a uniform, incentive-based formulary for all pharmacy programs would be a significant "demand management" and cost-control improvement over the current approaches. The added revenue from MTF copayments, if retained by the affected MTF, could be used to pay for more prescription drug services. Copayments could be designed to create incentives for physicians to prescribe and beneficiaries to use more cost-effective formulary drugs.

Pharmacoeconomic Center officials told us that MTFs could save an estimated \$60 million each year in prescription drug costs using, for example, a \$15 MTF copayment for nonformulary products. One of Foundation's TRICARE program officials estimated that MTF prescription drug costs could drop about 5 percent under an incentive-based formulary—a savings of \$37 million based on 1997 MTF drug costs of \$741 million.⁴⁷ Including potential TRICARE retail pharmacy program formulary savings, systemwide savings could amount to between \$61 and \$107 million per year.

Use of Other Cost-Saving, Care-Enhancing PBM Strategies Not Fully Possible in Current Environment

In addition to formulary management and automated PRODUR systems, private health plans use other PBM strategies to further control prescription drug costs, curb inappropriate prescription drug therapy, and identify physicians who prescribe too many or nonformulary drugs so they can be educated about more appropriate, cost-effective treatments for their patients. Such strategies, referred to as physician and pharmacist interventions, cannot be fully and systematically applied in MTF, TRICARE retail, and national mail-order pharmacy programs (see table 3.2 for a description). DOD and contractor officials cited barriers such as a lack of policies or contract provisions permitting therapeutic interchange, along with the need to integrate each program's pharmacy patient records into a shared database to make managed pharmacy care decisions. Along with improving the quality of drug therapy, these strategies are routinely used in private health plans to control costs and achieve large direct and indirect cost-savings. For example, three FEHBP plans, covering 4.5 million

⁴⁶DOD's regulations implementing the TRICARE managed care program reforms replacing the CHAMPUS program (32 C.F.R. 199.17) allow DOD to develop procedures for the contractors to use appropriate drug formularies in managing retail and mail-order pharmacy programs.

⁴⁷In commenting on a draft of this report, Foundation stated that its estimated 5-percent reduction in costs under an incentive-based formulary was just in utilization savings. Foundation stated that MTFs could also generate substantial revenue through requiring beneficiary copayments.

beneficiaries, estimated saving about \$60 million in 1995 using such strategies. Another PBM told us that, in the FEHBP plans it represents, 1997 savings resulting from prior authorization alone were \$66 million.

Table 3.2: Pharmacy Benefit Management Strategies Involving Physician and Pharmacist Interventions

Intervention	Description
Retrospective drug utilization review	Retrospective drug utilization review programs analyze patterns of drug use to make prescription substitution recommendations to physicians and inform plans and physicians about physicians' prescribing patterns and costs.
Generic substitution	Generic substitution interventions switch medications from brand-name drugs to chemically and biologically equivalent generic drugs. In some states, pharmacists can make this switch if the physician does not indicate that the prescription must be dispensed as written.
Therapeutic interchange	Therapeutic interchanges switch nonformulary medications to preferred formulary drugs, usually with physician consent. Such programs encourage patients to use, and physicians to prescribe, less expensive brand-name formulary drugs considered to be as safe and effective as other, more expensive brand-name drugs.
Prior authorization	Prior authorization is required for medications that may be used to treat conditions or illnesses that are not covered by a plan, are outside the Food and Drug Administration or manufacturer guidelines, have a high potential for abuse, or are ordered in unusual quantities.
Disease management	Disease management programs try to improve the care delivered to a specific group of patients, such as those with diabetes, by recommending particular therapies or patient self-management techniques. Programs use physician and patient education materials to emphasize shared responsibility and cost-effective approaches.

Source: [GAO/HEHS-97-47](#), Feb. 21, 1997.

The consequences of not using these commercial best practices more extensively in DOD pharmacy programs are likely significant. For example, higher costs are caused by using more expensive drug therapies instead of less costly generic or therapeutic alternatives and by not having doctor “report cards” that could be used to encourage physicians to prescribe less costly prescription drugs. According to DOD and contractor officials, systemwide costs likely are 10 to 20 percent higher than necessary. Applying such percentages would mean that the total DOD 1997 pharmacy drug costs of \$987 million may include \$99 million to \$197 million in unnecessary spending.⁴⁸

⁴⁸The range of estimated savings combines the outcomes of several PBM strategies, including potential savings from automated PRODUR systems discussed in the previous section.

Mail-Order Program and Retail Pharmacy Proposal Further Fragment Health Care Services and Raise Costs

Private sector pharmacy benefit managers use mail-order and network retail pharmacy programs to control costs and optimize beneficiaries' access and service. Until recently, DOD procured mail-order and retail pharmacy services as part of the TRICARE managed care support contracts. To secure DAPA drug prices and thus help control TRICARE contractors' pharmacy cost increases, DOD replaced the contractors' mail-order pharmacy programs with a separate national mail-order contract service.⁴⁹ DOD is now considering a proposal to provide retail pharmacy services under one new contract once the new TRICARE managed care support contracts are phased in across the country. Such initiatives separate pharmacy care from health care management, will likely increase systemwide costs, pose additional patient safety risks, and complicate TRICARE contract management.

Mail-Order Pharmacy Program Fragments Services

During the past several years, DOD has used contractor-supported mail-order pharmacy programs as a less costly way to dispense medications to beneficiaries with chronic health conditions, such as asthma and diabetes. Mail order is easy and convenient for beneficiaries to use and can control DOD's costs because prescription drugs are purchased at DAPA prices previously available only to MTF pharmacies. In 1994, DOD contracted for two mail-order pharmacy demonstration programs⁵⁰ and required TRICARE contractors to provide mail-order pharmacy services starting in March 1995. Also, after consulting with VA, the federal agency responsible for implementing the Veterans Health Care Act of 1992,⁵¹ DOD decided to forgo seeking authority under the act for TRICARE contractors to directly receive DAPA prices for their mail-order and retail pharmacy services. Instead, DSCP officials proposed and DOD Health Affairs agreed, upon consulting with VA, that DSCP should issue a contract solicitation for a separate national mail-order pharmacy program.

Under the national mail-order pharmacy program, which became operational in October 1997, the new contractor—Merck-Medco—

⁴⁹In October 1997, Merck-Medco Managed Care, L.L.C. began limited services to beneficiaries across the country under its 5-year contract with DSCP. Fully implemented in April 1998, the program fills prescriptions by mail for chronic health problems such as high blood pressure, asthma, and diabetes.

⁵⁰Starting in November 1994, Value Rx administered programs targeting beneficiaries no longer able to get free prescription drugs because of military base closures and those living where TRICARE mail-order pharmacy services were not yet available. In January 1998, the Merck-Medco program replaced the Value Rx programs.

⁵¹For more information on how VA administers the Veterans Health Care Act of 1992, see *Drug Prices: Effects of Opening Federal Supply Schedule for Pharmaceuticals Are Uncertain* (GAO/HEHS-97-60, June 11, 1997).

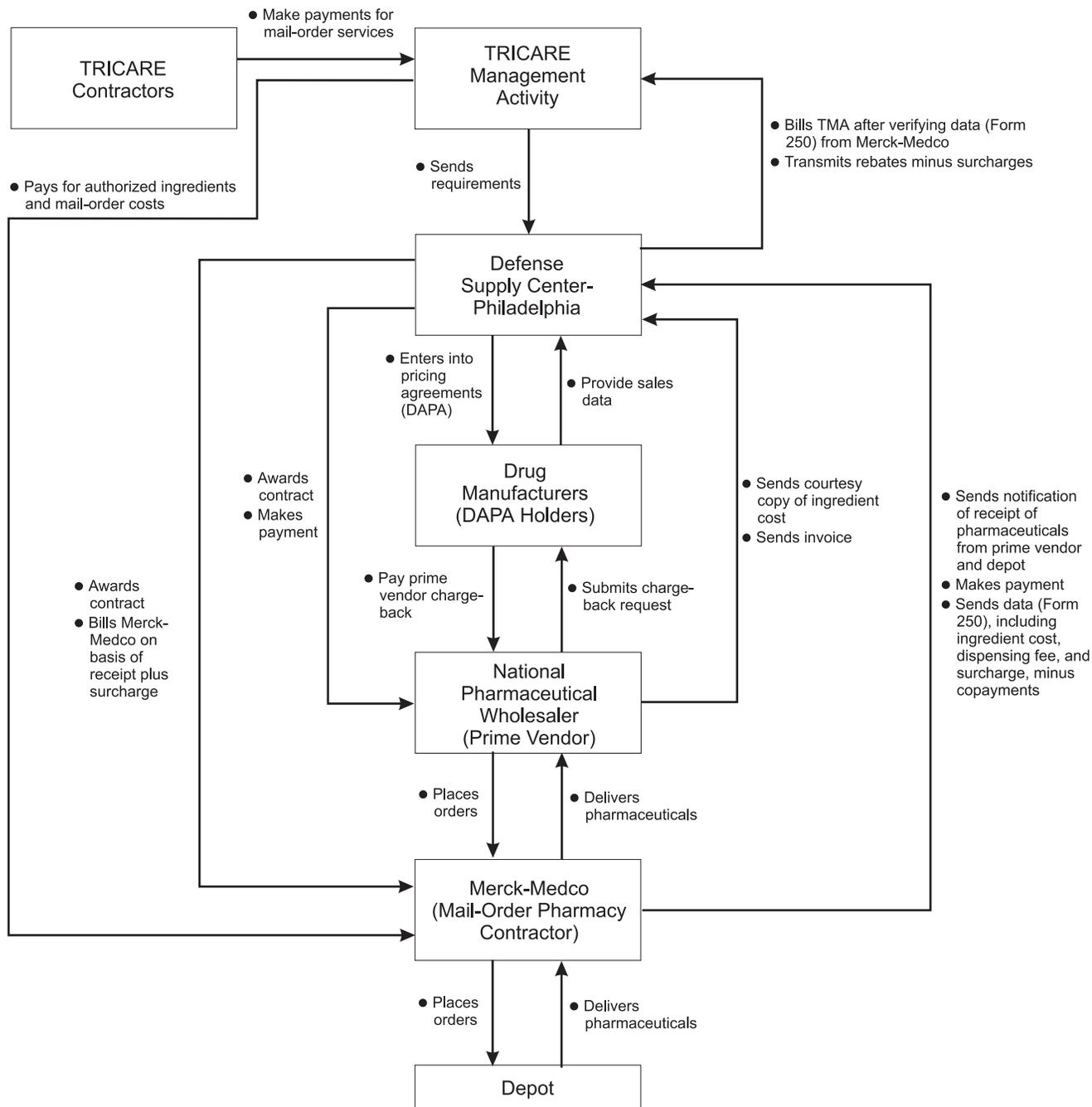
Chapter 4
Mail-Order Program and Retail Pharmacy
Proposal Further Fragment Health Care
Services and Raise Costs

dispenses prescription drugs purchased by a DSCP prime vendor contractor. DOD receives the DAPA prices for these drugs (see fig. 4.1). To fully implement the new program, DOD modified the TRICARE contracts⁵² so that in April 1998 the TRICARE contractors ended their mail-order pharmacy services and began paying Merck-Medco to deliver the services.

