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**An Empirical Study of the Management and Oversight of
Medical Services Acquisition within the Department of
Defense**

14 December 2009

by

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LT Kathleen A. Colter, USN, and
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Abstract

The purpose of this MBA report is to determine how the Department of Defense (DoD) manages and oversees medical services acquisition. In April 2009, the Market Research Analyst reported that the DoD is set to spend \$47 billion in healthcare in 2010. Our analysis delves into the medical services procurement practices of the DoD as well as the surveillance and training measures for the Army, Navy, and Air Force. To accomplish this objective, we developed an online pilot survey to address the current state of medical services acquisition management. The pilot survey gathered empirical data from military organizations responsible for the management and oversight of Federal Service Code Q--medical services. This pilot survey was conducted from 26 October to 6 November 2009 and obtained an 85% response rate. The results show that the Services all use personal and non-personal medical services contracts and the majority of the contracts are fixed-price. Additionally, the majority of Medical Contracting Commands identified staffing shortfalls, healthcare provider salary cap issues, and a shortage of trained and experienced contracting personnel as challenges in contracting for medical services. The findings of this MBA report will support on-going research in the area of services acquisition management.

Keywords: Medical Services Contracting, Acquisition Management, Lifecycle Management, Contractor Oversight



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Disclaimer: The views represented in this report are those of the author and do not reflect the official policy position of the Navy, the Department of Defense, or the Federal Government.



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List of Acronyms and Abbreviations

ACC	Air Combat Command
ACO	Administration Contracting Officer
ADCMS	Army Direct-Care Medical Services
AFB	Air Force Base
AFMS	Air Force Medical Service
AKT	Acquisition Lead-Time
AMEDD	Army Medical Department
AM&S	Acquisition Management & Support Directorate
ARS	Acquisition Resource Service
AT&L	Acquisition Technologies and Logistics
BLS	Bureau of Labor Statistics
BPA	Blanket Purchase Agreement
BUMED	Bureau of Medicine & Surgery
CAD	Contract Administration Division
CBO	Congressional Budget Office
CHCC	Center for Health Care Contracting
CO	Contracting Officer
CONUS	Continental United States
COR	Contracting Officer Representative
COTR	Contracting Officer's Technical Representative
CRS	Congressional Research Service
DALT	Development Acquisition Lead-time
DAU	Defense Acquisition University
<i>DAWIA</i>	<i>Defense Acquisition Workforce Improvement Act</i>
<i>DFARS</i>	<i>Defense Federal Acquisition Regulations Supplement</i>
DoD	Department of Defense
<i>FAR</i>	<i>Federal Acquisition Regulation</i>
FBA	Franchise Business Activity



FFP	Firm-fixed-price
FP-EPA	Fixed-Price With Economic Price Adjustment
FPDS	Federal Procurement Data System
FSC	Federal Service Code
FSS	Federal Supply Schedule
FTE	Full Time Equivalent
FY	Fiscal Year
GAO	Government Accountability Office
GDP	Gross Domestic Product
GSA	General Services Administration
HCA	Head of Contracting Activity
HCAA	Health Care Acquisition Activity
HMO	Health Maintenance Organization
IDIQ	Indefinite Delivery Indefinite Quantity
IRB	Institutional Review Board
IMAP	Innovative Medical Acquisition Program
IPA	Independent Practice Associations
ISA	Individual Set-Aside
LH	Labor Hour
MATO	Multiple-award Task Order
MBA	Master of Business Administration
MCS	Managed Care Support
MEDCOM	Medical Command
MHS	Military Health System
MTF	Medical Treatment Facility
NIH	National Institute of Health
NMLC	Naval Medical Logistics Command
OA	Office of Acquisition
OASD/HA	Office of the Assistant Secretary of Defense/Health Affairs
OCONUS	Outside the Continental United States
OFPP	Office of Federal Procurement Policy



OIG	Office of the Inspector General
OMB	Office of Management and Budget
O&S	Operation and Support
OSD	Office of the Secretary of Defense
PALT	Procurement Acquisition Lead-time
PBA	Performance-based Acquisition
PARC	Principal Assistant Responsible for Contracting
PHO	Physician Hospital Organizations
PM	Program Manager
PO	Physician Organization
POS	Point-of-service
PPO	Preferred Provider Organizations
PSC	Product Service Code
PSO	Provider-sponsored Organizations
PWS	Performance Work Statement
QAE	Quality Assurance Evaluator
QAP	Quality Assurance Personnel
QASP	Quality Assurance Surveillance Plan
RCO	Regional Contracting Offices
SATO	Single Award Task Order
SCD	Services Contracts Division
SOW	Statement Of Work
TAP	TRICARE Acquisition Practices
TM	Time-and-Material
TMA	TRICARE Management Activity
TOM	Task Order Manager
TQMC	TMA Quality Monitoring Contractors
TRICARE	Tri-service Healthcare System
US	United States
USA	United States Army
USAF	United States Air Force



USD	Under Secretary Of Defense
USN	United States Navy
VA	Department Of Veterans Affairs
VA/FSS	Department of Veterans Affairs Federal Supply Schedule
VAAR	<i>Veterans Affairs Acquisition Regulation</i>
VHA	Veterans Health Administration
USC	<i>United States Code</i>



I. Introduction

A. Background

Federal agencies procure a wide range of goods and services each year. During the late 1990s, these services became an increasingly important spending category and today they represent the largest category of government spending. The Department of Defense (DoD) is the largest purchaser of services within the federal government, spending billions of dollars each year on the procurement of services. In Fiscal Year (FY) 2008, the DoD spent \$200 billion in purchasing services; this amount constitutes almost a doubling in obligations on contracts for services from FY01 to FY08, representing an increase of 72% compared to a decade ago (GAO, 2009). The dependence on contractors and the dollar value of the contracts awarded by the DoD have continued to grow over the past few years.

The DoD acquires a wide range of service contracts, to include professional, administrative, and management support; construction, repair, and maintenance; information technology services; research and development; medical services; operation of government-owned facilities; transportation, travel, and relocation (GAO, 2003). In our research, we will focus on the procurement of medical services, which accounted for the largest change in the DoD's use of service contracts. An increasing demand for healthcare providers is evident since DoD obligations for medical services increased by about 412% from FY1996 through FY2005, from \$1.6 billion to \$8 billion, respectively (GAO, 2007a).

According to the Market Research Analyst report dated April 22, 2009, healthcare spending for the DoD is set to reach \$47 billion in 2010 (MRA, 2009). Because of the DoD's reliance on healthcare services and this steady increase in medical services expenditures, there is a need for adequate oversight of the services being performed by the contractor. Additionally, Congress is very interested in how the DoD is administering service contracts during a time when serious budget



pressures are facing the nation (GAO, 2007a). While previous MBA reports (Compton & Meinshausen, 2007; Miranda & McMaster, 2008; Solomon & Travieso, 2008) studied the management and oversight of services contracts in general, very little research has been focused on the DoD's management of medical services acquisition. This MBA report extends an area of Compton and Meinshausen's research (2007) and seeks to evaluate and analyze the current state of medical services procurement in the DoD. A part of the research includes a literature review, empirical data analysis, and focus on the development of a medical services procurement survey.

The DoD operates one of the largest and most complex health systems in the nation and has a dual healthcare mission that includes readiness and benefits (GAO, 2007b). The DoD healthcare mission is carried out through military hospitals and clinics, commonly referred to as Military Treatment Facilities (MTF). Under the authority of the Surgeon General, each military agency is responsible for acquiring and managing its own medical services. The US Navy and the US Army each manage acquisitions for their MTFs and other activities through a regional command structure: the Naval Medical Logistics Command (NMLC) and the Army Healthcare Acquisition Activity (HCAA), respectively. The US Air Force manages acquisition for its MTFs at an installation level, the Air Force Medical Logistics Office. The organization structure of the Air Force offices varies, as do the number and size of contracting offices reporting to them. We will address a comprehensive overview of healthcare contracting and a review of literature relevant to the private and public sector, Tri-Service Healthcare (TRICARE) System, and the Department of Veterans Affairs (VA) in Chapter II.

B. Purpose

The objectives of this MBA research project are to determine how to best collect empirical data regarding the current state of medical services acquisition management—in particular, at the regional and installation levels across military



agencies—and to conduct an initial analysis of collected empirical data. The results of this project will be used for further research, as well as in support of on-going research sponsored by the Acquisition Research Program, Naval Postgraduate School. It will specifically contribute to the project, *Managing the Service Supply Chain in the Department of Defense: An Empirical Study of Current Management Practices* (Apte, Apte, & Rendon, 2008), which discusses the DoD's management of services acquisition.

This research will also address how the procurement of healthcare services in the DoD differs from the procurement of healthcare services in the private sector and in the Department of Veterans Affairs (VA). We will explain the differences and similarities in methods of contracting for direct healthcare.

C. Research Questions

This research project will focus on answering five questions in the area of medical services acquisition (Apte, Apte, & Rendon, 2008):

- What types of medical services are typically contracted for at military installations, and what is the annual expenditure for these services?
- What types of acquisition strategies, procurement methods, and contracts are being used to acquire medical services?
- How are medical service contracts managed?
- What training do the contract and project/program management personnel receive?
- Do the respective military Services acquire and manage medical Services Differently?

D. Project Scope Limitations

The Federal Procurement Data System (FPDS) Next Generation identifies and describes 24 Product Service Codes (PSC), service categories used within the Federal Government. The PSCs are grouped according to a lettering system that



provides the product and service codes that will be used in the FPDS. Appendix A provides a complete list of service categories and the PSC's classification. Our literature review in Chapter II will discuss the medical services procurement practices within the private and public sector, TRICARE managed services, and the Department of Veterans Affairs. However, this research will focus on the acquisition of medical services within the DoD. Although TRICARE and the VA are a part of our literature review and are important components of the DoD healthcare system, we do not provide an in-depth study of medical service acquisition for TRICARE or the VA.

This research is limited to DoD installations in the Continental United States (CONUS), eliminating overseas Medical Contracting Commands. Another limitation in this project is the number of Medical Contracting Commands selected to conduct our information gathering; we conducted interviews with at least one of each military Service's Medical Contracting Command. Reporting and investigating the findings on all the DoD Medical Commands is beyond our research scope.

E. Research Methodology

The main objective of this MBA research report is to develop an effective survey instrument to collect preliminary medical services data used to answer the research questions. We designed the survey and sent it to a select number of medical contracting personnel for a pilot test. We analyzed the quantitative results from the pilot testing and used those results to make adjustments in the survey to increase the effectiveness of its questions. The preliminary results pertaining to the acquisition and management of medical services are provided in this report.

F. Organization of Report

This report is organized into five chapters, as follows: Chapter II will provide a literature review, including a discussion of acquiring medical services in the public and private sector. Chapter II will also provide a broad overview of TRICARE and



the VA medical services contracting. TRICARE is a regionally managed healthcare program for active duty members and their families, and the VA provides healthcare to veterans and their beneficiaries. Chapter III will focus on the procurement of medical services within each agency of the DoD, Army, Air Force, and Navy. Chapter IV will discuss the development and implementation of the pilot survey as well as provide the initial empirical analysis of data collected during the pilot test. Finally, Chapter V will provide conclusions and recommendations for improving the survey for follow-on research reports. We have also included in Chapter V recommendations for further research in medical services acquisition within the DoD.

G. Summary

This chapter presents the overall components of the research effort. First, it provides the research background information on medical services acquisition and the purpose of the research. Next, this chapter describes the research questions and project limitations. And last, it presents the research methodology and the organization of the report. The next chapter will provide an overview of healthcare contracting and a review of the literature relevant to medical services acquisition in the private sector, TRICARE, and the Department of Veterans Affairs.



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II. Overview and Literature Review of Medical Services Acquisition

A. Introduction

This chapter will review the existing literature dealing with medical services acquisition. The following terminologies are used interchangeably throughout this report: acquisition, procurement, and contracting.

We conducted an extensive examination of current policy and procedures to capture the true benefits of medical services contracting in the healthcare industry for the private and public sector. We also conducted a review of the contracting procedures for TRICARE and the Department of Veterans Affairs to understand the contracting procedures for these agencies.

We then assessed the growing cost of healthcare to determine how much is being spent on healthcare services in the United States, which is a serious concern for the DoD. Medical services contracts are negotiated with individual providers and are either sole-source or are awarded through a competitive bidding process to provide a variety of healthcare specialties or medical services. Hospitals across the country are negotiating medical services contracts to maximize resources within their organization in an effort to reduce cost and improve efficiency.

Unfortunately, the existing literature and research available does not effectively address the role of medical services contracting and how it impacts cost, access to care, improvement of patient outcomes, and efficiency in the private and public sector healthcare market. A number of sources cover the growing cost of healthcare, but there are no specific reports on medical services contracting. Conversely, contracting for non-clinical services such as laundry, housekeeping, security, claims processing, and catering within healthcare organizations are more traditional and easily accessed.



Although medical services' contracting is gaining greater interest as a means of increasing efficiency in the healthcare industry, there is no clear method in either the private or public sectors readily available for adaptation within the DoD. This chapter of the report will discuss a few distinctive capabilities that are within the medical services contracting process, to include managed care contracting, correctional medical services contracting, and medical services contracting companies that provide medical personnel to staff healthcare organizations. As noted in the previous chapter, healthcare is one of the largest growing expenditures for the DoD, particularly in the area of medical services, and further research is required to evaluate the procurement process of health services in the private and public sector, as well as in the DoD.

B. Private and Public Sector Acquisition Of Medical Services

1. Overview of Healthcare

The United States is the world leader in medical technological innovations and spends more per-capita on healthcare than most nations, according to a 2008 Congressional Budget Office (CBO) paper. However, the United States healthcare system is fraught with agencies that have competing agendas in an extremely fragmented environment. Healthcare in the United States is sometimes viewed as inefficient and as an extremely difficult system for the average consumer to navigate (Mullen, Frank & Rosenthal, 2009). Nevertheless, healthcare organizations are collaborating to address the many challenges within the healthcare industry to develop viable solutions.

Healthcare is very dynamic, and the rapidly changing technological advances are improving treatment, diagnosis, and enhancement of the overall quality of life for Americans. The healthcare market is constantly shifting, and healthcare facilities are being forced to become more efficient and reduce operating expenses. Contracting for medical services is one of the vehicles many healthcare organizations are using to address the burgeoning cost of healthcare in the United States.

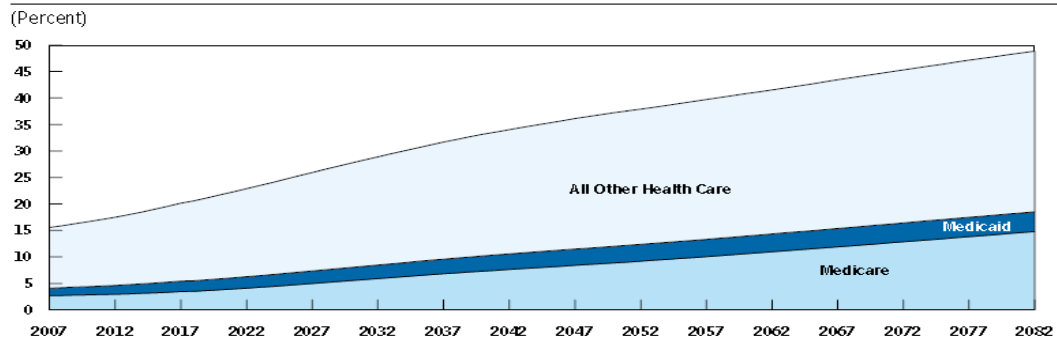


The healthcare system in the United States operates as public or private organizations with federal and state government-run facilities; for example, the Veterans Health Administration and the Military Health System (MHS) are federally operated healthcare systems.

Medical facilities are usually organized as non-profit or for-profit institutions that provide emergency, and outpatient and inpatient services, as well as specialty clinics for the general public's healthcare needs.

According to the National Institute of Health (NIH), the United States spends \$30.5 billion per year on research and development in healthcare (Department of H&HS, 2009). Healthcare is one of the largest industries in the United States, and it is growing by huge percentages annually. With advances in medical technology, research, and development, spending on healthcare is projected to increase dramatically. The CBO estimates spending on healthcare in the United States reached approximately 15.2% of the Gross Domestic Product (GDP) in 2007. Furthermore, the CBO projects that by the year 2017, healthcare spending will reach 19.5% of the GDP and will continue to increase to 49% by the year 2082, as illustrated in Figure 1.

Projected Spending on Health Care as a Percentage of Gross Domestic Product, 2007 to 2082



Source: Congressional Budget Office.

Figure 1. Projected Spending on Healthcare as a Percentage of GDP
(CBO, 2008, p. 7)



In 2007, the US spent \$2.241 trillion on healthcare costs, such as hospital care and physician/clinical services. See Figure 2 (Kaiser Family Foundation, 2007).

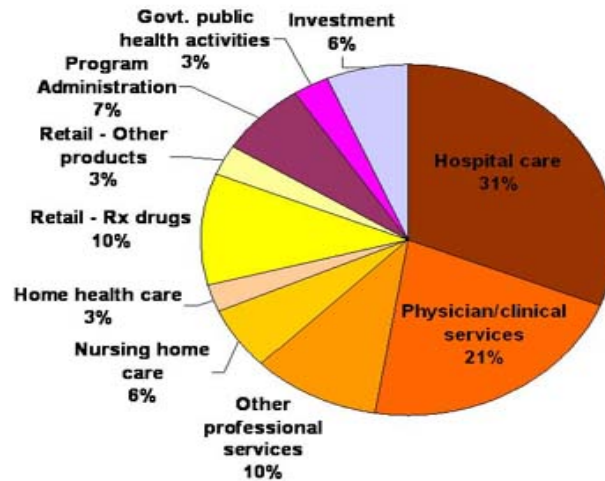


Figure 2. National Health Expenditures, 2007 (Total = \$2.241 trillion)
(Kaiser Family Foundation, 2007, p. 1)

Additionally, a March 2009 Kaiser Family Foundation report states that “according to the Centers for Medicare and Medicaid Services (CMS), the U.S. is projected to spend over \$2.5 trillion on health care in 2009, or \$8,160 per U.S. resident,” (Kaiser Family Foundation, 2009). Consequently, as spending in healthcare increases, employment opportunities will also grow for several reasons. Namely, new medical technologies will increase the life expectancy of older patients and the survival rate of injured or ill patients will continue to improve, resulting in a need for more doctors, nurses, technicians, physical therapists, and home-healthcare professionals (CBO, 2008). According to the Department of Labor (DoL), Bureau of Labor Statistics (BLS), from 2006 to 2016, an expected 3 million new jobs will be generated in the healthcare industry alone, with a 21.7% increase in employment within the healthcare industry projected through 2016, reflected in Figure 3. The healthcare industry in 2006 provided over 13 million workers in the United States, and this number is expected to increase significantly (DoL, 2009).



Industry Segment	2006 Employment	2006-16 Percent change
Health services, total	13,621	21.7
Hospitals, public and private	5,438	13.0
Nursing and residential care facilities	2,901	23.7
Offices of physicians	2,154	24.8
Home health care services	867	55.4
Offices of dentists	784	22.4
Offices of other health practitioners	571	28.3
Outpatient care centers	489	24.3
Other ambulatory health care services	216	32.3
Medical and diagnostic laboratories	202	16.8

Figure 3. Employment in Healthcare by Industry Segment, 2006 and Projected Change, 2006-16 (Employment in thousands)
(DoL, 2009)



As a result of projected growth in healthcare costs and the increase in employment, the healthcare industry is grappling with the monumental issues. The complexity of the healthcare system requires industry innovation, and contracting for medical services is emerging as a strong strategy for addressing the rising costs of medical services.

2. Medical Services Contract Management

Medical services contract management is a central component of the United States healthcare structure. Primarily, since the introduction of managed care contracting, hospitals are utilizing contract management as a tool to gain efficiencies in a market plagued by skyrocketing cost. Hospitals are contracting for medical services, such as radiology, laboratory tests, anesthesiology, and pharmacy services, just to name a few. Contracting for the medical services mentioned above provides a cost-avoidance opportunity for many hospitals as a strategy for achieving organizational goals. Vigilant contract management is crucial in ensuring the right balance of contracted services, proper oversight and surveillance, commitment to high-quality patient care and organizational objectives. Medical services contract managers are reducing the administrative burden of the contracting process by focusing on the advantages and minimizing the risks of the services being contracted at their facilities.

Hospitals are progressively using medical service contracts to remain flexible in a very competitive industry. Contracting medical services allows hospitals to avoid costly labor expenditures through the use of contracts. The flexibility of medical service contracting also allows hospitals the ability to achieve organizational goals without an enormous capital investment (Towne & Hoppszallern, 2003).

Healthcare facilities are adapting to the changing market environment and finding pioneering methods to improve efficiency. Medical services contract management is being utilized to answer the question, is it cheaper to buy medical



services using contracts or to perform the services in house? A survey conducted by Susan Hoppszallern for *Hospitals & Health Networks Journal*, surveyed hospital executives to find the main reasons for contracting medical services (Hoppszallern, 2002). The survey responses included, “increase in patient satisfaction,” “allowed a focus on core competencies,” “operational cost savings,” “reduction of risk/increase accountability,” and “staffing hard-to-fill jobs.” Factors thought to influence whether or not contracting medical services is a good choice are based on the potential cost savings relative to the economies of scale within the industry and on increased competition among contract providers.

The survey results indicate an increased reliance on contracting for medical services as well as a positive impact on provider performance in terms of quality and the number of medical services provided. Furthermore, the survey suggests that contracting is an exceptional management tool to address labor costs (Towne & Hoppszallern, 2003).

The findings from the *Contract Management Survey 2002*, by Susan Hoppszallern assist in highlighting the use of medical services contracting in the private sector of the healthcare industry. The survey demonstrates the willingness of hospital executives to contract clinical services to enhance the delivery of healthcare to their patients, particularly in hard-to-fill specialties. The results of this survey contribute to our research by showing what areas of medical services are being contracted outside the hospital, which is an important aspect as we look at the medical services contracted by the DoD.

3. Contract Management Process

There are six basic phases for the procurement of medical services. They are Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, and Contract Closeout or Termination, see Figure 4.



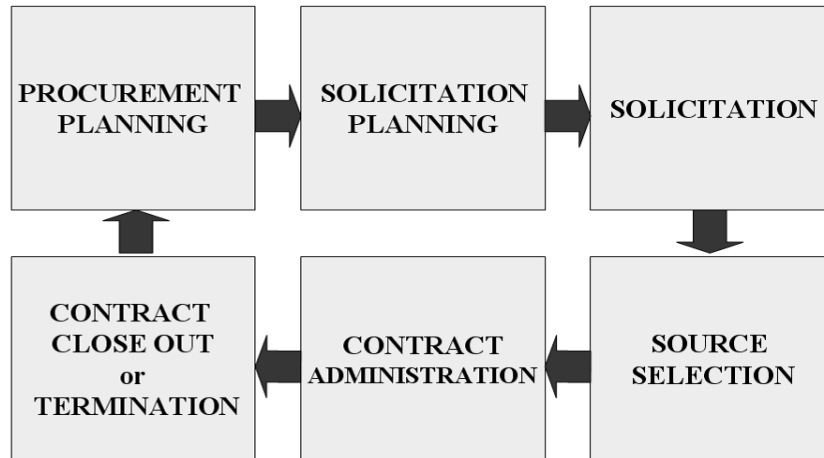


Figure 4. Contract Management Process (buyer's perspective)
(Rendon & Snider, 2008, p. 164)

The first four phases constitute the procurement pre-award activities. Procurement Planning is the process of identifying whether to procure using the make-or-buy analysis and determining what and how to procure. There are several key activities during this phase: defining requirements, performing market research, developing the Performance Work Statement (PWS)/Statement of Work (SOW), and determining contract type. The market-research process in acquiring medical services is often challenging. According to contracting officers responsible for procuring medical services, one of the major challenges in market research is finding skilled healthcare professionals, particularly in remote geographic areas. Solicitation Planning is based on preparing the documents and identifying potential sources needed for the procurement. The Solicitation phase involves obtaining information such as the proposals and bids from the potential contractor. The Source Selection phase involves applying the proposal evaluation criteria, making independent estimates, and conducting negotiations with the supplier. The end result of this phase is contract award.



The post-award phases are Contract Administration and Contract Closeout or Termination. Contract Administration is a critical phase of the contract management process in acquiring medical services. A breakdown in this phase can undo all previous efforts in ensuring an effective, well-engineered contract (Army HCAA, 2004). During this phase, both parties ensure compliance with the terms and conditions of the contract. The activities of this phase include contract payment and oversight, as well as contract surveillance, which ensures that the contractor and the government agency are both meeting the contractual obligations. Finally, the Contract Closeout or Termination phase starts after completion of the contract. During this phase, all final administrative and legal details, as well as claims are settled. At this stage the contract is physically complete (Garrett & Rendon, 2005).

Contracting for healthcare providers is one of the most daunting tasks for healthcare facilities today. The pool of available healthcare specialists is very limited, and recruitment efforts are becoming increasingly difficult in the private and public sector of the healthcare market. Additionally, retention of those hard-to-find specialists has presented an enormous challenge for healthcare executives in the current environment. Finding the appropriate skill sets to fill critical vacancies in the healthcare industry is extremely challenging. The civilian sector utilizes contractual methods similar to those of the DoD (such as personal and non-personal services contracts) to address hard-to-fill positions and to supplement staffing shortfalls within hospitals.

Like the DoD, the private and public sector competitively solicit proposals and bids for medical services. Private and public hospitals encourage competition among eligible contractors. Similarly, medical services contracts are made available to the community for pre-solicitation, solicitation, and post-award notification. Hospitals consider proposals by a number of unique methods. Some hospitals evaluate proposals at monthly board meetings, through their purchasing departments, or via the human resource management department. Managers are looking for medical



services contracts that will reap tangible results for their hospitals while delivering the highest-quality care.

