

Army-Baylor University Graduate Program in Health and Business Administration

Business Case Analysis: NMCSD Health System

Presented to LTC Kevin D. Broom

Conducted By
LTJG Brian Howard

Naval Medical Center, SD
13 November 2009

Business Case Analysis
Proposed Creation of a Consult and Appointment Management Office

20100331133

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (26-10-2009)		2. REPORT TYPE FINAL REPORT		3. DATES COVERED (From - To) JULY 2007 to October 2009	
4. TITLE AND SUBTITLE A Business Case Analysis in support of the creation of a Consult and Appointment Management Office at Naval Medical Center San Diego CA			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Howard, Brian, A, LTJG, MSC, USN LAST NAME, FIRST NAME, MI, RANK, CORPS			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Director For Administration Naval Medical Center San Diego 34101 Bob Wilson Dr San Diego, CA 92134			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) US Army Medical Department Center and School BLDG 2841 MCCS-HFB (Army-Baylor Program in Health and Business Administration) 3151 Scott Road, Suite 1411 Fort Sam Houston, TX 78234-6135			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S) XX-08 (SEE SPECIAL INSTRUCTIONS)		
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited (See instructions below to restrict distribution. NOTE: Box 16 a-c and Box 17 will also need to reflect restriction.)					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT This business case estimates expected benefits and costs to Naval Medical Center San Diego (NMCS D) Health System that would result from a decision to design a Consult and Appointment Management Office (CAMO) under the NMCS D, Department of Healthcare Business (DHB), and Multi- Service Market Office (MSMO). This CAMO would consolidate all appointing and referrals management functions under one office. Naval Medical Center San Diego is considering the expansion as a step toward recouping workload currently lost in the network, increasing customer satisfaction and obtaining complex procedures and disease processes that are vital to the NMCS D GME program.					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 39	19a. NAME OF RESPONSIBLE PERSON Education Technician
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U			19b. TELEPHONE NUMBER (include area code) (619) 532-6436

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

Acknowledgements

Foremost, I thank my wife, Bobbie; my father, Percy Howard, Jr. (Retired HCA); and my mother, Ruby, for standing by me during this process and for their encouragement, love, and many hours spent editing my paper. Without them, I would not be where I am today. I thank my preceptor, Captain Le Favour, for allowing me the latitude to select and pursue this project to completion. I also thank Lieutenant Colonel Kevin Broom, my faculty reader, for keeping me on target and for his invaluable and sound advice on the financial metrics and calculations within this BCA. Additionally, were it not for Lieutenant Suzanne Wood and her constant communication and guidance, even during my unexpected deployment, this would have been a far more difficult process. I also thank Captain Briski, the Naval Medical Center (NMCSD) Director of HealthCare Business, and my boss, for his input and advice on this project as well as his giving me the time to see it to completion. I also want to thank Captain Finch, the NMCSD Director of the MSMO, for allowing me to perform this BCA and for his guidance during this process. My thanks also go to Commander Shea for her input on this project. I also recognize Frank James and Karen Roxburgh who were instrumental in the research of this project and aided me immensely in determining exactly what it was that I wanted to measure.

I thank the following members of the DHB, TriCare Operations staff, who devoted numerous hours to pulling data and to brainstorming with me. Without their help, it would have been difficult to answer the business questions. My thanks also go out to Mr. Jim Fitzpatrick, Department head, TriCare Operations; and Analysts, Mrs. Robin Moore, Ms. Karen Roxburgh, and Mrs. Kathy Durrance.

Table of Contents

	Page
Executive Summary	1
A. Introduction.....	2
A.1. Background	
A.2. Subject of analysis	
A.3. Purpose of analysis	
B. Methods and Assumptions.....	6
B.1. Scenarios and data	
B.2. Scope of case	
B.3. Financial metrics and projections	
B.4. Benefits	
B.5. Costs	
B.6. Major Assumptions	
C. Business Impacts.....	12
C.1. Overall results	
C.2. Benefits	
(a) Work load	
(b) GME Program	
(c) Patient Satisfaction	
C.3. Costs	
D. Sensitivities, risks, and contingencies.....	18
E. Recommendations and conclusions.....	23
F. References.....	24
Appendices	
A.....	25
B.....	26
C.....	29
D.....	30
E.....	32
F.....	32
G.....	33

Business Case Analysis: Proposed Consult and Appointment Management Office

To: Kevin D. Broom, LTC, USA, Army Baylor Program

From: Brian Howard, LTJG, USN, and NMCSO

Date: 13 November 2009

Executive Summary

This business case estimates expected benefits and costs to Naval Medical Center San Diego (NMCSO) Health System that would result from a decision to design a Consult and Appointment Management Office (CAMO) under the NMCSO, Department of Healthcare Business (DHB), and Multi-Service Market Office (MSMO). This CAMO would consolidate all appointing and referrals management functions under one office. Naval Medical Center San Diego is considering the expansion as a step toward recouping workload currently lost in the network, increasing customer satisfaction and obtaining complex procedures and disease processes that are vital to the NMCSO GME program.

Based on the known cost of business in our current system and following an extensive review of data from the San Antonio MSMO which we are using as a model, we project a net gain of \$151,498 over six years following the recoupment of \$4.7 million in total cost. This net gain equates to a 3.61% return on investment.

These expected results are predicated on these assumptions: (1) Changes to internal policies and business rules can be accomplished smoothly; (2) Funding for the Nurse Triage line is available; (3) Benefits to patients and clinics alike are clearly communicated and marketed; and (4) The number and type of cases needed for GME are available within the enrolled population. Based on the exceptionally positive financial projections detailed in this analysis, I recommend that NMCSO accept the proposal and move towards immediate implementation.

A. Introduction

A.1. Background

NMCSD is a 268 bed facility encompassing over 1.2 million square feet over 78.4 acres. The hospital, containing primary care facilities such as pediatrics, military health, deployment health and geriatric health, is the main facility and is home to over 6200 staff. In addition to the primary care facilities on the main campus, NMCSD also has 18 satellite clinics. These facilities serve a total enrolled population of 97,000. From the standpoint of specialty care, NMCSD is home to over 80 specialty and surgery clinics.

As a Navy healthcare facility in a large fleet concentration area, NMCSD has seen a continuous increase in both its enrolled and eligible populations which currently number 97,000 and 239,000, respectively. As the largest Navy MTF (Military Treatment Facility) on the west coast, NMCSD is home to a full complement of specialty care services that routinely cannot be found at any other MTF. As a result of these capabilities and its close proximity to Naval Hospital Camp Pendleton (50 miles away) and Naval Hospital 29 Palms(100 miles away), NMCSD receives a number of referrals for care. In addition, beneficiaries who opt to be seen in the network, vice at the MTF, are referred by network physicians as well.

Currently, NMCSD's centralized call center schedules primary care appointments and handles an average of 1500-2000 calls daily with a staff of 20. When examining specialty care appointing and referral management, it should be noted that this is not a consolidated process. Each of the more than 80 clinics is responsible for scheduling its own appointments.

The fact that there is neither oversight nor standardization of the specialty booking process leads to inefficiencies and lost workload. This inefficiency inherent in such a system is evidenced by the admin closure rate (the process in which consults not appointed within 30

days are closed and have to be reentered) of 20% or approximately 4,000 referrals monthly out of the more than 155,000 submitted annually.

It is difficult for patients to obtain access to urgent or acute care (Primary Care). Currently, telephone consults (TCON) to the clinic may not be answered in a timely fashion. NMCS D primary care centers are currently experiencing access problems, with the majority of clinics unable to meet access standards in 3 out of 4 cases. According to the NMCS D Primary Care Demand vs. Capacity Report for FY 2009, primary care providers at NMCS D were only able to meet 81.6 percent of current demand. These access issues also have a secondary effect on the call center. This center experiences a much higher call rate due to members having to call back multiple times to find available appointments. It also must input a high volume of telephone consults due to the lack of available appointments. According to data from CHCS, in the first 4 months of 2009 more than 72, 0000 consults were received by the NMCS D primary care groups, an average of 24,000 per month. These telephone consults to physicians and nurses address concerns of patients who need to be seen for acute symptoms, wound care and a host of other medical issues. The process currently in use leads to overutilization of both MTF and civilian Emergency Departments for urgent care and primary care concerns. In addition, patient satisfaction has steadily declined as a result of the continued lack of appointments availability. While this comes as no surprise, it is important to note that patient satisfaction and a positive brand name are essential in a system which allows choices such as our Tricare system. As mentioned earlier, we are insulated from many of the costs inherent in purchased care systems. This concern is particularly important when considering the over 65 population who have Medicare as an additional source of payment and whom we need to support our GME programs.

The GME directorate at NMCS D has 24 accredited programs in a broad assortment of specialties that provide superior health services to a catchment area with nearly 239,000 eligible beneficiaries. NMCS D is fully accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) and has four major areas, each of which is fully accredited by its respective accrediting bodies:

Medical Program: Accreditation Council for General Medical Education (ACGME)

Dental Program: Commission on Dental Accreditation (CODA)

Psychology Program: American Psychological Association (APA)

Pharmacy Program: American Society of Hospital Pharmacists (ASHP)

Due to access issues and appointing and referrals management problems that face NMCS D, it is no wonder the GME programs cannot meet the requirements for complex disease and surgery cases that are necessary to sustain a Major Graduate Medical Education training facility.