⁵²DOD modified its three Foundation contracts (regions 6; 11; and 9, 10, and 12), its Humana contract (regions 3 and 4), and its TriWest contract (regions 7 and 8).

Chapter 4
Mail-Order Program and Retail Pharmacy
Proposal Further Fragment Health Care
Services and Raise Costs

Figure 4.1: National Mail-Order Program Flow Chart



According to several DOD and TRICARE contractor officials, separating mail-order pharmacy from TRICARE health care delivery increases systemwide costs and creates contract administration and health care management problems. Some examples follow:

- While the TRICARE contractors continue providing retail pharmacy services, neither they nor the mail-order pharmacy contractor will have a complete computerized history of each patient's retail and mail-order medications. This presents potential health risks for patients.
- Merck-Medco is not linked to the TRICARE contractors' claims adjudication databases, which are used to track the amount each single beneficiary or family group spends on drugs to determine when the annual deductibles and out-of-pocket cost limits have been reached. Thus, delays in paying claims and errors can be expected. While Merck-Medco is to provide an accounting of beneficiary mail-order expenditures to each contractor, such data sharing is cumbersome and will be delayed by intermediary routing through several DOD offices.
- For the TRICARE contractors to pay for national mail-order pharmacy services, DOD has set up a new billing and payment system that may take months to reconcile.⁵³ Rather than having Merck-Medco directly bill the TRICARE contractors for the mail-order services, DOD plans to pay Merck-Medco for its mail-order services and, in its monthly TRICARE contractor payments, to subtract an amount to cover the contractor's share of the costs. Each year, DOD and the TRICARE contractors will negotiate the monthly offset amount based on projected mail-order demand. A DOD official told us this roundabout process will lead to unnecessary errors and disputes and further complicate and delay the contract bid price adjustment process.⁵⁴
- DOD is also requiring the MTFs to pay for Merck-Medco's mail-order pharmacy services provided to enrolled prime beneficiaries. This will add financial pressure to MTF pharmacy budgets and could lead to further MTF formulary restrictions and consequent access problems for beneficiaries.

A significant problem related to the new mail-order program's formulary was avoided shortly before the April 1998 changeover. During the TRICARE contract modification negotiations, the contractors objected to the new mail-order program's restrictiveness compared with their retail

⁵³Because the TMA Office and DSCP separately administer the TRICARE and national mail-order pharmacy contracts, DOD decided not to allow Merck-Medco to bill TRICARE contractors directly for its services.

⁵⁴For more information on bid price adjustment and other TRICARE contract financing matters, see our August 22, 1997, report, *Defense Health Care: TRICARE Resource Sharing Program Failing to Achieve Expected Savings* (GAO/HEHS-97-130).

pharmacies' formularies. The contractors pointed out to DOD that many of the drugs beneficiaries were used to getting by mail order were excluded from the new program, arguing that beneficiaries would flock to their pharmacies and their costs would increase. In February 1998, we also had alerted DOD to this potential outcome. In March 1998, shortly before the mail-order contract changeover, DOD relaxed the new program's closed formulary to allow nonformulary prescriptions on a case-by-case basis.⁵⁵

Retail Pharmacy Proposal May Have Unanticipated Systemwide Costs and Other Consequences

Since February 1998, DOD has been developing a proposal that would award a contract for a national retail pharmacy program. As currently proposed, the new program would replace retail pharmacy services provided under the TRICARE contracts and would be phased in nationwide as current TRICARE contracts expire and new contractors begin delivering health care services.⁵⁶ Unlike the national mail-order pharmacy program, the current TRICARE contracts would not be affected. It is unclear, however, whether future TRICARE contractors would pay for such services from a separate contractor. Like the mail-order pharmacy program, the proposed retail pharmacy program would keep the national retail pharmacy network contractor out of the DAPA price transaction between DOD and the drug companies. DSCP is planning for a May 1999 contract award, but TMA officials told us in April 1998 that no final decisions have been made to proceed with a contract solicitation. DSCP officials estimate, on the basis of limited data, that retail pharmacy drug costs would be reduced 50 to 60 percent under such a DAPA-priced retail pharmacy program.⁵⁷

A key issue with respect to eligibility for DAPA prices from drug companies to DOD is the respective roles of DOD and the national retail pharmacy benefit manager under the proposed program. Under the Veterans Health

⁵⁵Before April 1998, Merck-Medco was required to return prescriptions unfilled if they were for nonformulary drug products. This caused 25 percent of the prescriptions to be rejected in the first few months of operation. To avoid systemwide cost-shifting caused by the program's closed formulary requirement, DOD modified the contract's requirements. Merck-Medco is now required to request physician approval to substitute a formulary drug for a prescribed nonformulary drug. If no approval is given, nonformulary prescriptions will be dispensed.

⁵⁶The current proposal calls for the national retail pharmacy contractor to stagger its start of services as new TRICARE contracts are initiated region to region. Thus, the program could start in region 11 (Mar. 2000), followed by region 6 (Nov. 2000); regions 9, 10, and 12 (Apr. 2001); regions 3 and 4 (July 2001); regions 7 and 8 (Apr. 2002); regions 2 and 5 (May 2003); and region 1 (June 2003).

⁵⁷DSCP officials told us they are unable to estimate potential dollar savings because they lack TRICARE contractors' commercial drug price data. In commenting on a draft of this report, Humana estimated potential savings of between \$56 million and \$70 million annually, since the DAPA discount would be in addition to current discounts below average wholesale prices in TRICARE contractors' network pharmacies.

Chapter 4
Mail-Order Program and Retail Pharmacy
Proposal Further Fragment Health Care
Services and Raise Costs

Care Act, DAPA prices are available for brand-name prescription drugs that DOD purchases under a “depot contracting system.”⁵⁸ DSCP’s pharmaceuticals group director told us he believes DOD would be eligible for the DAPA prices. However, a VA national acquisition center senior contract attorney told us in February 1998 that DOD had not yet consulted with VA on that proposal. TMA’s Director of Health Services and Operations Support told us in April 1998 that DOD plans to consult with VA as part of its ongoing decision-making process.

Even if permissible, the retail pharmacy network proposal raises several issues:

- Having two separate national contractors for mail-order and retail pharmacy services would further fragment DOD health care services and divorce TRICARE contractors’ medical care management from pharmaceutical care. One contractor official told us that utilization management would have to be extensively reengineered and that it would not be possible to adequately manage patients’ medical care. Another contractor told us that the prescription drugs are important in maintaining the beneficiary population’s good health and that it is difficult to isolate the pharmacy benefit from the remaining medical benefit. All contractors would object to being financially responsible for retail and mail-order pharmacy contractors’ costs since they would have no control over their formularies or operations.
- The proposal would involve a complicated and protracted series of financial transactions to distribute and reimburse millions of prescriptions among multiple organizations. The added companies and DOD agencies that would need to share data systems just for payment purposes could further delay needed pharmacy database integration. Also, the accounting and payment reconciliation complexities expected with the national mail-order program may be exacerbated for the proposed retail program.
- According to TRICARE contractor officials, savings from DAPA prices could be short-term. These officials predicted that drug companies may be motivated to raise DAPA prices to avoid losses from an expanded DOD discounted market. Although these marketplace adjustments are difficult to project because of the many factors that influence drug prices,

⁵⁸38 U.S.C. 8126. The Veterans Health Care Act defines a depot system as a centralized commodity management system through which pharmaceuticals procured by a federal agency are received, stored, and delivered, using a federal or commercially contracted warehouse. Pharmaceuticals may also be delivered directly by the commercial source to the entity using them.

expanding the size of the market that could have access to DAPA prices could put upward pressure on DAPA prices.⁵⁹

- It is unclear how the proposal would affect beneficiary cost-sharing under TRICARE Extra. Currently, cost shares range from 15 to 20 percent of negotiated retail drug prices (see table 3.1). Like DOD, beneficiaries could potentially experience 50 to 60 percent savings if their cost shares were based on DAPA prices rather than on higher commercial prices. However, DOD's proposal does not address that aspect.
- It is also unclear whether the proposal would end beneficiary access to nonnetwork retail pharmacies, which is currently allowed under TRICARE contracts, or lead to a more fragmented subsystem managed by separate contractors. Under TRICARE Standard, beneficiaries who choose to use nonnetwork retail pharmacies must pay higher out-of-pocket costs and submit paper claims to TRICARE contractors for reimbursement of covered benefits. DOD's proposal does not address which contractors, if any, would be required to accommodate claims for nonnetwork retail pharmacy services.

We asked DOD officials why they had not considered allowing TRICARE contractors to provide the information needed for DAPA prices paid directly to DOD. In April 1997, Foundation's Senior Vice President for TRICARE Program Management proposed a method for TRICARE contractors to provide DOD with the data it needs to obtain DAPA prices from drug companies. Foundation estimated that the proposal would save \$250 million throughout the lives of its three TRICARE contracts. Such an approach, if permissible under the Veterans Health Care Act, would avoid the various issues that would be created if a separate national PBM retail pharmacy contractor took over and might offer savings in addition to those that could be achieved from integrating patient databases and implementing other commercial best practices in existing programs, including TRICARE retail. TMA headquarters officials told us this approach was not considered because in 1997 they believed the only way to extend DAPA pricing to a retail pharmacy program was through a separate contract. Another official told us that under the TRICARE contractor approach, other conflicts likely would arise, such as that between TMA's Office of Acquisition Management and Support overseeing TRICARE contracts and DSCP, which administers DAPA prices. DSCP, which developed the subject proposal and is its chief sponsor, has a somewhat competing

⁵⁹In 1994, the Congress sought to extend discounted drug prices for DOD, VA, the Public Health Service, and the Coast Guard to other government purchasers through a cooperative purchasing program. We examined the potential effects of this on federal prices in [GAO/HEHS-97-60](#), June 11, 1997.

Chapter 4
Mail-Order Program and Retail Pharmacy
Proposal Further Fragment Health Care
Services and Raise Costs

mission with TMA. DSCP would gain financially⁶⁰ for example, if its DOD drug market share expanded by replacing existing services with its own retail and mail-order pharmacy contracts. On the other hand, DSCP views the new retail pharmacy contract as a natural extension of its current DOD market to supply MTFs with pharmaceuticals.