Managed Care Contracting: Managed care contracting is one of the strategies used to tackle medical service requirements in the DoD as well as in the private/public sector. The managed care era emerged to address the skyrocketing cost of healthcare in the United States. Managed care consists of a variety of healthcare delivery systems that incorporate the financing and delivery of healthcare. The inherent value of managed care contracting is the sharing of financial risks between the insurer, provider, and the healthcare facility. Managed care plans emphasize the appropriate utilization of medical services and search for avenues to increase the standard of care through accountability for patient medical outcomes (Conrad, Bonney, Sachs & Smith, 1996).



The intention of managed care contracting is the systematic reduction of healthcare cost by inducing competition and curtailing administrative requirements. In addition, its overarching purpose is to provide sufficient access to quality, cost-effective healthcare (Conrad et al., 1996).

Managed care plans negotiate discounts with a group of doctors and hospitals to provide healthcare for people registered in the plan. Doctors and hospitals belonging to a managed care plan are often referred to as being in a network (Garofalo, Horwitz & Reardon, 1999). In their book, *Managed Care Contracting*, William Garofalo et al. (1999) contextualize managed care contracting as a means to address the rising cost of healthcare and to add structure by developing a guide for insurers, physicians, and hospitals. The authors begin by discussing the origin of managed care from organizations such as Health Insurance Plan of New York, Kaiser Permanente, and Group Health of Puget Sound. These organizations paved the way for managed care today.

The authors go on to discuss that in 1973, in an attempt to curtail the escalating cost of healthcare, the Federal Government passed the *Health Maintenance Organization Act*. Through legislative action, the Federal Government subsidized managed care plans in an effort to increase the number of health maintenance organizations. The beginning of managed care is important in considering the enormous power held by managed care organizations today.

Garofalo et al. (1999) continued to develop a foundation for understanding the structure of managed care in addressing the managed care environment. The authors assigned managed care plans to three categories: “staff model, group model, and independent practice associations (IPA).” The staff model is defined as salaried physicians who treat enrolled patients at a centralized treatment facility. The group model is a group of organized physicians who contract to provide healthcare in their private offices. Finally, the IPA is the model used by physicians to treat patients in their offices under terms of a predetermined fee, based on the number of



enrolled patients and how often they are seen a month. Other terms used in the managed care arena include health maintenance organizations (HMOs), preferred provider organizations (PPOs), physician hospital organizations (PHOs), physician organizations (POs), provider-sponsored organizations (PSOs), and point-of-service (POS) plans. The organizations above work uniquely to provide comprehensive healthcare to enrolled panel patients.

Garofalo et al. (1999), effectively underscore what defines managed care and the role managed care has taken in addressing rising healthcare cost in the United States. *Managed Care Contracting* by Garofalo et al. (1999) provides a good introduction to the topic of managed care contracting. The introductory chapter of this book contributed to our research by identifying the role managed care contracting assumes in reducing healthcare expenditures.

Medical Contracting Organizations: In today's market, a number of noteworthy medical service contracting companies exist to facilitate the staffing requirements of hospitals. Companies like Maxim Healthcare Services, ShiftWise, and Cirrus Medical Staffing are building successful contracting relationships with their clients to hire hard-to-fill positions at hospitals across the nation. Medical contracting organizations supply medical services across the country to healthcare facilities specializing in addressing workforce shortfalls. These companies work in partnership with hospitals to develop and implement strategic staffing plans to recruit, hire, train, and preserve a flexible workforce.

Medical service contracting companies provide valuable services to healthcare facilities. The services provided by medical service contracting companies are one of the ways contracting for medical services can reap tangible and intangible results for healthcare organizations. The enormous challenges facing healthcare requires effective initiatives to reduce cost and provide a workforce to meet the emergent needs of a growing healthcare market.



4. Oversight of Medical Services Contracts

Oversight and guidance for medical services contracts in the private and public sector are managed by the individual healthcare facility. Usually, hospitals develop their own guidelines to govern local contract practices. Additionally, a number of hospitals, depending on the state or county, are required to abide by local industry regulations and state laws governing medical services contracting practices. Civilian medical service contract managers must examine contracts regularly for signs of fraud, waste, and abuse through surveillance programs at their facilities. Additionally, managers scrutinize contracts in detail to ensure unnecessary risks are mitigated proactively in order to deliver a high standard of care to patients.

A key strategy employed by hospital management is detailing specific performance requirements and the levels of monitoring that will be instituted once the contract is activated. Clearly defined terms promote a smooth contractual performance with quantifiable indicators that enhance the quality of the contract. Ideally, contract indicators should be simple to evaluate without causing an undue burden to the hospital or contractor.

5. Current Issues

The current issue this section focuses on is an area of medical services contracting that is rarely talked about. The correctional system is plagued by the rising cost of healthcare. Correctional medical service contracting is big business for the companies supplying healthcare professionals to the prison system. The local, state, and federal prison systems are spending millions of dollars each year to provide healthcare to inmates. Along with the escalating cost of healthcare, the correctional system is hampered by insufficient staffing of healthcare providers and by facilities that are overwhelmed with the mounting requirements to safely care for inmates. As a result, prison officials are seeking cost-effective alternatives to supply healthcare services to inmates. Correctional medical service contracting is emerging as the solution to control the growing cost of healthcare in the correctional



system; however, the ability to contain cost is vulnerable to the shortage of medical professionals willing to work in the correctional system (California Office of the Inspector General, 2002).

6. Summary

Medical services contracting is used by the private sector to meet the needs of the healthcare market. Contracting for medical services provides hospital executives with the flexibility to broaden coverage of specialty areas that present enormous challenges to fill. More and more medical staffing agencies are being utilized to provide medical professionals to healthcare facilities to meet their objectives. As a result, hospitals are improving efficiency and increasing the standard of care delivered to their customers. The next section discusses TRICARE managed services contracts.

C. Tricare Managed Services Contracts

1. Introduction

As stated in the introduction, contracting for managed healthcare services is very complex in nature. This section will briefly discuss the history and the purpose of the TRICARE Management Activity (TMA) in the Department of Defense. Then, it will review the acquisition process in contracting for TRICARE Managed Care Support (MCS) services. Finally, this section will provide an overview of the management and oversight of TRICARE managed services contracts.

2. Overview of TRICARE

The origin of government-provided healthcare for uniformed services personnel dates back to the late 1800s (GAO, 1994). However, despite the managed-care name changes over the years, the services rendered remain essentially the same. Since 1995, the DoD has sought to coordinate the medical services efforts of the armed forces and to institute managed care services through



one program. With the growing trend toward contracting for healthcare providers and support services, the military instituted TRICARE, a regionally managed healthcare support service to meet the needs of service members.

TRICARE Management Activity under the Assistant Secretary of Defense for Health Affairs is the DoD's activity that administers the healthcare services and plans. TMA provides healthcare services, supplementing the DoD's delivery of healthcare benefits to approximately 9.4 million beneficiaries, including active duty personnel and their family members, as well as to retired personnel and their families (TRICARE, 2009a). Under TRICARE, beneficiaries can receive healthcare services through MTFs or civilian healthcare providers. The Defense Health Program estimates for FY09 the DoD will spend about \$55.5 billion to acquire medical services through TRICARE managed-care support contracts (TRICARE, 2009a).

Through healthcare delivery contracts, the DoD uses civilian MCS contractors to develop networks of primary-and specialty care providers (GAO, 2005b). MCS contractors provide medical and administrative support services to eligible beneficiaries in each of the three TRICARE regions within CONUS. The current MCS contractor contracts are the third generation, called (T-3) of TRICARE managed care support contracts (TRICARE, 2009a).

Under TRICARE regional managed care services, the United States is divided into three regions: TRICARE West, TRICARE North, and TRICARE South. The contracts managed by TMA for managed support services are non-personal service contracts. With non-personal contracts, the contractor personnel are not allowed placement in a position in which they are under continuous supervision and control of government personnel (TRICARE, 2007). *Federal Acquisition Regulation (FAR)* Part 37.400 provides the general guidance for the acquisition and management of non-personal healthcare services.



3. TRICARE Management

TMA's Acquisition Management and Support Directorate (AM&S) is the Contracting Office and Head of Contracting Activity (HCA) for acquisition healthcare support contracts (TRICARE, 2007). AM&S provides comprehensive contracting support to TMA, including the procurement of managed care, dental, and pharmacy support services.

TMA's acquisition strategy utilizes the performance-based contract approach in contracting for healthcare services. In FY06, TMA acquired 57% of its healthcare services contracts utilizing performance-based acquisition. Performance-based contracts focus on the desired outcomes and give the MCS contractors latitude on how to meet the government's requirements in more efficient ways. *FAR* Part 37 requires the use of performance-based services acquisition to the maximum extent, and it is the preferred method of purchasing services within the DoD (TRICARE, 2009b).

TMA developed management tools to ensure specific program outcomes were achieved and to monitor customer satisfaction. The TRICARE Acquisition Practices (TAP), serve as the "how-to guide" of the TMA acquisition policy structure (OASD/HA, 2007). The TAP implements the policy contained in both the *FAR* and *Defense Federal Acquisition Regulations Supplement (DFARS)* in regards to services contracts, formalizing, and standardizing the acquisition work processes (OASD/HA, 2007).

The objective of the current TRICARE delivery contracts is to utilize the "best value" approach to attain the highest level of beneficiary satisfaction. TRICARE's regionally managed-care support services contracts are competitively procured cost-plus-fixed-fee contracts (TRICARE, 2009a). TMA utilizes a variety of incentives to maintain and encourage superior contractor performance. These incentives include performance guarantees, performance incentives, and award fees.



4. TRICARE Oversight

TRICARE Management Activity manages billions of dollars in services contracts (OASD, 2008). Because each of the managed care services is unique with regard to the requirements it provides to the government, it is important to ensure that the MCS contractors are meeting their contractual requirements.

The Quality Assurance Surveillance Plan (QASP) is a critical tool for administering healthcare services contracts. The QASP provides a systematic, structured approach for the DoD to evaluate services furnished by the contractors. The *FAR* Part 46.4, states that the DoD shall perform quality assurance at such times as may be necessary to determine that supplies or services conform to contract requirements. The contracting offices supporting TMA require a QASP to be developed by the requesting activity as a key acquisition planning step (TRICARE, 2009b). Also, TMA's managed care contracts require MCS contractors to have internal quality management programs to assess its performance.

Additionally, TMA contracts for quality monitoring services provided by Quality Monitoring Contractors (TQMC). TMA uses an independent, impartial contractor to evaluate the care provided to Military Health System beneficiaries. The TRICARE TQMCs are responsible for reviewing and monitoring managed care provided by the MCS contractors.

TRICARE, as the Department of Defense's managed care support services has continually improved its contracting processes and oversight over the past several years (GAO, 2008). TRICARE's mission is to enhance DoD security by providing healthcare services for the full range of military operations while ensuring detailed compliance with the support services requirements.



5. Summary

This section provided a brief overview of the management and oversight of TRICARE's managed services contracts. The next section will provide an overview of the Department of Veterans Affairs medical services acquisition.

D. Department of Veterans Affairs Medical Services Acquisition

1. Introduction

This section will briefly discuss the history and the purpose of the Department of Veterans' Affairs (VA). Next, it looks at the acquisition process in contracting for the VA. Finally, this section will provide an overview of the management, oversight, and current issues for medical services acquisition within the VA.

2. Overview of Veterans Affairs

The VA was created July 21, 1930, by presidential *Executive Order 5398* and was elevated to cabinet-level status on March 15, 1989, by *Public Law 100-527*. Today, the VA has 278,000 employees and is the second-largest Federal Government department, serving over 23 million veterans with 70 million people who are potentially eligible for VA benefits. The VA budget for FY09 is \$96 billion, which provides for a host of services and benefits to veterans (VA, 2009a). Healthcare consumes approximately \$43 billion of the budget. The VA operates the nation's largest direct healthcare delivery system, including the administration of veteran's benefits, disability payments, education assistance, life insurance, vocational rehabilitation and the nation's veterans' cemeteries (VA, 2009a).

The VA is headed by the Secretary of Veterans' Affairs, a cabinet-level position, and by the president's Advisor on Veterans Affairs. The Deputy Secretary of the VA is next in the chain of command in the VA and serves as the chief operating officer directly responsible for the policy and operations of the VA. The VA



is divided into three distinct administrations, the Veterans Health Administration (VHA), the Veterans Benefits Administration, and the National Cemetery Administration (VA, 2009a).

The focus of this overview will shift to the VHA, which administers medical services acquisition for the VA. In 2008, the VHA provided healthcare for 5.6 million veterans. The VHA also contributes to research and disaster assistance and cares for indigenous citizens of America. The VHA has over 1,400 facilities throughout the nation and of the 278,000 VA employees, the VHA employs 235,000 within its department. The VHA has a robust network affiliated with 107 academic health systems. Of particular interest, over 65% of physicians trained in the US have trained at a VA facility. Since 1995 the VA has established more than 600 community-based outpatient clinics and continues to expand, including partnership with the DoD (VA, 2009a).

Over the past decade, the cost to the VHA for providing healthcare for veterans has steadily increased. As healthcare costs continue to climb in the private sector, the VA has “experienced unprecedented growth” in the cost of administering care in the VA medical delivery system (VA, 2009b). From 2001 to 2008, the VA experienced a 29% increase in the number of patients being treated at medical centers throughout the nation (VA, 2009b). As the number of veterans continues to grow in light of ongoing US military operations, the VA’s healthcare costs will also continue to rise in order to provide the medical services veterans will need. To address the increase in the number of veterans requiring medical care, the VHA utilizes medical services contracting as a tool to answer the mounting requirements.

3. Veterans Affairs Contract Management Process

The VA is one of the largest procurement agencies within the federal government (VA, 2009a). The Office of Acquisition (OA), an office within the VHA, procures medical goods and services for the VA. The OA awards and administers



contracts to meet the needs of the VA and other government-agency requirements. The methods of solicitation and selection used by the OA are sealed bidding, contract by negotiation, or simplified acquisitions procedures.

The VA utilizes sealed bidding in accordance with *FAR Part 14, Sealed Bidding*, which states that sealed bidding is a method of contracting that employs competitive bids, public opening of bids, and awards. Sealed bidding requires an adequate and complete specification in which two or more responsible bidders are willing to compete, leading to a Firm-Fixed-Price contract award. *FAR Part 15, Contracting by Negotiation*, states that a contract awarded using other than sealed bidding procedures is a negotiated contract. Lastly, in accordance with *FAR Part 13, Simplified Acquisitions Procedures* are used to reduce administrative costs, improve opportunities for small, small disadvantaged, women-owned, veteran-owned, and service-disabled veteran-owned small business concerns to obtain a fair proportion of government contracts. Additionally, simplified acquisition promotes efficiency and economy in contracting; and avoids unnecessary burdens for agencies and contractors. The methods employed by the OA are designed to promote full and open competition to the fullest extent possible. Some of the contracts used include the Federal Supply Schedules (FSS), Blanket Purchase Agreements (BPA), direct delivery, centralized purchases, and prime-vendor distribution contracts. The *Federal Acquisition Regulation (FAR)* and the *Veterans Affairs Acquisition Regulation (VAAR)* provides the respective federal and agency specific requirements for contracting medical services. In addition, the *Sharing of Department of Veterans' Affairs and Department of Defense Health Care Resources*, 38 USC 8111, directs both VA and the DoD to collaborate in order to improve the access to medical care and the cost effectiveness of the healthcare provided.

4. Veterans Affairs Oversight

The VA obligations through the Federal Supply Schedules and national contracts amount to billions of dollars spent each year for medical services



acquisition. The VA, through the Acquisition Resource Service (ARS) department, administers acquisition policy, acquisition management, training, and oversight for the VA. The ARS is the enforcement arm of the medical acquisition process. The ARS conducts audits and surveillance of contracting officers and other contracting personnel and maintains oversight for all credentials and warrants for the VA's contracting officials. In addition, the ARS is responsible for performing business reviews, addressing mistakes in bids, dealing with contract protests, and providing appropriate responses to Congress (VA, 2009a).

5. Current Issues

Current issues that face the VA, as well as the DoD, concern doing more with less in two major areas: smaller budget resources and a shrinking contracting workforce. Although medical services acquisition spending has steadily increased over the past decade, the budgetary dollars are distributed over a much wider scale. Medical services acquisition consumes a large percentage of the VA budget and will continue to play a major role in providing healthcare to veterans. In addition, the shrinking contracting workforce is a big concern for the VA. Even though spending for medical services acquisition has increased, the workforce has not adjusted to keep pace with the increased workload. A major challenge for the VA is retaining, training, and providing for the development of contracting professionals throughout the acquisition workforce. In order to address these challenges, the VA must innovate and seek collaborative opportunities to transform the administration of medical services acquisition.

6. Summary

This section provided a brief overview of medical services acquisition at the Department of Veterans' Affairs. The VA is the country's largest direct healthcare service provider with a vital mission to provide medical care for veterans. Medical services acquisition is a crucial resource in providing healthcare to veterans and their family members. Similar to the DoD, the VA is seeking the best methods to



procure medical services in an environment in which healthcare costs are increasing dramatically.

E. Chapter Summary

The principal objective of Chapter II was the review of existing literature on medical services acquisition in the private/public sector, TRICARE managed services contracts, and the Department of Veterans Affairs. This chapter provided a brief overview of the growing cost of healthcare in our nation as well as of the contract management and procurement practices for the private/public sector, TRICARE, and the VA. The next chapter will discuss the DoD's medical services acquisition.



III. Department of Defense Medical Services Acquisition

A. Introduction

This chapter begins with a brief overview of the Military Health System (MHS) and the cost associated with providing healthcare to the DoD beneficiaries. Next, it will provide an overview of acquiring direct medical care services and performance-based acquisition (PBA) within the military departments. Finally, this chapter discusses each agency's organizational structure and procurement process.

B. Overview

1. Military Health System

The United States Military Health System (MHS) is a large and complex organization. The MHS is a DoD enterprise of medical researchers, healthcare providers, and medical support personnel that consists of the following: the Office of the Assistant Secretary of Defense for Health Affairs (OSD/HA); the medical departments of the Air Force, Army, Navy (which provides healthcare services to the Marine Corps); the Joint Chiefs of Staff; the Combatant Command Surgeons; and TRICARE providers, to included the private sector medical providers, hospitals, and pharmacies (MHS, 2009). The primary mission of the MHS is to provide healthcare to sustain military personnel in execution of their military duties. The MHS provides healthcare for 9.4 million active duty, retired personnel, and family members (CRS, 2009). The costs associated with the military healthcare system are expected to grow. As illustrated in Figure 5, the unified medical budget request totals \$47.4 billion for 2010 (CRS, 2009).



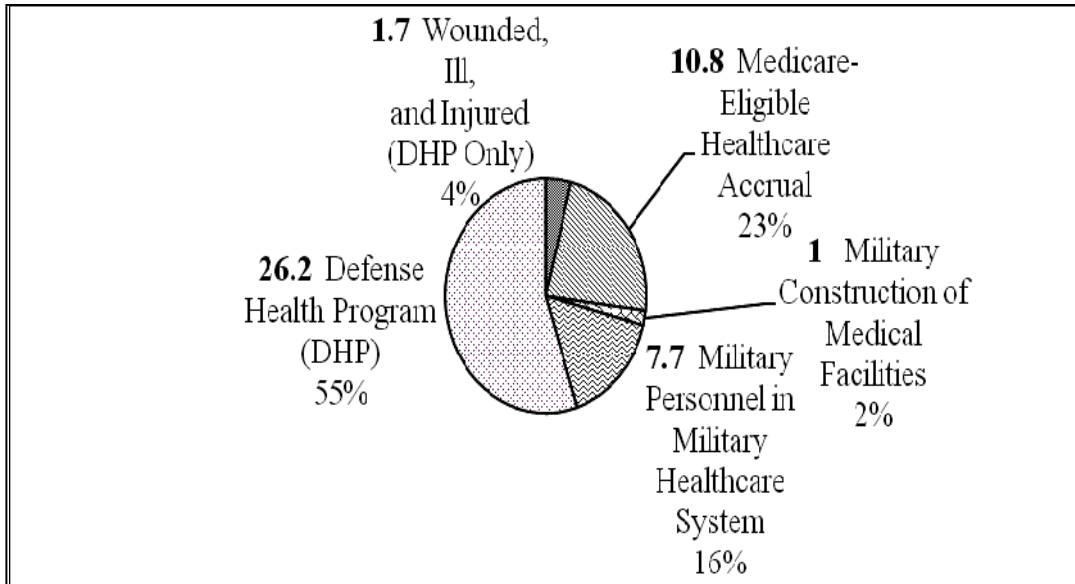


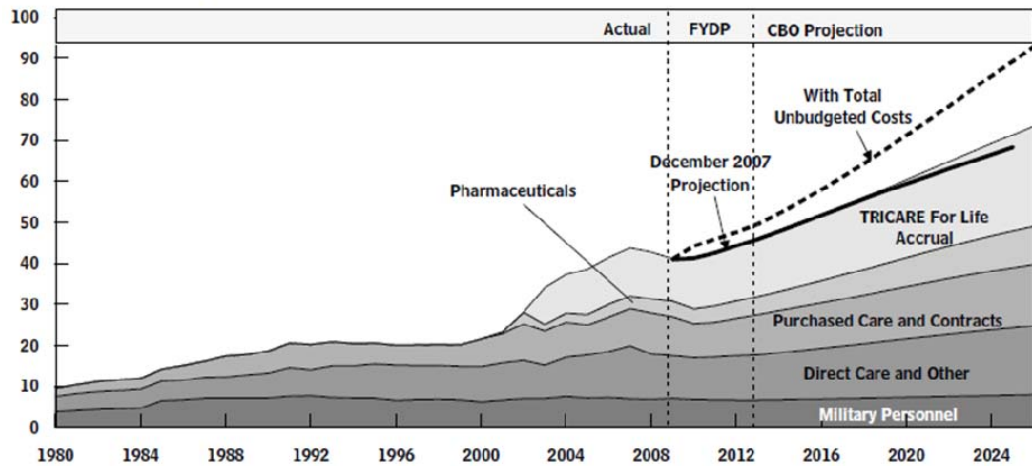
Figure 5. FY 2010 Unified Medical Budget Request (\$billions)
(CRS, 2009)

The Congressional Budget Office (CBO) report, dated February 4, 2009, entitled *The 2009 Future Years Defense Program: Implications and Alternatives* indicates an increase in DoD’s healthcare expenditures in future years. According to the CBO report, funding for Defense healthcare programs will grow from \$41.1 billion in 2009 to \$73.5 billion by 2026 as illustrated in Figure 6 (CBO, 2009).



Past and Projected Resources for the Military Medical System

(Billions of 2009 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program.

Figure 6. Past and Projected Resources for the Military Medical System (billions of 2009 dollars)
(CBO, 2009, p. 15)

The projections in Figure 6 indicate an increase in direct medical care as well as in purchased medical care spending. This trend in healthcare spending will contribute to the increase of service contracts in the DoD acquisition.

In January 2007, GAO reported, “the amount obligated on service contracts exceeded the amount the department [of Defense] spent on supplies and equipment, including major weapon systems” (2007, p. 2). With the current contingency operations, mainly in support of operations in Iraq and Afghanistan, as well as for the ongoing war on terrorism, spending on military healthcare has increased dramatically. Figure 7 provides the changes in the DoD’s use of service contracts from FY96 to FY05, with medical services experiencing the largest increase. The DoD’s obligations for healthcare services increased by 412% from \$1.6 billion in FY96 to over \$8 billion in FY05 (GAO, 2007a).



Table 1: Changes in DOD's Use of Service Contracts, Fiscal Years 1996 to 2005 (fiscal year 2005 dollars in billions)

Service category	Service obligations Fiscal year		Percentage of service obligations, fiscal year 2005	Percentage change, fiscal years 1996 to 2005
	1996	2005		
Professional, administrative, and management support	\$10.8	\$28.3	20.0	161
Construction of facilities	7.3	11.7	8.3	62
Maintenance and repair of equipment	6.6	11.4	8.1	74
Information technology	4.9	10.3	7.3	110
Medical services	1.6	8.0	5.6	412
Transportation, travel, and relocation	2.4	6.2	4.4	154
Housekeeping services	2.4	4.8	3.4	98
All other services, excluding research and development ^a	22.7	23.6	16.7	4
Research and development	23.7	37.0	26.2	56
Total, all service contracts	\$82.3	\$141.2	100.0	72

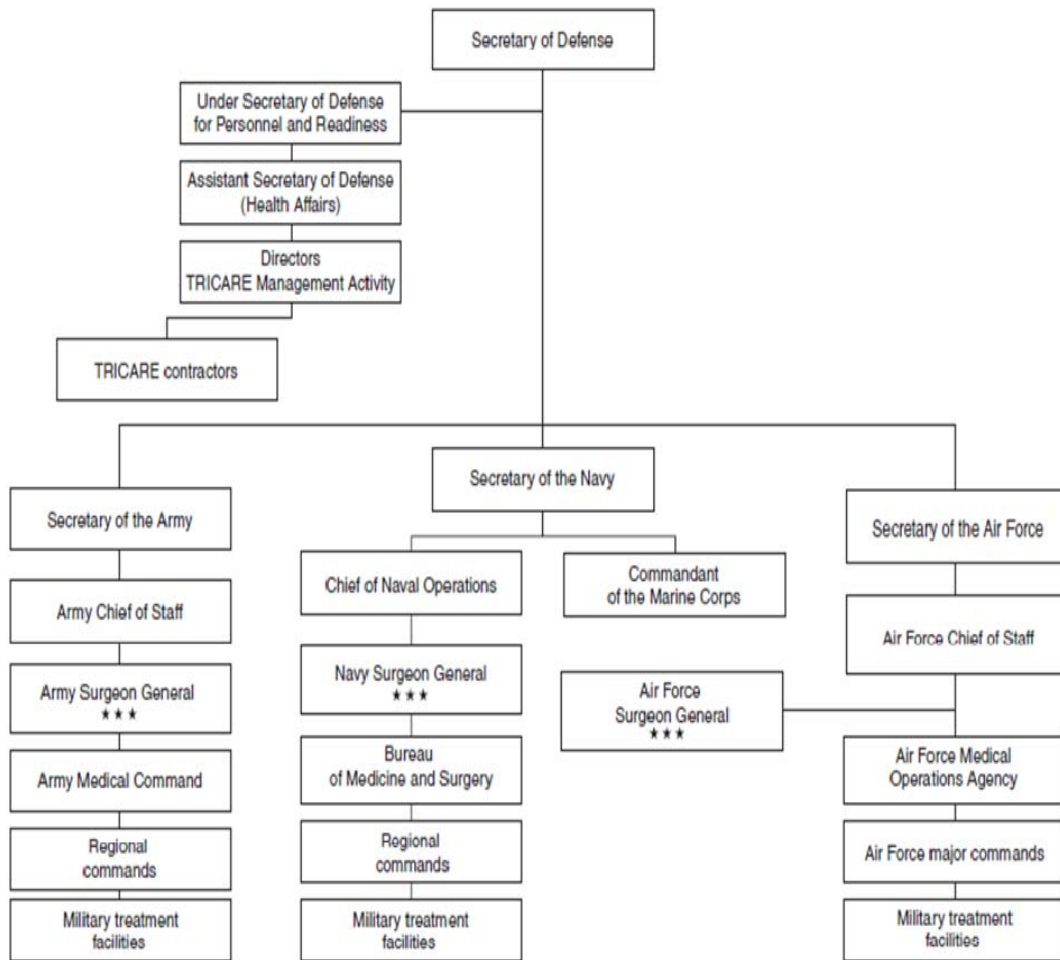
Source: DOD's DD350 database for all actions exceeding \$25,000 (data); GAO (analysis).