A.2. Subject of analysis

This business case analysis examines the likely benefits and costs to Naval Medical Center San Diego Health System, resulting from the decision to consolidate the Call Center services and Referrals Management into a CAMO that will be aligned under the MSMO as shown in figure 1 below. The main elements of the proposal call for increased FTE requirement which will entail approximately 33 multidiscipline FTE's based on workload and

enrollment data. Additional elements are changes to business practices and associated business rules, as well as a relinquishing of control by the facilities to the MSMO.

Utilization Management and utilization Review (UMUR) in the Department of Health Business (DHB) has developed a plan to commence Referrals Management Reform at NMCSO by consolidating the current UMUR, Call Center and Referrals Management Centers (RMC) under the title of a Consult and Appointment Management Office (CAMO). In discussions with Frank James, Referrals Management Supervisor and Karen Roxburg, Senior Data analyst for TriCare Operations at NMCSO, the following guidance was developed. "The CAMO reform will follow guidance outlined in BUMEDINST 6000.15 and BUMED-M3/5 which govern Navy Medicine Referrals Management Programs and also provide Tricare Management Authority (TMA) Policy Guidance."

BUMED Instruction 6000.15 states that Commander of Navy Medicine West (also Commander of NMCSO) shall ensure all MTF's within his purview are in compliance with the established practices, policies and guidance which relate to RMC's. The model used to design the CAMO process at NMCSO is based on the process used at the Multi- Service Market (MSM) office in San Antonio, Texas. Referral Management is a process that affords organizations the ability to control both internal and external referrals in addition to the capacity to monitor and recapture care inappropriately leaked to the network.

The benefits and costs associated with the decision to expand and align these services under a MSMO will very likely continue into the foreseeable future. However, established practices indicate that estimating costs and benefits beyond six years is a difficult task filled with uncertainties.



Figure 1

A.3. Purpose of analysis

The purpose of this business case analysis is to provide Naval Medical Center San Diego's leadership with the necessary financial projections, financial metrics, and assessment of contingencies and risks, to support a decision to either accept or decline the proposal to consolidate Referrals Management and the Call Center into a CAMO.

B. Methods and Assumptions

B1. Scenarios and Data

This case examines two alternatives for serving the beneficiary population within this sizeable healthcare system. The case emphasizes both tangible and intangible benefits that will potentially accrue to NMCS D as a result of this proposal. These benefits include

advantages to the GME programs, a reduction in purchased care and supplemental funds used, increase in patient satisfaction, increase in the efficiencies of internal processes, and a decrease in outside ER utilization. Comparisons of benefits and costs associated with this proposal were derived from two alternatives: (1) Continue with business as usual, and (2) Consolidate the Referrals Management Center and centralized Call Center under a CAMO. Analysis was conducted using Microsoft Excel, MHS Mart (M2) and the Composite Health Care System (CHCS) as well.

Scenario 1 (Business as Usual):

- Continue with the current system of business

Scenario 2 (Create a CAMO under the Multi-Service Market Office (MSMO) :

- Consolidate the UMUR, RMC and Call Center into a CAMO
- Contract with a Nurse Triage center to assist patients with medical advice as well as after hour's triage, which will potentially lessen their reliance on ER care.
- Remove the CAR from under the purview of TriWest which will give NMCS D cognizance of all consults within the system (MTF and Network)

B2. Scope of the case

Time: The business case analysis covers a six-year time horizon. With the ease of transitioning from terminating current operations to expanding operations, the projected start date is 01 January, 2010.

Organizations

The case includes expected business performance improvements for the GME programs, use of purchased care within the catchments area, patient satisfaction and efficiencies gained by centralizing the referrals and call center process. Cost impacts for this analysis will span the following areas: labor, technology, network ER usage and supplemental funds.

Technologies

This business case estimate is limited to those impacts that occur as a direct result of processes that support the CAMO: purchased care and supplemental care. All other cost and benefits are assumed to be equal and thus not relevant to this analysis.

B3. Financial Metrics

The cash flow estimates for this case were generated using excel 2007. Some of the financial metrics used are as follows:

Net cash flow

Results of summation for estimated cash inflows and outflows are presented for the six-year analysis period. Cumulative net cash flows for each year of the analysis period are also presented.

Net Present Value (NPV)

The Net Present Value calculation is a profitability measure that uses discounted cash flows to forecast the profitability of projects. A positive NPV indicates a profitable project and the higher the NPV the more profitable the project.

Return on Investment (ROI)

Return on Investment is expressed as a percentage and represents the projected incremental gains from an investment and the net cost of an investment.

Modified Internal Rate of Return (MIRR)

While both MIRR and IRR are used to evaluate the attractiveness of an investment, they differ substantially. Where the IRR assumes that the project cash flows are reinvested at the IRR, the MIRR assumes that all cash flows are reinvested at the company's cost of capital. Based on this difference, the MIRR is widely accepted to be a more accurate reflection of profitability.

Discounted Payback Period (DPP)

The Discounted Payback Period takes into account the time value of money in determining the Payback Period. The general principle is that money generated today is worth more than money in the future due to uncertainty in the market.

B4. Benefits

The most important benefits identified to support the business plan in this case include the following items:

Cost Savings

The return on investment over six years is 3.61%, which equates to \$151,498 dollars.

Improved Patient Satisfaction

Upon implementation of the proposed changes to the Referrals Management system along with the implementation of a Nurse Triage system, it is expected that we will see an associated increase in patient satisfaction and a positive association with our brand name.

Reduced Network ER Usage

As a result of implementing a Nurse Triage and medical advice line reduced network ER usage will lower purchased care cost and assist with financing this Consult and Appointment Management Initiative.

Increased Efficiency

As a result of internal policy changes as well as implementing a centralized RMC, efficiencies will accrue due to consults having a single entry point for patient and provider ease, using a standardized and uniform process. Additionally a Nurse Triage system under the CAMO will remove the burden from the primary care and specialty clinics of having to respond to over 24,000 telephone consults monthly allowing physicians to see more patients and provide a higher level of care.

Reduced Supplemental Care Cost

As a result of the increased efficiencies in a consolidated referrals system along with the increased oversight based on new internal policies and processes, NMCSD will be better able to manage the flow of care to the network and preserve those cases that can be managed in house.

Increased Availability of GME Cases

As stated above, as a result of the increased efficiencies in a consolidated referrals system along with the increased oversight based on new internal policies and processes, NMCSD will be better able to manage the flow of care to the network and preserve those cases that will serve to maintain our GME programs.

B5. Costs

An activity- based cost model was constructed for the proposal. The results are shown in figures 2 and 3 below. Costs were derived from data available from the M2 data mart. All data variables were populated from the M2 data.