⁶⁰DSCP's operations are funded by surcharges on its government sales. The retail pharmacy network program surcharges have not been determined yet, so DSCP could not estimate how much revenue Health Affairs' payments would generate. According to DSCP officials, since DOD's basic mission is to win wars, it follows that its primary health care mission is to support military readiness. DSCP's strategic goal is to capture all of DOD's pharmaceutical supply market. Officials noted that shrinking DOD medical budgets are reducing the MTF pharmaceutical market at the same time DOD is moving more toward contract-supported "peace-time" health care for non-active duty beneficiaries. As such, they believe their agency is the organization best suited to supervise DOD's national pharmacy program contracts, given DSCP's established relationships and success working with drug companies and military units in support of medical readiness.

MTF Funding and Formulary Management Decisions Can Affect Beneficiary Access and Other Pharmacy Program Costs

In the 1990s, as military beneficiaries' demand for prescription drugs increased, the number of MTF pharmacies decreased and funding was tightened. To balance service demand with decreasing resources, MTF pharmacies began regularly adjusting their formularies without considering the systemwide effects on beneficiaries' access and overall DOD pharmacy program costs. Such actions, particularly at smaller MTF pharmacies, have resulted in certain drugs becoming unavailable at some MTFs. The consequent shifting of affected beneficiaries to larger MTF pharmacies has caused inconvenience and driven up systemwide costs. Recognizing these outcomes, in July 1998 DOD will impose a standardized BCF for all MTFs to control such ad hoc formulary adjustments. Since late 1996, both DOD and the TRICARE contractors have been examining why the contractors' drug costs have increased at higher-than-expected rates, allegedly causing significant losses for the contractors.⁶¹ The contractors cited MTF formulary restrictions as the cause and told us they plan to seek additional compensation from DOD. DOD disagrees, and the matter is currently being studied.

MTF Funding and Formularies Affect Beneficiaries' Access

According to DOD pharmacy officials, the closing of one-third of MTFs since 1988 has significantly increased pharmacy workload and costs at the remaining 587 MTFs. Meanwhile, according to DOD pharmacy officials, pharmacy costs are the largest discretionary cost in the MTF budget. As such, MTFs closely monitor and frequently change—usually monthly—their formularies to balance prescription drug demand and volume against costs and funds available. The MTFs define space-available care, for pharmacy purposes, by the drugs carried on the formulary. If a patient's drug is carried there, in effect, space for the patient is deemed to be available. Also, formulary drugs must be equally available to all beneficiary categories. As a result of the budget limitations, MTF commanders have to manage their formularies in a way that limits access to some beneficial medications.⁶² However, neither DOD Health Affairs nor the service medical commands centrally oversee MTF formulary decisions. Our discussions with pharmacy officials and review of 15 MTFs' frequent formulary management decisions between 1995 and 1998 indicated that cost was the

⁶¹A complicating factor is that, according to DOD, neither Foundation (regions 11 and 12) nor Humana (regions 3 and 4)—the complaining parties—separately estimated pharmacy costs from overall health care costs in their formal contract bid prices. Thus, each contractor's pharmacy cost baseline may need to be analytically derived. Foundation did separate pharmacy costs in its region 6, 9, and 10 contracts.

⁶²According to an October 1997 memorandum from DOD's Pharmacy Board of Directors to a retiree health care task force, "These medications may be beneficial to patients and more cost-effective for the health care system, but the requirement to provide space available care poses a financial burden that the MTF cannot accommodate under current budgeting processes."

Chapter 5
MTF Funding and Formulary Management
Decisions Can Affect Beneficiary Access
and Other Pharmacy Program Costs

prevailing reason for adding or dropping drugs.⁶³ The following are some examples:

- In 1995, the MacDill Air Force hospital near Tampa, Florida, decided to add to its formulary the newly available pill form of Imitrex, which is used to treat migraine headaches. However, to limit utilization and thus beneficiaries' access to this high-cost drug in pill form, the pharmacy would accept prescriptions only for patients who had previously responded well to Imitrex injections. Although the pharmacy no longer applies this particular restriction, it applies an Imitrex dispensing restriction to control utilization and costs. Under this restriction, MacDill will dispense only one package per prescription containing nine Imitrex tablets. In the past, physicians would prescribe, and MacDill would dispense, 30 to 60 tablets per prescription. In 1997, at \$12 to \$15 a pill, Imitrex cost the MacDill pharmacy \$103,000.
- In 1996, the Pensacola, Florida, Navy hospital decided not to add Zyrtec (a new allergy drug for upper respiratory symptoms) to the formulary. While recognizing Zyrtec's therapeutic edge over other formulary drugs in the same therapeutic class, MTF officials decided that the high demand for Zyrtec at other Navy MTFs made it cost-prohibitive.
- In 1997, to include Allegra, a widely advertised, nonsedating antihistamine, on their formularies, the McConnell Air Force clinic (Wichita, Kans.) and Eglin Air Force hospital (Fort Walton Beach, Fla.) imposed dispensing restrictions. Both facilities cut the amount in half by dispensing 30 tablets instead of the full 60 tablets for a 1-month supply. Eglin's pharmacy chief told us this should save about \$60,000 each year. Both facilities justified restricting Allegra, estimated by MTF officials to cost 25 to 50 times more than other antihistamines with major sedative side effects, on the basis that it was unwarranted for overnight use.
- In 1997, the Lackland Air Force medical center in San Antonio, Texas, dropped Allegra from its formulary because too much of its \$28 million pharmacy budget was spent to make Allegra available for all beneficiaries. Instead, the MTF pharmacy carries Allegra as a nonformulary drug obtainable only under special order, primarily for military pilots.
- In 1997, to save \$98,000 annually, the Sheppard Air Force hospital in Wichita Falls, Texas, dropped Zocor, a cholesterol-lowering drug, from its formulary. Sheppard patients on Zocor at that time were switched to the cheaper formulary brand, Pravachol.

⁶³Cost-cutting considerations included whether new FDA-approved drugs should be added to the formulary, high-cost brand-name drugs should be replaced with less expensive drugs in the same therapeutic class, special physician-prescribing restrictions should be used to limit demand for high-cost drugs, or dispensing restrictions would cut drug costs.

Chapter 5
MTF Funding and Formulary Management
Decisions Can Affect Beneficiary Access
and Other Pharmacy Program Costs

- The Fort Carson Army hospital in Colorado Springs, Colorado, regularly reviews for reduction the 50 formulary drugs on which it expends the most money. In 1997, the pharmacy spent more than \$350,000 dispensing Prilosec (a widely prescribed ulcer drug). To cut costs, the pharmacy now (1) urges use of the less costly formulary drug Prevacid, (2) requires that physicians justify Prilosec prescriptions in writing (saving about 5 percent), and (3) is developing physician guidance on the best use of Prilosec and Prevacid.

These unilateral formulary decisions represent MTF commanders' attempts to exercise prudent fiscal management and control their rising pharmacy costs. Such actions, particularly at smaller MTF pharmacies, have resulted in certain drugs becoming unavailable at some MTFs and the consequent shifting of affected beneficiaries to larger MTF pharmacies—causing inconvenience and driving up costs elsewhere in the system. DOD pharmacy officials told us that reduced MTF pharmacy funding and downsizing, coupled with increased demand spurred by the availability of free drugs to the beneficiary whether enrolled in the MTF or not, have created a nearly unmanageable situation for MTF pharmacy personnel. These officials told us that current policy should be changed to limit space-available care to active duty and MTF prime enrollees (that is, the beneficiaries who have selected an MTF military doctor as their primary care physician under the TRICARE Prime option). They acknowledged that this “lock out” may shift many unenrolled beneficiaries to the contractors' retail and mail-order programs, or shift Medicare-eligible retirees out of DOD's system altogether. DOD officials agreed that under the current nonintegrated program structure, such a policy would enable MTF pharmacy costs to stabilize and potentially decline, but it would drive up contractors' and beneficiaries' costs. In our view, MTF formulary decisions under the existing space-available policy may be having the same consequences. These include decreased beneficiary access, and hence greater inconvenience, and the potential shifting of beneficiaries to other system sources such that costs can be driven up systemwide. These conditions prompted DOD to approve the BCF policy's more centralized and restrictive approaches to standardize MTF formularies, which will be implemented in July 1998.

Contractors Allege Their Pharmacy Costs Are Increasing as a Result of MTF Formulary Management

In September 1996, Foundation informally asked DOD for additional compensation from unanticipated pharmacy cost increases in its three contract service areas. Foundation initially began delivering TRICARE services in March 1995 in region 11.⁶⁴ According to Foundation, the rate of retail prescriptions per 1,000 enrollees in region 11 more than doubled between May 1995 and May 1996. In Foundation's view, this increase was caused by MTF physicians prescribing drugs no longer carried in the local MTF formularies. Also, in 1997, Humana began complaining to DOD of similar pharmacy cost increases in regions 3 and 4, likewise caused by MTF formulary restrictions shifting beneficiary costs to Humana's retail pharmacies.⁶⁵ As alleged by the TRICARE contractors, many beneficiaries are responding to MTF formulary management by buying their prescription drugs at contractor pharmacies, thereby increasing the volume of prescription drug purchases beyond what the contractors projected in their original bids. Responding to these current, escalating contract issues, DOD is studying the potential causes of the pharmacy cost increases and whether, as the contractors have alleged, MTF formulary management is at fault and equitable financial settlements with the contractors may be in order.

DOD's studies, moreover, are focusing on trends in pharmacy costs and use in Foundation's and Humana's service areas, compared with general MTF pharmacy use trends. Also, DOD is studying pharmacy cost and use trends in retail pharmacies versus MTF pharmacy use in areas in which TRICARE had not yet been implemented.⁶⁶ DOD's study has shown that, in the 3-year period ending in fiscal year 1997, the contractors' retail pharmacy use surged by 43 percent, while MTF pharmacy use declined 5 percent. Moreover, DOD found these differences most pronounced in TRICARE areas.

Notwithstanding these preliminary findings, DOD, Foundation, and Humana disagree on cause. Preliminarily, DOD is asserting that TRICARE retail pharmacy services' ease of access and low cost may have attracted beneficiaries away from MTF pharmacies and to contractors' programs, and thus the consequent cost-shifting may not be due to restrictive MTF

⁶⁴Foundation's three contracts cover Arkansas, California, Hawaii, parts of Louisiana, Oklahoma, Oregon, parts of Texas, and Washington.

⁶⁵Humana's contract covers Alabama, Florida, Georgia, parts of Louisiana, Mississippi, South Carolina, and Tennessee.

⁶⁶In 20 states, DOD did not have TRICARE in place until June 1998. In those states, the CHAMPUS program reimbursed beneficiaries for their retail pharmacy claim costs after deductibles and copayments.