Figure 7. Changes in DoD use of Service Contracts, FY1996-2005
(GAO, 2009, p. 3)

2. DoD Medical Services Contract Management

Each military agency has a different organizational structure for acquiring and managing direct healthcare services. The military department Surgeons General has delegated responsibility for the acquisition of medical services to the Army Healthcare Acquisition Activity (HCAA), the Naval Medical Logistics Command (NMLC) and the Air Force Medical Logistics Office. The organizational and reporting structure of these commands varies, as do the acquisition strategies they deploy in acquiring medical services (DoD OIG, 2004). The MHS organizational chart is provided in Figure 8.





Source: GAO analysis of DOD information.

Figure 8. Current Military Health System Organizational Structure
(GAO, 2007b, p. 7)

The Under Secretary of Defense for Acquisition, Technology, and Logistics is the adviser to the Secretary of Defense on all matters relating to acquisition and procurement, including acquisition of medical services (DoD OIG, 2004).

The OSD/HA is the primary adviser to the Under Secretary of Defense for all health policies and programs related to Personnel and Readiness within DoD. Additionally, the OSD/HA establish the procedures and standards that govern



healthcare acquisition and programs (DoD OIG, 2004). The military agency's Surgeon General is responsible for healthcare management in its respective service.

The military healthcare system's main element is the military Medical Treatment Facilities (MTFs) that provide basic healthcare. The MTFs are supplemented by TRICARE, the DoD's regionally managed healthcare program. As mentioned in Chapter II, TRICARE brings together healthcare resources of all Services and supplements them with purchased care contracts in the civilian community. The Medical Contracting Commands define medical services as all the support functions that go into providing quality healthcare to military members. The support functions are direct-care medical services, which are physicians, nurses, and ancillary services. Additionally, healthcare related services consist of medical equipment, medical supplies, housekeeping, laundry, linen services, and regulated medical waste. For the purpose of this MBA report, we will concentrate our efforts on PSC Q, direct-care medical services. The code and the description of each number within the code are found in Table 1.



Table 1. Medical Services Product Service Codes

Product Service Code (PSC Q)	Description of Service Category
Q101	Dependent Medicare Services
Q201	General Healthcare Services
Q301	Laboratory Testing Services
Q401	Nursing Services
Q402	Nursing Home Care Contracts
Q403	Evaluation & Screening
Q501	Anesthesiology Services
Q502	Cardio-vascular Services
Q503	Dentistry Services
Q504	Dermatology Services
Q505	Gastroenterology Services
Q506	Geriatric Services
Q507	Gynecology Services
Q508	Hematology Services
Q509	Internal Medicine Services
Q510	Neurology Services
Q511	Ophthalmology Services
Q512	Optometry Services
Q513	Orthopedics Services
Q514	Otolaryngology Services
Q515	Pathology Services
Q516	Pediatrics Services
Q517	Pharmacology Services
Q518	Physical Medicine & Rehabilitation Services
Q519	Psychiatry Services
Q520	Podiatry Services
Q521	Pulmonary Services
Q522	Radiology Services
Q523	Surgery Services
Q524	Thoracic Services
Q525	Urology Services
Q526	Medical/Psychiatric Consultation Services
Q527	Nuclear Medicine
Q999	Other Medical Services

3. Performance-based Acquisition

Performance-based Acquisition (PBA) guidance has been a part of the Federal Government contracting philosophy for over a decade. The objective of PBA is to maximize the contractor’s performance. In the past, the majority of Statements



of Work (SOW) required the contractor to perform the work in a specific manner, using detailed specifications for procurement items and the methods to be used for service contracts. Performance-based acquisition describes the work in terms of results to be achieved and allows the contractor to deliver the required services to the government by following its own best practices, focusing on the end results (DoD, 2001).

The concept of PBA received its official status in early 1991. The Office of Federal Procurement Policy (OFPP) issued the first policy in *PBA Policy Letter 91-2*, establishing policy for the Government to acquire services by contract, emphasizing the use of performance-based methods and quality standards in defining contract requirements, source selection, and quality assurance. Subsequent policy included a directive from the Under Secretary of Defense for Acquisition and Technology, Jacques Gansler. In April of 2000, Dr. Gansler, issued a memorandum that 50% of service acquisitions for the DoD, measured in both dollars and actions, were to be performance-based by the year 2005 (DoD, 2001).

The Federal Acquisition Regulation (FAR) Part 37 provides the policy and guidance for acquisition and management of service contracts. In 1997, the PBA requirement was incorporated into the *Federal Acquisition Regulation*. As stated in the *FAR*, performance-based contracting is the preferred method for acquiring services and *FAR 37.600* specifies four essential elements of PBA contracts:

- It describes work requirements in terms of results required rather than by how the work is performed
- It uses measurable performance standards and quality assurance surveillance plans
- It specifies procedures for fee or price reductions on fixed-price contracts when services are not performed or do not meet contract requirements
- It includes performance incentives and ties payment to outcomes (GSE, DoD, NASA, 2009).



The Office of Management and Budget (OMB) memorandum dated September 7, 2004, lists professional medical services that are not facility related (Q501 through Q527) and that may not be appropriate for performance-based acquisition due to difficulty in defining “outcome-oriented” requirements. The memorandum also states that while the use of PBA procedures are not required for the categories above, the DoD agencies may use PBA when appropriate (OMB, 2004).

According to the OSD memorandum dated February 1, 2006, DoD agencies have made significant progress in increasing the use of PBA acquisition. In FY04, performance-based acquisition accounted for more than 40% of eligible service contract obligations (OUSD, 2006).

There are a growing number of medical service contracts using PBA procedures. For example, in FY04, the Air Force reported \$11.5 million, or 35% of the total \$33.3 million, in medical service category Q for contracts that were obligated and awarded using performance-based acquisition procedures (Pope, 2005).

Performance-based contracting involves acquisition strategies, methods, and techniques that describe and communicate measurable outcomes rather than direct performance processes (DoD, 2001). To summarize, PBA is a method for specifying what is required and then placing the responsibility or burden of how to accomplish it on the contractor (DoD, 2001). With increasing dollar amounts being spent on service related items, it is imperative that the objectives for PBA be understood and applied whenever possible in medical services contracting.

4. DoD Contract Management Process

As mentioned in Chapter II, the contract management process utilizes a six-phase model for the procurement of services. In acquiring medical services, the first four phases of the contract management process constitute the Acquisition Lead-



time (ALT). The ALT is the time it takes to process a contract requirement from the time the requirement is identified to the contract award (HCAA, 2009). The ALT is composed of two main parts: Development Acquisition Lead-time (DALT) and Procurement Acquisition Lead-time (PALT). The DALT is the time it takes for the customer to develop the procurement package, to include market research, Performance Work Statement, quality assurance surveillance plan, and Contracting Officer Representative (COR) nomination. The PALT is the time it takes for the contracting officer to synopsis, solicit, evaluate, and award the contract (Army HCAA, 2009). Figures 9 and 10 show the ALTs of medical services valued above \$5 million, for both open-market procurement and the use of task orders. In open market procurement, the average ALT is 417 days compared to 130 days for task or delivery orders (Army HCAA, 2009). An ongoing challenge across the military Services, is finding an effective way to decrease the ALT in medical services contracting.

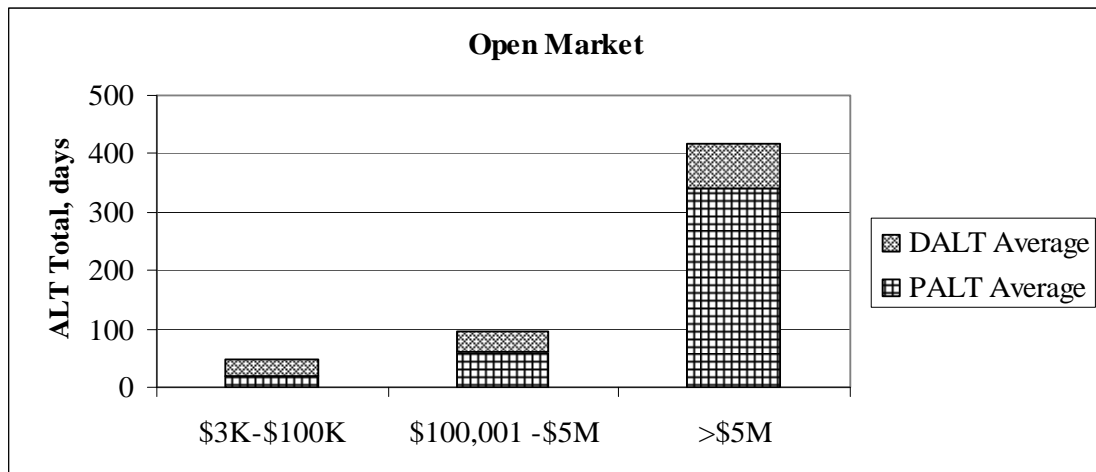


Figure 9. Acquisition Lead-time for Open Market
(Army HCAA, 2009)



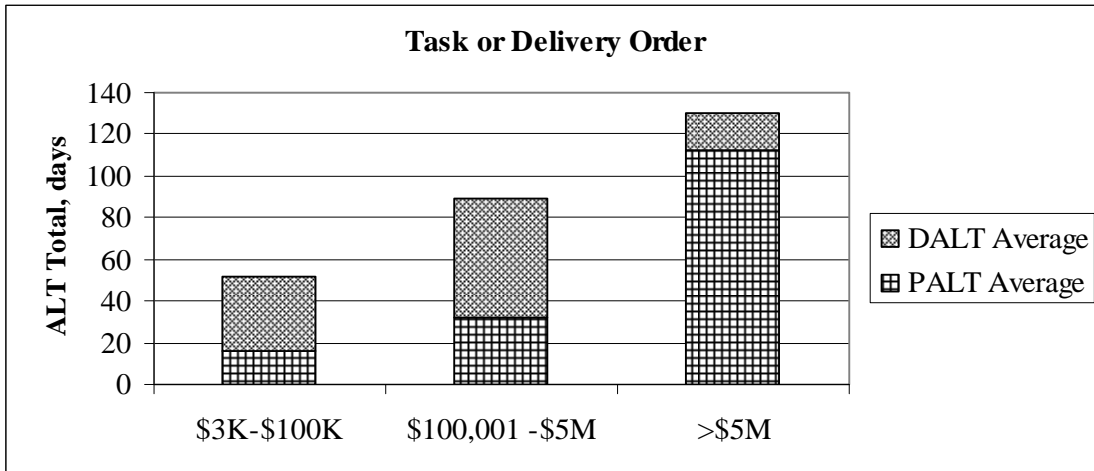


Figure 10. Acquisition Lead-time for Task or Delivery Order
(Army HCAA, 2009)

5. Oversight of the DoD Medical Services Contracts

This research focuses on the management and oversight of medical services across the military Services. As stated earlier, surveillance or oversight is conducted in the Contract Administration phase and is critical in the management of medical services contracts. Proper contract oversight ensures that contractors are performing timely and quality services. The lack of proper oversight and documentation of contractor’s performance can leave the government at risk and can lead to fraud, waste, and abuse of federal funding. The *FAR* requires both surveillance and documentation of services contracts.

The *FAR* mandates all policies concerning the procurement of goods and services. Contract oversight is discussed in several sections of the *FAR*. The following are the regulations that address services contract oversight:

- FAR 4.803406-2(b), “Inspection and acceptance,” states that the ordering activity has the right to inspect services in accordance with the contract requirements as specified in the order’s quality-assurance surveillance plan in a manner that will not unduly delay the work. FAR 16.301-3(a), “Limitations,” states that cost reimbursement contracts can be used only if appropriate Government surveillance during



performance provides reasonable assurance that efficient methods and effective cost controls are used.

- FAR 16.601 (c) (1), “Time-and-Materials Contracts,” states that a time-and-materials contract provides no positive profit incentive to the contractor for cost control or labor efficiency and appropriate Government surveillance of contractor performance is required to give reasonable assurance that efficient methods and effective cost controls are being used.
- FAR 37.604, “Quality Assurance Surveillance Plans,” require preparing the quality assurance surveillance plan or requiring the presenter to submit a proposed quality assurance surveillance plan for the Government’s consideration for performance-based contracts. (GSA, DoD, NASA, 2009)

Even though contract oversight is conducted in the Contract Administration phase, basic preparation for surveillance should be done in the Procurement Planning phase together with the preparation of the PWS/SOW. The contract surveillance plan should specify work requiring oversight, the surveillance method, and the place in which surveillance will be performed. In recent years, the Government Accountability Office (GAO) has repeatedly reported on the lack of surveillance and oversight of DoD services acquisition. Improper management of service contracts puts the Federal Government at risk of wasting resources. In March 2005, the GAO reviewed 90 DoD service contracts, 26 of which lacked adequate surveillance. Two out of the 26 inadequate contracts were medical services. According to the findings, one of the medical services contracts did not have evidence of contractor surveillance and both contracts lacked training information on assigned surveillance personnel (GAO, 2005a).

Personnel assigned to conduct surveillance on medical services are from the unit receiving the service and are referred to by one of the following titles: Contracting Officer’s Representative (COR), Quality Assurance Evaluator (QAE), Quality Assurance Personnel (QAP), Contracting Officer’s Technical Representative (COTR), and Task Order Manager (TOM) (Army HCAA, 2009). According to the March 2005 GAO report, surveillance personnel are not typically considered part of



the acquisition workforce and perform contract surveillance as a collateral duty. The report also stated that employees are overloaded with their primary duties and do not have enough time in the normal workday to perform contract surveillance responsibilities. Additionally, the report stated that DoD surveillance personnel lack sufficient training necessary to perform oversight (GAO, 2005a).

Contract oversight personnel are selected to perform surveillance and oversight based on their technical skills. The appropriate level of training is required for all government surveillance personnel before starting contract surveillance duties. The Defense Acquisition University (DAU) offers continuous learning course CLC106, *Contracting Officer Representative with a Mission Focus*. In addition, there is a specially designed course for COR/QAEs of healthcare acquisition: *CLC012 Contracting Officer's Representative Overview* (DAU, 2009).

6. Medical Services Procured within the DoD

The DoD military agencies contract for a variety of healthcare professionals within the Military Health System. The types of direct-care medical services it procures are physicians, dentists, nurses, and ancillary specialties. Appendices B, C, and D provide a complete listing of direct-care medical services specialties. The direct-care medical services contracts may be characterized as personal and non-personal in nature. Both the *FAR Part 37* and the *Defense Federal Acquisition Regulations Supplement (DFARS) Part 237* establish policy of both personal and non-personal service contracts.

Personal Services Contracts: Personal services contracts are described in *FAR Part 37*. Personal services contracts establish an employer/employee relationship between the DoD and the respective contract healthcare professional. To enter into personal services contracts, an agency must be authorized. Title 10 *USC 1091* authorizes the Secretary of Defense to use personal services contracts for clinical healthcare providers. DoD Instruction 6025.5, titled *Personal Services*



Contracts for Healthcare Providers establishes the basic policy and states that personal services contracts are the preferred method for contracting of healthcare providers who work under the direction and supervision of the government employees (DoD, 1995). According to DoD Instruction 6025.5, the direction and supervision of contract personnel is the liability of the government, and any medical malpractice claims brought against a contractor are covered by the government. The *FAR 37.104, Personal Services Contracts*, lists the basic elements for determining whether a contract is personal:

- Contract performance is on site
- Equipment for contract performance is provided by the government
- Contract performance applies directly to the organizational function or mission
- Services provided under the contract are also provided by civilian government employees
- The need for the services can be reasonably expected to last beyond one year
- The nature of the services, or the manner in which the services are provided, require government direction or supervision

Currently, a challenge facing Medical Contracting Commands across the military Services is the personal-service compensation limit. Currently, DoDI 6025.5, states the statutory limit on compensation for acquiring personal medical services is limited to an annual compensation of up to \$200,000 to an individual provider. This cap may be adjusted to equal the change in the amount of annual compensation (excluding the allowances for expenses) as specified in 3 *USC* Section 102, *Compensation of the President*, which is limited to no more than \$400,000. There are several physicians with specialized skills who earn more than the annual compensation limit. According to the *American Medical Group Association Compensation* data, a Neurosurgeon earns an average annual salary of \$476,000, and an Orthopedic Surgeon-Spine, earns an average annual salary of \$554,000.



Non-personal Services Contracts: According to the *FAR 37.101*, a healthcare professional contracted under a non-personal services contract is not subject by either the contract terms or the manner of administration to the supervision of the government. The contractor is supervised by the company that was contracted by the government for the services. Therefore, non-personal services contracts are more appropriate to use when the contractor is responsible for providing the entire service or function (for example, a complete emergency room or laboratory facility). In such cases, the *FAR 37.401*, policy states that the contractor must indemnify the government against possible claims for malpractice by non-personal services providers. According to the June 2004 report from the Office of the Inspector General (OIG), non-personal services contracts for healthcare professionals usually cost more than personal services contracts, due to the cost the contractor incurs for malpractice insurance to indemnify the government (DoD OIG, 2004).

In an effort to fulfill changing requirements and provide critical healthcare services, there are a variety of contract vehicles available to the DoD Medical Contracting Commands. The contract vehicles associated with the acquisition of medical services are outlined below.

Multiple-award Task Order (MATO) Contract: MATO are the most commonly used contracts in the acquisition of medical services. The *FAR 16.5, Indefinite Delivery Contracts*, defines the MATO vehicle as an indefinite delivery contract awarded to two or more contractors. MATO contracts typically contain the minimum and maximum amount of services the Federal Government plans to order from the contractors. The individual task orders are computed on the basis of price and past performance. MATO contract vehicles can be for both personal and non-personal services. As stated by the OIG on June 24, 2004, "It takes approximately nine months to award a complex MATO; once in place, individual task orders are issued within 60 days" (DoD OIG, 2004, p. 24).



Individual Set-Aside (ISA) Contracts: An Individual Set-aside contract is a Firm-Fixed-Price (FFP), personal service contract that is made directly with a healthcare provider. The FAR Part 13, Simplified Acquisition Procedures, states that ISAs can be put in place in less than 140 days.

General Services Administration (GSA) and Department of Veterans Affairs (VA) Schedules: The GSA Federal Supply Schedule (FSS) provides the government with a streamlined process for acquiring medical products and services (DoD OIG, 2004). The medical services schedules are managed by the GSA and the prices are determined to be fair and reasonable prior to placing the services on the schedule. Contracting officers are eligible to negotiate order prices using available discounts (DoD OIG, 2004). To acquire medical services through the Department of Veterans Affairs, a fee-for-service agreement is required. The GSA delegated statutory authority to the VA to manage and administer the Federal Supply Schedule for healthcare services. According to the OIG, June 2004 report, the VA charges a surcharge ranging from 1 to 2% for orders. The procurement time to acquire medical services using the VA/FSS is approximately 11 days (DoD OIG, 2004). Currently, 10 USC 1089 prohibits the use of VA/FSS contracts for personal services. All medical services acquired using the VA/FSS are non-personal in nature. The impact of this 10 USC 1089 provision presents a challenge in the acquisition of healthcare providers, limiting the required surge capabilities and increasing the time required to procure medical services for troop deployments.

Franchise Business Activity (FBA) Contracts: The Department of the Treasury created the FBA to provide federal organizations with common administrative and financial support services (DoD OIG, 2004). To purchase the services from the FBA, Medical Contracting Commands should enter into an interagency agreement with the FBA and place task orders for existing contracts between FBA and the contractor. As with the use of the VA contract vehicle, the FBA charges a surcharge for using its services, and depending on the task order, the fee can range from 2-



10% of task order amount. According to the OIG 2003 report, the use of FBA contract vehicles for medical services may not be in the best interest of DoD Medical Contracting Commands because of the broad scope of work stated in the contract (DoD OIG, 2003). This contract vehicle is seldom used in the DoD for acquiring medical services.

Time and Material (TM)/Labor Hour (LH) Contracts: Time and Material contract vehicles are used when it is not possible to accurately estimate the extent or duration of the work and the associated cost. Time and Material contracts are sometimes used in acquiring medical services. The FAR 16.601 provides the guidelines in using this vehicle type. Time and Material vehicles allow the DoD user to acquire services on the basis of direct Labor Hours (LH) at a specified, fixed hourly rate and procure materials at cost. A Determination and Finding (D&F) must be prepared and signed prior to entering into a TM contract. Labor Hour contract vehicles are a variation of the TM contract, with the exception of materials supplied by the contractor. In the use of TM contract vehicles, the CO must monitor contract performance in order ensure that efficient and effective cost controls are being used.

Indefinite Delivery Indefinite Quantity (IDIQ) Contracts: The IDIQ contract vehicle is also known as a task order contract, which is used when the time and quantity of services are unknown during the solicitation phase. The IDIQ contracts are flexible and allow ordering the medical services after requirements arise.

Interagency Contracts: Interagency contracts are contracts signed between two agencies, in which the requesting agency obtains necessary medical service from the servicing agency. The FAR Part 17 defines “interagency acquisition” as a procedure by which an agency needing supplies or services obtains them from another agency. Usually, interagency contracts are placed according to the *Economy Act, 31 USC 1535.*



Commodity Council Contracts: As a part of the strategic sourcing initiative, the Air Force has established the Medical Services Commodity Council. The vision of the Air Force Medical Service Commodity Councils is to leverage each Service's capabilities in achieving the best business processes for healthcare services acquisition (ACC, 2009). A Commodity Council is defined as a strategic purchasing unit with a cross-functional, integrated sourcing team that uses a programmatic approach to services acquisition. The Council approves the buying strategy for goods and services and uses a centralized strategy to decrease acquisition lead-time and save valuable resources. The Commodity Council uses spiral development of needs/funding/contracting. The strategic sourcing of medical services has proven to be successful, and Medical Services Commodity Council awarded \$40.7 million (or 100% of FY06 baseline spending) to small businesses. Currently, there are two commodities contracts for the procurement of medical services, Spiral 1 and Spiral 2 (ACC, 2009).

Blanket Purchase Agreements (BPA) Contracts: The FAR 13.303 defines a BPA as a simplified method of filling anticipated repetitive needs for supplies or services by establishing charge accounts with qualified sources of supply. Blanket Purchase Agreements are established if there are a wide variety of items in a broad class of supplies or services that are generally purchased, but the exact items, quantities, and delivery requirements are not known in advance. BPAs can be used if there is a need to provide commercial sources of supply for one or more offices or projects in a given area that do not have or need authority to purchase otherwise. The use of BPAs would avoid the writing of numerous purchase orders.

Procurement of Medical Services as Commercial Items: The DoD Medical Contracting Commands acquire medical services as commercial items. *The National Defense Authorization Act* for FY 2000, *Public Law 106-65* (the Act), section 814, Pilot Program for Commercial Services, assigned the Secretary of Defense to initiate a pilot program to purchase several service categories, including medical services, as commercial items (US Congress, 1999). The commercial item acquisition allows



the use of a streamlined procurement process and a decrease in the acquisition lead-time.

7. Current Issues within the DoD

The growing cost of healthcare is at the core of the ongoing issues within the DoD medical services acquisition arena. In June 2004, the OIG reported to the Under Secretary of Defense for Acquisition, Technology, and Logistics concerning the medical service contracting process and “whether DoD was acquiring direct-care medical services in the most effective manner” (DoD OIG, 2004). The report findings showed that the DoD lacked an overall strategy for acquiring medical services. Additionally, the OIG also reported that several installations visited implemented federal procurement policies differently, used contracts that imposed unnecessary administrative burdens, and achieved improper oversight of competition—just to list a few concerns (DoD OIG, 2004). The bottom-line of the OIG report determined that the DoD needs a coordinated strategic approach to acquiring direct-care medical services and oversight.

During our research, we discovered several recent issues in direct-care medical services acquisition for the DoD. First, the Secretary of Defense appointed a Task Force on the Future of Military Healthcare (DoD, 2007). The task force was comprised of a wide variety of professionals with expertise in healthcare procurement and cost programs (DoD, 2007). The task force recommendations addressed several important elements that relate to the future of military healthcare in terms of the acquisition process:

- Recommendations for streamlining procurement systems and more effective contracting,
- Efficient and cost-effective contracts for healthcare support and staffing services, including performance-based requirements for healthcare provider reimbursement, and



- The ability to account for the true and accurate cost of healthcare in the military health system (DoD, 2007).