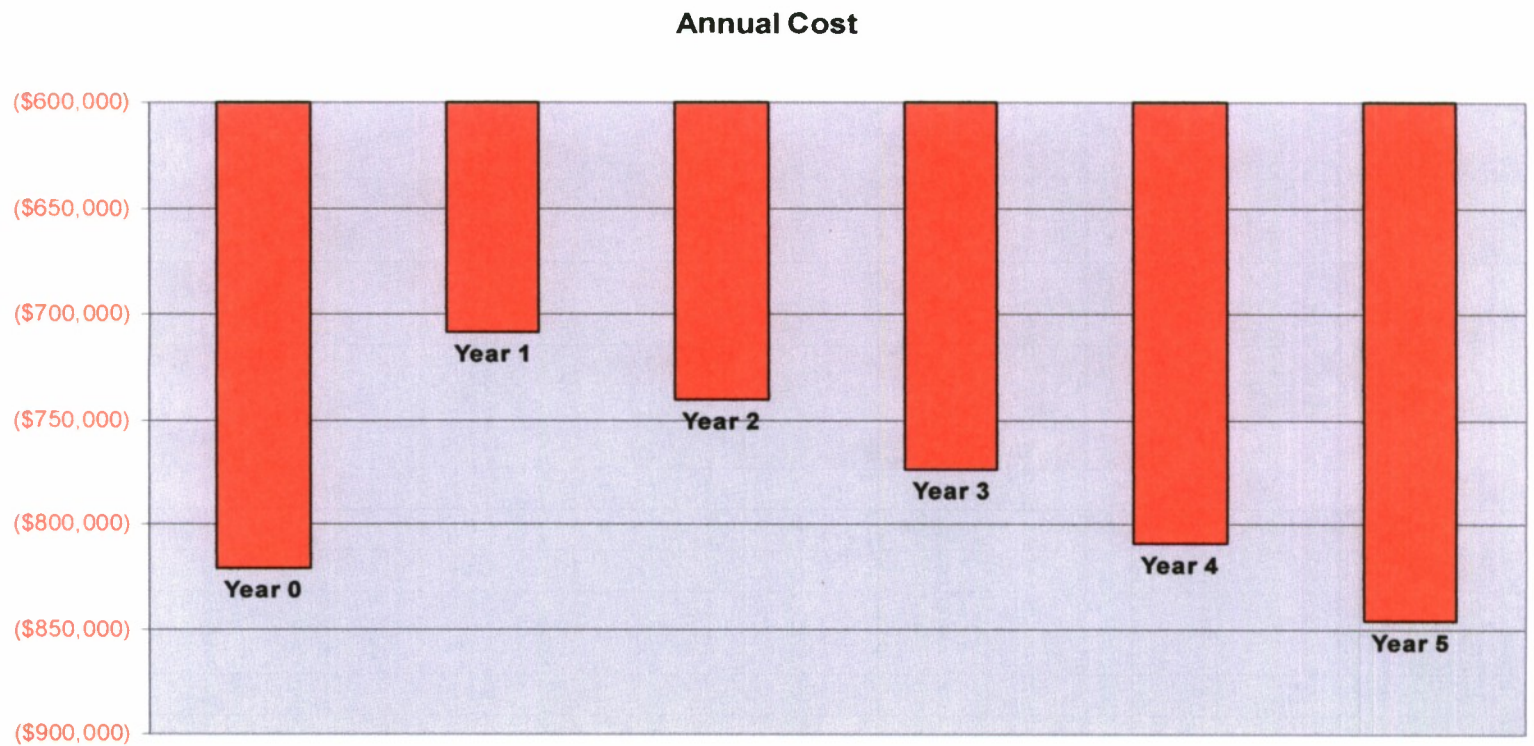


Figure 2

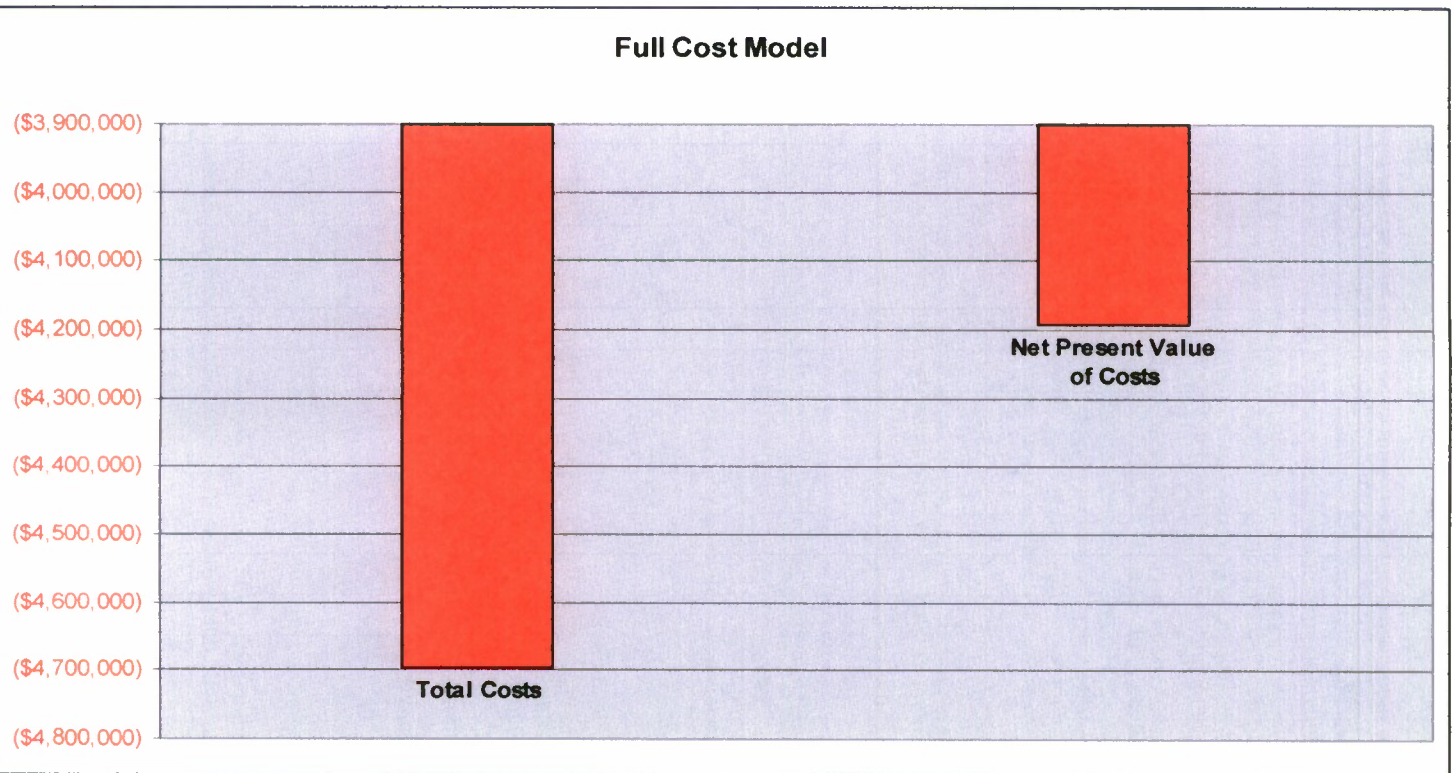


Figure 3

B6. Major Assumptions

- Naval Medical Center San Diego cannot maintain the status quo and drive down purchased care cost.
- Commanding Officers of all affected facilities and associated staff work out implementation plans.
- Necessary technology can be purchased or existing technology leveraged.
- GWOT/GTF funding is approved and available if required to continue necessary labor expansion.
- Based on the data obtained from the San Antonio MSMO, a market of comparable size and demographics to NMCSD, an increase of 300% in projected consult volume is expected
- Changes in business rules necessary to control and guide market will be made.
- Transition from individual RMC/Call Center to CAMO occurs smoothly.
- Successfully advertise the MSMO and services.
- Capable of building new, strong customer relationships.
- Implement achievable cost control measures.
- Additional 33 required FTE'S will be realized by a reallocation of staff from clinics.

C. Business Impacts:

CI. Overall Results

The expected cash flow results from the proposal are summarized in Table 1 below. This analysis predicts a net gain of \$151,498 over six years. This return is probable based on the recoupment of net cost of \$4.7 million over the same time frame, which equates to a simple return on investment of 3.61%, and a 3.89 year discounted payback period. An additional metric routinely used to evaluate financial proposals is the modified internal rate of return which is 10% for this project.

An explanation of the chosen financial metrics must be bounded by an understanding of the Time value of Money. The Time Value of Money is the belief that a dollar earned today is more valuable than a dollar to be earned in the future because the dollar on hand can be invested to earn interest and thus yield more profit than a dollar in the future. The concept of Time value of money is broken down into two areas, Future Value and Present Value. Future Value is the process of determining what an investment today will yield in the future, while Present Value describes what a cash flow received in the future is worth in today's dollars. This is termed a discounted cash flow.

In this project, the return on investment is 3.61% which, put simply, means that the cash flows generated over the six year time frame exceeded the total cost by 3.61% which in most situations is deemed a positive result. While positive, the ROI by itself is not enough to either recommend or decline a proposal. The discount payback period is a more accurate measure than the payback period as it discounts the cash flows to today's value to give one a better estimate of the true return period. In this BCA, the financials project it will take 3.89 years to recoup our investment based on the discount payback calculation.

The MIRR is a metric which has a profound affect on any project evaluation as the MIRR is determined using the weighted average cost of capital (WACC) which is the rate that a company is expected to pay on average to all its security holders to finance its assets. In effect, this is the minimum return which the firm can generate and still remain viable to share holders and thus profitable. As such, the MIRR is deemed to be an exceptionally useful metric in determining the value of a proposed project. In this project the MIRR performed as expected , returning a result of 10% which estimates that inflation could rise to 10% before the NPV of cash flows is reduced to zero percent.

While no one metric is an absolute indication of the success of a project, the financial estimates derived from this project paint a picture of success if the project is implemented.

C2. Benefits

The largest benefit projected based on this proposal comes from the recoupment of purchased network ER care. The total benefit of \$4,918, 687, as seen in figure 5, is based on the assumption that of the over 26,000 visits made yearly by NMCS D enrollees to civilian ED's, that number can be reduced by a minimum of 1500 visits by implementing the San Diego Patient Assistance Line along with the efficiencies expected with the CAMO implementation . Based on data from FY 2008 and most recently from Nov 08- Jul 2009, this utilization comes at a median cost of \$600.00 per visits. Assuming a \$600 dollar cost avoidance per visit, a reduction by 1500 ED visits amounts to \$900 thousand dollars annually. Assuming one year to fully ramp up, the first year is expected to yield only half that amount.

The cost of purchased care services are a significant drain on resources not only in the Department of Defense (DOD), but also in the private sector. In Dr. Winkenwerder's address to congress in February 2007 the cost of purchased care to the DOD was listed at 8 billion dollars for FYO6 or 44% of the total healthcare budget. The impact of rising healthcare is not unique to

the DOD. Medicaid cost the federal government \$260 billion in 2003 for the coverage of 53 Million people (Shi & Singh, 2004). The MHS is a hybrid system that utilizes a combination of civilian care (often called purchased care) and what is termed direct care (MHS care) to remain functional and provide the necessary access to care in addition to a variety of choices it offers to military healthcare beneficiaries.