Chapter 5
MTF Funding and Formulary Management
Decisions Can Affect Beneficiary Access
and Other Pharmacy Program Costs

formulary management. Of course, if DOD and the contractors had used interactive pharmacy databases during the periods in question, establishing cause and effect for the contractors' allegations could have been greatly facilitated. In March 1998, moreover, contractor officials told us they disagree with DOD's assertions and are considering submitting formal requests for millions of dollars in additional compensation. DOD's contract administrators told us they know that Humana and Foundation are contemplating formal actions, but until such actions are taken, they are not able to comment further on the matter.

Conclusions, Recommendations, and Agency Comments

Conclusions

As pharmaceuticals play a larger role in DOD's health care system, both the demand for prescription drugs and their costs are growing. In response, DOD has sought ways to contain costs and improve how it manages the \$1.3 billion pharmacy programs. Nonetheless, DOD and its contractors lack adequate prescription drug cost and use information as well as integrated pharmacy patient databases needed to effectively manage beneficiaries' pharmaceutical benefits. Because of such problems as well as formularies that differ among its pharmacy programs, DOD is unable to fully apply proven PBM practices that could save hundreds of millions of dollars each year. The recent DOD mail-order program and retail pharmacy initiative, aimed at achieving savings by using DAPA prices, could cause financial and other problems for TRICARE contractors because pharmacy care would be separated from the contractors' management of medical care. Also, efforts to cut MTF costs by dropping some prescription drugs from formularies could reduce beneficiaries' MTF pharmacy access and increase other MTFs' and potentially the TRICARE contractors' pharmacy costs. Such efforts can be particularly hard financially on retirees aged 65 and older who have no outpatient prescription drug coverage under Medicare or any plan.

In our view, the problems DOD is experiencing delivering its pharmacy benefit stem largely from the way it manages its \$1.3 billion pharmacy programs. Although the MTF and contractor retail and mail-order pharmacy programs share patient populations and are otherwise highly interrelated, DOD has adopted a program-by-program focus rather than a systemwide view of these operations. As a result, changes made to one program inevitably affect the others, and cross-program problems such as nonintegrated databases and different formularies, eligibility, and copayment requirements are having substantial, unintended cost and beneficiary consequences. Although DOD has taken steps to create a Pharmacy Board of Directors and Pharmacoeconomic Center to help improve pharmacy management, a more fundamental overhaul is needed. We believe DOD needs a top-to-bottom redesign of its pharmacy programs that effectively involves the programs' major stakeholders. Also, DOD must commit itself to managing pharmacy programs as a system and bringing needed reforms to the system. Otherwise, DOD's pharmacy problems will continue and likely worsen in the future.

Matters for Congressional Consideration

To help DOD establish a more systemwide approach to managing its pharmacy benefit, the Congress may wish to consider directing DOD to establish a uniform, incentive-based formulary across its pharmacy programs and, as appropriate, to use non-active duty beneficiary

copayments at MTFs to create incentives for physicians to prescribe and beneficiaries to use formulary drugs. Also, the Congress may wish to provide systemwide eligibility for Medicare-eligible retirees not now eligible for such benefits.

Recommendations to the Secretary of Defense

We recommend that the Secretary of Defense direct the Assistant Secretary of Defense (Health Affairs) to undertake a top-to-bottom redesign of the prescription drug benefit across the MTF, contractor retail, and national mail-order pharmacies' programs. This effort should identify and act on policy, oversight, managed care support, regulatory, and contractual changes needed to make the programs as uniform, integrated, and cost-effective as possible. Some changes may require additional legislative authorities and, as appropriate, the Secretary should seek those authorities from the Congress.

Actions should include the following:

- Develop an approach for effectively involving affected stakeholders such as the DOD Pharmacy Board of Directors and Pharmacoeconomic Center, TMA Office of Acquisition Management and Support, DSCP, and TRICARE and national mail-order contractors in decisions bearing on the system. A starting point may be allowing the TRICARE and national mail-order contractors to be represented on the national DOD P&T committee.
- Expeditiously integrate the existing MTF, TRICARE retail, and national mail-order pharmacy patient databases and provide for automated PRODUR system use, rather than waiting for CHCS II implementation in 2003.
- Establish a uniform, incentive-based formulary for MTF, TRICARE retail, and national mail-order pharmacies' programs. This should include using non-active duty beneficiary copayments at MTFs to encourage the use of formulary drugs at MTF, contractor retail, and mail-order pharmacies.
- Extend systemwide prescription drug eligibility to Medicare-eligible retirees not entitled to prescription benefits under the Medicare subvention demonstration and pharmacy base closure programs.
- Review national FEHBP and other private sector prescription drug benefits for lessons learned in establishing new DOD program criteria and revising prescription drug benefits. A guiding principle should be to provide DOD beneficiaries with uniform and geographically convenient access to DOD prescription drug services no matter where they reside.
- Upon integrating the existing pharmacy patient databases, institute electronic billing and claims reimbursement among MTFs and TRICARE contractors.

-
- Upon integrating the MTF pharmacy patient databases, institute mandatory third-party insurer billing for MTF prescription drugs provided to beneficiaries who have other health insurance for prescription drugs.
 - Direct and ensure that MTF pharmacies and TRICARE contractors routinely apply accepted PBM practices such as prior authorization, early refill edits, duplicate therapy edits, and physician-approved therapeutic interchange—consistent with DOD pharmacy benefit policies.
 - Postpone awarding a separate national retail pharmacy PBM contract until the subject reforms have been implemented for current TRICARE retail pharmacy programs and until cost-savings from those reforms can be compared with potential cost-savings under a separate retail pharmacy contract.

Agency and Other Comments and Our Evaluation

In commenting on a draft of this report, DOD agreed with the report and each of its recommendations and described various actions planned or under way to address the recommendations. DOD also stated that, although valid and effective, such practices as MTF pharmacy copayments will incur beneficiary resistance and the perception of benefit erosion. We believe, on the other hand, that the pharmacy benefit, particularly for Medicare-eligible retirees, has already eroded and continues to do so because of MTF funding pressures and ad hoc formulary management. Moreover, we believe that our recommendations taken together will significantly help to reverse this troublesome course. Also, representatives of military retiree advocacy groups told us that beneficiaries would not oppose reasonable MTF copayments if assured they could reliably satisfy their prescription drug needs through DOD's programs. Furthermore, beneficiaries' general acceptance of MTF pharmacy copayments will critically depend, in our view, on DOD's bringing about and promoting marked improvements in its overall pharmacy service efficiency, cost-effectiveness, and quality.

DOD also stated, with respect to extending systemwide drug eligibility to Medicare-eligible retirees, that legislation will be required to fund such services above this population's current MTF space-available services. We believe that if our recommendations are implemented promptly and strategically, the resulting savings would help to defray such added costs. As our report points out, implementing automated PRODUR systems; a uniform, incentive-based formulary; and other PBM best practices could save DOD and its contractors hundreds of millions of dollars annually by substantially lowering prescription drug costs. Also, collecting copayments for nonformulary drugs from all non-active duty beneficiaries

would yield millions more, as would applying safer drug therapies to reduce general health care costs. Likewise, extending the systemwide drug benefit to Medicare-eligible retirees will result in better management of their care and in controls to help avoid excessive use and adverse drug reactions that can cause illness, hospitalization, and even death. In short, the financial and other health benefits to be derived from overhauling the system can be applied against the costs of a military retirees' systemwide drug benefit. DOD's comments in their entirety are included in appendix IV.

We also obtained comments on a draft of the report from the TRICARE contractors—Foundation, TriWest, and Humana. Each agreed with the report and its recommendations. Foundation also stated that the DOD pharmacy system should not be fragmented further by carving out the contractors' retail pharmacy services because pharmacy is an integral part of a patient's total care. TriWest stated that the recommended top-to-bottom redesign of the prescription drug benefit should focus on improving patient access to appropriate pharmaceutical care and containing and better managing DOD and the TRICARE contractors' costs. TriWest affirmed our report's position that unless immediate, collaborative action is taken to fix the problems we identified, DOD's pharmacy programs will likely worsen and costs will continue to hemorrhage. Foundation's and TriWest's comments appear in appendixes V and VI, respectively.

Finally, Merck-Medco, the national mail-order pharmacy contractor, stated that DOD should contract with such PBMS as Merck-Medco rather than seeking to develop its proficiency at MTFs in applying best pharmacy practices. We disagree. The TRICARE contractors and Merck-Medco already provide commercial PBM services that supplement DOD's direct care system's capacity. Moreover, we do not have enough evidence that PBMS would cost less than the MTFs. Thus, we believe DOD needs a system-oriented pharmacy management structure in place and operational experience with best practices before further "make or buy" decisions can prudently be made. Furthermore, Merck-Medco, citing the legislative provision requiring us to study DOD's pharmacy programs, stated that the report does not review the cost impacts of TRICARE contractors' using PBM best practices to provide pharmacy benefits. We disagree. The report identifies barriers preventing TRICARE contractors from fully applying PBM best practices, and provides estimates of the cost and service quality effects on TRICARE contractors, DOD, and beneficiaries. The report also discusses systemwide problems with using PBMS to carve out TRICARE mail-order and retail pharmacy services to extend DAPA pricing to these programs. As a result, the report recommends that DOD postpone action on

Chapter 6
Conclusions, Recommendations, and
Agency Comments

the retail pharmacy DAPA-pricing proposal and makes several other recommendations aimed at removing barriers to the contractors' fully applying best PBM practices. Merck-Medco's comments appear in appendix VII.

DOD and the contractors also provided technical comments, which we incorporated as appropriate.

Drug Therapy Problems Screened by Automated Prospective Drug Utilization Review Systems

When a patient submits a prescription to be filled, the pharmacist transmits patient identification and prescription information to a central database via the computerized prospective drug utilization PRODUR system. In an on-line, real-time environment, the system screens the prescription against the patient's known medical and prescription history. The system then sends the pharmacy a message indicating whether any potential drug therapy problem, such as a drug interaction, exists. If so, the pharmacist consults with the patient, the physician, or both. Afterward, the pharmacist may fill the prescription, but with a different drug than prescribed by the physician, or cancel the prescription. Pharmacies that do not use PRODUR systems are generally limited to comparing the prescription presented with the patient's prescription data maintained at that specific pharmacy. Such a local system would not have the benefit of the patient's complete history. Table I.1 describes the types of drug therapy problems that automated PRODUR systems screen for and the messages that are sent to pharmacies when they are in the process of dispensing a patient's prescription.