The above recommendations directly impact the procurement policy and procedures for the DoD medical services acquisitions. The findings support a strategic approach to procuring medical services in the DoD. Second, our research revealed that the DoD is seeking to improve medical services procurement via a more coordinated approach in the following areas:

- Improving the credentialing process for healthcare professionals
- Internal/External market research conditions
 - Competition with the private sector for limited resources
 - US citizenship requirements limiting the labor pool
 - Inefficient market research and recruitment
 - Hard-to-find medical specialties
- Salary caps for personal service contracts
- Need for standardization of professional medical services acquisition

The overarching determination from the current issues above revealed the DoD needs to develop a plan for integrating medical services acquisition across the military agencies. Additionally, the DoD should use its considerable influence to institute best practices that promote the management and oversight measures in the procurement of medical services.

C. Air Force Medical Services Acquisition

1. Organization Structure

The primary mission of Air Force contracting is to acquire and support the warfighting capabilities through responsive business solutions (USAF, 2005). For healthcare services acquisition, the Air Force Medical Logistics Office, located at Fort Detrick, Maryland, has responsibility for medical services acquisition policy. The



Air Force organizational structure for acquiring medical services is decentralized. The Air Force is the only military service that has not implemented a centralized organizational structure for the acquisition of medical services. However, the Air Force is practicing an enterprise-wide approach in the acquisition of medical services. The organizational chart is illustrated in Figure 11.

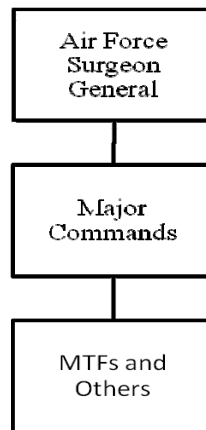


Figure 11. Air Force Medical Services Contracting Organizational Chart (DoD, 2007)

2. Medical Services Procured

The Air Force procures medical services at the installation/base level, providing efficient and effective cradle-to-grave contracting support to meet the needs of the installation commanders, to include the MTFs and clinics (USAF, 2005).

In acquiring direct-care medical services, the Air Force uses a centralized strategy known as commodity councils. These councils are used to streamline the contracting process and reduce acquisition lead-time. In addition to the use of commodity councils, the Air Force uses the GSA/FSS vehicle to procure medical services.

During FY04–FY08, the Air Force awarded the majority of medical services contracts in general healthcare services, nursing services, and laboratory testing



services—accounting for 51.5% of the total medical services expenditures. Table 2 lists the financial data of the top 10 medical services categories. Appendix E provides a complete list of expenditures for FY04–FY08.

**Table 2. Air Force Contracting Commands Top 10 Expenditures
(in thousands of dollars)
(FPDS, 2009a)**

SC	Service Description	FY04	FY05	FY06	FY07	FY08	Total
201	General Healthcare Services	2,566	24,352	55,470	123,559	117,658	323,605
401	Nursing Services	1,696	12,762	22,437	33,491	50,636	121,021
301	Laboratory Testing Services	13,545	21,058	13,172	15,667	5,509	68,951
522	Radiology Services	3,280	6,536	11,196	11,814	12,632	45,458
523	Surgery Services	1,054	2,752	2,632	7,928	11,039	25,405
526	Medical/Psychiatric Consultation Services	1,662	1,787	2,663	3,129	13,663	22,905
403	Evaluation and Screening	4,115	22	4,911	6,106	7,734	22,889
519	Psychiatry Services	148	755	3,572	4,745	11,551	20,771
503	Dentistry Services	170	621	2,758	7,559	8,073	19,181
517	Pharmacology Services	340	1,906	2,231	6,587	5,721	16,784
	Total:	28,576	72,551	121,042	220,586	244,215	686,970

Generally, the Air Force task orders for direct medical care services are firm-fixed-price contract type. In FY09, the Air Force obligated over \$294.8 million in medical services contracts (FPDS, 2009b).



D. Army Medical Services Acquisition

1. Organization Structure

Of all the Services, the Army has the largest organizational structure dedicated to healthcare procurement. The Health Care Acquisition Activity (HCAA) is a field operating activity of the Army Medical Command (MEDCOM) and has the direct authority over Army medical contracting capabilities. The HCAA Commander serves as the Principal Assistant Responsible for Contracting (PARC). The PARC, a directorate-level senior staff official, provides advice, policy, and oversight on all medical contracting issues for the MEDCOM (Army HCAA, 2009). Located at Fort Sam Houston, Texas, the HCAA is organized into headquarters; there are seven subordinate commands under the HCAA, the Center for Healthcare Contracting (CHCC), also located at Fort Sam Houston, and six Regional Contracting Offices (RCO). The CHCC provides medical contracting support by awarding global personal and non-personal contracts for use by all of the RCOs (Army HCAA, 2009). The six regional contracting offices provide medical contracting support (on a direct support basis) to their respective regional medical commands. In addition to the seven subordinate commands, the HCAA operates several contracting cells at selected MTFs. The HCAA organizational structure is centralized, providing increased coordination and responsive medical contracting support to the MEDCOM. The organizational chart is illustrated in Figure 12.



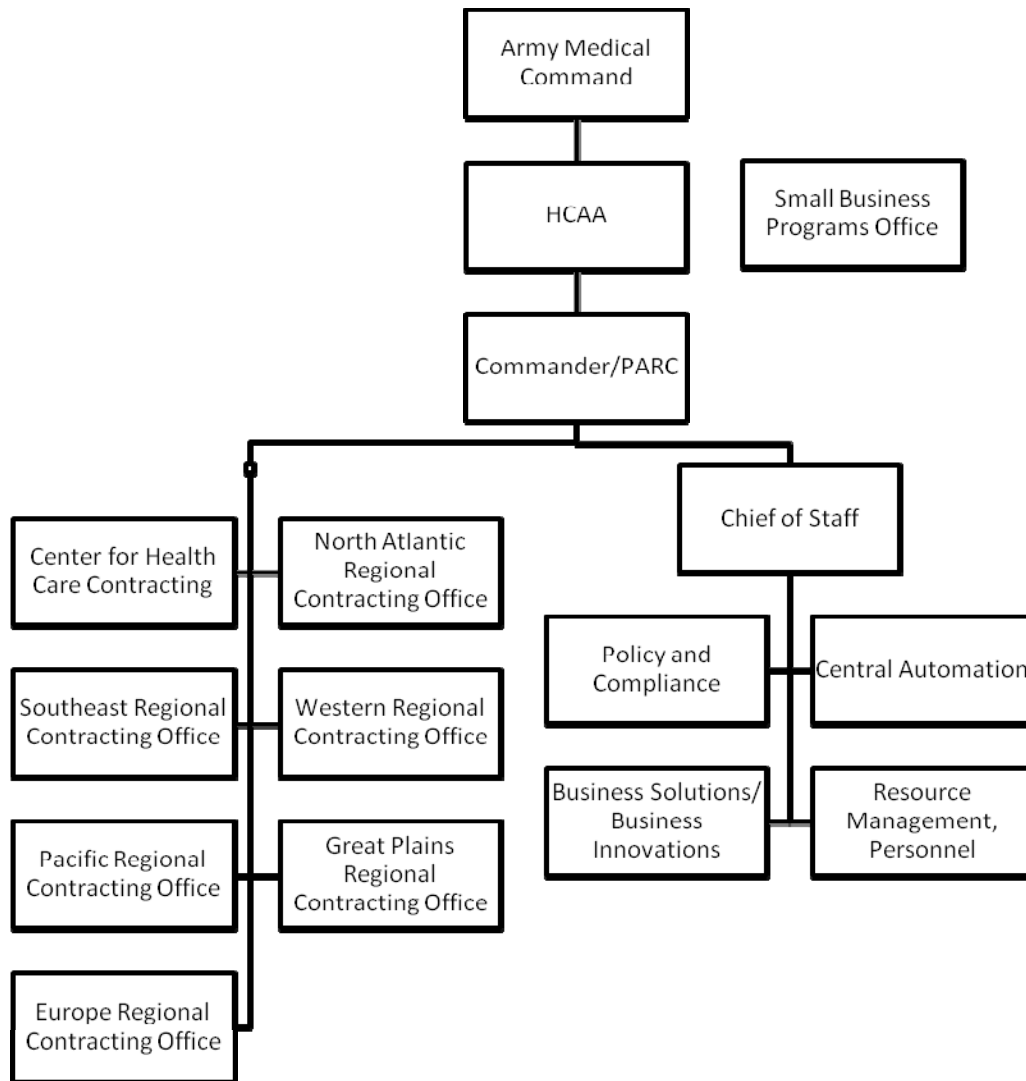


Figure 12. Army Health Care Services Contracting Organizational Chart
(Army HCAA, 2009)

2. Medical Services Procured

The HCAA procures both personal and non-personal medical services and supplies in support of MTFs within the Army Medical Department (AMEDD) (Army HCAA, 2009). In the past, the HCAA procured medical services utilizing a multiple-award contract to be used by RCOs, called innovative Medical Acquisition Program (iMAP). To streamline the contracting process and reduce acquisition lead-times, the HCAA replaced the iMAP contract by implementing the Army Direct-care Medical



Services (ADCMS) contracts. The ADCMS are MATO, regional contracts that are based on the TRICARE regions North, South, Western, and Pacific. Within each region, there are three types of ADCMS contracts awarded by medical specialties: physicians, nursing/physician assistants, and ancillaries. A major benefit of ADCMS is that the RCOs can issue a task order against the contract within 30 days, eliminating the entire acquisition process.

The ADCMS multiple-award contracts are one year contracts with four option periods (Army HCAA, 2009). The task orders for physicians and ancillary are Firm-fixed-price (FFP) or Fixed-price with Economic-price Adjustment (FP-EPA) contracts, and the contracts for nursing/physician assistants are FFP, FP-EPA, or Labor Hours (LH). Additionally, the Army Medical Command procures direct-care medical services through several initiative programs provided by the VA. The VA Travel Nurse program is a collaborative effort between the Army and the Navy that utilizes Registered Nurses for temporary, short-term assignments. Another VA-provided initiative is the locum tenens agreement. Locum tenens are defined as short-term-fill task orders for physicians, less than Full-time Equivalent (FTE), that are usually awarded in response to a deployed military provider. The locum tenens are Blanket Purchase Agreements (BPAs) that utilize the Department of Veterans Affairs Federal Supply Schedule (VA/FSS) (Army HCAA, 2009).

The Army Medical Command utilizes the acquisition project team approach in awarding and managing medical services contracts (CHCC, 2009). Prior to 2004, the CHCC utilized the cradle-to-grave management approach in managing medical services. In 2004, the CHCC changed this approach and reorganized into two major divisions: Pre-award division and Post-award division. The Pre-award division is responsible for awarding direct healthcare services and environment of care services. The Post-award division is responsible for the management and oversight of direct healthcare services, environment of care support services, and contract closeout. According to CHCC contracting personnel, this reorganizing has resulted



in increased efficiencies and effectiveness in medical services contracting within the Army.

During FY04-FY08, the Army awarded the majority of medical services contracts in general healthcare services, nursing services, and dentistry services—accounting for 56.2% of the total medical services expenditures. Table 3 lists the financial data for the top 10 medical services categories. In FY09, the HCAA obligations for medical service contracts totaled more than \$919.7 million (FPDS, 2009b). Appendix F provides a complete list of expenditures for FY04–FY08.

**Table 3. Army Contracting Commands Expenditures
(in thousands of dollars)
(FPDS, 2009a)**

SC	Services Description	FY04	FY05	FY06	FY07	FY08	Total
201	General Healthcare Services	641,664	653,292	262,296	166,261	112,435	1,835,948
401	Nursing Services	61,236	63,092	55,582	92,584	131,970	404,464
503	Dentistry Services	48,216	64,652	88,542	85,627	93,471	380,508
403	Evaluation and Screening	3,100	2,220	20,249	85,864	91,510	202,943
301	Laboratory Testing Services	27,762	22,631	41,003	34,086	41,209	166,691
522	Radiology Services	22,106	29,332	7,581	37,858	44,394	141,271
519	Psychiatry Services	4,555	8,148	273	61,891	54,929	129,796
527	Nuclear Medicine	122,506	458	-11	1,195	701	124,849
509	Internal Medicine Services	4,740	4,720	1,985	36,460	64,667	112,573
501	Anesthesiology Services	11,157	23,677	22,367	16,937	21,512	95,650
	Total	947,042	872,222	499,867	618,763	656,798	3,594,692



E. Navy Medical Services Acquisition

1. Organization Structure

The Naval Medical Logistics Command (NMLC) is a specialized command and has direct authority over most healthcare services contracting for the Navy. NMLC is the technical manager for the Bureau of Medicine and Surgery (BUMED), as well as approval authority for technical specifications for healthcare service contracts. Additionally, it is the central coordination of Navy Medicine's healthcare services contracting program. Within this program, the main responsibilities are mitigating policy and authority issues, consulting on acquisition strategies, developing Statements of Work (SOW), evaluating contractor proposals, advising on contract administration issues, maintaining the healthcare contracting database, and providing acquisition-planning training (NMLC, 2009).

Located at Fort Detrick, Maryland, the NMLC has a centralized policy for medical service acquisition. The organizational chart is illustrated in Figure 13.

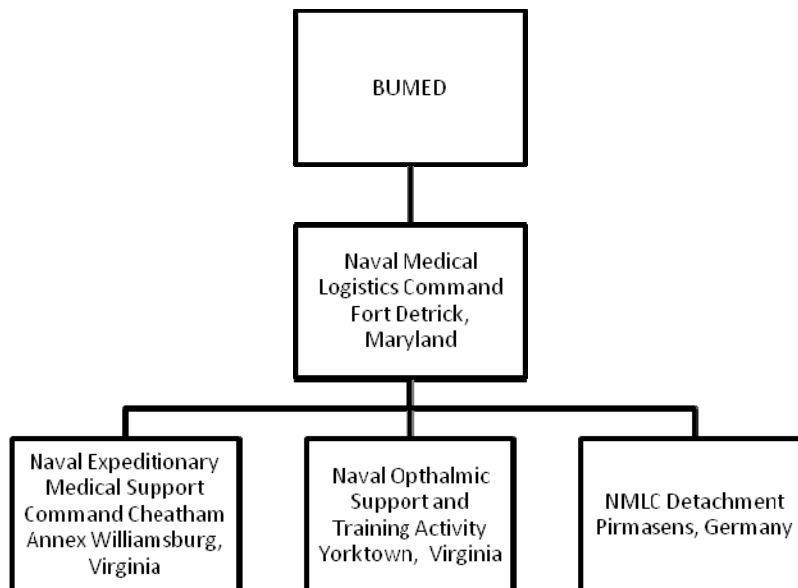


Figure 13. Naval Medical Logistics Command Organization
(NMLC, 2009)



2. Medical Services Procured

The NMLC procures direct personal medical services for all naval MTF and clinics in the CONUS, as well as in Guam. For the majority of the personal services contracts, the Navy uses a strategic sourcing approach. This strategic sourcing initiative uses regional MATO and Single Award Task Order (SATO) contracts to procure medical and dental services. As stated earlier, the use of MATO helps to streamline the contracting process and reduce acquisition lead-times. If highly specialized services are required, then an Individual Set-aside (ISA) contract is used to acquire services. Additionally, in a collaborative effort between the Army and the Navy, NMLC procures medical services utilizing the VA Traveling Nurse program and the locum tenens agreements mentioned previously in this chapter.

During FY04–FY08, the Navy awarded the majority of contracts in general healthcare services, dentistry services, and nursing services—accounting for 34.2% of the total medical services expenditures. Table 4 lists the financial data for the top 10 medical services categories. Appendix G provides a complete list of expenditures for FY04–FY08.



**Table 4. Navy Contracting Commands Expenditures
(in thousands of dollars)
(FPDS, 2009a)**

SC	Services Description	FY04	FY05	FY06	FY07	FY08	Total
201	General Healthcare Services	40,915	42,018	46,652	48,777	48,592	226,954
503	Dentistry Services	25,219	61	44,645	60,256	62,827	193,008
401	Nursing Services	13,342	16,978	38,754	48,398	52,777	170,249
301	Laboratory Testing Services	17,228	12,002	11,148	10,416	10,487	61,281
522	Radiology Services	14,147	12,896	13,025	18,060	392	58,520
502	Cardio-Vascular Services	1,030	35,489	1,965	2,364	1,541	42,389
523	Surgery Services	256	353	483	1,954	21,859	24,905
517	Pharmacology Services	6,072	5,721	4,054	5,029	3,865	24,741
501	Anesthesiology Services	1,589	1,627	6,029	5,395	6,470	21,110
519	Psychiatry Services	576	672	1,469	6,449	6,437	15,603
	Total	120,374	127,817	168,224	207,098	215,247	838,760

In FY09, the NMLC obligated over \$395.9 million in medical services contracts (FPDS, 2009b). The NMLC utilizes the acquisition project team approach in awarding and managing medical services contracts. Recently, the Navy reorganized the management of medical services acquisition from the cradle-to-grave management approach to implementing four functional divisions. Services Contracts Division 1 (SCD 1) and Services Contracts Division 2 (SCD 2) are responsible for awarding new healthcare services contracts and task orders. Contract Administration Division 1 (CAD 1) and Contract Administration Division 2 (CAD 2) are responsible for administering and managing awarded medical services task orders and contracts. By reorganizing into functional divisions, the contract



specialist can focus on contract-award or contract-administration phase, resulting in a more efficient and effective acquisition-management process within the Navy.

F. Summary

This chapter captured an overview of medical services acquisition in the Department of Defense. Additionally, the chapter discussed the organizational structure and procurement process for the Air Force, Army, and Navy.

The major take-away from this overview centers on the growing cost for healthcare, and on how the military agencies procure medical services. Additionally, the need for proper management and oversight in medical services acquisition is paramount. The private sector, the DoD, and the VA are all experiencing astronomical increases in healthcare costs which are growing at unsustainable rates. Similarly, the private sector, the DoD, and the VA award and administer contracts using personal and non-personal services contracts; also, the literature review revealed that the majority of contracts are competitively bid.

Medical service acquisition is seen as a resourceful tool in addressing the rising cost of healthcare; however, it requires careful administration and oversight to implement cost-effective measures for the DoD. The next chapter will discuss the purpose and development of the pilot survey, along with the survey results.



IV. Medical Service Category (FSC Q) Survey Results and Analysis

A. Introduction

The purpose of this chapter is to provide an overview of the responses to our 39-question, Web-based pilot survey that focused on the acquisition of medical services contracts throughout military organizations. This chapter will also discuss the following: (1) the purpose of the pilot survey, (2) the development of the survey, and (3) the survey questions. Finally, it will present an initial analysis of data collected during the pilot test.

B. Purpose of This Survey

The primary purpose of the pilot survey was to develop an effective instrument that addresses the current state of medical services acquisition management across the military installations. In this pilot test, the researchers will specifically concentrate on the reliability and validity of the survey, examining the appropriateness and the clarity of questions. The survey gathered empirical data from military organizations responsible for the management and oversight of Federal Service Code (FSC) category Q, medical services.

C. Development of Survey

This Web-based survey entitled, “DoD Military Installation Medical Services Acquisition Survey: All Installations,” is powered by an online software tool, SurveyMonkey.com. SurveyMonkey is a Web-based engine used to develop, deploy, and collect survey responses. The survey consists of 39 questions, including the use of Likert-scale questions. Likert-scale questions are used to measure the responses as levels of agreement or disagreement, using the following scale: “always”, “usually”, “sometimes”, “seldom”, “never”, and “don’t know.”



The overall objective of this research was to develop a survey instrument directly related to the procurement and management of medical services, FSC Q. As stated earlier, this Web-based survey was designed as a pilot test to collect empirical data from military installations on the current state of the acquisition and management of medical services. The researchers used the survey created for the MBA report, *The Department of Defense's Management of Services Acquisition: An Empirical Analysis* (Compton & Meinshausen, 2007), with modifications as they related to the unique procurement of medical services. Our team submitted a Protection of Human Subject application to the Naval Postgraduate School Institutional Review Board (IRB) in accordance with *Naval Postgraduate School Instruction 3900.4: Protection of Human Subjects* (NPS, 2002).

D. Survey Research Questions

The survey questions are organized into one of the four main sections: Administrative questions, Core questions, General questions, and Comments (Compton & Meinshausen, 2007). In previous MBA reports that analyzed survey data for medical services, the results revealed a large number of “not applicable” responses. To minimize the amount of “not applicable” responses, the researchers modified the core questions by focusing on the unique characteristics and requirements in acquiring medical services.

The Administrative group of questions identifies the branch of Service and the location to which the participant is assigned. The Core questions focus on the following: contract characteristics and acquisition management methods, to include the use of performance-based acquisition, contract type, the applicable contract incentive or award fee, contract vehicle, and the use of a project team approach. In acquiring medical services, there are several contract-type and vehicle variations used. The data collected from the pilot survey will facilitate further study of the research questions presented in Chapter I of this report.



The purpose of the Core questions is to answer the following research questions:

- What types of acquisition strategies, procurement methods, and contracts are being used to acquire services?
- How are medical services contracts managed?
- What types of organization/management structures are used to manage contracted medical services?

The General acquisition management questions in the survey are related to the research questions; the questions assess the challenges and the management approaches used in the acquisition of medical services. This section examines the use of the lifecycle approach in medical services, the use of market research techniques, and other questions related to the management of medical services acquisition. It also reviews the level and types of training received by contracting personnel, contractor surveillance, and the length of time CORs serve in their billets. Lastly, in this section, the participants are asked to list their top three challenges in acquiring medical services.

The Comment section of the survey offered a feedback and comment opportunity for respondents to provide input or recommendations for the survey design or for improvement on medical services acquisition.

The survey questions were used to analyze trends and best practices, providing insight and comprehensive understanding of the management, and oversight of medical services. Statistical tables and charts are used to present the collected data. The survey's results are presented in the section below.



F. Pilot Survey Data Results

1. Overview of Data Collected

The pilot survey was distributed across the major Medical Contracting Commands located within the Army, Navy, and Air Force. The researchers originally requested ten responses from the pilot test; however, due an overwhelming response by possible participants, 10 additional survey invitations were sent. Out of a total of 20 invitations, we received 17 responses that resulted in an 85% response rate. Specifically, 41% (or 7) of the responses came from the Army medical contracting installations, 41% (or 7) came from the Navy medical contracting installations, and 17% (or 3) came from the Air Force medical contracting installations. Figure 14 summarizes the respondents' representation.

The comments and data gathered from the respondents proved to be very valuable in generating overall survey reliability in the area of medical services and a useful tool for follow-on reports.

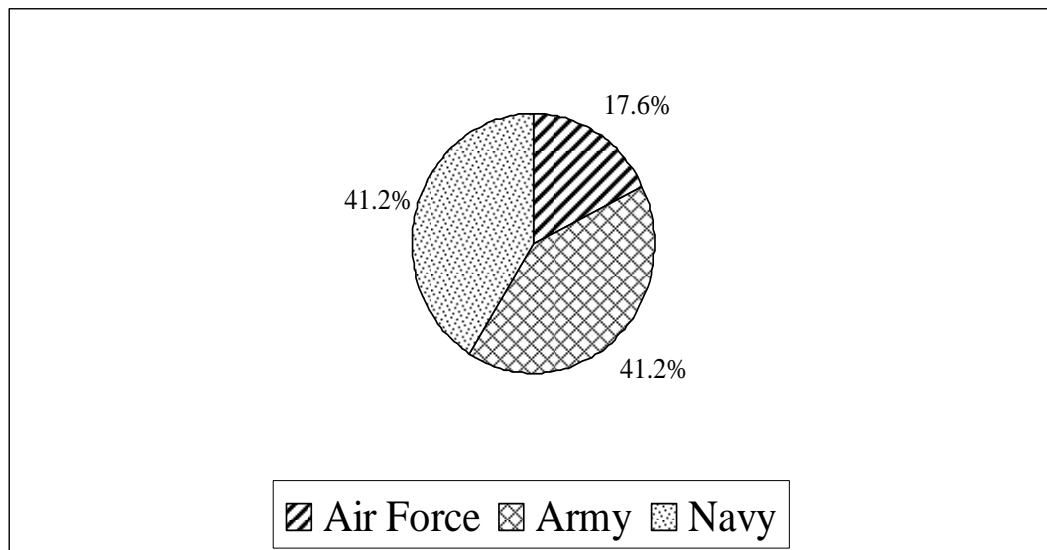


Figure 14. Distribution of the Military Services



2. Contract Characteristics

In Figure 15, the competition data for medical services from FY07–FY09 revealed the following: overall, across the military Services, the acquisition of medical services were competitively bid 80% of the time. The Air Force data shows that the competitive approach was used 56% of the time, while sole-source was used 11% of the time. Additionally, the Air Force respondents selected “other,” indicating the use of strategic sourcing—meaning Medical Commodity Council Contracts—were used 33% of the time. The Navy data shows that the competitive approach was used 71% of the time, while sole-source was used 29% of the time. Finally, the Army used the competitive approach 100% of the time, indicating that competition for medical services was always sought. The survey data indicated a high and adequate level of competition in acquiring medical services. Therefore, the acquisition process is transparent—reducing cost, and delivering the best value healthcare and medical services to military personnel.