When examining the issue of purchased care use, it is important to differentiate between care appropriately provided in the network and leakage or care that is in the network due to inefficiency and as a result of moral hazard (if the out-of-pocket costs are zero or nearly so, patients have an incentive to utilize healthcare services until their value approaches zero). The Military Health System (MHS) is a perfect example of this as the fees and co-pays associated with our system insulate beneficiaries from the cost associated with these benefits to a great extent. The benefits afforded to DOD beneficiaries have consistently exceeded most private insurance benefits in most states, with some forms of healthcare (such as Mental Health and a few other high cost services) allowing for self referral as stated in the TRICARE Handbook found at www.TRICARE.mil/TricareHandbook/toc.cfm.

The projections for this BCA were based on a combination of examining data and performing a literature review. The data utilized comes from M2 and was pulled based on the top ten diagnosis related groups (DRG) related to ER care and further broken down by Current Procedural Terminology (CPT) and Evaluation and Management (E&M) codes. The purpose of a literature review is to obtain an overview of existing research and publications on a particular research question. In this case, the research question is: What portion of emergency room usage is associated with primary care? The data from M2 shows trends and estimation but lacks finer data points such as time of day seen and mode of arrival to ED. This additional data would allow for a more accurate determination of Primary care usage. To bolster our recoupment claim, a

literature review was performed using a variety of sources ranging from the Center for Disease Control to peer reviewed journals.

Inappropriate use of emergency services is a costly and inefficient way to deliver healthcare. According to the 2006 National Hospital Ambulatory Medical Care Survey, during that year 119.2 million visits were made to hospital emergency departments, or 40.5 visits per 100 persons. Of the 119.2 million visits only 15.9 million or 13.3 % were categorized as urgent according to standards published by the American Medical Association. The issue of non-emergent care that could be more appropriately addressed in a primary care setting being treated in the (Emergency Department) ED is well documented, starting in the early 1990's. The National Center for Health Statistics analyzed data from the 1992 National Hospital Ambulatory Medical Care Survey and reported that a preponderance of ER visits (55.4%) were non-urgent (McCaig, 1994). In a 1994 study of 1,190 ER patients, presented in JAMA (1994; 271(24):1909-1912), it was found that 68% of all ER visits were classified as nonurgent. Similar findings were reported by McNamara Witte, and Koning (1993); and Nadel (1993).

The literature review which referenced studies conducted between the years of 1994 and 2006, shows that 40% to 87% of ED visits during that time frame were related to primary care. Based on this evidence and that obtained from M2, the projection of a 20% recoupment of ED visits is actually quite conservative.

Annual Benefit

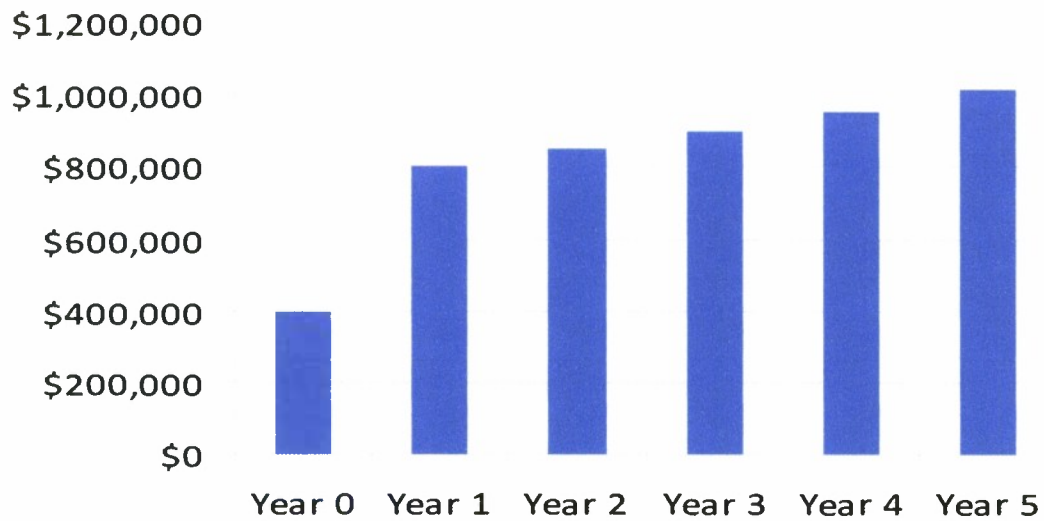


Figure 4

Full Benefit Model

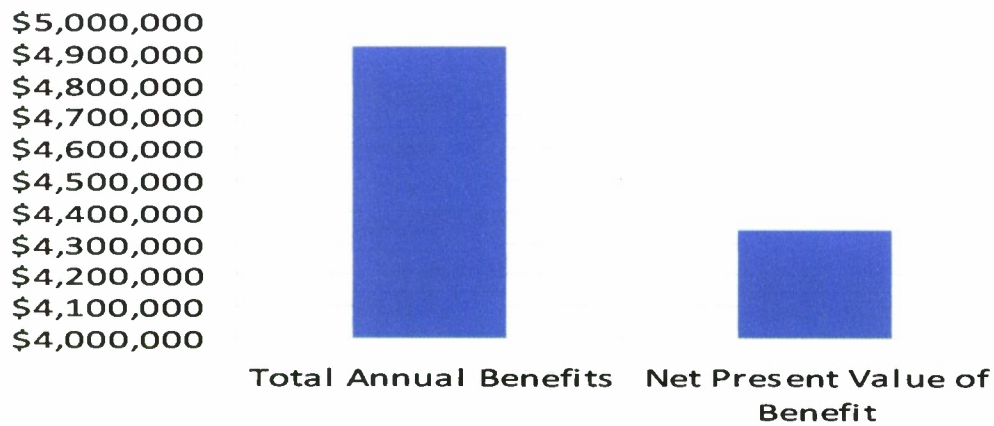


Figure 5

C3. Cost

Table 1 summarizes the expected cost of implementing the Consult and Appointment Management Office. The major cost impact is the Nurse Triage line, an off-site phone center which is staffed by Registered Nurses with a multitude of specialties, including ER nurses, critical care, surgical, and even some Nurse Practitioners. These nurses are able to offer callers medical advice encompassing the treatment of fevers, wound care, and emergent conditions such as chest pain. These Nurses are trained to triage conditions to the appropriate level of care be that at home or at an emergency department.

While the yearly cost of this service begins at \$523,000 with a five percent yearly increase, it is felt that the potential cost avoidance offered by this service will offset the cost. Additional cost incurred includes \$30,000 to remodel the current call center to accommodate 30 additional agents as well as a telecommunications closet for the phone system expansion. Labor cost is low at \$150,000 plus an annual 3% increase for an IT specialist who also can maintain a Voice over IP (VOIP) phone system. Computers and additional furniture represent a one time expense over the six year investment of \$117,000 with a maintenance cost of three percent annually. Total cost over the time frame of the project is estimated at \$4,697,653 which is expected to reap benefits totaling \$151,498.

Discount rate(DR)		A-94		DCF Used 3.30%			
Consolidated RMC							
Annual Benefits		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings from ER recapture	\$4,918,887	\$400,000	\$800,000	\$848,800	\$900,577	\$955,512	\$1,013,798
Total Annual Benefits	\$4,918,887	\$400,000	\$800,000	\$848,800	\$900,577	\$955,512	\$1,013,798
Net Present Value of Benefit	\$4,344,532						
Annual Expenses		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Nurse Triage line	(\$3,562,842)	(\$523,800)	(\$549,990)	(\$577,490)	(\$606,364)	(\$636,682)	(\$668,516)
Labor expense	(\$970,261)	(\$150,000)	(\$154,500)	(\$159,135)	(\$163,909)	(\$168,826)	(\$173,891)
RMC Remodel	(\$30,000)	(\$30,000)					
Capital Expenses		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Lease payments							
New Equipment expense		(\$117,000)	(\$3,510)	(\$3,510)	(\$3,510)	(\$3,510)	(\$3,510)
Total Costs	(\$4,697,653)	(\$820,800)	(\$708,000)	(\$740,135)	(\$773,783)	(\$809,018)	(\$845,917)
Net Present Value of Costs	(\$4,193,033)						
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Net Annual Cash Flows	\$221,034	(\$420,800)	\$92,000	\$108,666	\$126,794	\$148,493	\$187,881
Net Present Value of Cash Flows	\$151,498						
		MIRR 10%		DPBP		3.89 YRS	

Table 1

D. Sensitivities, Risks and Contingencies

Internal factors play a major role in either the success or failure of this project. Factors which do not necessarily have direct financial impact, but nonetheless play a critical role, include:

- The shift of staff from the specialty care areas to the CAMO is stifled by inter-agency squabbles.
- Specialty clinics are not willing to give up control of referrals and booking.
- TriWest is not onboard with giving Clinical Availability Report control to MSMO along with control of all Right of First Refusal (ROFRSS) cases.
- The data from M2 is reliable.