Table I.1: Drug Therapy Problems Screened by Automated PRODUR Systems

Drug therapy alert condition	Description
Above maximum dose range	Incorrect drug dosage—lying outside the standard daily dosage range necessary to achieve therapeutic benefit.
Additive side effect	This medication and others on the patient's profile cause side effects that are additive (for example, both cause sedation).
Below minimum dose range	Incorrect drug dosage—lying outside the standard daily dosage range necessary to achieve therapeutic benefit.
Current Rx applies to 90-day therapy	90-day quantity limit on the medication.
Current Rx exceeds 90-day therapy	Exceeds 90-day quantity limit.
Current Rx initiates 90-day therapy	90-day quantity limit, and this is patient's first fill that will be applied toward the limit.
Drug-age conflict	Use of a drug that is not recommended for use in the age group of the patient. This can occur when the patient is too old or too young for the given medication (for example, Retin-A prescription—used to treat acne—for an adult older than a designated age limit).
Drug-allergy interaction	The significant potential for, or the occurrence of, an allergic reaction as a result of drug therapy.

(continued)

**Appendix I
Drug Therapy Problems Screened by
Automated Prospective Drug Utilization
Review Systems**

Drug therapy alert condition	Description
Drug-disease interaction	The potential for, or occurrence of, an undesirable alteration of the therapeutic effect of a given prescription because of the presence of an existing disease (for example, an ulcer drug exacerbates a patient's high blood pressure).
Drug-drug interaction	The potential for, or the occurrence of, an adverse medical effect as a result of the patient's using two or more drugs together (for example, an antacid drug will cause a blood-thinning drug to be absorbed too slowly).
Drug-gender conflict	The medication is not indicated for the gender of the patient (for example, birth control pills for a man).
Drug-indicated disease conflict	The patient has an "inferred" disease based on the other medications the patient is receiving, and the new medication is contraindicated (for example, a patient receives Flovent and Albuterol for asthma and the new Rx is for Timoptic for glaucoma).
Excessive daily dose	Incorrect drug dosage—lying outside the standard daily dosage range necessary to achieve therapeutic benefit.
Excessive daily dose/children	Incorrect drug dosage—lying outside the standard daily dosage range necessary to achieve therapeutic benefit.
Excessive daily dose/over age 65	Incorrect drug dosage—lying outside the standard daily dosage range necessary to achieve therapeutic benefit.
Excessive quantity dispensed	Quantity attempting to be dispensed exceeds standard dosing guidelines.
Indicated for prior drug's side effect	Prompt to pharmacist that this medication is being used to treat side effect of prior drug.
Insufficient daily dose for age	Incorrect drug dosage—lying outside the standard daily dosage range necessary to achieve therapeutic benefit.
Noncovered item	Not part of the pharmacy benefit.
Overutilization/ early refill	Use of a drug in quantities or for durations that put the patient at risk of an adverse medical result.
Pregnancy conflict	Use of the prescribed drug is not recommended during pregnancy.
Significant side effect	Fatal edit—causes prescription to be canceled. The pharmacist should contact the physician.

(continued)

**Appendix I
Drug Therapy Problems Screened by
Automated Prospective Drug Utilization
Review Systems**

Drug therapy alert condition	Description
Therapeutic duplication	The prescribing and dispensing of two or more drugs in the same therapeutic class, such as analgesics (pain relievers), resulting in a combined daily dose that puts the patient at risk of an adverse medical condition, or that incurs additional program cost and no therapeutic benefit.
Underutilization	Use of a drug in insufficient quantity to achieve a desired therapeutic goal.

Source: Prescription Drugs and Medicaid: Automated Review Systems Can Help Promote Safety, Save Money ([GAO/AIMD-96-72](#), June 11, 1996).

Drug Products Included on the Basic Core Formulary

Source: DOD's Pharmacoeconomic Center (San Antonio, Tex.: May 12, 1998), <http://www.pec.ha.osd.mil/Basiccor.htm> (cited June 1, 1998).

Basic Core Formulary

Official Initial Edition

12 May 1998

This is the OFFICIAL initial edition of the BCF. All previous draft versions are not official and should be destroyed. The BCF is the list of medications that MTFs must have on their outpatient formularies. All BCF medications must be stocked at the MTF pharmacy. Compounded prescriptions are NOT addressed by the BCF.

The initial edition of the BCF does not contain "closed" therapeutic classes. In an effort to collaborate with the Department of Veteran's Affairs, it is anticipated that the following therapeutic classes will be proposed for closure:

- Hmg-CoA Reductase Inhibitors
- Proton Pump Inhibitors
- Selective Serotonin Reuptake Inhibitors
- Angiotensin Converting Enzyme Inhibitors
- Glucose Test Strips
- Calcium Channel Blockers
- Beta Agonist Inhalers
- Alpha Blockers
- Nasal Inhaled Steroids

NOTE: Brand names are provided for reference only and do not imply the recommendation of a specific product except when noted. For multi-source items, it is expected that the most favorably priced product will be used.

Definitions:

Oral - Indicates all oral dosage forms and strengths will be provided unless otherwise noted.

Rectal - Indicates all rectal dosage forms and strengths will be provided unless otherwise noted.

Injectable - Inj - Indicates the injectable dosage forms available. In general, injectable dosage forms are not included unless specifically noted. All non-injectable dosage forms

**Appendix II
Drug Products Included on the Basic Core
Formulary**

are included unless specifically noted as an exclusion.

Over-the-counter (OTC) - OTC medications are not included in the BCF unless specifically noted.

* Original Tri-Service Formulary item

AHFS Category and Drug by Generic Name

04:00 Antihistamine Drugs

carbinoxamine/pseudoephedrine oral drops (Rondec Oral Drops)
chlorpheniramine/pseudoephedrine sustained release caps (Deconamine SR)
cyproheptadine oral (Periactin)

08:08 Anthelmintics

*mebendazole oral (Vermox)

08:12.04 Antifungal Antibiotics

*griseofulvin oral
*nystatin oral

08:12.06 Cephalosporins

First-Generation Cephalosporins
cephalexin oral (Keflex)

08:12.12 Macrolides

*erythromycin oral
*ethromycin/sulfasoxazole oral (Pediazole)

08:12.16 Penicillins

*amoxicillin oral
*dicloxacillin oral
*penicillin VK oral

08:12.24 Tetracyclines

*doxycycline oral
*tetracycline oral

08:16 Antituberculosis Agents

isoniazid oral
pyrazinamide oral
*rifampin oral

08:18 Antivirals

*acyclovir oral (Zovirax)

08:24 Sulfonamides

*sulfasalazine oral

08:40 Miscellaneous Anti-infectives

*metronidazole oral
*sulfamethoxazole/trimethoprim oral

**Appendix II
Drug Products Included on the Basic Core
Formulary**

12:08.08 Antimuscarinics/Antispasmodics

*dicyclomine oral (Bentyl)
ipratropium bromide solution for inhalation (Atrovent)
ipratropium bromide oral inhaler (Atrovent)

12:12 Sympathomimetic (Adrenergic) Agents

albuterol solution for inhalation
*albuterol oral inhaler (does NOT include Proventil HFA)
*insect sting treatment kit Inj
*isometheptene/dichloralphenazone/acetaminophen oral (Midrin)
salmeterol oral inhaler (Serevent)

12:20 Skeletal Muscle Relaxants

cyclobenzaprine oral (Flexeril)
*methocarbamol oral (Robaxin)

20:04.04 Iron Preparations

*ferrous sulfate oral

20:12.04 Anticoagulants

*warfarin oral (Coumadin) - *Coumadin brand (DuPont) only*

24:04 Cardiac Drugs

Beta-Blockers

*atenolol oral (Tenormin)
*propranolol oral (Inderal, Inderal LA)

24:04 Calcium-Channel Blockers

nifedipine sustained release oral
diltiazem oral
*verapamil oral

24:04 Miscellaneous

Antiarrhythmics

*quinidine gluconate oral (Quinaglute)
*quinidine sulfate oral
*digoxin oral (Lanoxin) - *Lanoxin brand (Glaxo-Wellcome) only*

24:06 Antilipemic Agents

*colestipol oral (Colestid)
gemfibrozil oral (Lopid)
*niacin immediate release oral
*pravastatin oral (Pravachol)

24:08 Hypotensive Agents

Angiotensin Converting Enzyme (ACE) Inhibitors

captopril oral
*lisinopril oral (Prinivil, Zestril)

Alpha-Adrenergic Blockers

*prazosin oral
*terazosin oral (Hytrin)

Miscellaneous

*clonidine oral
hydralazine oral (Apresoline)

**Appendix II
Drug Products Included on the Basic Core
Formulary**

24:12 Vasodilating Agents

*isosorbide dinitrate oral
*nitroglycerin sublingual
nitroglycerin translingual spray (Nitrolingual Spray)

28:08.04 Nonsteroidal Anti-Inflammatory Agents

Nonsalicylate NSAID, Antirheumatic

*ibuprofen oral (Motrin)
*indomethacin immediate release oral (Indocin)
naproxen immediate release oral (Naprosyn)

Salicylates, Antirheumatic

salsalate oral (Disalcid)

28:08.08 Opiate Agonists

*codeine/acetaminophen oral - *Tylenol #3 and Tylenol w/ Codeine Elixir or equivalents*
oxycodone/acetaminophen oral (Tylox, Percocet)

28:08.92 Miscellaneous Analgesics and Antipyretics

acetaminophen/butalbital/caffeine oral (Fioricet)

28:12.04 Barbiturates - Anticonvulsants

*phenobarbital oral
*primidone oral (Mysoline)

28:12.12 Hydantoins - Anticonvulsants

*phenytoin oral (Dilantin) - *Dilantin brand (Parke-Davis) only*

28:12.92 Miscellaneous Anticonvulsants

*carbamazepine oral (Tegretol) - *Tegretol brand (Ciba) only*
divalproex oral (Depakote)

28:16.04 Antidepressants

SSRI Antidepressants - The selection of one or more SSRIs for the BCF will be made as the result of a VA/DoD joint contracting action. Until the contracting action is complete, a specific SSRI will not be listed on the BCF. In the meantime, each MTF is required to have at least one SSRI on its formulary.