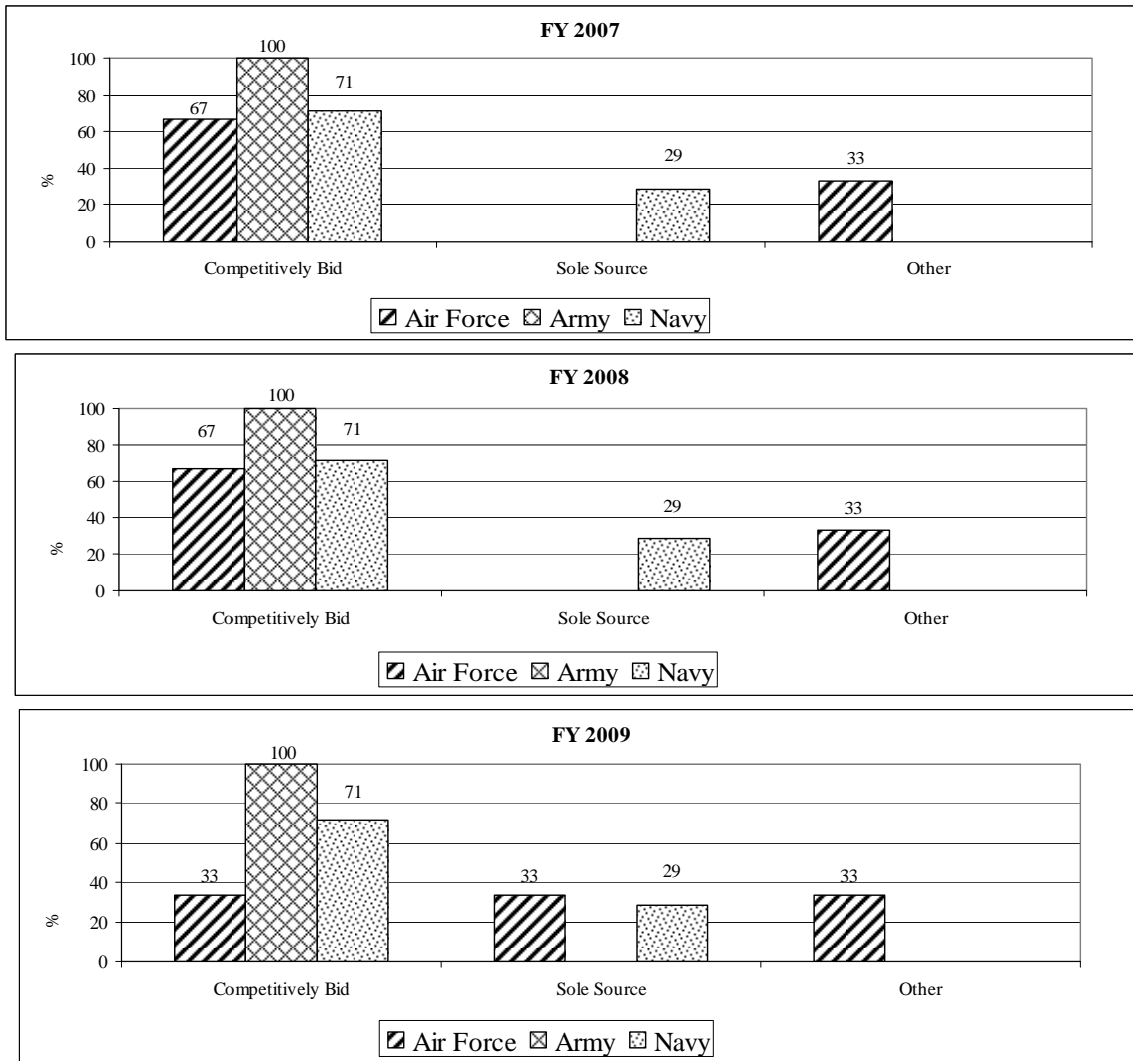


Figure 15. Competition for Medical Services FY07–FY09

3. Contract Type used in Medical Services

From FY07–FY09, all military services procured both personal and non-personal medical services. In Figure 16 and 17, the data showed that across the military Services, the dominant contract type used for acquiring medical services were firm-fixed-price contracts, while cost-type contracts were used 0% of the time.



Additionally, incentives for these contracts were rarely used. Within the Army, only 2 respondents indicated that incentives were used 14-29% of the time.

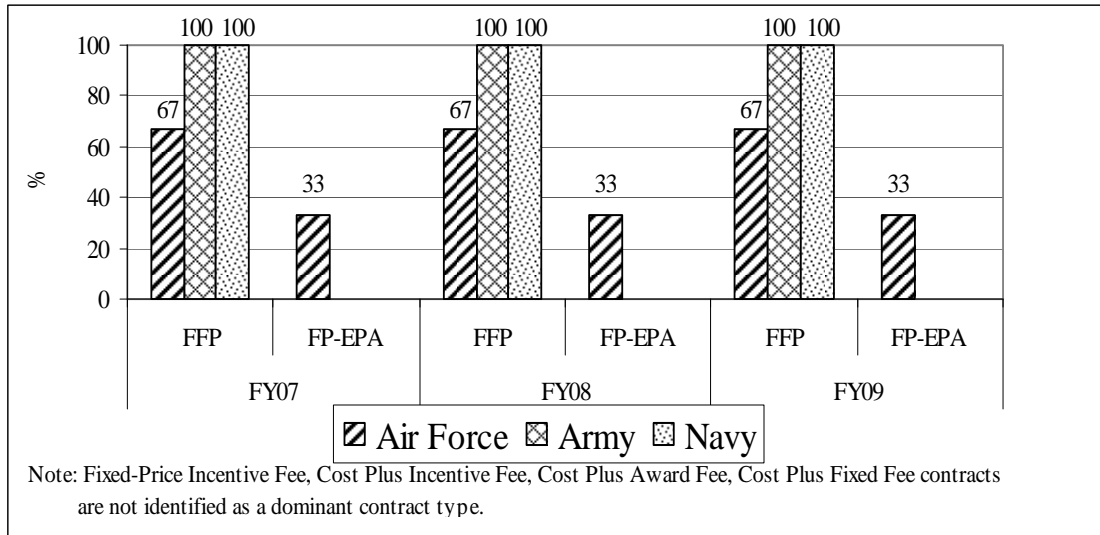


Figure 16. Medical Services Contract Type

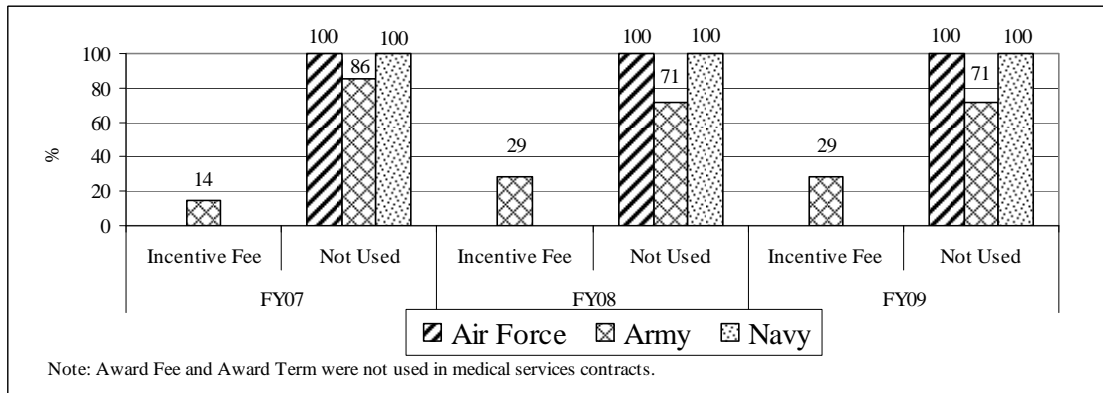


Figure 17. Incentive Type Contracts used for Medical Services

4. Contract Vehicles used in Medical Services

Figure 18 shows the dynamic use of contract vehicles for medical services acquisition. From FY07–FY09, all military Services used the following contract vehicles to procure medical services: GSA schedule, VA/FSS, MATO, SATO, ISA, IDIQ, and BPA. Additionally, the dominant contract vehicles used by each military



Service were as follows: the Air Force used Commodity Council and VA/FSS contract vehicles 100% of the time. Both the Army and Navy used VA/FSS and MATO contract vehicles 57–86 % of the time. Lastly, the data revealed that FBA and interagency contracts were not used.



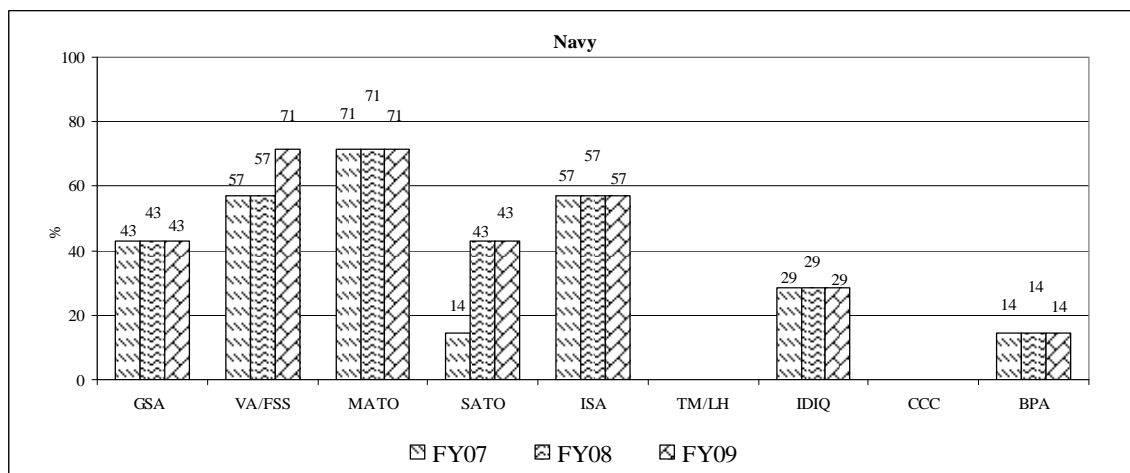
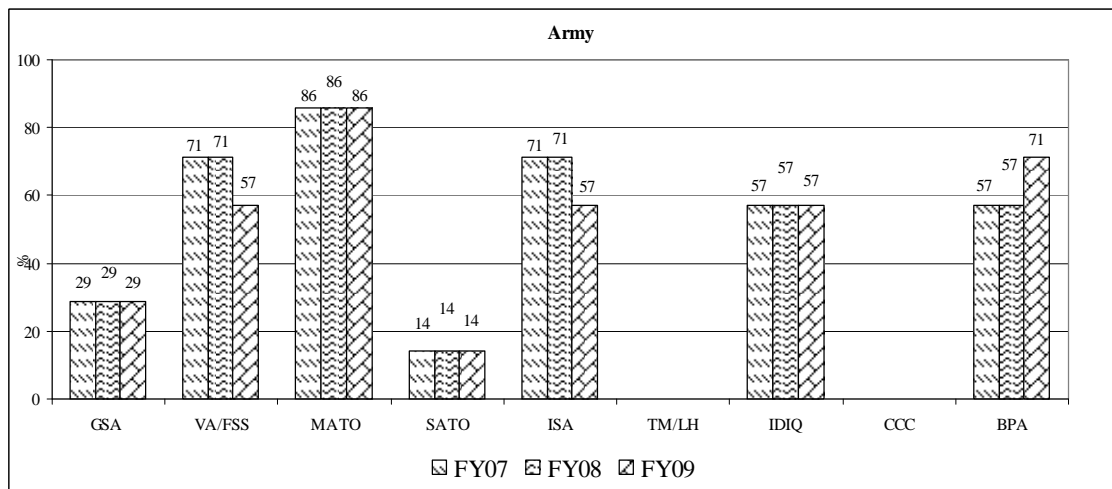
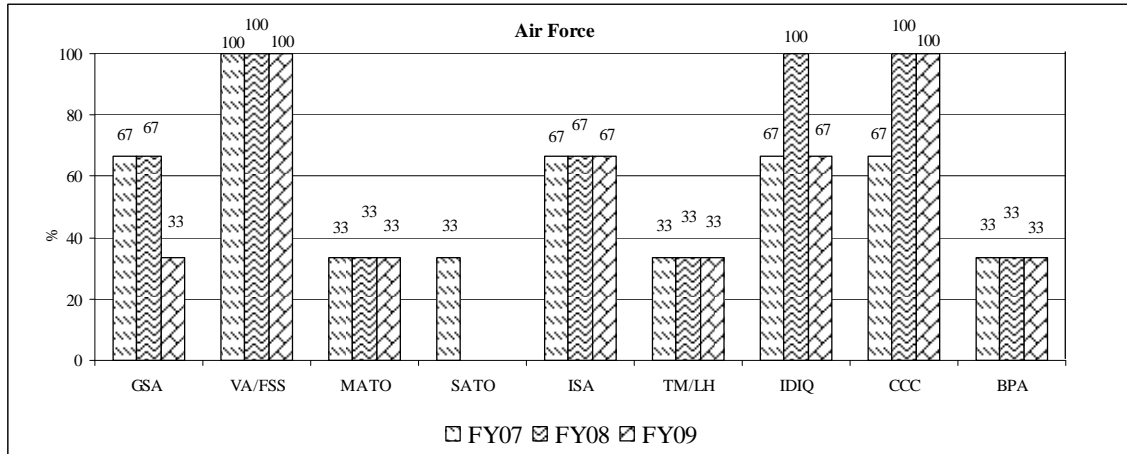


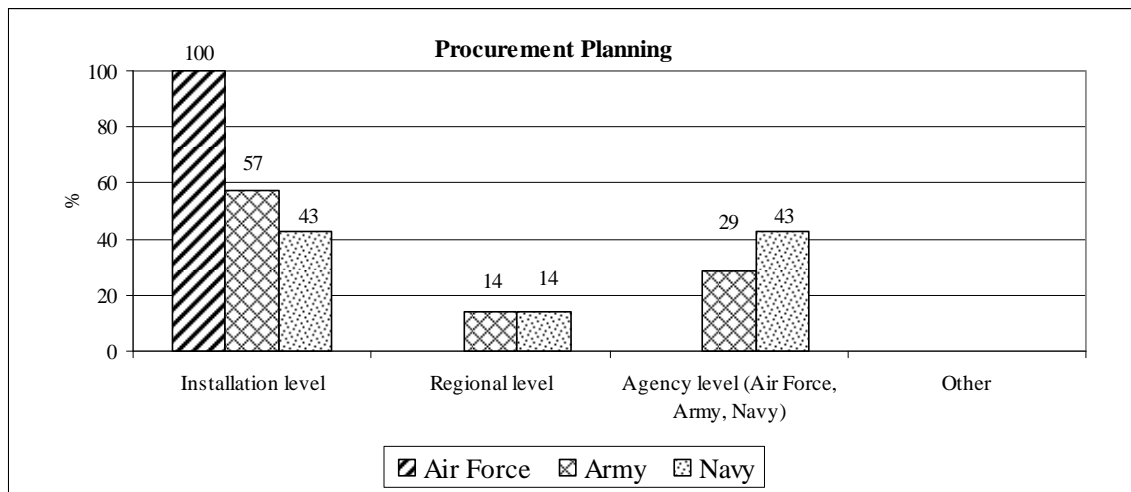
Figure 18. Medical Services Contract Vehicles

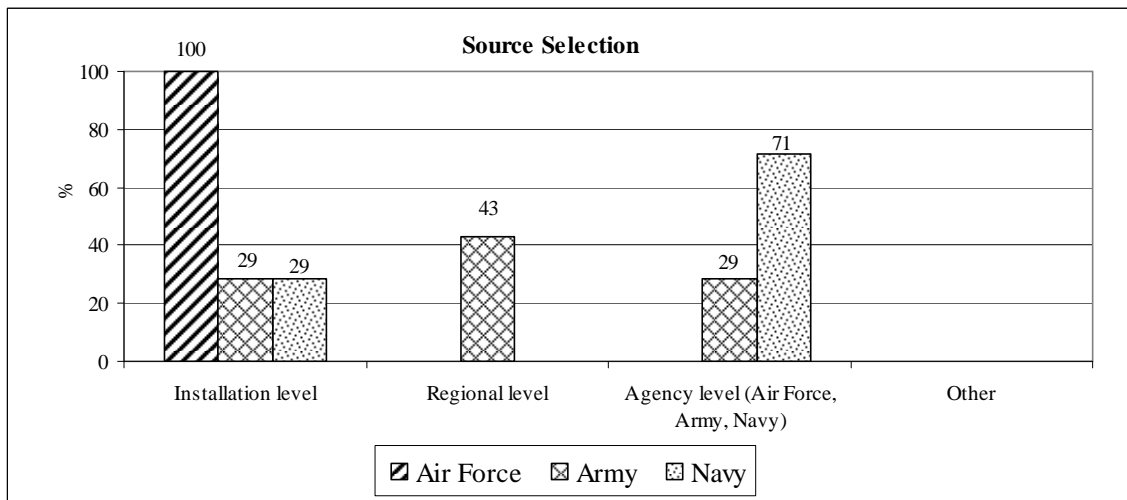
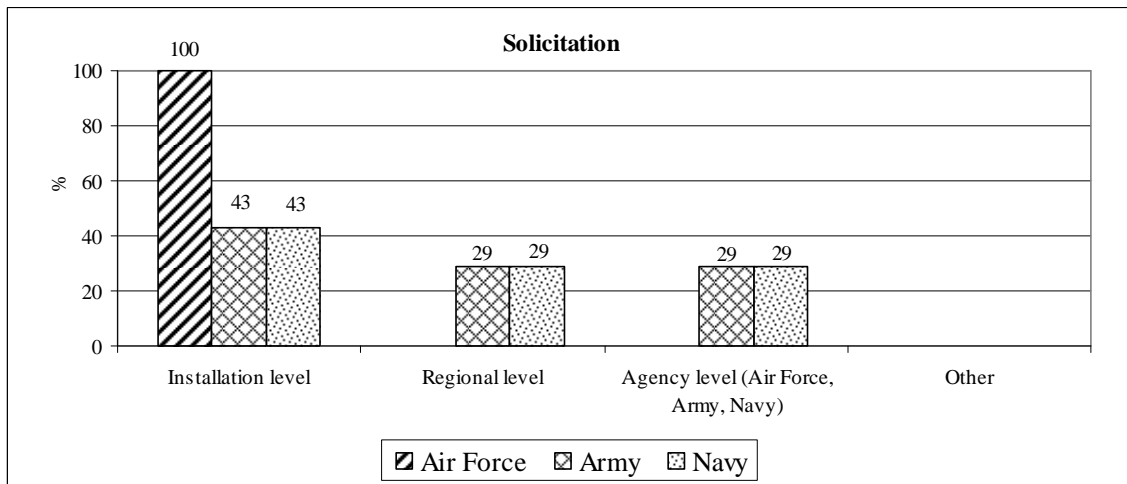
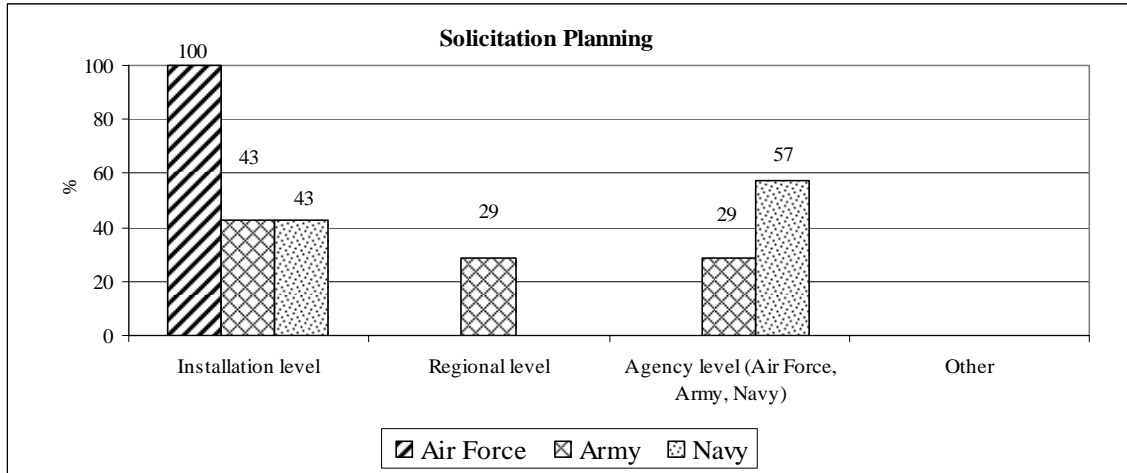


In Chapter III, we discussed the various contract vehicles available for use in acquiring medical services. Depending on the nature of the medical care required and the timeframe allotted to provide these services, the selected vehicles are in place to improve the acquisition procurement process and decrease the overall Acquisition Lead-time (ALT).

5. Acquisition Management Methods

Based on the data showed in Figure 19, all military Services used the six contract management phases for medical services acquisition. The data revealed that the Air Force performs the six management phases 100% of time at the installation level. On the other hand, the data shows that the Army and Navy procures and manage medical services at various levels. The difference in the approach and level of management in acquiring medical services by each military service may provide details and impact the effectiveness of each military organization's healthcare management process.





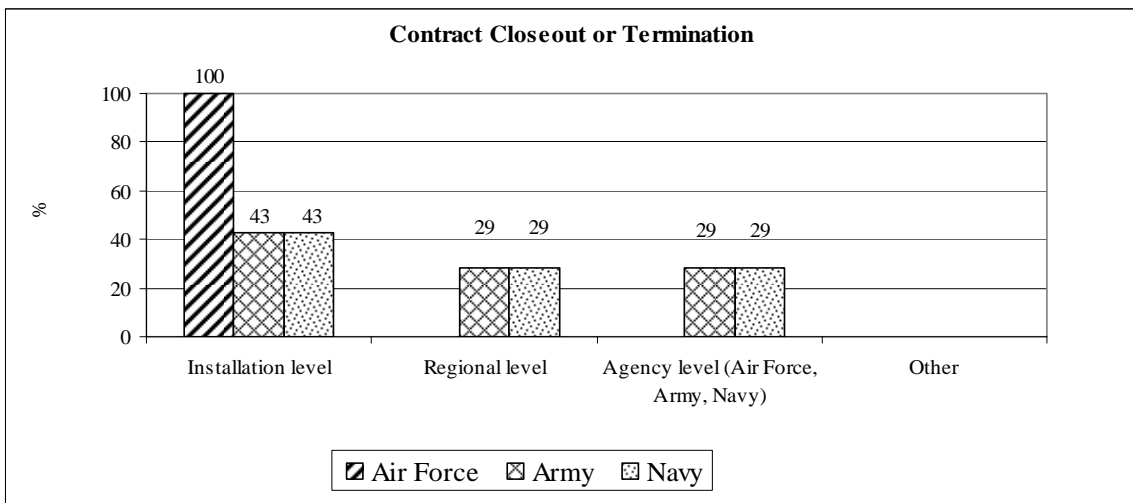
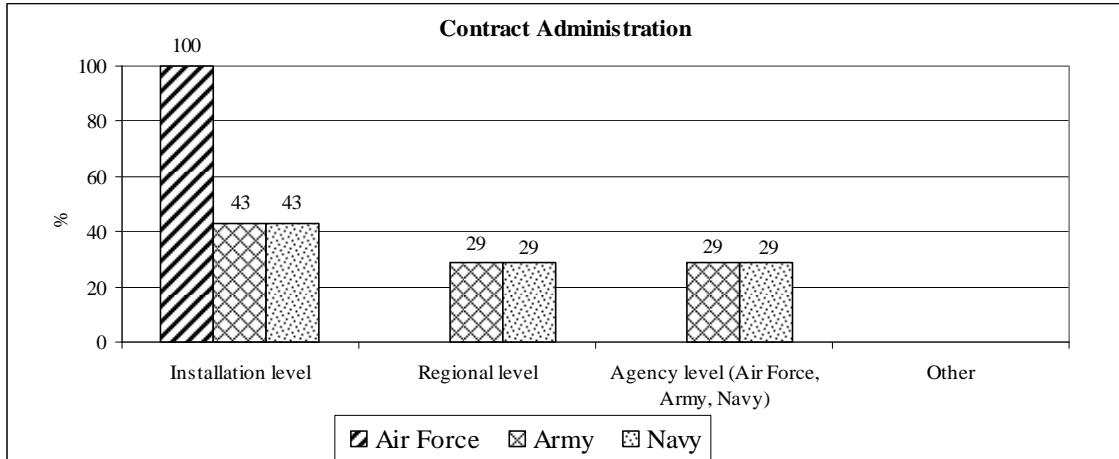


Figure 19. Level of Acquisition Phases for Medical Services Procurement Planning

6. Performance-based Acquisition

The military Services use a different approach in the use of Performance-based Acquisition (PBA) in the acquisition of medical services. Figure 20 shows that the Air Force and the Army use PBA “always” or “usually” (100% of the time), while the Navy rarely or “never” uses PBA in the acquisition of medical services. According to Navy respondents, personal service contracts for healthcare services are exempt from PBA due to the nature of the contract and the employer/employee relationship (government and contractor relationship). Additionally, the survey



revealed that the performance measures output (quality and quantity) and effectiveness and efficiency (cost) play a significant role in determining a contractor's performance.