External factors play a critical role in maximizing returns from this investment in a consolidated RMC. This is shown in a sensitivity analysis of financial model underlying the projected results. For instance, the projected net present value of cash flows \$151,498 dollars is based on many assumptions, including these:

- 3% yearly increase in labor cost
- 6.1% yearly increase in health care cost
- 3.3% annual inflation rate
- 5% yearly increase in Nurse Triage contract

Improvements or decrements from these values have a strong influence on projected results as reflected in Figure 5.

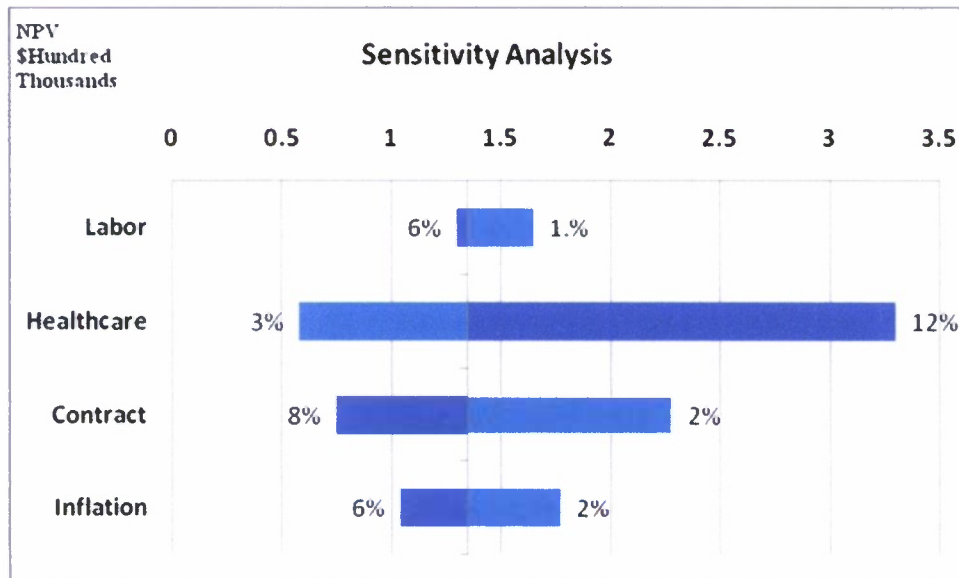


Figure 6

For instance:

- If NMCS D has a decrease in labor cost (1% instead of 3%), net present value of cash flows increases by 9.23% to \$165,474 a gain of 13,976 dollars.
- If, on the other hand, NMCS D has an increase in labor cost (6% instead of 3%) net present value of cash flows drops 13.84% to \$130,535 which is a decrease of 20,963 dollars.
- If healthcare cost increase only 3% yearly, the resultant net present value of cash flows declines 38.1% to \$57,779 for a loss of 93,719.
- Should healthcare cost increase at a rate of 12% yearly net present value of cash flow increases 118% to \$329,867 and increase of \$178,369 dollars.

- If the annual rate of inflation reaches only 2%, net present value of cash flows increase by 16.9% to \$177,171, an increase of \$25,673 dollars.
- If the annual rate of inflation reaches 6%, net present value of cash flows would decrease by 31% to \$104,387.
- If the Nurse Triage contract has an average annual cost increase of only 2%, net present value of cost will decrease to \$4,116,939 and cash flows will increase by 50.23% to \$227,592.
- If the Nurse Triage contract has an average annual cost increase of 8%, net present value of cost will increase to \$4,269,127 and cash flows will decrease by 50% to \$75,404 dollars.
- Noted at the beginning of this section was the possibility of the transfer of labor from specialty clinics to the CAMO failing as a result of inability to reach a consensus,
- Table 2 below lists the financial implications of that failing and assumes the purchase of 15 staff at the GS5 (step 7) level at a cost of \$41,500 per person. Should this risk be realized, the profitability of the project is erased with a NPV cost of (7,777,724), a labor increase over the 6 year time frame of \$ 4,026,585 million, and an NPV of (\$3,433,192). With a payback period beyond 10 years, there is no need to perform a true calculation.

Discount rate (DR)		A-94		DCF Used 3.30%			
Consolidated RMC							
Annual Benefits		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings from ER recapture	\$4,918,687	\$400,000	\$800,000	\$848,800	\$900,577	\$955,512	\$1,013,798
Total Annual Benefits	\$4,918,687	\$400,000	\$800,000	\$848,800	\$900,577	\$955,512	\$1,013,798
Net Present Value of Benefit	\$4,344,532						
Annual Expenses		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Nurse Triage line	(\$3,557,400)	(\$523,000)	(\$549,150)	(\$576,808)	(\$605,438)	(\$635,710)	(\$667,495)
Labor expense	(\$970,261)	(\$150,000)	(\$154,500)	(\$159,135)	(\$163,909)	(\$168,826)	(\$173,891)
RMC Remodel	(\$30,000)	(\$30,000)					
Purchased GS staff	(\$4,026,585)	(\$622,500)	(\$641,175)	(\$660,410)	(\$680,223)	(\$700,629)	(\$721,648)
Capital Expenses		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Lease payments							
New Equipment expense		(\$117,000)	(\$3,510)	(\$3,510)	(\$3,510)	(\$3,510)	(\$3,510)
Total Costs	(\$8,718,797)	(\$1,442,500)	(\$1,348,335)	(\$1,399,683)	(\$1,453,079)	(\$1,508,675)	(\$1,566,544)
Net Present Value of Costs	(\$7,777,724)						
Net Annual Cash Flows		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Net Present Value of Cash Flows	(\$3,433,192)	(\$1,042,500)	(\$548,335)	(\$550,863)	(\$552,503)	(\$553,163)	(\$552,746)

Table 2

- If the scenario depicted in Table 2 were to be realized, it would bring to light the fact that intangible factors, if strong enough, may provide reasons to recommend a project even though the financials may not prove profitable. In this particular case, the impetus for this project was not simply to save money, but also to improve customer satisfaction, improve brand name, and rescue a sinking GME program as well. Based on these factors and the potential for this proposal, if implemented, to majorly impact these matters, financial metrics alone should not be the determining factor in accepting or rejecting the proposal.
- Improvements in the referrals management and appointing process will be especially critical and all policies, business rules, and procedures must be closely monitored to ensure compliance as well.
- The projected results are also sensitive to other benefits assumptions, but to a lesser degree. For instance, it is assumed that equipment purchases will be limited to essentials rather than “nice-to-have” items. Should non essential equipment be purchased, it would

affect the amount of time necessary to reach “payback” and require more start up capital.

Overall, most assumptions that account for the very favorable expected results of this investment rest on four more basic assumptions:

- (1) Over time, an increase in productivity and efficiency will be realized within the referrals management and appointing system that will result in increased GME cases and decreased purchased care cost.
- (2) The transition between decentralized and centralized referrals management is conducted smoothly with no disruptions.
- (3) MSMO staff will implement an aggressive plan that assures potential customers (specialty clinics) of the benefits such as increased customer service, availability of GME cases, and decreased purchased care cost that can be expected from implementation of this proposal.
- (4) The Divisional Cost of Capital utilized for this analysis is accurate in forecasting the return on investment required.

Assumptions (1) and (2) place the responsibility for monitoring internal practices and performance on MSMO staff to make certain that training on new processes is available, effective, and utilized. Additionally, staff must ensure that the business plan is adhered to and effective cost control measures are in place and utilized.

Assumption (3) requires that the Steering Committee, composed of key personnel from both the MSMO and specialty clinics, be accountable for producing a transition plan outlining the tasks and responsibilities necessary to ensure that the criteria outlined in this analysis are met. Towards this end, the marketing department and patient relations must be involved at the onset to assist in the design and implementation of the transition plan. This teamwork will

ensure shared goals, a common outlook, and a shared vision amongst all involved in this venture.

Assumption (4) is predicated on the belief that the White House, Office of Management and Budget, has been accurate in predicting the discounted cash flow rates published in the A-94 OMB Circular, a set of guidelines and discount rates for Benefit-Cost Analysis of Federal Programs. Assumption 4 also presumes the discounted cash flow rate will hold steady over the course of the investment. Should all assumptions hold true as predicted, the expected results can be seen below in figure 7