Other Antidepressants

trazodone oral (Desyrel)

Tricyclic Antidepressants

amitriptyline oral (Elavil)
doxepin oral (Sinequan)
imipramine oral (Tofranil)
nortriptyline oral (Pamelor)

28:16.08 Antipsychotic Agents

haloperidol oral (Haldol)

28:20 Anorexigenic Agents and Respiratory and Cerebral Stimulants

*methylphenidate oral (Ritalin)

28:24.92 Miscellaneous Anxiolytics, Sedatives, and Hypnotics

buspirone oral (Buspar)
*hydroxyzine oral (Atarax, Vistaril)

**Appendix II
Drug Products Included on the Basic Core
Formulary**

28:28 Antimanic Agents

lithium oral

28:92 Miscellaneous Central Nervous System Agents

carbidopa/levodopa immediate release oral (Sinemet)

36:26 Diabetes Mellitus Diagnostic Agents

Blood Glucose Monitoring Devices and Strips

Precision QID (for Precision QID meter)

40:12 Replacement Preparations

*potassium chloride oral

40:28 Diuretics

*furosemide oral

*hydrochlorothiazide oral

40:28.10 Potassium-Sparing Diuretics

*HCTZ /triamterene oral - Maxzide or equivalent

40:40 Uricosuric Agents

*probenecid oral (Benemid)

48:16 Expectorants

guaifenesin sustained release oral (Humibid LA)

guaifenesin/phenylpropanolamine sustained release oral (Entex-LA)

52:04.04 Antibiotics (EENT)

gentamicin oph oint (Garamycin)

*gentamicin oph soln (Garamycin)

*hydrocortisone/neomycin/polymyxin otic (Cortisporin Otic)

neomycin/polymyxin/bacitracin oph oint (Neosporin)

*neomycin/polymyxin/gramicidin oph soln (Neosporin)

52:04.06 Antivirals (EENT)

idoxuridine oph soln (Herplex)

52:04.08 Sulfonamides (EENT)

sulfacetamide oph soln (Sodium Sulamyd)

*sulfacetamide oph oint (Sodium Sulamyd)

52:08 Anti-Inflammatory Agents (EENT)

Anti-Inflammatories, Nasal

*beclomethasone dipropionate nasal pocket inhaler (Vancenase Pockethaler)

flurbiprofen oph soln (Ocufen)

prednisolone oph susp (Pred Mild, Pred Forte)

52:10 Carbonic Anhydrase Inhibitors

dorzolamide oph soln (Trusopt)

52:16 Local Anesthetics (EENT)

antipyrine/benzocaine/glycerin otic soln (Auralgan)

52:20 Miotics (EENT)

*pilocarpine oph soln

pilocarpine oph gel

**Appendix II
Drug Products Included on the Basic Core
Formulary**

52:24 Mydriatics (EENT)

dipivefrin oph soln (Propine)

52:36 Miscellaneous EENT Drugs

Ophthalmic Beta Blockers

betaxolol ophthalmic drops (Betoptic, Betoptic S)

timolol oph soln (Timoptic)

56:22 Antiemetics

promethazine oral (Phenergan)

promethazine rectal suppositories (Phenergan)

56:40 Miscellaneous Gastrointestinal Agents

cimetidine oral (Tagamet)

omeprazole oral (Prilosec)

ranitidine oral (Zantac)

68:04 Adrenals

Inhaled Corticosteroids

beclomethasone oral inhaler

beclomethasone double strength oral inhaler

*budesonide oral inhaler (Pulmicort Turbuhaler)

fluticasone oral inhaler (Flovent)

*triamcinolone acetonide oral inhaler (Azmacort)

*prednisolone oral (Prelone solution or equivalent)

*prednisone oral (Deltasone, Orasone)

68:12 Contraceptives

*ethinyl estradiol 30/40 and levonorgestrel 0.05/0.075/0.125 oral (Triphasil)

*ethinyl estradiol 30 / norgestrel 0.3 oral (Lo/Ovral)

*ethinyl estradiol 35 / norethindrone 0.5/0.75/1 oral (Ortho-Novum 77/77)

*ethinyl estradiol 35 / norethindrone 1 oral (Ortho-Novum 1/35)

68:16 Estrogens

*conjugated estrogens oral (Premarin)

*conjugated estrogens vaginal cream (Premarin Vaginal Cream)

68:20.08 Insulins

insulin human 70/30 (NPH/Reg) Inj (OTC)

*insulin human NPH 100u/mL Inj (OTC)

*insulin human regular 100u/mL Inj (OTC)

68:20.20 Sulfonylureas

glipizide immediate release oral (Glucotrol)

glyburide oral (DiaBeta, Micronase)

micronized glyburide oral (Glynase)

68:32 Progestins

*medroxyprogesterone acetate oral (Provera)

68:36.04 Thyroid Agents

*levothyroxine oral (Levothroid, Synthroid)

68:36.08 Antithyroid Agents

*propylthiouracil oral

**Appendix II
Drug Products Included on the Basic Core
Formulary**

84:04.04 Antibiotics (Skin and Mucous Membrane)

clindamycin phosphate vaginal cream (Cleocin)
erythromycin 2% topical (Eryderm, A/T/S, T-Stat, etc) *excluding pads*

84:04.12 Scabicides and Pediculicides

permethrin 5% cream (Elimite)

84:04.16 Miscellaneous Local Anti-Infectives

*selenium sulfide 2.5% shampoo (Selsun)
silver sulfadiazine cream (Silvadene)

84:06 Anti-Inflammatory Agents (Skin and Mucous Membrane)

hydrocortisone 2.5% rectal cream (Anusol-HC)
hydrocortisone 25 mg rectal suppositories (Anusol-HC)
triamcinolone acetonide 0.1% topical (Kenalog)

84:08 Antipruritics and Local Anesthetics

*phenazopyridine oral (Pyridium)

86:12 Genitourinary Smooth Muscle Relaxants

*oxybutynin chloride oral (Ditropan)

86:16 Respiratory Smooth Muscle Relaxants

*theophylline sustained release oral (Slo-bid or equivalent)
*theophylline oral liquid

88:08 Vitamin B Complex

folic acid 1 mg oral

88:28 Multivitamin Preparations

prenatal vitamins with folic acid 1 mg oral

92:00 Unclassified Therapeutic Agents

*allopurinol oral (Zyloprim)

Antiasthma, Other

cromolyn sodium solution for inhalation (Intal)
cromolyn sodium oral inhaler (Intal)

94:00 Devices

*spacer, inhaler
insulin syringes



Last Updated: 05/22/98

Therapeutic Classes Proposed for Closure on the Basic Core Formulary

DOD's basic core formulary (BCF) policy calls for potentially reducing the number of drugs available in certain therapeutic classes that account for much of the military treatment facilities' (MTF) outpatient pharmacy expenditures. These therapeutic classes will be designated on the BCF as "closed," and MTFs would not be allowed to dispense nonformulary products except on a case-by-case basis when determined to be medically necessary. Classes will be closed as committed use requirements contracts are awarded by the Defense Supply Center at Philadelphia (DSCP) or VA's National Acquisition Center. According to DOD, the joint DOD and VA contracts are intended to increase uniformity and improve the clinical and economic outcomes of drug therapy.

Table III.1 lists the prescription drugs currently available in therapeutic classes that the DOD Pharmacoeconomic Center has preliminarily identified for closure. If DOD implements the policy just in its MTF pharmacy program, the policy could affect other DOD pharmacy programs costs as well as where beneficiaries obtain prescriptions. For example, once DOD closes the therapeutic class for treating high cholesterol, it is possible that the brand-name drug Zocor may be dropped from all MTF formularies. Military and civilian physicians currently treating patients with Zocor would have to switch the patients to a formulary brand, such as Pravachol, if they are to continue obtaining their prescriptions through MTF pharmacies. If DOD implements the policy just for its MTF pharmacy program, it is also possible that the patients would have to get Zocor prescriptions filled at non-MTF pharmacy sources, such as TRICARE contractors.

Table III.1: Prescription Drugs Currently Available in Therapeutic Classes Proposed for Closure

Generic name	Brand name
Antilipemic agents (Hmg-CoA reductase inhibitors). Used to treat high blood pressure. Estimated MTF costs per year: \$40 million to \$50 million.	
Pravastatin	Pravachol
Fluvastatin	Lescol
Lovastatin	Mevacor
Simvastatin	Zocor
Atorvastatin	Lipitor
Cerivastatin	Baycol
Miscellaneous gastrointestinal agents (proton pump inhibitors). Used to treat gastric ulcer, peptic ulcer, esophageal reflux. Estimated MTF costs per year: \$30 million.	
Lansoprazole	Prevacid
Omeprazole	Prilosec

(continued)

**Appendix III
Therapeutic Classes Proposed for Closure
on the Basic Core Formulary**

Generic name	Brand name
Miscellaneous gastrointestinal agents (H2 receptor antagonists). Used to treat gastric ulcer, peptic ulcer, esophageal reflux. Estimated MTF costs per year: \$19 million.	
Cimetidine	Tagamet
Ranitidine	Zantac
Famotadine	Pepcid
Nizatidine	Axid
Hypotensive agents (angiotensin converting enzyme (ACE) inhibitors). Used to treat high blood pressure. Estimated MTF costs per year: \$20 million.	
Benazepril	Lotensin
Fosinopril	Monopril
Quinapril	Accupril
Lisinopril	Prinivil, Zestril
Captopril	Capoten
Cardiac drugs (calcium-channel-blockers). Used to treat high blood pressure. Estimated MTF costs per year: \$36 million.	
Nifedipine	Adalat, Procardia
Diltiazem	Cardizem, Dilacor, Tiazac
Verapamil	Calan, Isoptin, Verelan
Amlodipine	Norvasc
Felodipine	Plendil
Isradipine	Dynacirc
Nicardipine	Cardene
Nisoldipine	Sular
Hypotensive agents (alpha-adrenergic-blockers). Used to treat high blood pressure. Estimated MTF costs per year: \$9 million.	
Prazosin	Minipress
Terazosin	Hytrin
Doxazosin	Cardura
Antidepressant agents (selective serotonin reuptake inhibitors). Used to treat depression. Estimated MTF costs per year: \$24 million.	
Fluoxetine	Prozac
Sertraline	Zoloft
Paroxetine	Paxil
Glucose test strips. Use: diabetes diagnostic agent. Estimated MTF costs per year: \$10 million.	
Not applicable	Precision QID
Not applicable	Accu-Chek
Not applicable	Advantage
Not applicable	One Touch

(continued)

**Appendix III
Therapeutic Classes Proposed for Closure
on the Basic Core Formulary**

Generic name	Brand name
Sympathomimetic (adrenergic) agents (beta agonist inhalers). Used to treat asthma. Estimated MTF costs per year: \$5 million.	
Albuterol	Proventil, Ventolin, other generic forms
Salmeterol	Serevent
Anti-inflammatory agents (nasal). Used to treat allergies, chronic sinus congestion. Estimated MTF costs per year: \$4.5 million.	
Beclomethasone	Vancanase pockethaler
Mometasone	Nasonex
Fluticasone	Flonase
Triamcinolone	Nasacort

Note: The Pharmacoeconomic Center estimated \$198 million to \$208 million in annual MTF pharmacy expenditures based on 1996-97 sales data from DSCP suppliers. According to Pharmacoeconomic Center officials, the costs in this table underestimate actual MTF expenditures by about 10 percent because of data errors and not accounting for MTF purchases from VA suppliers.