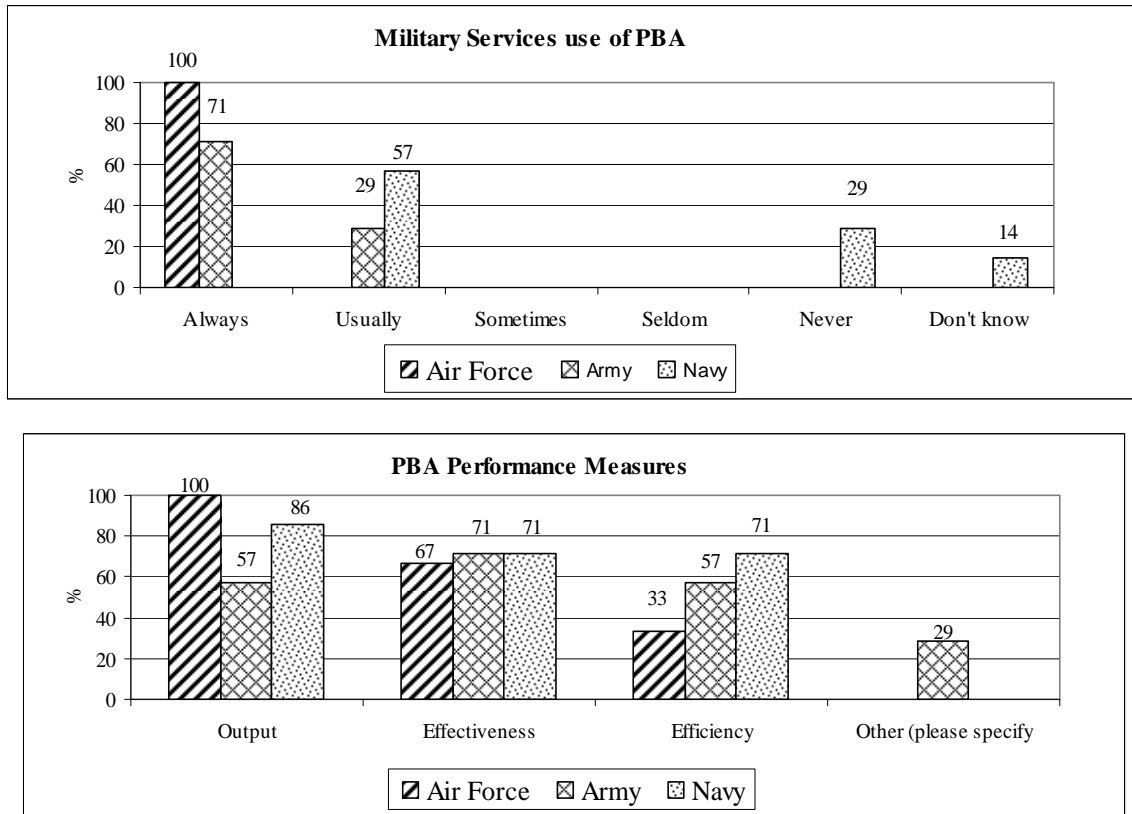


Figure 20. Performance-based Acquisition for Medical Services

PBA continues to be a challenge for all military Services. Out of the 14 respondents indicating the use of PBA, 6 respondents indicated that the primary challenge in the implementation of PBA is in the area of requirements—knowing how to define and prepare the PWS versus SOW. Five respondents indicated that defining required performance outcomes is the second challenge in implementing PBA. The third challenge indicated by the respondents was the development of Quality Assurance Plans (QAP). Other challenges mentioned in the survey were the complexity of requirements combined with the amount of contracts and determination of the best value for the government.



7. Project Team Approach

In Table 5, the data shows that the project teams are widely used for acquisition of medical services; however, the role of the project manager is unclear. Only 6% of the respondents indicated that the project manager “sometimes” leads the acquisition process, and 12% of the respondents indicated that a project manager generates the requirements. According to the respondents, the Contracting Officer (CO) leads the acquisition process 65% of the time and is responsible for the requirement generation 35% of the time—indicating that project managers are normally not a part of the acquisition process of procuring medical services. These results, in which the CO usually manages and leads the acquisition process, may have potential conflict of interest, a lack of transparency, and other accountability issues as mentioned in a number of GAO reports.

Table 5. Project Team Approach for Medical Services

		Always, Usually	Sometimes	Seldom, Never	Total
Are Project Teams used?		53%	35%	12%	100%
Are Project Managers used in managing medical services?	Always, Usually	29%	12%	0%	41%
	Sometimes	0%	18%	0%	18%
	Seldom, Never	18%	6%	12%	35%
	Don't know	6%	0%	0%	6%
Who leads the acquisition of medical services?	Project Manger	0%	6%	0%	6%
	PCO, ACO, CO	29%	24%	12%	65%
	QAE/COR	0%	0%	0%	0%
	Customer	18%	6%	0%	24%
	Other	6%	0%	0%	6%
Who owns the requirements for medical services?	Project Manager	0%	6%	6%	12%
	PCO, ACO, CO	24%	12%	0%	35%
	QAE/COR	12%	0%	0%	12%
	Customer	12%	18%	6%	35%
	Other	6%	0%	0%	6%



8. Lifecycle Approach

The lifecycle approach used in managing medical services acquisition is shown in Figure 21. A lifecycle management approach was used “always” or “usually” by 100% of the Air Force respondents. Over half (57%) of Army respondents used this approach “sometimes.” Lastly, the lifecycle approach was used “always” or “usually” by 58% of the Navy respondents. According to pilot-survey results, there are two main reasons why the lifecycle approach is used only “sometimes”. The first is a lack of procurement planning, and the second is a lack of centralized project management oversight in the hospitals or clinics.

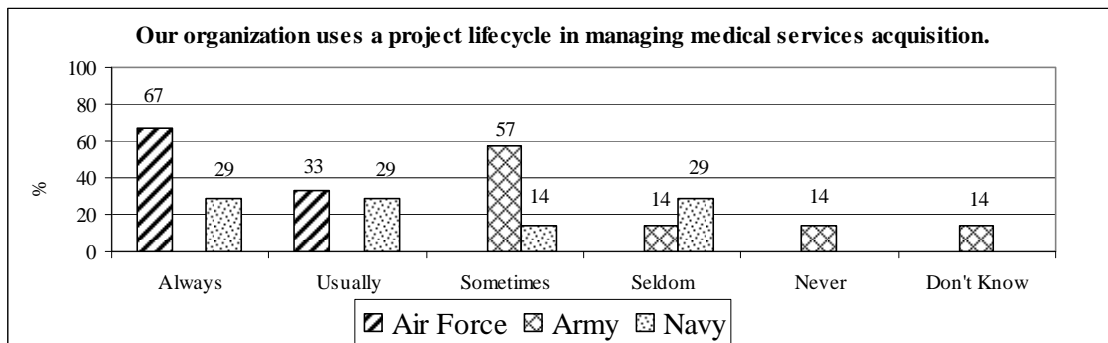


Figure 21. Lifecycle Approach for Medical Services

9. General Medical Services Management Methods

The first general statement in Figure 22 dealt with the level of formal training received across the military Services. According to the respondents, QAE training is the most commonly used by Air Force medical acquisition personnel. The Air Force also uses the Defense Acquisition Workforce Improvement Act (DAWIA) contracts training and Contracting Officer Technical Representative (COTR) training. However, this training is general and not specific for medical services acquisition. The Army uses COR and DAWIA training. The COTR and non-Defense Acquisition Workforce Improvement Act (DAWIA) training is used according to 14% to 43% of respondents. The COR training is the dominant training type for the Navy acquisition personnel.



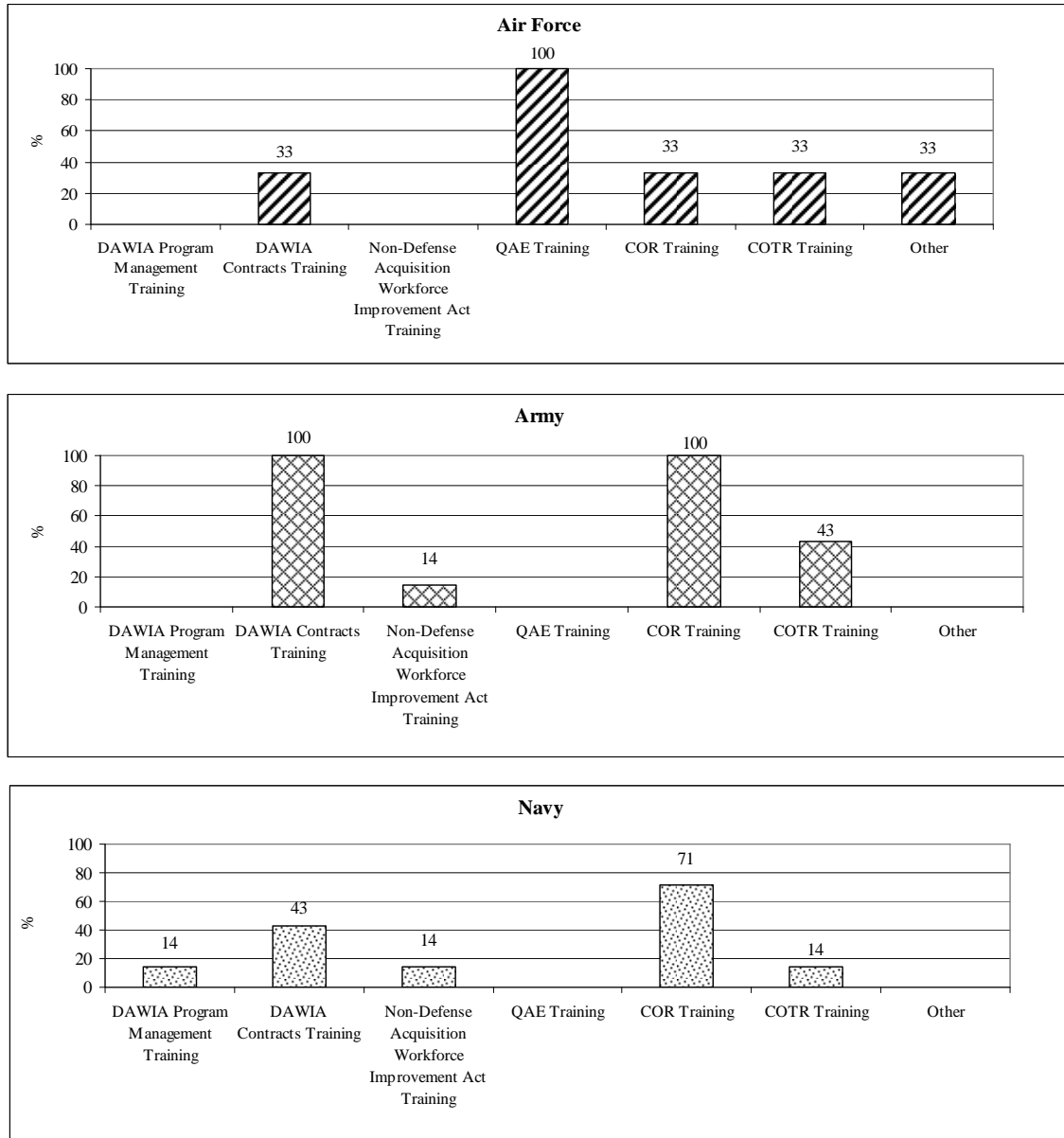


Figure 22. Formal Training for Medical Services Acquisition Personnel

The next general statement, Figure 23, examines personnel responsible for contract oversight and surveillance. It reveals that the COR/QAE or the customer is responsible for performing contractor surveillance 100% of the time. Additionally, the data revealed that all military services use a similar approach to contract oversight.



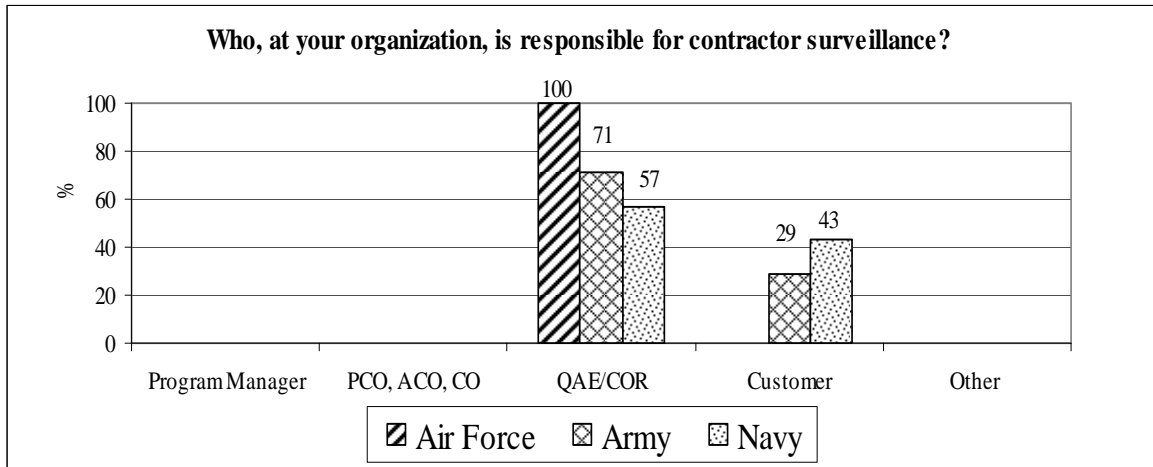


Figure 23. Personnel Responsible for Surveillance

In Figure 24, the next general statement deals with short-term assignments for COR/QAEs. According to the Air Force respondents, the average assignment time is equally distributed among the timeframes of greater than six months, 24-36 months, and more than 36 months. Nearly half of the Army respondents (43%) acknowledged that the average service time is between 12 to 24 months, and 29% of the respondents said it was greater than 36 months. Lastly, 57% of the Navy respondents revealed that COR/QAEs serve in their position for more than 36 months. Overall, for all military Services, only 41% of COR/QAE are assigned to these positions for more than 36 months. A high turnover rate of COR/QAE assignments may lead to a lack of subject-matter experts and improper contract oversight and management.



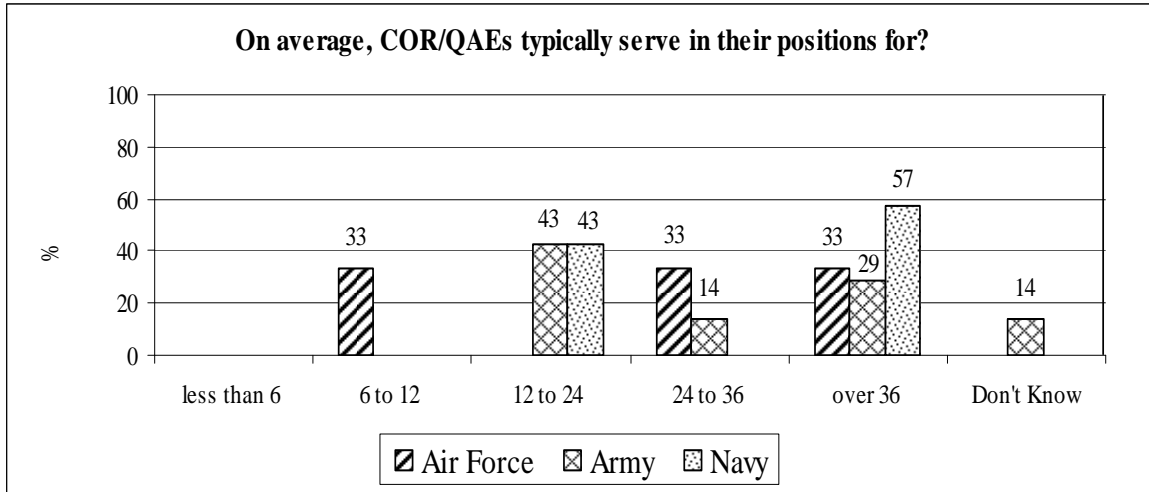


Figure 24. COR/QAE Short-term Assignments (in months)

In Figure 25, the next two charts deal with the COR/QAE qualification and training. The first chart focused on whether the COR/QAEs are adequately trained. The second asked if the COR/QAEs are adequately qualified. It appears across the Services that the COR/QAEs are both adequately trained and qualified. The Air Force and the Army “always” delegate authority to COR/QAE before they start their duties, and 57% of the Navy respondents answered that authority delegation is “always” performed.



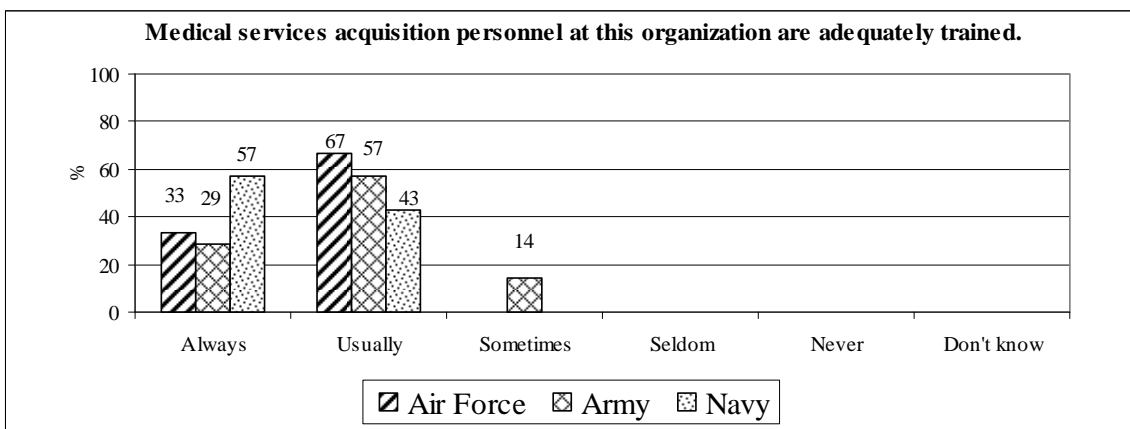
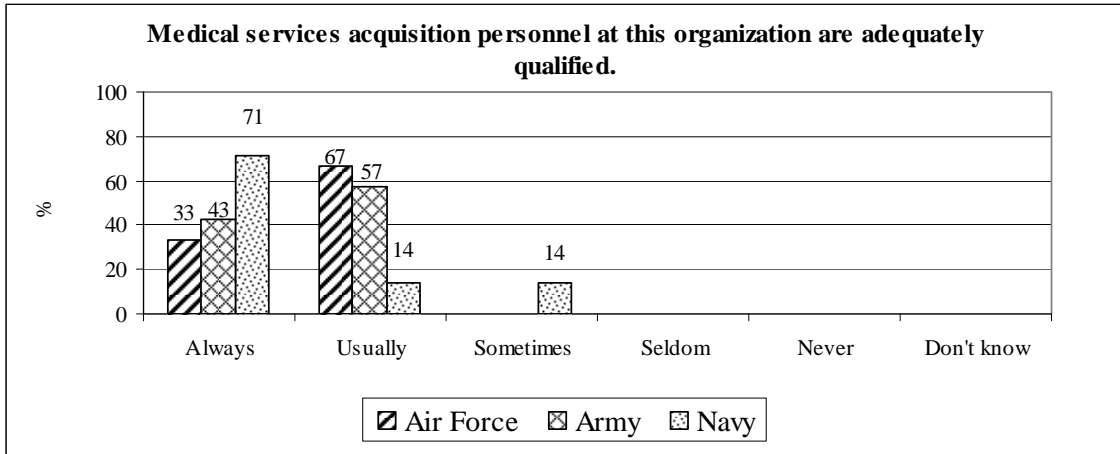


Figure 25. COR/QAE Qualification and Training Medical Services Acquisition Personnel Qualifications

In Figure 26, the next general statement deals with whether or not there was an increase in the workload while the number of acquisition personnel decreased. The Air Force and the Army indicated that the workload usually increased while staffing decreased. However, the Navy respondents rated this statement as “sometimes” or a “seldom” situation. The data revealed across the military services that the workload increased as the acquisition workforce decreased. This is a growing trend in military acquisition of services, as noted in a number of GAO reports.



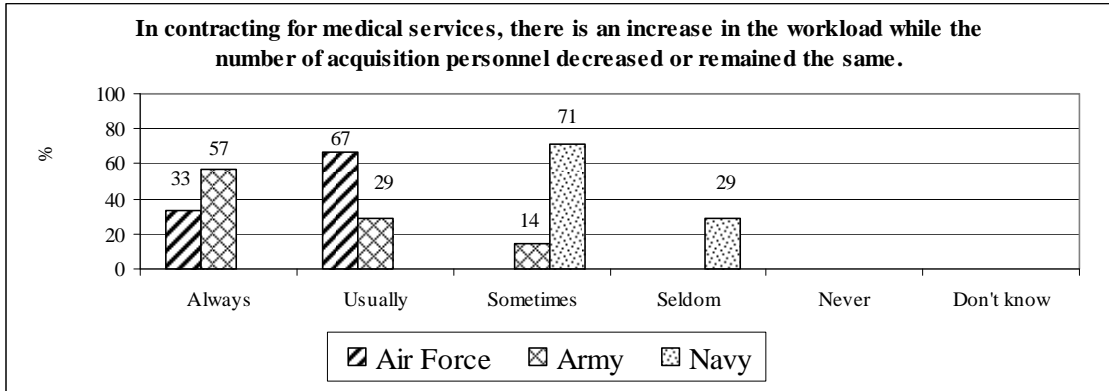


Figure 26. Workload for Medical Services Acquisition

The next general statement, Figure 27, concentrated on the level of oversight of medical services contracts. The Air Force respondents (100% of them) felt that the proper level of oversight was occurring “always” or “usually.” Many Army respondents (43% of them) indicated that the proper level of oversight was occurring “usually.” Over half (57%) of Navy respondents felt that proper oversight was implemented “always” or “usually.” Overall, across the military Services, the data shows that proper contract oversight was conducted 59% of the time. The survey respondents indicated a lack of attention to the contract administration functions as a result of acquisition workforce shortages, a backlog of contract closeouts, and the lack of proper COR/QAE training.

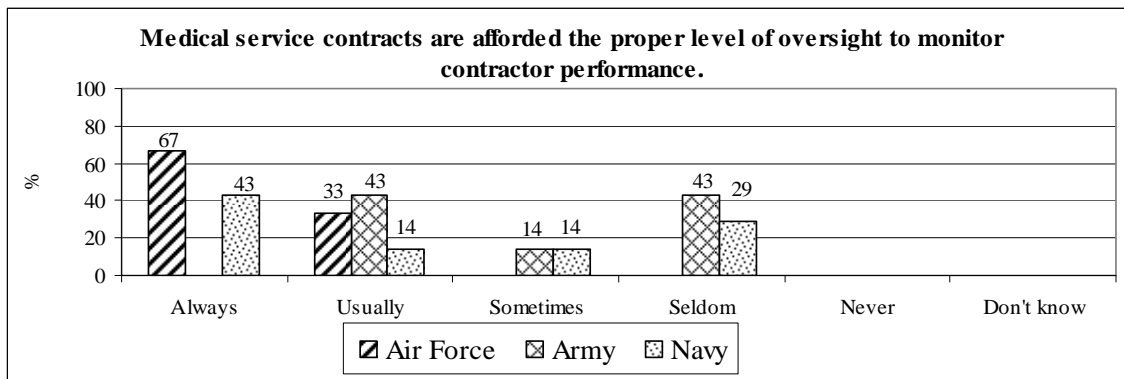


Figure 27. Medical Services Level of Oversight



The final general statement in Figure 28 shows the results of the survey respondents concerning a continuous improvement program or a get-well plan for medical services contracting for the military agencies. The data demonstrates all military Services are proactive in utilizing an improvement program to address contract management issues.

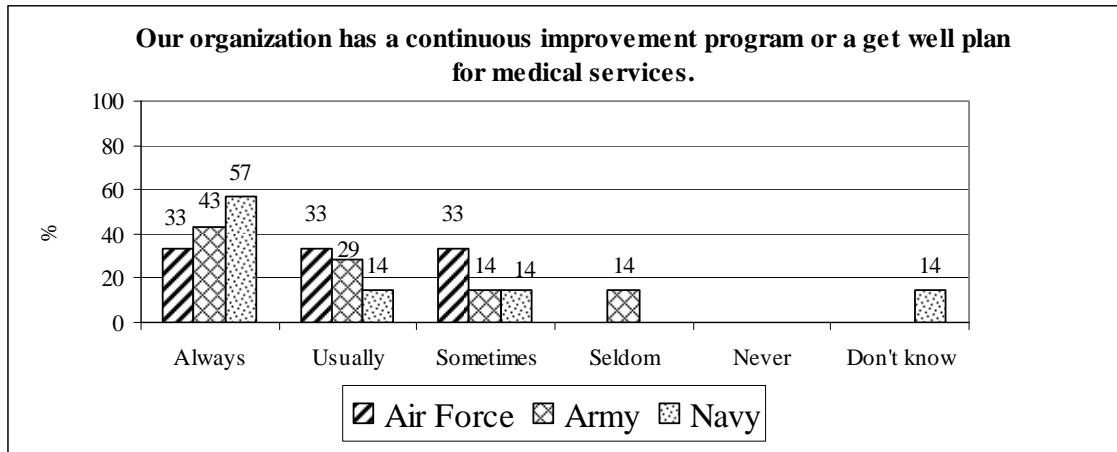


Figure 28. Improvement Program for Medical Services

10. Current Challenges in Medical Services Acquisition

By examining the responses, we noted medical services acquisition continues to be challenging for all military agencies. When asked the question about the top three challenges in medical services acquisition, the military agencies indicated five areas of concern. All 17 respondents answered this question. The Air Force respondents identified 9, the Army respondents 21, and the Navy respondents 19 challenges respectively. Figure 29 shows the top four areas of challenges in acquiring medical services. The data represents the percentage of answers received from the respondents of each military service. The survey respondents' first area of concern was contracting process implementation challenges, at an average of 38.8%. The second area of concern was acquisition personnel challenges, at an average of 28.6%. The third area of concern was healthcare provider market challenges at an average of 22.5%. Finally, personal services



salary cap challenges were fourth at an average of 10.2%. The contracting process implementation challenges and acquisition personnel challenges were the most challenging areas for the Air Force accounting for 44% of the Air Force respondents. The contracting process implementation challenges were the number one area of concern for the Army and the Navy, accounting for 33% and 42% of responses respectively. In addition, the data provided similar challenges in medical services contracting. These challenges represent a trend across the military services and identify areas for further research in acquiring medical services. Chapter V offers a complete list of challenges identified by the military services.