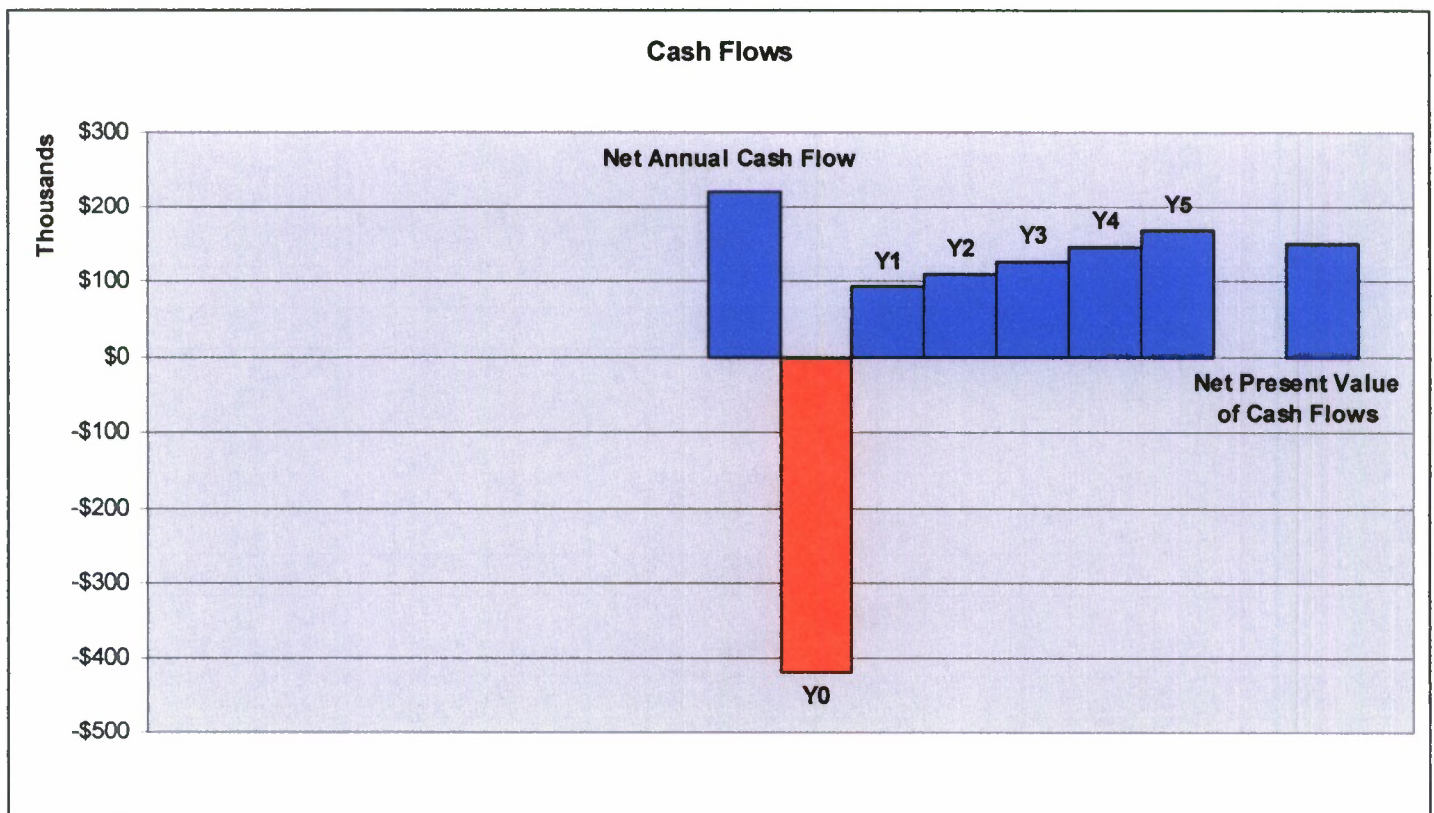


Figure 7

E. Recommendations and Conclusions

Based on the analysis presented here and the positive results experienced by the San Antonio MSMO (which is very similar in market demographics), we recommend Naval Medical Center San Diego accept the proposal to create a Multi- Service Market Office with a Consult and Appointment

Management Office. Additionally, we recommend that Naval Medical Center San Diego take the following steps to help ensure successful implementation and realization of benefits that provide the motivation for this proposal:

- Initiate formal discussions with NHCP, TriWest and Specialty clinics to ensure a smooth transition
- Implement best practices from other successful MSMO locations
- Engage the Information Technology Department in the technology process
- Re-visit the business rules to ensure they are compatible with the new initiatives
- Track the volume of internally generated consults within the MTF as well as the external consults and ROFRSS received from TriWest on a weekly basis to ensure an optimal understanding of usage patterns and labor usage
- Move quickly to expand the MSMO to allow for additional resources

References

- Center for Disease Control (CDC): *Visits to U.S. Emergency Departments at All-Time High; Number of Departments Shrinking*, Press release, May 26, 2005.
- Chu, D., Winkenwerder, W., (2006) Armed Services Subcommittee: *The Military Health System Overview* – United States House of Representatives.
- Chu, D., Winkenwerder, W., (2007) Armed Services Subcommittee: *The Military Health System Overview* – United States House of Representatives.
- Kellerman, A.L. (1994). Nonurgent emergency department visits: Meeting an unmet need. *Journal of the American Medical Association*, 271(24), 1953-1954.
- Liggins, K. (1993). Inappropriate attendance at accident and emergency departments: A literature review. *Journal of Advanced Nursing*, 18(7), 1141-1145.
- McCaig, L.E (1994). National hospital ambulatory medical care survey: 1992 emergency department summary. Atlanta, GA: Centers for Disease Control and Prevention/National Center for Health Statistics.
- McNamara, P., Witte, R., & Koning, A. (1993). Patchwork access: Primary care in EDs on the rise. *Hospitals*, 67(10), 44-46.
- Nadel, M.V. (1993). Emergency departments: Unevenly affected by growth and change in patient use. (GAO/HRD-93-4). Washington, DC: U.S. General Accounting Office, Human Resources Division.
- Report for Congress. (2007 Mar 7). *Military Medical Care: Questions and Answers*
- Schmidt, M. J. (2002). *The Business Case Guide* (2nd ed.). Boston: Solution Matrix Ltd.
- Shi, L., & Singh, D. A. (2004). *Delivering Health Care in America: A systems Approach* (3rd ed.). Sudbury, MA: Jones-Bartlett.

Appendix A: Venture Capital Equipment Cost

Change in Capital Costs - Equipment (Fiscal Analysis)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
New Patient Care Equip (Non-disposable)						
Exam Tables						
Lights						
Scopes						
Adjustable Stools						
Dopplers						
Adjustable Chairs						
Diagnostic tables						
Other						
Total New Patient Care Equip	\$0	\$0	\$0	\$0	\$0	\$0
Specialty Equip						
Write-in as needed						
Write-in as needed						
Total Specialty Equip	\$0	\$0	\$0	\$0	\$0	\$0
Computer Equip						
New Computers	\$10,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Software						
Telemedicine Hookups						
LAN Hookups	\$1,275	\$0	\$0	\$0	\$0	\$0
CHCS Terminals						
Other						
Total Computer Equip	\$11,275	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Non-Clinical Equip						
Desks	\$31,983	\$0	\$0	\$0	\$0	\$0
Curtains						
Phones	\$15,000					
Chairs						
Other	\$6,000					
Total Non-Clinical Equip	\$52,983	\$0	\$0	\$0	\$0	\$0
Other/Misc						
		\$0	\$0	\$0	\$0	\$0
Shredders (qty 2)	\$3,968					
Cordless headsets (qty 14)	\$4,174					
Office Supplies (qty 14)	\$1,400					
Fax machines (qty 2)	\$600					
Write-in as needed						
Write-in as needed						
Write-in as needed						
Write-in as needed						
Total Other/Misc	\$10,162	\$0	\$0	\$0	\$0	\$0
Capital Investment Totals	\$74,420	\$3,105	\$3,216	\$3,333	\$3,456	\$3,579

Appendix B: Direct Care Emergency Department Utilization by NMCS D enrolled patients FY 2009

	Seen During Clinic Hours	Seen Outside Clinic Hours	Admit During Clinic Hours	Admit Outside Clinic Hours
<u>ADOLESCENT CLINIC</u>	249	696	15	30
Emergent	0	2	0	0
Urgent	15	44	8	7
Non-Urgent	234	650	7	23
<u>INTERNAL MED</u>	1660	2327	446	669
Emergent	13	12	4	4
Urgent	224	394	133	253
Non-Urgent	1423	1921	309	412
<u>MILITARY HEALTH CENTER</u>	613	840	53	42
Emergent	3	3	1	0
Urgent	36	53	16	11
Non-Urgent	574	784	36	31
<u>PEDIATRICS, GENERAL</u>	1940	1784	63	83
Emergent	4	7	2	1
Urgent	71	85	18	27
Non-Urgent	1865	1692	43	55
<u>SICK CALL, SCI</u>	0	5	0	0
Non-Urgent	0	5	0	0
<u>MCRD STAFF SICK CALL</u>	92	248	4	15
Emergent	1	0	0	0
Urgent	1	13	0	4
Non-Urgent	90	235	4	11
<u>NAVSTA PRIMARY CARE</u>	537	883	36	63
Emergent	3	3	0	1
Urgent	28	72	11	33
Non-Urgent	506	808	25	29
<u>NI SICK CALL/PCG</u>	269	609	20	41
Emergent	1	2	1	0
Urgent	27	77	3	18
Non-Urgent	241	530	16	23
<u>MIRAMAR PRIMARY CARE</u>	144	292	15	16
Emergent	2	2	1	0
Urgent	7	26	1	7
Non-Urgent	135	264	13	9
<u>GENERAL CLINIC, ELCENTRO</u>	6	20	0	3
Urgent	0	1	0	1
Non-Urgent	6	19	0	2
<u>MIRAMAR, FAMILY PRACTICE</u>	813	1381	60	78
Emergent	2	5	0	2
Urgent	43	93	16	23
Non-Urgent	768	1283	44	53
<u>FAM PRAC-PRIMARY CARE GRP-NTC</u>	818	1256	81	116
Emergent	4	3	2	0
Urgent	103	159	34	43