Comments From the Department of Defense



HEALTH AFFAIRS

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, DC 20301-1200

05 JUN 1998

Mr. Stephen P. Backhus
Director, Veterans' Affairs
and Military Health Care Issues
Health, Education, and Human Services Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Backhus:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE HEALTH CARE: A Fully Integrated Pharmacy System Would Improve Beneficiary Services and Cost-Effectiveness," dated May 21, 1998, (GAO Code 101604).

DoD concurs with the report and its recommendations. The report examines the complexities surrounding DoD Pharmacy Programs and the need to redesign the pharmacy benefit and associated managerial functions. The report highlights some of the formidable obstacles which currently prevent full adoption of private sector best business practices for managing the DoD pharmacy benefit, i.e. legislative restrictions, entitlement provisions, restrictions on access to favorable drug prices, etc., and efforts by DoD to work around or through these impediments.

Due to the short suspense allowed, it was not possible to prepare comments fully coordinated through the Department, however, attached are comments from the DoD Pharmacy Board of Directors and DoD Pharmacy Programs Director. Technical comments were provided directly to the GAO staff for consideration. My point of contact for this action is Colonel Patricia Hobbs, (703) 681-8910.

Sincerely,

A handwritten signature in black ink that reads "Gary A. Christopherson".

Gary A. Christopherson
Principal Deputy Assistant Secretary

Enclosure:
As stated

GAO DRAFT REPORT-DATED May 21, 1998
(GAO CODE 101604)

“DEFENSE HEALTH CARE: A Fully Integrated Pharmacy System Would
Improve Beneficiary Services and Cost-Effectiveness”

DEPARTMENT OF DEFENSE COMMENTS TO THE RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Acting Assistant Secretary of Defense (Health Affairs) to undertake a top-to-bottom redesign of the prescription drug benefit across the MTF, contractors’ retail, and national mail order pharmacy programs. This effort should identify and act on policy, oversight, managed care support, regulatory, and contractual changes needed to make the programs as uniform, integrated, and cost-effective as possible. Some changes may require additional legislative authorities and, as appropriate, the Secretary should seek such authorities from the Congress.

DoD Response: Concur.

RECOMMENDATION 2: Develop an approach for effectively involving such affected stakeholders as the DoD Pharmacy Board of Directors and Pharmacoeconomic Center, TMA Office of Acquisition Management and Support, Defense Supply Center, Philadelphia, and TRICARE and national mail order contractors in decisions bearing on the system. A starting point may be allowing the TRICARE and national mail order contractors representation on the DoD Pharmacy and Therapeutics Committee.

DoD Response: Concur. A policy document and implementation plan establishing a DoD Pharmacy and Therapeutics Committee was signed on March 23, 1998. Membership includes the TRICARE and national mail order pharmacy contractors.

RECOMMENDATION 3: Expeditiously integrate the existing MTF, TRICARE retail and national mail order pharmacy databases and provide for automated PRODUR system use, rather than waiting for CHCS II implementation in 2003.

DoD Response: Concur.

RECOMMENDATION 4: Establish a uniform, incentive-based formulary for MTFs, TRICARE retail pharmacy and national mail order pharmacy programs. This should include such measures as non-active duty beneficiary co-payments at MTFs to encourage the use of less costly formulary drugs at MTFs and contractor retail and mail order pharmacies.

Appendix IV
Comments From the Department of Defense

DoD Response: Concur. A uniform DoD Basic Core Formulary policy and implementation was signed on April 27, 1998, and will apply to all drug distribution points throughout DoD. In addition, our redesign of the pharmacy benefit will include tiered (incentive-based) co-pays for the retail and mail order programs. However, instituting co-pays at MTF pharmacies is beyond our current legislative authority. Our redesign of the pharmacy benefit would include a request for this authority.

RECOMMENDATION 5: Extend system-wide prescription drug eligibility for Medicare-retirees not eligible for benefits under the Medicare subvention demonstration and pharmacy base-closure programs.

DoD Response: Concur. A legislative change is required that authorizes and funds DoD to provide this benefit for this population, over and above the current Space Available entitlement.

RECOMMENDATION 6: Review national FEHBP and other private sector prescription drug benefit plans for lessons learned in establishing new DoD program criteria and revising prescription drug benefits. A guiding principle should be to provide DoD beneficiaries with uniform and geographically convenient access to DoD prescription drug services no matter where they reside.

DoD Response: Concur. Currently, DoD routinely applies a large number of best business practices in the management of one of the largest and most efficient drug distribution programs in the country. Unlike the private sector, there are a number of constraints DoD must contend with that hinders implementation of a uniform pharmacy benefit. However, to the maximum extent possible, DoD will explore and adopt additional best business practices used in the private sector which can be applied to the government sector practice of pharmacy. It must be noted however, that many private sector business practices, such as incentive-based formularies, tiered co-pays, co-pays within MTFs, etc, although valid and effective, will incur beneficiary resistance and perception of an erosion of benefits.

RECOMMENDATION 7: Upon integrating the existing pharmacy patient databases, institute electronic billing and reimbursement among MTFs and TRICARE contractors.

DoD Response: Concur.

Appendix IV
Comments From the Department of Defense

RECOMMENDATION 8: Upon integrating the MTF pharmacy patient databases, institute mandatory billing of third party insurers for MTF prescription drug services provided beneficiaries with other health insurance prescription drug benefits.

DoD Response: Concur. This capability is included in the Functional Economic Analysis (FEA) of the Universal Pharmacy Patient Profile (UP³), a Commercial Off The Shelf (COTS) software product, recommended for implementation by DoD pharmacy leadership.

RECOMMENDATION 9: Direct and ensure that MTF pharmacies and TRICARE contractors routinely apply such accepted Pharmacy Benefit Management (PBM) practices as prior authorization, early refill edits, duplicate therapy edits, and physician approved therapeutic substitution, consistent with uniform DoD pharmacy benefit policies.

DoD Response: Concur. These are examples of best business practices as noted in the sixth listed Recommendation.

RECOMMENDATION 10: Postpone awarding a separate national retail pharmacy PBM contract until the subject reforms have been implemented for current TRICARE retail pharmacy programs and cost-savings from those reforms can be compared with potential cost-savings under a separate retail pharmacy contract.

DoD Response: Concur. DoD's consideration for a retail "carve-out" was only at the concept development stage. If approved, it will not be implemented until the next version of TRICARE contracts, TRICARE 3.0, and will be part of the top-to-bottom redesign mentioned in the first Recommendation.

Comments From Foundation Health Federal Services, Inc.

Foundation Health™
Federal Services, Inc.

May 27, 1998

Via Facsimile 202-512-4619

Mr. Stephen Backhus
Director, Veterans' Affairs and Military
Health Care Issues
United States General Accounting Office
Washington, D.C. 20548

Re: Comments on Draft Pharmacy Report

Dear Mr. Backhus:

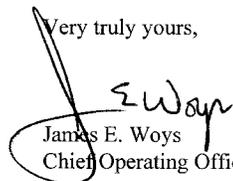
Thank you very much for allowing Foundation to review GAO's draft report on Defense Health Care: A Fully Integrated Pharmacy System Could Improve Beneficiary Services and Cost-Effectiveness. The report is an excellent review of the current environment of how pharmaceuticals are delivered in the Defense Health Care Program. We strongly agree with the Principal Findings, Matters for Congressional Consideration, and Recommendations as presented in the draft report.

Foundation is of the opinion, in the interest of providing high quality of care to our beneficiaries, that the current pharmacy system not be fragmented any further with potential pharmacy carve-out programs. Pharmacy is an integral component of the "total" care provided to a patient. It must be provided in concert with other care provided in the health care delivery system. We also believe that quality care represents the most cost-effective care.

I am providing minor technical comments on the draft report directly to GAO staff.

Again, thank you for the opportunity to review your draft report. If you have any questions, please do not hesitate to call me at (916) 353-6629.

Very truly yours,



James E. Woys
Chief Operating Officer

JEW: nev

SACRAMENTO HEADQUARTERS: 2025 Aerojet Road Rancho Cordova, CA 95742
02-9004-1316-10200-12/97

Comments From TriWest Healthcare Alliance



May 28, 1998

In reply please refer to:
98-CM-01475

Mr. Stephen P. Backhus
Director, Veterans' Affairs
and Military Health Care Issues
United States General Accounting Office
Washington, DC 20548

Dear Mr. Backhus:

TriWest Healthcare Alliance, the Managed Care Support Contractor for the TRICARE Central Region, thanks you for the opportunity to review and provide comments regarding the United States General Accounting Office Report to Congressional Committees on Defense Health Care: A Fully Integrated Pharmacy System Would Improve Beneficiary Services and Cost-Effectiveness. We applaud the GAO for their outstanding efforts in examining the Department of Defense's pharmacy programs and recommending opportunities to improve their cost-effectiveness and beneficiary service quality. TriWest shares the GAO's serious concerns regarding the continued increases in pharmacy costs.

We fully concur with the GAO recommendation that the Secretary of Defense should direct the Assistant Secretary of Defense (Health Affairs) to undertake a top-to-bottom redesign of the prescription drug benefit across the MTFs, TRICARE contractors' retail pharmacies, and national mail order pharmacy programs. This effort should identify and act on policy, oversight, managed care support, regulatory, and contractual changes needed to make the entire DoD pharmacy program as uniform, integrated, and cost-effective as possible. All of the stakeholders such as DoD, TRICARE contractors, and the national mail order contractor should be effectively involved in the decisions bearing on the problem. Key considerations must include beneficiary access to appropriate pharmaceutical care, the costs to taxpayers, the pharmacy cost impact to DoD and the TRICARE contractors, and the overall ability to manage healthcare costs. Proposed solutions may require additional legislative authorities, and TriWest is committed to providing appropriate support to this effort.

The GAO report pointed out that the Department of Defense currently provides prescription drug benefits through three programs: MTF outpatient pharmacies, TRICARE contractors' retail pharmacies, and a national contractor's mail order service. Representatives from these three pharmacy providers must work together to expeditiously integrate the existing MTF, TRICARE retail, and national mail order pharmacy patient databases and provide for an automated prospective drug utilization review (PRODUR) program at the earliest possible date. Through proven pharmacy benefit management practices an integrated pharmacy patient data base will facilitate prior-authorization, early refill edits, duplicate therapy edits, drug interactions, and physician-approved therapeutic substitution. The results will be better patient care that is more cost effective and efficient. In terms of better tools to manage this area, TriWest would also support the adoption of commercial best practices and the establishment of a uniform formulary to reduce current benefit variability and increase overall cost-effectiveness. A uniform formulary should apply equally to all three DoD pharmacy programs. This would provide a uniform pharmacy benefit to all beneficiaries and help prevent cost-shifting from one

15451 North 28th Ave. ★ Phoenix, Arizona 85023

Phone: (602) 564-2000 ★ Fax: (602) 564-2049 ★ <http://www.triwest.com>

**Appendix VI
Comments From TriWest Healthcare
Alliance**

component of the DoD pharmacy program to another. Thus, it would help to minimize the tendency to cost-shift to the TRICARE contractors whenever MTF pharmacies close or curtail prescription drug services, as was detailed in the report.