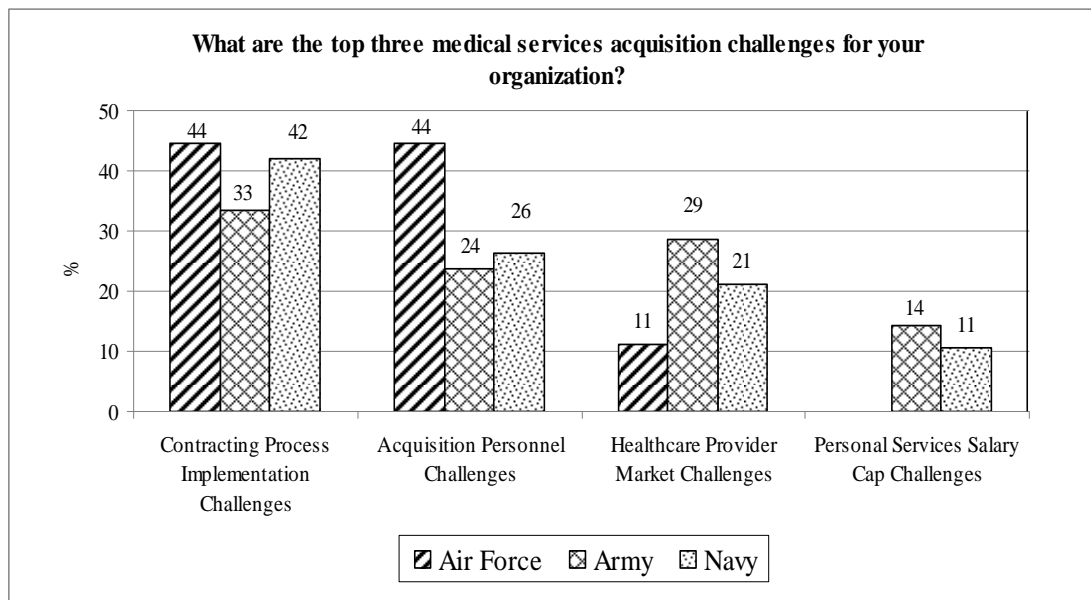


Figure 29. Areas of Challenges for Medical Services Acquisition

11. Summary of Survey Results

The cumulative results of the survey data on the medical services acquisition strategies and procurement methods are displayed in Table 6. The data reveals that for all military agencies, the dominant procurement method used is competitive bidding. However, the Air Force and the Navy use sole-source procedures to meet



the customer requirements. Lastly, the results show that firm-fixed-price contracts are dominantly utilized by all military agencies.

Table 6. Medical Services Strategies and Procurement Methods (FY2007-2009) (in %)

		Air Force	Army	Navy
Competition	Competitive	56	100	71
	Sole-source	11	0	29
	Other	33	0	0
Contract Types	FFP	67	100	100
	FP-EPA	33	0	0
	Cost	0	0	0

In Table 7, the results on contract management levels show that all military agencies perform the six contract management phases with contract administration and closeout dependent on the value of the contract. The Air Force organizational structure is decentralized, and all contract acquisition phases are managed at the installation level. The Army and the Navy organizational structure are centralized, and the contract management phases are performed at all levels, depending on the value of the contract. Further research could address the differences in solicitation and source-selection performance levels for the Army and the Navy medical services acquisition.



Table 7. Acquisition Management Phases Application Level (in %)

Contract Management Process	Air Force			Army			Navy		
	Installation	Regional	Service	Installation	Regional	Service	Installation	Regional	Service
Procurement Planning	100	0	0	57	14	29	43	14	43
Solicitation Planning	100	0	0	43	29	29	43	0	57
Solicitation	100	0	0	43	29	29	43	29	29
Source Selection	100	0	0	29	43	29	29	0	71
Contract Administration	100	0	0	43	29	29	43	29	29
Closeout or Termination	100	0	0	43	29	29	43	29	29

G. Summary

This chapter provided the results of the pilot survey and showed the current status of medical services acquisition management throughout the military agencies. Also, this chapter discussed the response to the author’s 39-question, Web-based survey on medical services acquisition management. The survey had 17 responses out of 20 invitations, or an 85% response rate. The next chapter will discuss the conclusions, recommendations, and areas for further research.



V. Summary, Conclusions, Recommendations and Areas for Further Research

A. Summary

The purpose of this report was to review the current state of medical services acquisition management for the DoD and how to best collect empirical data in this area of research. Chapter II provided an overview and literature review of medical services acquisition, including a discussion of the private and public sector, TRICARE, and the VA. Chapter III was a discussion of medical services acquisition in the DoD. Additionally, the chapter talked about the organizational structure and procurement process for the Air Force, Army, and Navy. Chapter IV discussed the survey methodology and analyzed the pilot survey data for FSC Q, medical services. Finally, in Chapter V, we discuss the top five challenges facing the military Services, and we discuss our conclusions, recommendations, and areas for further research in medical services acquisition.

B. Conclusions: Answers to Research Questions

The overall object of this research was the development of a survey instrument directly related to the procurement and management of medical services, FSC Q. Our research also conducted an analysis of the data from the Federal Procurement Data System (FPDS) Next Generation database to assist in the determination of the type of medical services utilized by the military agencies and the total expenditures in Procurement Service Code (PSC) Q. The data collected from our literature review, the pilot survey, and the FPDS database addresses the following research questions:



1. What Types of Medical Services are Typically Contracted for at Military Installations and What is the Annual Expenditure for these Services?

To answer the first question, the literature review conducted in Chapter III and the FPDS database provided information on the types of medical services procured for the DoD. Additionally, the FPDS database was used to obtain quantitative data concerning medical services PSC Q annual expenditures for the last five years. The FPDS is the US government-wide procurement database used to gather and report federal procurement spending.

The data reveals that the DoD medical contracting commands procure a variety of healthcare professionals to augment military treatment facilities' staffing requirements. The types of direct-care medical services normally procure are physicians, dentists, nurses, and ancillary specialties.

In the FPDS database, the following PSC codes represent the top spending categories for the Air Force, Army, and Navy:

- Q201 General Healthcare Services
- Q301 Laboratory Testing Services
- Q401 Nursing Services
- Q403 Evaluation and Screening
- Q503 Dentistry Services
- Q519 Psychiatry Services, and
- Q522 Radiology Services

Table 8 shows that the Army obligated over \$4.6 billion on medical services, followed by the Navy with more than \$1.7 billion, and the Air Force with close to \$1 billion during the last five fiscal years for PSC Q. The scope of our research concentrates on PSC Q, direct-care medical services expenditures. Our research



did not provide an in-depth analysis on expenditures for medical services in the VA, TRICARE, and other support functions because it was outside the scope of our research. Appendices E, F, and G provide data on the Air Force, Army, and Navy spending by PSC Q during FY04–FY08.

Table 8. Air Force, Army, and Navy Expenditures for PSC Q
(FPDS, 2009a)

	Air Force	Army	Navy	Total
FY 2004	48,768,983	1,005,994,683	236,400,661	1,291,164,327
FY 2005	114,272,104	1,077,784,111	284,281,388	1,476,337,603
FY 2006	193,561,091	788,174,575	353,280,540	1,335,016,206
FY 2007	295,839,401	890,193,133	408,035,609	1,594,068,143
FY 2008	343,862,464	898,275,633	440,633,272	1,682,771,369
TOTAL:	996,304,043	4,660,422,135	1,722,631,470	7,379,357,648

2. What Types of Acquisition Strategies, Procurement Methods, and Contracts are Being Used to Acquire Medical Services?

To answer the second research question, the researchers conducted interviews with each military agency and analyzed the responses from the pilot survey questions about the dominant contract characteristics and acquisition methods. The results show that the Air Force has a decentralized medical services acquisition approach, and the acquisition management phases are conducted at the installation level. The Army and Navy use a centralized approach for medical services acquisition, and the acquisition management phases are conducted at the installation, regional, and agency levels. The Air Force, Army, and Navy all use personal and non-personal medical services contracts, and the results show that the majority of the contracts are competitively bid. Additionally, the firm-fixed-price contracts and fixed-price contracts with economical price adjustment are commonly



used among the military agencies. The Air Force and Navy do not use incentives; however, the Army uses incentive-fee contracts 14-29% of the time.

3. How are Medical Service Contracts Managed?

To answer the third research question, the researchers utilized interviews and aggregate data from the pilot survey questions regarding medical services acquisition management, leadership, and personnel. The data illustrates that the Air Force uses a lifecycle approach for the acquisition of medical services more often than do the Army and the Navy. The three agencies utilize the project team approach in medical services acquisition. According to the data, the Navy uses project teams 71.4% of the time; the Air Force 66.6% of the time; and the Army 28.6% of the time when procuring medical services. However, in most cases, the Contracting Officer (CO) leads the acquisition, and generates and approves the requirements. In addition, the pilot survey respondents indicated that concerns regarding acquisition personnel (shortage of contracting personnel, slow filling of positions, retirement of experienced specialists, and credentialing) are the largest challenges in acquiring medical services. The pilot-survey results support the findings of a number of GAO and OIG reports that show direct-care medical services have a high rate of increase in dollars expended for service acquisition, and the acquisition workforce is not prepared to respond to the increased workload demands.

4. What Training does the Contract and Project/Program Management Personnel Receive?

To answer the fourth research question, the researchers conducted interviews with medical contracting commands and analyzed the pilot survey results regarding the training of medical services acquisition personnel. The pilot survey data demonstrates that the Contracting Officer Representative (COR) or Quality Assurance Evaluator (QAE) is “usually” responsible for contractor surveillance. According to this data, QAE training is used for the majority of the Air Force medical



services acquisition workforce. The *Defense Acquisition Workforce Improvement Act (DAWIA)* contracts training and COR training is typically used for Army and Navy medical services acquisition personnel. The majority of the pilot survey respondents agreed that medical services acquisition personnel are “always” or “usually” adequately trained to perform their duties.

5. Do the Respective Military Services Acquire and Manage Medical Services Differently?

The researchers utilized answers to the previous research questions to address the final research question. Although the data shows that a number of commonalities exist in medical services acquisition for the Air Force, Army, and Navy, there are a number of differences between each military agency. The most significant difference is that the Air Force uses a decentralized approach for medical services acquisition, while the Army and the Navy use a centralized approach to acquire medical services.

The pilot survey results revealed that military agencies employ different approaches as they use Performance-based Acquisition (PBA). The Air Force and the Army actively utilize PBA, while the Navy considers personal services contracts for healthcare exempted from PBA, due to the employer/employee relationship created by personal services contracts and the inability to establish performance standards to measure the output for PBA contracts.

In regards to the contract types and vehicle used in direct-care medical services, the results showed each military agency employs mostly firm-fixed-price contracts and similar contract vehicles. The Army and the Navy mainly utilize multiple-award task order, the Department of Veterans Affairs Federal/GSA Supply Schedule, and Individual Set-aside contracts. The Air Force on the other hand, utilizes the Medical Services Commodity Council to provide strategic contracting for medical services by establishing commodity contracts. The Air Force typically



utilizes the Commodity Council, the Department of Veterans Affairs Federal Supply Schedule, indefinite delivery indefinite quantity, and individual set-aside contracts.

C. Challenges in Acquiring Medical Services

The General section of the pilot survey provides an opportunity for the respondents to give the challenges in acquiring medical services. The list below provides the current challenges identified by the Air Force, Army and Navy.

1. The Top Three Challenges for the Air Force in Contracting for Medical Services.

Contracting Process Implementation Challenges (44%)

- High volume of requirements
- Large numbers of modifications needed as customer requirements change
- Urgency of every requirement
- Lack of required lead-time

Acquisition Personnel Challenges (44%)

- High turnover rate of QAEs
- Oversight by QAEs
- Security requirements

Healthcare Provider Market Challenges (11%)

- Finding skilled doctors in an area with limited resources



2. The Top Four Challenges for the Army in Contracting for Medical Services.

Contracting Process Implementation Challenges (33%)

- Lack of ownership by customers to their portion of the contracting process
- Growth of contracting mission, to include new requirements outside the traditional mission set
- Reviewing complete procurement packages
- Administration of the contract
- Credentialing standardized processes across the command
- Lack of capacity of recently awarded MATOs
- Quality of the IDIQ, MATO contracts used

Acquisition Personnel Challenges (24%)

- Shortage of trained and experienced contracting personnel
- Korea HCPS/fill rates
- Personnel shortages relative to increased workload
- Inadequate compensation for acquisition personnel

Healthcare Provider Market Challenges (29%)

- Staffing located in geographically remote sites
- Finding qualified providers
- Filling the position for behavior health physicians, family practice, and emergency medicine

Personal Services Salary Cap Challenges (14%)

- Staying under the personal services pay cap for sub-specialties



- Statutory ceiling for personal services contracts

3. **The Top Four Challenges for the Navy in Contracting for Medical Services.**

Contracting Process Implementation Challenges (42%)

- Procurement authority limit
- Lack of understanding of the process and regulations by the requesting activities
- Lack of adequate acquisition planning
- Lack of ownership of requirements by customers
- Getting requirements awarded more quickly
- Really knowing how a contractor is performing

Acquisition Personnel Challenges (26%)

- Manpower and fill rate
- Timeliness of filling position
- Credentialing

Healthcare Provider Market Challenges (21%)

- Receiving goods in a timely manner due to location
- Receiving supplies in a timely manner

Personal Services Salary Cap Challenges (11%)

- Requirement for personal services, procurement authority limit

In conclusion, based on the challenges provided by the pilot survey respondents, the military Services are encountering very similar challenges in acquiring medical services. The data revealed issues with increased workload while experiencing a decrease in personnel, problems with maintaining a qualified and



experienced workforce, and market challenges in supplying healthcare providers in remote geographical areas. We conclude that the DoD should adapt a strategic approach to address the challenges mentioned above. For example, the Air Force's use of strategic sourcing in procuring medical services is a best practice that the DoD can implement for the Army and the Navy. Additionally, a more robust approach to recruit, retain, and train the acquisition workforce personnel will greatly improve the DoD's ability to acquire and manage medical services.

D. Recommendations to the DOD Medical Contracting Commands

Medical services acquisition has a central role in the delivery of healthcare. In fact, medical service acquisition has become an integral part of the management of the healthcare system in the private sector, the Department of Veterans Affairs, and the Department of Defense. Considering the literature review, the results from the pilot survey, and the conclusions formulated in this chapter, the following recommendations will support the DoD medical services acquisition management practices and oversight.

1. **Recruit, Retain, and Train Medical Services Acquisition Personnel**

In order to improve the management of medical services acquisition, the first recommendation is to recruit, retain, and train qualified medical acquisition professionals to build an adequate workforce for the community. One of the recurring themes revealed by the agencies that participated in the pilot survey was the alarming shortage of medical services acquisition personnel. The medical services acquisition workforce has declined over the past years, and the respective agencies are finding it increasingly difficult to recruit and fill vacant positions. Additionally, the survey respondents listed acquisition workforce personnel turnover, shortage of acquisition professionals, and inadequate compensation of acquisition personnel, as major challenges. To address the acquisition workforce shortfalls, an increase in the recruitment of medical services acquisition workforce is needed.



Moreover, the hiring process should be streamlined; robust education and training incentives should be offered to improve retention; and improvement in the salary compensation packages should be high enough to attract eligible candidates for this vital workforce.

2. Leverage DoD Buying Power with Other Federal Agencies

The DoD should leverage its enormous buying power with other federal agencies to maximize medical services acquisition strategically. A collaborative effort across DoD agencies and the Federal Government would provide resource-sharing opportunities on a larger scale, with nationwide visibility on available sourcing prospects. As we face reduced funding and a smaller acquisition workforce, the DoD should embrace innovative ideas to address the challenges in medical services acquisition. Respondents from the pilot survey indicated that lack of funding, personal service contract pay cap and a lack of marketplace savvy were concerns that adversely affect the acquisition efforts. By combining the joint efforts of the DoD and federal agencies like the VA, the medical services acquisition community could achieve economies of scale, pool scarce medical acquisition resources, and achieve commonalities.

3. Increase Training Opportunities for Medical Services Acquisition Customers

The researchers also recommend increasing the training opportunities for medical services acquisition customers. A notable finding from the pilot survey addresses the lack of understanding by customers of the medical services acquisition processes and the policies/regulations that govern these activities. Additionally, the respondents to the pilot survey indicated that a lack of ownership by customers regarding their responsibility in the contracting process is a challenge. By providing frequent and consistent training throughout the contract life, Contracting Officers will provide the necessary reinforcement customers need, as well as identify areas of weakness before a problem occurs. Subsequently, customers will



have the guidance, resources, and support to help them successfully manage their contracts.

E. Recommendations for Medical Services Survey Improvement

The pilot-test data gathered from the respondents provided valuable data for analysis and insight on whether the survey questions were applicable to the current state of medical services acquisition management. Based on the survey results, what follows are recommendations for survey improvements.

The first survey improvement recommendation for further researchers is to provide a clear definition of acquisition personnel and their appropriate level of training. The current survey asks several broad questions about contracting personnel and their level of training, not clearly identifying who the question is intended for. We recommend future researchers more clearly identify acquisition personnel by Contract Officer, Contract Specialist, or COR/QAE. The proper selection of the targeted participants should minimize the effects of skewed data and optimize the quality of data collected.

The second survey improvement recommendation is to develop a separate survey, focusing solely on the COR/QAE management of medical services contracts. Developing a survey designed for the COR/QAE would prove valuable to future researchers. The CORs/QAEs are critical to the contract administration phase, and their input and perspective would provide the researchers with a better understanding of the surveillance process.

Third, we recommend that future researchers avoid the need for respondents to write in their own response when asking demographic questions. In particular, future researchers should insert all medical services contracting commands across the military agencies into the survey, so respondents need only click on the appropriate billet. The survey asked an open-ended question, requesting



respondents to fill in their contracting center/command. The researchers found that approaching the question in this manner was ineffective. Due to the current format, a low response rate of 18% was received to this question.

The final recommendation for survey improvement is to expand on the contract vehicle questions. Future questions should provide a percentage range for how often the contract vehicles are used. The means to accomplish this is to provide the respondents with a multiple-choice question, with several percentage ranges to select from. Another recommendation is to ask which contract vehicle is used to satisfy the majority of the organization's medical services contracts requirements. This dominant vehicle type question would allow the participant to choose only one response, instead of the current "select all that applies."

F. Areas for Further Research

The recommendations for further research are based on the results from the literature review and the pilot survey data. Below is a list of recommendations for further research. Additional research in medical services acquisition will assist the DoD in improving procurement methods while gaining insight on best practices to effectively manage medical services acquisition.

- Narrow the research to focus on contracting for medical services within the Army, Navy, and Air Force and how each agency defines medical services (i.e., doctors, nurses, medical equipment, housekeeping, etc.).
- Compare and contrast how medical services are procured OCONOUS and CONUS for the Army, Navy, and Air Force.
- Explore the use of the Government Purchase Card (GPC) in acquiring medical services within the DoD.
- Examine the impact that centralized contracting organizational structure used by the Army and Navy, in comparison to the Air Force decentralized structure.
 - What are the best practices of a centralized structure?



- What are the best practices of a decentralized structure?
 - Does the organizational structure enhance the procurement management process?
- Examine the similarities and differences in contracting for medical services in all medical FSC codes for the DoD.
- Conduct a comparison between the DoD and the VA installation management and oversight of medical services acquisition.
- Explore the use of PBA in medical services acquisition.



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List of References

- Acquisition Community Connection (ACC). (2009). *Commodity councils*. Fact Sheet. Retrieved August 30, 2009, from <https://acc.dau.mil/CommunityBrowser.aspx?id=32789&lang=en-U.S>.
- American Medical Group Association Compensation. (2009). *The voice of medical groups in America*. Retrieved September 15, 2009, from <http://www.amga.org/>
- Army Medical Command Health Care Acquisition Activity (Army HCAA). (2009). *Health care acquisition activity*. Retrieved September 18, 2009, from <http://hcaa.medcom.amedd.army.mil/Default.aspx>
- Army Medical Command Health Care Acquisition Activity (Army HCAA). (2004). *Acquisition desk reference. Commanders, Directors and Senior Leaders*. San Antonio, TX: Anteon Corporation.
- Apte, U., Apte, A., & Rendon, R. (2008). *Managing the service supply chain in the Department of Defense: An empirical study of current management practices*. Monterey, CA: Naval Postgraduate School.
- California Office of the Inspector General. (2002). *Special review of the medical contracting process*. Sacramento, CA: Department of Corrections.
- Center for Health Care Contracting (CHCC). (2009). *Naval Postgraduate Group*. Powerpoint presentation. Presented in Fort Sam Houston, San Antonio on October 29, by Ned Stephens.
- Compton, J., & Meinshausen, B. (2007). *The Department of Defense's management of services acquisition: An empirical analysis* (Master's Thesis). Monterey, CA: Naval Postgraduate School.
- Congressional Budget Office (CBO). (2008). *Technological change and the growth of health care spending*. Washington, DC: Author.
- Congressional Budget Office (CBO). (2009). *The 2009 future years defense program: implications and alternatives*. Washington, DC: Author.
- Congressional Research Service (CRS). (2009). *Military medical care: Questions and answers* (CRS-RL-33537). Washington, DC: Author.



Conrad, D., Bonney, R., Sachs, M., & Smith, R. (1996). *Managed care contracting: Concepts and applications for the health care executive*. Chicago, IL: Health Administration Press.

Defense Acquisition University (DAU)/iCatalog. (2009). Retrieved October 28, 2009, from <http://icatalog.dau.mil/onlinecatalog/tabnavcl.aspx?tab=CLC>

Department of Defense (DoD). (1995). *Personal services contracting authority for direct health care providers* (DoD 6025.5). Washington, DC: Author.

Department of Defense (DoD). (2001). *Guidebook for performance based services acquisition (PBSA) in the Department of Defense*. Washington, DC: US Government Printing Office.

Department of Defense (DoD). (2007). *Task Force on the future of military health care*. Final report. Retrieved October 8, 2009, from <http://www.dodfuturehealthcare.net/>.

Department of Defense (DoD). (2009). Part 237. *Service contracts* Defense Federal Acquisition Regulations Supplement (DFARS). (Rev. 20091015). Retrieved October 25, 2009, from http://www.acq.osd.mil/dpap/dars/dfars/html/current/237_1.htm#237.101

Department of Defense Office of the Inspector General (DoD OIG). (2003). *Franchise business activity contracts for medical services* (D-2003-113). Washington, DC: Author.

Department of Defense Office of the Inspector General (DoD OIG). (2004). *Direct care medical services contracts* (D-2004-094). Washington, DC: Author.

Department of Health & Human Services (Department of H&HS). (2009). *Research for the people*. Washington, DC: National Institutes of Health. Retrieved August 15, 2009, from <http://www.nih.gov/about/budget.htm>

Department of Labor (DoL). (2009). *Health care industry*. Washington, DC: Bureau of Labor Statistics. Retrieved July 27, 2009, from <http://www.bls.gov/oco/cg/cgs035.htm>

Department of Veterans Affairs (VA). (2009a). *Organizational briefing book*. Washington, DC: Office of Human Resources, and Administration Office of Administration.

Department of Veterans Affairs (VA). (2009b). *Fact sheet*. Washington, DC: Office of Public Affairs Media Relations.



- Federal Procurement Data System Next Generation (FPDS). (2009a). *Ad-hoc report*. Retrieved September 30, 2009 from <https://www.fpds.gov/>.
- Federal Procurement Data System Next Generation (FPDS). (2009b). *Ad-hoc report*. Retrieved November 19, 2009 from <https://www.fpds.gov/>.
- General Services Administration, Department of Defense, National Aeronautics and Space Administration. (2009). *Federal acquisition regulation (FAR)*. Washington, DC: Author.
- Garofalo, W., Horwitz, E., & Reardon, T. (1999). *Manage care contracting: A guide for health care executives*. San Francisco, CA: Jossey-Bass.
- Garret, G. & Rendon, R. (2005). *Contract management: Organizational assessment tools*. McLean, VA: National Contract Management Association.
- General Accounting Office (GAO). (1994). *Defense health care: Challenges facing DoD in implementing nationwide managed care* (GAO/T-HEHS-94-145). Washington, DC: Author.
- General Accounting Office (GAO). (2003). *Improved knowledge of DoD service contracts could reveal significant savings* (GAO-03-661). Washington, DC: Author.
- Government Accountability Office (GAO). (2005a). *Contract management: Opportunities to improve surveillance on Department of Defense service contracts* (GAO-05-274). Washington, DC: Author.
- Government Accountability Office (GAO). (2005b). *Defense health care: Implementation issues for new TRICARE contracts and regional structure* (GAO-05-773). Washington, DC: Author.
- Government Accountability Office (GAO). (2007a). *Defense Acquisitions: DoD needs to exert management and oversight to better control acquisition of services* (GAO-07-359T). Washington, DC: Author.
- Government Accountability Office (GAO). (2007b). *Defense health care: DoD needs to address the expected benefits, costs, and risks for its newly approved medical command structure* (GAO-08-122). Washington, DC: Author.
- Government Accountability Office (GAO). (2008). *Review of the President's fiscal year 2009 budget request for the defense health program's private sector care budget activity group* (GAO-08-721R). Washington, DC: Author.