Non-Urgent	711	1094	45	73
<u>PRIMARY CARE GROUP CORONADO</u>	0	1058	0	71
Emergent	0	8	0	1
Urgent	0	128	0	33
Non-Urgent	0	922	0	37
<u>TOC CLMT MESA PRIMARY CARE</u>	3640	2023	191	104
Emergent	18	13	0	2
Urgent	242	174	58	33
Non-Urgent	3380	1836	133	69
<u>TOC CHULA VISTA PRIMARY CARE</u>	1784	984	160	92
Emergent	7	8	1	0
Urgent	181	127	60	44
Non-Urgent	1596	849	99	48
<u>PEDS CONTINUITY CLINIC</u>	75	589	5	37
Emergent	0	1	0	0
Urgent	5	35	3	11
Non-Urgent	70	553	2	26
<u>OP FORCES</u>	1859	3559	171	225
Emergent	11	5	1	1
Urgent	127	241	51	59
Non-Urgent	1721	3313	119	165
<u>EAST COUNTY PRIMARY CARE CL</u>	476	865	51	95
Emergent	2	4	0	2
Urgent	34	67	15	28
Non-Urgent	440	794	36	65
<u>EAST COUNTY CLIN.PEDIATRICS</u>	134	384	3	11
Emergent	0	4	0	0
Urgent	2	15	0	3
Non-Urgent	132	365	3	8
<u>C5 PRIMARY CARE</u>	0	73	0	11
Urgent	0	7	0	5
Non-Urgent	0	66	0	6
<u>NI ACTIVE DUTY CLINIC</u>	270	503	13	30
Urgent	8	11	1	10
Non-Urgent	262	492	12	20
<u>OUT OF CATCHMENT</u>	0	41	0	3
Urgent	0	3	0	1
Non-Urgent	0	38	0	2
<u>MED HOLD NAVAL BASE</u>	0	22	0	0
Non-Urgent	0	22	0	0
<u>NI FAMILY MEDICINE</u>	535	728	34	62
Urgent	14	21	12	14
Non-Urgent	521	707	22	48
<u>NTC FAMILY PRACTICE TEAM 1</u>	283	392	20	30
Urgent	4	16	2	8
Non-Urgent	279	376	18	22
<u>NTC FAMILY PRACTICE TEAM 2</u>	312	518	27	36
Emergent	1		1	

Urgent	10	17	8	10
Non-Urgent	301	501	18	26
<u>NTC FAMILY PRACTICE TEAM 3</u>	205	362	28	41
Urgent	6	14	4	11
Non-Urgent	199	348	24	30
<u>TOC CHULA VISTA TEAM 1</u>	501	224	53	34
Urgent	6	10	6	8
Non-Urgent	495	214	47	26
<u>TOC CHULA VISTA TEAM 2</u>	402	155	35	12
Urgent	11	10	10	6
Non-Urgent	391	145	25	6
<u>TOC CHULA VISTA TEAM 3</u>	285	322	27	20
Urgent	7	4	3	4
Non-Urgent	278	318	24	16
<u>TOC CM TEAM 1</u>	220	99	14	5
Urgent	4	1	2	1
Non-Urgent	216	98	12	4
<u>TOC CM TEAM 2</u>	146	87	7	5
Urgent	2	1	1	1
Non-Urgent	144	86	6	4
<u>TOC CM TEAM 3</u>	165	75	14	8
Emergent	1		1	
Urgent	4		3	
Non-Urgent	160	75	10	8
<u>All Enrollees:</u>	18433	23404	1646	2088

Appendix C: NMCS D Primary Care Demand vs Capacity Report FY 2009

	Average Pts Seen per Month	Avail Slots Next 30 Days	%age Avail vs Demand
ADOLESCENT, CLINIC	423	360	85.2%
C5 PRIMARY CARE	377	308	81.6%
EAST COUNTY CLIN, PEDIATRICS	422	460	109. %
ECC TEAM 1	639	661	103.4%
GENERAL CLINIC, ELCENTRO	115	127	110.1%
INTERNAL MED	2,271	1,620	71.3%
MCRD STAFF SICK CALL	975	534	54.8%
MILITARY HEALTH CENTER	1,984	1,285	64.8%
MIRAMAR PRIMARY CARE	1,205	473	39.3%
MIRAMAR, FAMILY PRACTICE	1,398	1,592	113.9%
NAVSTA PRIMARY CARE	1,523	201	13.2%
NI ACTIVE DUTY CLINIC	1,574	968	61.5%
NI FAMILY MEDICINE	808	716	88.7%
NTC FAMILY PRACTICE TEAM 1	899	413	46. %
NTC FAMILY PRACTICE TEAM 2	1,052	1,264	120.1%
NTC FAMILY PRACTICE TEAM 3	747	952	127.4%
NTC FAMILY PRACTICE TEAM 4	161	0	0. %
PEDIATRICS, GENERAL	2,912	2,526	86.7%
PEDS CONTINUITY CLINIC	453	389	85.8%
PRIMARY CARE GROUP CORONADO	1	0	0. %
SICK CALL, SCI	23	0	0. %
TOC CHULA VISTA TEAM 1	786	857	109.1%
TOC CHULA VISTA TEAM 2	718	1,031	143.6%
TOC CHULA VISTA TEAM 3	767	1,021	133.1%
TOC CM TEAM 1	717	499	69.6%
TOC CM TEAM 2	944	1,109	117.4%
TOC CM TEAM 3	929	880	94.7%
Primary Care Clinic Total	24,824	20,246	81.6%

Legend
Capacity <= 75%
75% < Capacity <= 90%
Capacity > 90%

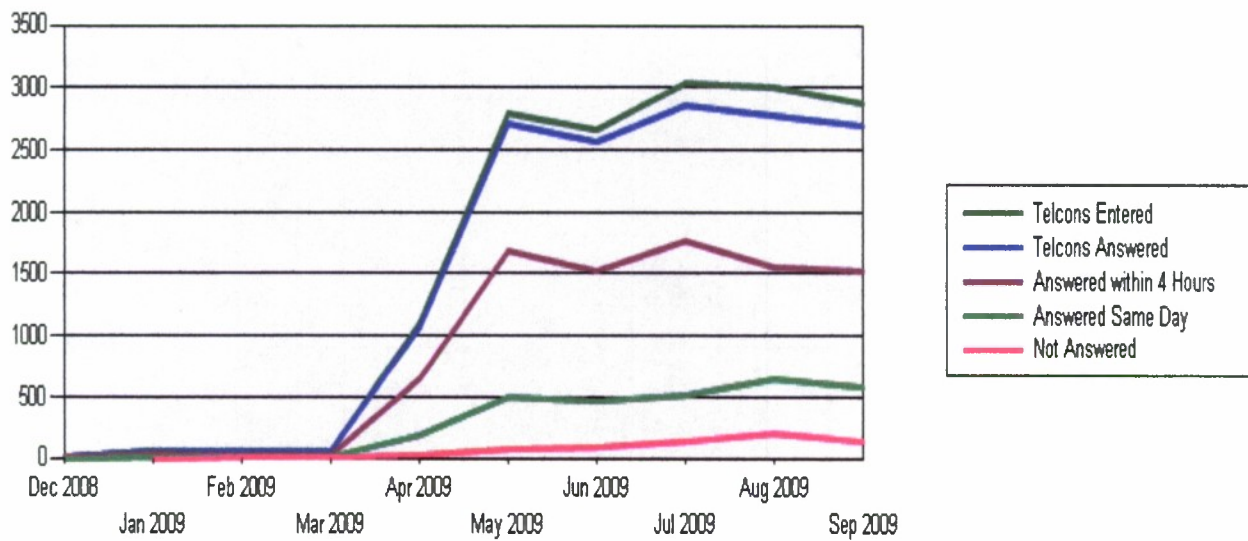
Appendix D: Telephone Consult Statistics