We further recommend that the uniform formulary promote therapeutic substitution and requirements for pharmacies to consult with prescribers to ensure that the most effective, cost-efficient prescription drug is dispensed. TriWest fully supports the GAO's recommendation that the government should effectively involve the affected stakeholders in a national DoD Pharmacy and Therapeutics committee to establish a uniform formulary for MTFs, TRICARE retail pharmacies, and the national mail order pharmacy program.

It is essential that all efforts to effectively manage prescription drug costs be integrated into an overall approach to medical management. Best Commercial Practices have proven that the integration of medical and drug data and management can improve practice patterns and healthcare outcomes. Included in this process is comparative data on health outcomes, provider profiling with peer group and best practice comparisons, and disease state management programs such as asthma, diabetes, and cardiovascular disease. The potential clearly exists to improve clinical outcomes, quality of care, and at the same time optimize healthcare expenditures.

TriWest fully supports the GAO recommendation for postponing the award of a separate national retail pharmacy benefit management contract until reforms have been implemented for the current TRICARE retail pharmacy programs, and cost-savings from those reforms can be compared with potential cost-savings under a separate retail pharmacy contract. TriWest would hope that this process would include a review of whether it would make more sense to fully integrate pharmacy management with medical management rather than decoupling it. After all, that is the current focus of much of the private sector.

As these issues are being worked, TriWest believes that the government would be well advised to bring the financial realities of this issue into adjustment between the TRICARE contractors and the government by adding a provision to the current Managed Care Support contracts that allows for pharmacy costs to be included in the bid price adjustment formula.

In summary, TriWest Healthcare Alliance is fully committed to working with the Department of Defense, the other regional Managed Care Support contractors, and the national mail order pharmacy contractor in a top-to-bottom redesign of the pharmacy program. Immediate action is essential. Otherwise the DoD's pharmacy program will likely worsen, and program costs will continue to hemorrhage.

Sincerely,


David J. McIntyre, Jr.
President and CEO

Comments From Merck-Medco Managed Care, L.L.C.

 Merck-Medco
Managed Care, L.L.C.

100 Summit Avenue
Montvale, NJ 07645-1753
201-358-5400

June 1, 1998

Mr. Stephen P. Backhus
Director, Veteran's Affairs and Military Health Care Issues
United States General Accounting Office
Washington, DC 20548

Re: GAO/HEHS-98-176
Defense Health Care: A Fully Integrated
Pharmacy System Would Improve
Beneficiary Services and Cost-Effectiveness

Dear Mr. Backhus:

Merck-Medco Managed Care, L.L.C. ("Medco") is appreciative that it was included in GAO's fact finding efforts in preparing this Report, as well as the opportunity to offer comment on the Report. The issues addressed in the Report are of critical importance as the Department of Defense moves forward with a variety of initiatives for providing prescription drugs and related professional services to its beneficiaries. Medco serves as DoD's NMOP as well as the PBM to Anthem in TRICARE Regions 2/5. In administering the NMOP benefit Medco has experienced first hand many of the problems recited in your draft report.

One of the original topics which GAO was asked by the Congress to study was "[t]he cost impacts, if any, of the use of commercial managed care methods of furnishing pharmaceuticals to covered beneficiaries by TRICARE program contractors instead of procuring pharmaceuticals at discounted prices pursuant to section 8126 of title 38, United States Code." (P.L. 105-85, Section 747(a)(4))." While this aspect of the GAO's inquiry apparently was eliminated or modified in subsequent discussions with the Congress, the findings of such an inquiry would have been important in providing direction to the future of DoD's programs.

**Appendix VII
Comments From Merck-Medco Managed
Care, L.L.C.**

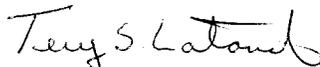
We are disappointed that while the draft report speaks to the value of the innovative services available from private sector PBMs, the Report emphasizes how the DoD can (1) incorporate PBM capabilities, but not the PBMs themselves, into the DoD pharmacy structure, or (2) use the private sector PBMs as a vehicle for extending government price controls through the use of DAPA pricing. We are concerned that the report doesn't provide enough emphasis on the value that can be realized by using the PBMs to provide services to DoD through normal commercial practice.

The PBM industry must remain at the cutting edge of providing prescription drugs and related services to both our private and public sector health plan clients. The highly competitive health benefits market demands that innovation. DoD cannot, in our view, duplicate the innovation that occurs in an industry such as ours which invests significant resources in developing new programs to manage the cost and quality of prescription drugs and related health care services. DoD should not focus its efforts on building an internal PBM capability, when the "buy" option is so readily available to it through existing PBMs.

PBMs have developed sophisticated programs to work with physicians to implement best medical practice guidelines through profiling and educational programs. Medco has invested heavily in developing health management programs to encourage the rational use of prescription drugs to manage not only the cost of the prescription drug benefit, but to improve health outcomes and ameliorate total medical expenditures. We encourage DoD to examine programs devoted to improving patient care and to look at opportunities to impact total medical costs through appropriate drug use, rather than limiting its focus to strategies for reducing costs in the drug benefit. Adoption of PBMs' "best practices" may have obviated the need to move to closed formularies, which limit the prescription drugs available to a beneficiary population which has limited or no opportunity to select among competing health plan alternatives.

In our dual role as the NMOP and the PBM to Anthem in Regions 2/5, we look forward to continuing to work with the DoD and GAO as this process moves forward. Thank you again for the opportunity to comment.

Sincerely,



Terry S. Latanich
Senior Vice President
Government Affairs

GAO Contacts and Staff Acknowledgments

GAO Contacts

Daniel P. Brier, Assistant Director, (202) 512-6803
Carolyn R. Kirby, Evaluator-in-Charge, (202) 512-9843

Staff Acknowledgments

In addition to those named above, the following individuals made significant contributions to the preparation of this report: Janice S. Raynor and Arthur D. Trapp, who evaluated the adequacy of information that DOD and its contractors have to manage the pharmacy programs; James D. Espinoza, who evaluated the merits and limitations of separate national mail-order and retail pharmacy programs to secure DAPA prices; Cheryl A. Brand, who evaluated the potential systemwide effects of MTF funding and formulary management decisions; John C. Hansen and Joel A. Hamilton, who provided technical advice on lessons learned from pharmacy benefit managers and private sector best practices in pharmacy benefit management; Joseph T. McDermott, who provided technical advice in evaluating DOD health care system information technology proposals and management; and Dayna K. Shah, who provided legal analysis and support in evaluating DOD pharmacy program authorities and requirements.

Selected Bibliography

Beard, K. "Adverse (Drug) Reactions as a Cause of Hospital Admission in the Aged." Drugs & Aging (1992).

Bergman, U., and B. E. Wilholm. "Drug-Related Problems Causing Admission to a Medical Clinic." European Journal of Clinical Pharmacology (1981).

Bero, L.A., Ph.D., and others. "Characterization of Geriatric Drug-Related Hospital Readmissions." Medical Care, Vol. 29, No. 10 (May 1991).

Black, A.J., M.B., and K. Somers, M.B. "Drug-Related Illness Resulting in Hospital Admission." Journal of the Royal College of Physicians of London, Vol. 18, No. 1 (Jan. 1984).

Caranasos, G.J., M.D., and others. "Drug-Induced Illness Leading to Hospitalization." Journal of the American Medical Association, Vol. 228, No. 6 (May 6, 1974).

Col, M., and others. "The Role of Medication Noncompliance and Adverse Drug Reactions in Hospitalizations of the Elderly." Archives of Internal Medicine, Vol. 150, No. 4 (Apr. 1990), pp. 841-45.

Colt, Henri G., M.D., and Alvin P. Shapiro, M.D. "Drug-Induced Illness as a Cause for Admission to a Community Hospital." Journal of American Geriatrics Society (Apr. 1989).

Davidson, K.W., M.D., and others. "Reduction of Adverse Drug Reactions by Computerized Drug Interaction Screening." The Journal of Family Practice, Vol. 25, No. 4 (1987), pp. 371-75.

Hallas, J., M.D., and others. "Drug-Related Illness as a Cause of Admission to a Department of Respiratory Medicine." Respiration, Vol. 59 (1992), pp. 30-34.

Levy, M., L. Mermelstein, and D. Hemo. "Medical Admissions Due to Noncompliance With Drug Therapy." International Journal of Clinical Pharmacology, Therapy, and Toxicology, Vol. 20, No. 12 (1982), pp. 600-604.

Levy, M., M. Lipshitz, and M. Eliakim. "Hospital Admissions Due to Adverse Drug Reactions." The American Journal of the Medical Sciences (Jan.-Feb. 1979).

Selected Bibliography

Manasse Jr., H.R. "Medication Use in an Imperfect World: Drug Misadventuring as an Issue of Public Policy, Part 1." American Journal of Hospital Pharmacy, Vol. 46 (May 1989).

McKenney, J. M., and W.L. Harrison. "Drug-Related Hospital Admissions." American Journal of Hospital Pharmacy, Vol. 33 (Aug. 1976).

Miller, R.R., Pharm.D., Ph.D. "Hospital Admissions Due to Adverse Drug Reactions." Archives of Internal Medicine, Vol. 134 (Aug. 1974).

Public Citizen Health Group. Worst Pills, Best Pills: The Older Adult's Guide to Avoiding Drug-Induced Death or Illness. New York: Pantheon, 1988.

Stewart, R.B., M.S., and others. "Drug-Related Admissions to an Inpatient Psychiatric Unit." American Journal of Psychiatry (Sept. 1980).

A Study of the Impact of Inappropriate Ambulatory Drug Therapy on Hospitalization. Washington, D.C.: Health Information Designs, Inc., May 16, 1978.

Sullivan, S.D., and others. "Noncompliance With Medications Regimens and Subsequent Hospitalizations: A Literature Analysis and Cost of Hospitalization Estimate." Journal of Research in Pharmaceutical Economics, Vol. 2, No. 2 (1990).

Trunet, P., and others. "The Role of Drug-Induced Illness in Admissions to an Intensive Care Unit." Intensive Care Medicine (1986).

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013

or visit:

Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC

Orders may also be placed by calling (202) 512-6000 or by using fax number (202) 512-6061, or TDD (202) 512-2537.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

<http://www.gao.gov>

**United States
General Accounting Office
Washington, D.C. 20548-0001**

**Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100**

**Official Business
Penalty for Private Use \$300**

Address Correction Requested