- Government Accountability Office (GAO). (2009). *Defense acquisitions: Actions needed to ensure value for service contracts* (GAO-09-643T). Washington, DC: Author.
- Hoppszallern, S. (2002). Contract management survey 2002. *H&HN: Hospitals & Health Networks*, 76(10), 49.
- Kaiser Family Foundation. (2007). *U.S. health care costs*. Background brief. Retrieved December 1, 2009, from: http://www.kaiseredu.org/topics_im.asp?imID=1&parentID=61&id=358
- Kaiser Family Foundation. (2009). Your resource for health policy information, research, and analysis. *Trends in Health Care Costs and Spending (7692-02)*. Menlo Park, CA: Author.
- Market Research Analyst (MRA). (2009). *DoD healthcare spending for 2010—\$47 billion*. Retrieved November 26, 2009, from <http://www.marketresearchanalyst.com/>
- Military Health System/Mission. (2009). Retrieved September 18, 2009, from <http://www.health.mil/StrategicPlan/Mission.aspx>
- Miranda, E., & McMaster, R. (2008). *An empirical study of the United States Navy's management and oversight of services acquisition* (Master's Thesis). Monterey, CA: Naval Postgraduate School.
- Mullen, K., Frank, R., & Rosenthal, M. (2009). *Can you get what you pay for? Pay-for-performance and the quality of healthcare providers* (Working Paper). Santa Monica, CA: RAND Corporation.
- Naval Medical Logistics Command (NMLC). (2009). *Doing business with us*. Retrieved September 18, 2009, from <http://www-nmlc.med.navy.mil/index.asp>
- Naval Postgraduate School (NPS). (2002). *Protection of human subjects* (NAVPGSCOL INST 3900.4). Retrieved October 8, 2009, from http://intranet.nps.edu/code00/Instructions/pdf_files/NAVPGSCOLINST%203900.4.pdf.
- Office of the Assistant Secretary of Defense (OASD). (2008). *Management of TRICARE management activity non-purchased care contracts*. Policy Memorandum. Washington, DC: Author.
- Office of the Assistant Secretary of Defense Health Affairs (OSD/HA). (2007). *TRICARE acquisition practice: Acquisition of services*. Policy Memorandum. Washington, DC: The Assistant Secretary of Defense.



- Office of Management and Budget (OMB). (2004, September 7). Memorandum: *Increasing the use of performance-based service acquisition*. Washington, DC: Author. Retrieved September 18, 2009, from http://www.whitehouse.gov/omb/assets/procurement/pbsc_increasing_070704.pdf.
- Office of the Under Secretary of Defense (OUSD). (2006). *Performance-based service acquisition (PBSA)*. Policy Memorandum. Washington, DC: The Assistant Secretary of Defense.
- Pope, D. (2005). *Performance based service acquisition (PBSA): A quantitative evaluation of implementation goals and performance in the United States Air Force* (Master's Thesis GSP/ENV/05M-05). Wright-Patterson AFB, OH: School of Engineering and Management, Air Force Institute of Technology (AU).
- Rendon, R.G., & Snider, K.F. (2008). Management of defense acquisition projects. Reston, VA: American Institute of Aeronautics and Astronautics.
- Solomon, R., & Travieso, J. (2008). *Management and oversight of services acquisition within the United States Air Force* (Master's Thesis). Monterey, CA: Naval Postgraduate School.
- Towne, J., & **Hoppszallern, S.** (2003). 13th Annual contract management survey. *H&HN: Hospitals & Health Networks*, 77(10), 52-56.
- TRICARE. (2009a). TRICARE *contracts*. Retrieved August 27, 2009, from <http://tricare.mil>
- TRICARE. (2009b). TRICARE *beneficiary web portal*. Retrieved July 18, 2009, from <http://tricare.mil>
- TRICARE. (2007). *Future of military health care hearing*. TRICARE management activity presentation. Retrieved August 25, 2009, from <http://www.health.mil/TMABlog/Default.aspx?catID=22>
- United States Air Force (USAF). (2005). *The Air Force contracting strategic plan*. Retrieved November 8, 2009, from <http://www.safaq.hq.af.mil/contracting/restricted/about-U.S./af-strat-plan.pdf>.
- United States Code (USC). (2004). Title 3, Chapter 102, Sec. 102. *Compensation of the President*. Retrieved November 26, 2009, from <http://vlex.com/vid/sec-compensation-the-president-19216369>



United States Code (USC). Title 10, Chapter 55, Sec. 1089. *Defense of certain suits arising out of medical malpractice*. Retrieved October 8, 2009, from <http://vlex.com/vid/suits-arising-out-medical-malpractice-19216927>

United States Code (USC). Title 10, Chapter 55, Sec. 1091. *Personal services contracts*. Retrieved October 8, 2009, from <http://vlex.com/vid/sec-personal-services-contracts-19216923>

United States Code (USC). Title 31, Chapter 15, Sec. 1535. *Agency agreements*. Retrieved October 8, 2009, from <http://www.casu.gov/authority/USC1535.html>

US Congress. (1999, October 5.). *National defense authorization act for fiscal year 2000*. Public Law 106-65. Washington, DC: 106th Congress Retrieved on October 8, 2009, from http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_cong_public_laws&docid=f:publ065.106.



Appendix A. Acquisition Product/Service Code List (FPDS, 2009a)

Product	Service Code Description
A	Research and Development
B	Special Studies and Analyses—Not R&D
C	Architect and Engineering Services—Construction
D	Automatic Data Processing and Telecommunication Services
E	Purchase of Structures and Facilities
F	Natural Resources Management
G	Social Services
H	Quality Control, Testing and Inspection Services
J	Maintenance, Repair, and Rebuilding of Equipment
K	Modification of Equipment
L	Technical Representative Services
M	Operation of Government-owned Facility
N	Installation Equipment
P	Salvage Services
Q	Medical Services
R	Professional, Administrative and Management Support Services
S	Utilities and Housekeeping Services
T	Photographic, Mapping, Printing and Publication Services
U	Education and Training Services
V	Transportation, Travel and Relocation Services
W	Lease or Rental of Equipment
X	Lease or Rental of Facilities
Y	Construction of Structures and Facilities
Z	Maintenance, Repair or Alteration of Real Property



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Appendix B. Direct Care Medical Services Specialties—Physicians (Army HCAA, 2009)

Family Practitioner	Internist	Radiologist Diagnostic
General Practitioner	Neonatologist	Radiologist Intervention
Internal Medicine	Nephrologists	Radiologist Neurologic
Physician	Neurologist	Radiologist Nuclear
Pediatrician	Nuclear Medicine	Medicine
Pediatrician Adolescent	Physician	Radiologist Thoracic
Primary Care Physician	OB/GYN Physician	Rheumatologist
Allergist	Occupational Medicine	Sports Medicine Physician
Anesthesiologist	Physician	Surgeon
Anesthesiologist Pain	Oncologist	Surgeon CT
Management	Oncologist Pediatric	Surgeon Flight/Aerospace
Anesthesiologist Pediatric	Ophthalmologist	Surgeon General
Cardiologist	Orthopedic Physician	Surgeon Neuro
Cardiothoracic	Pathologist	Surgeon Otolaryngologist
Critical Care Physician	Pediatrician Adolescent	Surgeon Plastic
Dermatologist	Pediatrician General	Surgeon Thoracic
Emergency Medical	Pediatrician Intensivist	Surgeon Trauma
Physician	Pediatrician Neonatal	Surgeon Vascular
Endocrinologist	Pediatrician Neurologist	Urgent Care Physician
ENT Physician	Perineonatologist	Urologist
Epidemiologist	Psychiatrist	Diagnostic Radiologist
Gastroenterologist	Psychiatrist Child and	Academic Radiologist
General Medical Officer	Adolescent	Radiologist Physician
Hematologist	Pulmonary Physician	
Hematologist Pediatric	Pulmonologist	
HIV Internist	Radiologic Medical	
Hospitalist	Physicist	
Immunodermatologist	Radiologist	
Infection Control	Radiologist Academic	
Practitioner	Diagnostic	



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Appendix C. Direct Care Medical Services Specialties—Nurses (Army HCAA, 2009)

Gyn Medical Asst	Physician Assistant Readiness	Nurse Practitioner Pulmonary
Medical Asst	Physician Assistant Sr. Perfusionist	Nurse Practitioner Psychiatric
Registered Nurse Assistant, Certified (labor & delivery)	Physician Assistant Sr. Urology	CNA General
Registered Nurse Assistant, Certified (Operating room support)	Nurse Midwife	CNA Audiology
Physician Assistant	Nurse Practitioner	CNA Dermatology
Physician Assistant Dermatology	Nurse Practitioner Acute Care	CNA ENT
Physician Assistant Emergency Medicine	Nurse Practitioner Adult	CNA ER
Physician Assistant Family Practice	Nurse Practitioner Case Manager	CNA Family Practice
Physician Assistant general Surgery	Nurse Practitioner Endocrine	CNA ICU
Physician Assistant Neuro Surgery	Nurse Practitioner Family Practice	Medical Asst
Physician Assistant Orthopedic	Nurse Practitioner Family Psy & Mental Health	Registered Nurse Assistant, Certified (labor & delivery)
Physician Assistant Otolaryngology	Nurse Practitioner Neonatal	Registered Nurse Assistant, Certified (Operating room support)
Physician Assistant Pediatric Critical Care	Nurse Practitioner Newborn ICU	Physician Assistant
Physician Assistant Perfusionist	Nurse Practitioner OB/GYN	Physician Assistant Dermatology
Physician Assistant Physical Exam	Nurse Practitioner Pediatric	Physician Assistant Emergency Medicine
	Nurse Practitioner Pediatric Asthma	Physician Assistant Family Practice
		Physician Assistant general Surgery



Physician Assistant Neuro Surgery	Nurse Practitioner Pediatric	LPN Research
Physician Assistant Orthopedic	Nurse Practitioner Pediatric Asthma	LPN Same Day Surgery
Physician Assistant Otolaryngology	Nurse Practitioner Pulmonary	LPN Urgent Care
Physician Assistant Pediatric Critical Care	Nurse Practitioner Psychiatric	LVN UA
Physician Assistant Perfusionist	CNA General	CRNA (certified Registered Nurse Anesthetists)
Physician Assistant Physical Exam	CNA Audiology	Child Birth Educator
Physician Assistant Readiness	CNA Dermatology	Nurse Cardiovascular Clinical Specialist
Physician Assistant Sr. Perfusionist	CNA ENT	Nurse Health Educator
Physician Assistant Sr. Urology	CNA ER	Nurse case Manager
Nurse Midwife	CNA Family Practice	RN
Nurse Practitioner	CNA ICU	RN Ambulatory Surgical
Nurse Practitioner Acute Care	CNA OB/GYN	RN Anesthesiologist
Nurse Practitioner Adult	CNA Orthopedic	RN Ante-Partum/Post Partum
Nurse Practitioner Case Manager	CNA Pediatric	RN Anesthetists Certified
Nurse Practitioner Endocrine	Licensed Practical Nurse LPN	RN Apheresis Nurse
Nurse Practitioner Family Practice	Licensed Vocational Nurse LVN	RN BBC
Nurse Practitioner Family Psy & Mental Health	LPN Critical Care	RN Behavioral Health
Nurse Practitioner Neonatal	LPN Family Practice	RN Blood Bank
Nurse Practitioner Newborn ICU	LPN Gastrointestinal	RN Cardiology
Nurse Practitioner OB/GYN	LPN Internal Medicine	RN Case Mgr
	LPN ICU	RN Case Mgr Orthopedic/Amputee
	LVN ICU	RN Charge Nurse
	LPN/LVN Internal Medicine	RN Clinic
	LPN Labor and Delivery	RN Clinical Nurse Specialist
	LPN Neuro Telemedicine	RN Community Health
	LPN OB/GYN	RN Conscious Sedation
	LPN Pediatric	RN Critical Care
	LPN Primary Care	RN Discharge Planner



RN Disease Mgmt	RN Inpatient	RN PACU (Post Operative)
RN ECN	RN Intermediate Care	RN Pediatrics
RN Emergency Room	RN Internal Medicine	RN Pediatric Coordinator
RN Family Practice	RN ISR Burn Unit	RN Perioperative
RN FCU	RN Labor and Delivery	RN Podiatry
RN Gastrointestinal	RN Mother Baby Unit	RN Psychiatry
RN General Surgery	RN Med Surg	RN Radiology
RN Genetics Counselor	RN Neonatal	RN Research
RN Health Care Finder	RN OB/GYN	RN Telehealth
RN Health Promotion	RN Occupational Health	RN Triage
RN Hyperbaric	RN Oncology	RN Utilization Mgmt
RN ICU	RN Operating Room	
RN Infusion Center	RN Outpatient	



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Appendix D. Direct Care Medical Services Specialties—Ancillary (Army HCAA, 2009)

Audiologist	Pharmacist Inpatient	Pediatric Gastrointestinal Assistant
Care Coordinator	Pharmacist Investigational	Physical Therapy Aide
Clinical Social Worker	Pharmacist Nuclear	Physical Therapy Asst
Dietician	Pharmacist Oncology	Social Worker
Dietician Registered	Pharmacist Outpatient	Social Worker Behavioral Health
Exercise Physiologist	Cardio Rehab Therapist	Social Worker Clinical
Genetic Counselor	Child Therapist	Social Worker Clinical Care Manager
Occupation Therapist	Pediatric Occupational Therapist	Speech Pathology Asst
Ophthalmology Photographer	Pediatric Physical Therapist	Behavioral Psychologist
Paramedic	Pediatric Respiratory Therapist	Child Psychologist
Perfusionist Assistant	Physical Therapist	Clinical Psychologist
Perfusionist Sr	Physical Therapist Orthopedic	Licensed Professional Counselor
Prosthetist	Recreational Therapist	Marriage and Family Therapy
Prosthetist Sr	Rehab Director	Neuro Psychologist
Speech Pathologist	Mental Health Asst	Psychologist
Speech Pathologist Pediatric	Occupational Therapy Asst Cert	Substance Abuse Counselor
Pharmacist		
Pharmacist Clinical		



ENT Tech	Pulmonary Technologist	Diagnostic Radiologic Technologist
Hemodialysis	Radiology Technologist	Medical Lab Technician
Histology Technologist	Radiology Therapist	Nuclear Medicine Technologist
Laboratory Technologist	Respiratory Therapist Registered	Nuclear Medicine Technician
Mammo Technologist	Sonographer	Medical Instrument Technician
Medical Technologist	Surgical Technologist	Medical Instrument Technician (ultrasound)
MRI Technologist	Ultrasound Technologist	Radiation Therapy Physicist
Nuclear Med Technologist	Vascular Technologist	Therapeutic Radiologic Technologist
Ophthalmology Technologist	Diagnostic Medical Physicist	
Polysomnographic (sleep) Technologist	Diagnostic Imaging Physicist	



Appendix E. Air Force Contract Commands
Expenditures FY04—FY08
(FPDS, 2009a)

Service Code	Service Description	FY04	FY05	FY06	FY07	FY08	TOTAL
1	2	3	4	5	6	7	8
Q101	Dependent Medicare Services	777,624	90,794	390,967	182,621	605,249	2,047,255
Q201	General Health Care Services	2,565,973	24,352,470	55,469,335	123,558,861	117,658,322	323,604,960
Q301	Laboratory Testing Services	13,544,599	21,058,370	13,171,818	15,667,580	5,508,643	68,951,009
Q401	Nursing Services	1,695,816	12,761,904	22,437,250	33,490,602	50,635,997	121,021,569
Q403	Evaluation and Screening	4,115,389	22,338	4,910,938	6,106,434	7,733,893	22,888,992
Q501	Anesthesiology Services	73,233	3,166,856	348,784	536,060	2,173,116	6,298,049
Q502	Cardio-Vascular Services	205,000	267,405	577,963	361,181	430,646	1,842,195
Q503	Dentistry Services	169,997	620,761	2,758,152	7,559,274	8,073,120	19,181,305
Q504	Dermatology services	0	795,996	544,001	303,831	872,205	2,516,033
Q507	Gynecology Services	212,498	1,571,139	622,597	1,698,633	2,050,170	6,155,037
Q508	Hematology Services	14,080	27,500	741,058	703,230	530,781	2,016,649
Q509	Internal Medicine Services	41,140	625,627	4,860,978	4,055,729	4,969,251	14,552,725
Q510	Neurology Services	93,600	1,891,718	1,666,255	863,952	457,173	4,972,698
Q511	Ophthalmology Services	0	399,130	1,154,522	1,039,985	2,449,581	5,043,218
Q512	Optometry Services	375,668	83,062	1,590,209	1,026,993	3,273,342	6,349,274
Q513	Orthopedic Services	153,000	694,659	644,110	662,596	646,125	2,800,490
Q514	Otolaryngology Services	63,440	211,425	94,626	185,004	210,985	765,480
Q515	Pathology Services	77,841	1,235,862	1,562,052	796,568	301,907	3,974,230
Q516	Pediatric Services	0	854,739	1,267,383	1,448,027	2,799,077	6,369,227
Q517	Pharmacology Services	339,981	1,905,593	2,230,559	6,586,973	5,720,769	16,783,875
Q518	Physical Medicine & Rehabilitation	0	277,332	377,632	3,909,986	3,400,303	7,965,254
Q519	Psychiatry Services	148,319	755,026	3,571,700	4,744,901	11,550,581	20,770,527
Q520	Podiatry Services	0	0	86,520	130,495	156,928	373,943
Q521	Pulmonary Services	0	0	131,666	272,934	430,893	835,493
Q522	Radiology Services	3,279,851	6,535,868	11,196,341	11,813,982	12,632,305	45,458,347



1	2	3	4	5	6	7	8
Q523	Surgery Services	1,054,241	2,752,082	2,632,087	7,927,925	11,038,526	25,404,861
Q524	Thoracic Services	0	33,250	361,959	-1,727	32,000	425,482
Q525	Urology Services	-13,017	0	0	0	0	-13,017
Q526	Medical/Psychological Consultation Services	1,662,059	1,787,465	2,663,216	3,129,424	13,663,043	22,905,207
Q527	Nuclear Medicine	189,476	2,077,197	1,627,399	5,880	6,180	3,906,132
Q999	Other Medical Services	17,929,175	27,416,536	53,869,014	57,071,467	73,851,353	230,137,546
	TOTAL	48,768,983	114,272,104	193,561,091	295,839,401	343,862,464	996,304,043



Appendix F. Army Contracting Commands
Expenditures FY04—FY08
(FDPS, 2009a)

Service Code	Service description	FY2004	FY2005	FY2006	FY2007	FY2008	Total
1	2	3	4	5	6	7	8
Q101	Dependent Medicare services	9,376,427	-358,129	555,466	-320,201	316,421	9,569,984
Q201	General Health Care Services	641,663,504	653,291,856	262,295,594	166,260,897	112,435,305	1,835,947,156
Q301	Laboratory Testing Services	27,761,781	22,630,680	41,002,662	34,086,080	41,208,542	166,689,744
Q401	Nursing Services	61,236,049	63,091,625	55,581,569	92,583,712	131,970,387	404,463,341
Q402	Nursing Home Care Contracts	-4,300,188	-1	0	464,280	612,896	-3,223,013
Q403	Evaluation and Screening	3,099,877	2,219,583	20,249,128	85,863,714	91,510,046	202,942,348
Q501	Anesthesiology Services	11,156,746	23,676,604	22,367,298	16,936,946	21,511,661	95,649,255
Q502	Cardio-Vascular Services	4,075,970	796,270	1,479,227	2,742,370	3,513,205	12,607,042
Q503	Dentistry Services	48,215,715	64,651,532	88,542,028	85,626,886	93,470,634	380,506,795
Q504	Dermatology Services	113,423	196,495	431,495	1,345,091	932,843	3,019,347
Q505	Gastroenterology Services	596,661	1,209,773	2,085,438	2,441,555	2,859,864	9,193,291
Q506	Services	0	0	6,149,366	0	0	6,149,366
Q507	Gynecology Services	5,222,475	6,266,096	333,954	8,108,519	14,746,705	34,677,749
Q508	Hematology Services	422,667	742,844	12,947,694	1,765,355	1,151,312	17,029,872
Q509	Medicine Services	4,740,037	4,720,470	1,985,104	36,459,788	64,667,381	112,572,780
Q510	Neurology Services	1,139,286	1,637,499	1,891,434	2,652,669	4,606,334	11,927,221
Q511	Ophthalmology Services	2,354,876	2,267,000	1,952,602	4,355,606	2,567,446	13,497,530
Q512	Optometry Services	1,403,288	1,976,348	6,930,142	3,946,536	2,919,239	17,175,553
Q513	Orthopedic Services	2,595,097	4,928,499	570,516	4,481,886	3,260,487	15,836,485
Q514	Otolaryngology Services	211,637	480,204	1,532,090	1,397,569	1,339,813	4,961,313



1	2	3	4	5	6	7	8
Q515	Pathology Services	965,724	6,248,674	13,830,073	1,339,079	1,608,110	23,991,660
Q516	Pediatric Services	15,053,065	20,420,180	8,861,800	8,514,207	10,107,368	62,956,621
Q517	Pharmacology Services	5,529,647	9,675,458	14,283,895	12,428,216	13,134,353	55,051,569
Q518	Physical Medicine & Rehabilitation	5,703,712	12,203,145	11,167,907	20,115,768	35,518,429	84,708,961
Q519	Psychiatry Services	4,555,465	8,148,050	272,805	61,891,060	54,928,741	129,796,121
Q520	Services	1,500	202,258	528,415	225,732	-26,293	931,612
Q521	Pulmonary Services	293,657	495,413	36,874,788	841,522	883,579	39,388,959
Q522	Radiology Services	22,106,330	29,332,028	7,581,379	37,858,238	44,394,102	141,272,077
Q523	Surgery Services	4,315,538	5,428,597	0	10,192,484	16,196,394	36,133,013
Q524	Thoracic Services	0	0	0	0	10,000	10,000
Q525	Urology Services	1,369,330	1,324,374	1,659,078	3,014,609	1,652,637	9,020,028
Q526	Podiatry Consultation Services	2,509,596	2,266,956	1,577,470	2,712,351	3,631,654	12,698,027
Q527	Medicine	122,505,791	457,922	-10,531	1,194,719	700,949	124,848,850
Q999	Other Medical Services	0	127,155,809	162,664,690	178,665,891	119,935,089	588,421,480
	Total	1,005,994,683	1,077,784,111	788,174,575	890,193,133	898,275,633	4,660,422,134



Appendix G. Navy contracting commands
expenditures FY04—FY08
(FPDS, 2009a)

Service Code	Service description	FY2004	FY2005	FY2006	FY2007	FY2008	Total
1	2	3	4	5	6	7	8
Q101	Dependent Medicare Services	2,778,877	3,635,223	2,399,270	3,148,854	1,839,994	13,802,218
Q201	General Health Care Services	40,915,281	42,018,354	46,651,799	48,777,168	48,592,014	226,954,616
Q301	Laboratory Testing Services	17,227,516	12,002,266	11,147,836	10,416,332	10,487,444	61,281,393
Q401	Nursing Services	13,342,459	16,977,589	38,753,779	48,397,986	52,777,355	170,249,167
Q402	Nursing Home Care Contracts	0	195,186	0	268,300	469,278	932,764
Q403	Evaluation and Screening	-164,051	3,472,324	692,642	550,281	661,390	5,212,587
Q501	Anesthesiology Services	1,589,327	1,627,122	6,028,693	5,394,656	6,469,947	21,109,745
Q502	Cardio-Vascular Services	1,029,900	35,489,004	1,964,973	2,364,414	1,540,885	42,389,176
Q503	Dentistry Services	25,219,415	60,620	44,644,686	60,256,185	62,826,690	193,007,597
Q504	Services	54,340	905,490	119,044	300,720	0	1,379,594
Q505	Gastroenterology Services	124,300	53,333	342,080	1,277,729	1,698,252	3,495,694
Q507	Gynecology Services	1,937,737	3,165,080	3,480,296	3,274,353	3,366,582	15,224,048
Q508	Services	74,704	334,119	767,092	3,661,312	-452,072	4,385,155
Q509	Internal Medicine Services	123,648	167,925	473,612	1,174,498	866,643	2,806,325
Q510	Neurology Services	46,600	75,065	231,075	659,686	859,685	1,872,111
Q511	Ophthalmology Services	863,387	547,751	971,953	3,565,614	1,735,404	7,684,109
Q512	Optometry Services	1,326,523	1,612,519	1,514,961	1,432,197	1,337,263	7,223,463
Q513	Orthopedic Services	581,235	719,894	1,002,506	1,980,163	34,141	4,317,939
Q514	Otolaryngology Services	90,858	36,300	523,376	186,984	204,280	1,041,798
Q515	Pathology Services	310,654	49,447	68,447	36,060	147,228	611,836
Q516	Pediatric Services	1,148,764	2,897,504	3,875,290	3,243,992	2,107,500	13,273,050
Q517	Pharmacology Services	6,071,828	5,720,617	4,053,542	5,028,567	3,865,365	24,739,919



1	2	3	4	5	6	7	8
Q518	Physical Medicine & Rehabilitation	832,799	1,289,888	1,220,701	2,254,564	3,001,237	8,599,189
Q519	Psychiatry Services	575,836	671,572	1,469,172	6,449,197	6,437,165	15,602,942
Q520	Podiatry Services	61,967	226,659	168,352	655,331	274,548	1,386,857
Q521	Pulmonary Services	46,087	0	0	0	0	46,087
Q522	Radiology Services	14,147,334	12,895,841	13,025,408	18,060,211	391,540	58,520,334
Q523	Surgery Services	255,701	352,500	483,123	1,953,987	21,858,727	24,904,038
Q524	Thoracic Services	99,980	240,000	109,025	0	2,099,851	2,548,856
Q525	Urology Services	115,650	732,872	1,287,160	103,200	0	2,238,882
Q526	Medical/Psychological Consultation Services	633,074	119,490	303,758	709,350	1,281,660	3,047,333
Q527	Nuclear Medicine	398,870	1,247,764	503,762	866,621	496,555	3,513,572
Q999	Other Medical Services	104,540,062	134,742,070	165,003,126	171,587,097	203,356,721	779,229,076
	Total	236,400,661	284,281,388	353,280,540	408,035,609	440,633,272	1,722,631,469



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- Managing the Services Supply Chain
- MOSA Contracting Implications
- Portfolio Optimization via KVA + RO
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- Spiral Development
- Strategy for Defense Acquisition Research
- The Software, Hardware Asset Reuse Enterprise (SHARE) repository

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- Contractors in 21st-century Combat Zone
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- Model for Optimizing Contingency Contracting, Planning and Execution
- Navy Contract Writing Guide
- Past Performance in Source Selection
- Strategic Contingency Contracting
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- Tuition Assistance

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- RFID (6)
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- R-TOC AEGIS Microwave Power Tubes
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- Strategic Sourcing

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