Clinic	Telephone Consults				Patient seen in ER			Patient seen in Any PCC				Repeat Calls	
	Entered	Answered	Answered within 4hr	Answered Same Day	Not Answered	Same Day as Telcon	Before Telcon	Same Day as Telcon	Day After Telcon	Within 7 Days of Telcon	Before Telcon	Patients	Avg Rpt
ADOLESCENT, CLINIC	573	96.3 %	90.23%	95.29%	3.7 %	0.3 %	0.5 %	1.9 %	1.9 %	6.5 %	2.4 %	10	2.10
C5 PRIMARY CARE	18	44.4 %	44.44%	44.44%	55.6 %	5.6 %	16.7 %	33.3 %	33.3 %	81.1 %	233.3 %	2	2.50
EAST COUNTY CLIN, PEDIATRICS	523	92.0 %	76.78%	88.91%	8.0 %	2.9 %	1.7 %	13.6 %	14.5 %	19.3 %	9.4 %	9	2.00
EAST COUNTY PRIMARY CARE CL	2,600	93.2 %	76.65%	82.19%	6.8 %	1.9 %	1.3 %	4.8 %	7.1 %	15.3 %	11.7 %	72	2.10
EL CENTRO PRIMARY CARE	18	72.2 %	72.22%	72.22%	27.8 %	0.0 %	0.0 %	5.6 %	0.0 %	16.7 %	22.2 %		
FAM PRAC-PRIMARY CARE GRP-NTC	8,343	93.7 %	83.91%	91.54%	6.3 %	0.9 %	0.9 %	4.6 %	6.1 %	18.1 %	8.0 %	313	2.07
GENERAL CLINIC, ELCENTRO	27	88.9 %	74.07%	81.48%	11.1 %	0.0 %	0.0 %	0.0 %	3.7 %	11.1 %	0.0 %		
INTERNAL MED	14,360	96.7 %	84.82%	91.62%	3.3 %	0.8 %	0.8 %	2.5 %	3.5 %	16.3 %	3.3 %	463	2.06
MCRD STAFF SICK CALL	171	97.1 %	90.06%	95.91%	2.9 %	0.6 %	0.0 %	1.8 %	1.8 %	13.5 %	4.1 %	8	2.00
MILITARY HEALTH CENTER	603	86.9 %	76.12%	81.09%	13.1 %	0.8 %	1.0 %	2.2 %	4.3 %	14.8 %	10.8 %	20	2.05
MIRAMAR PRIMARY CARE	144	70.1 %	69.44%	69.44%	29.9 %	0.0 %	2.1 %	0.7 %	2.1 %	12.5 %	20.8 %	3	2.00
MIRAMAR, FAMILY PRACTICE	3,829	95.4 %	76.1%	89.14%	4.6 %	2.0 %	1.5 %	8.9 %	6.0 %	13.8 %	10.2 %	82	2.08
NAVSTA PRIMARY CARE	331	95.5 %	84.29%	87.31%	4.5 %	0.3 %	0.3 %	1.8 %	1.2 %	19.3 %	8.2 %	11	2.18
NI ACTIVE DUTY CLINIC	74	64.9 %	56.76%	56.76%	35.1 %	0.0 %	0.0 %	2.7 %	2.7 %	10.8 %	20.3 %	3	2.00
NI FAMILY MEDICINE	311	89.1 %	81.03%	84.24%	10.9 %	0.0 %	0.0 %	2.3 %	1.9 %	10.6 %	4.5 %	13	2.08
NI SICK CALL/PCG	4,549	95.5 %	87.25%	93.98%	4.5 %	1.6 %	1.1 %	2.2 %	3.1 %	12.5 %	3.8 %	156	2.03
NTC FAMILY PRACTICE TEAM 1	33	84.8 %	81.82%	81.82%	15.2 %	0.0 %	0.0 %	0.0 %	3.0 %	30.3 %	3.0 %	1	2.00
NTC FAMILY PRACTICE TEAM 2	10	60.0 %	60.0%	60.0%	40.0 %	0.0 %	0.0 %	20.0 %	10.0 %	10.0 %	30.0 %		
NTC FAMILY PRACTICE TEAM 3	16	75.0 %	62.5%	62.5%	25.0 %	0.0 %	0.0 %	6.3 %	6.3 %	25.0 %	31.3 %		
PEDIATRICS, GENERAL	6,988	95.3 %	84.79%	93.13%	4.7 %	3.5 %	1.4 %	14.6 %	16.5 %	23.5 %	8.2 %	308	2.05
PEDS CONTINUITY CLINIC	402	83.3 %	64.68%	70.9%	16.7 %	4.2 %	2.5 %	8.7 %	9.2 %	20.4 %	22.1 %	5	2.00
PRIMARY CARE GROUP CORONADO	5	100.0 %	100.0%	100.0%	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %		
SICK CALL, SCI													
TOC CHULA VISTA PRIMARY CARE	15,821	90.5 %	75.96%	85.04%	9.5 %	1.7 %	1.3 %	6.6 %	9.9 %	22.3 %	10.4 %	506	2.05
TOC CHULA VISTA TEAM 2	1	0.0 %	0.0%	0.0%	100.0 %	0.0 %	0.0 %	0.0 %	100.0 %	0.0 %	100.0 %		
TOC CLMT MESA PRIMARY CARE	12,841	94.7 %	81.01%	88.05%	5.3 %	3.2 %	1.7 %	5.6 %	9.1 %	17.0 %	8.7 %	399	2.04
Primary-Care Clinics Total	72,591	93.91%	81.23%	89.02%	6.09%	1.87%	1.22%	5.85%	7.78%	18.17%	7.87%	2,384	2.05

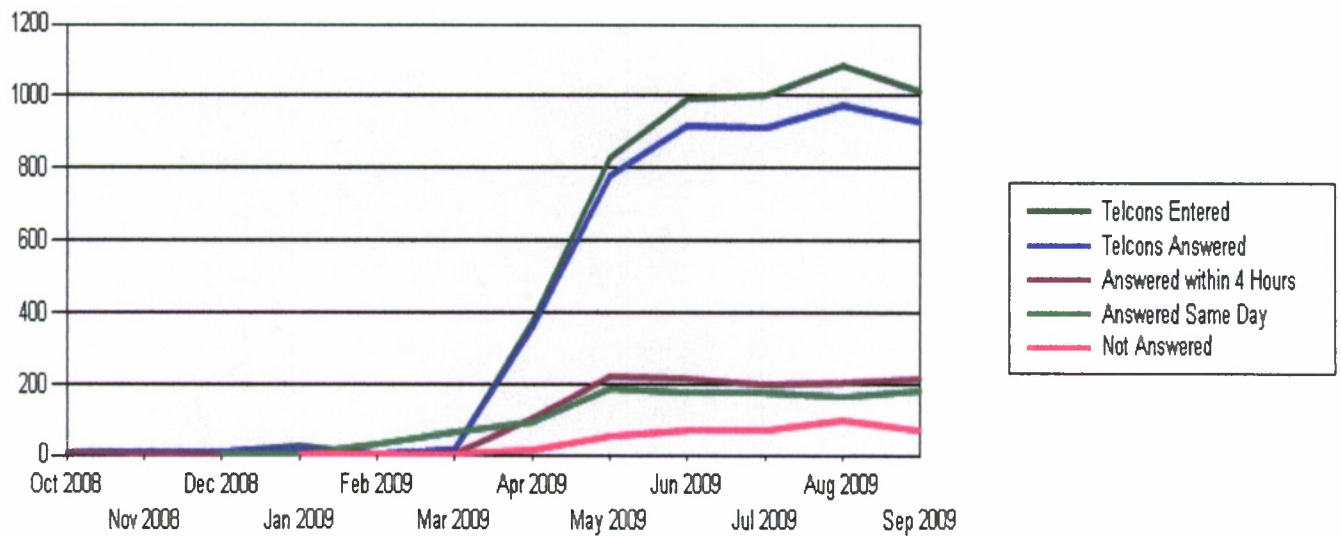
Telephone Consult Response
>= 90% Answered
75% -90% Answered
<75% Answered

Explanation of Table Columns	
Column	Description
Entered	Telephone consults received and entered into CHCS/AHLTA
Consult Not Answered	No response to patient has been made regarding the telephone consult
Patient seen In ER	Patient was seen at NMCSO Emergency Room within the specified time
Patient seen in Any PCC	Patient had a kept clinic visit in a primary-care clinic within the specified time
Repeat Calls	Number of distinct patients who had more than one telcon filed the same day for a single clinic

Access Telephone Consults



Medical Telephone Consults



Appendix E: Purchased Care visits to Civilian ED OCT 08 – MAY 2009

Sum of Number of Visits, Raw	FM								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Grand Total
Total	3,392	3,791	3,504	3,911	3,830	4,085	3,233	268	26,014

May data is incomplete secondary to claims not being processed for payment.

Data Source: M2

Prepared by: Robin Moore

Appendix F: Outpatient Private Sector Care RVU Summary FY 2008

NAVAL MEDICAL CENTER SAN DIEGO PARENT FY08 Outpatient Private Sector Care (PCS) RVUs vs FY08 Business Plan PSC Projected RVUs

Product Line	Projected Demand PSC	TRICARE Prime/Plus PSC Data Source: M2 as of 6/30/2008	TRICARE Plus >65 PSC Data Source: M2 as of 6/30/2008	% of Projected RVUs w/ TRICARE Prime	% of Projected RVUs w/o TRICARE Plus	RVUs % for Place of Care
DERM	577	335	32	58%	52%	95% Office
ENT	672	995	4	148%	148%	48% Office, 47% Outpt Hosp
ER	14,223	10,046	37	71%	70%	100% Emergency Room-Hosp
IM Sub	10,392	9,205	61	89%	88%	54% Office, 27% Outpt Hosp, 18% Amb Surg Ctr
MH	70,174	45,535	0	88%	88%	97% Office
NONE	394	352	6	89%	88%	60% Office, 30% Amb Surg Ctr, 8% Urgent Care
OB	1,355	762	0	56%	56%	85% Office, 15% Outpt Hosp
OPTOM	12,184	7,905	51	65%	64%	96% Office
ORTHO	21,989	30,404	116	138%	138%	83% Office, 10% Comp Outpt Rehab Fac, 4% Outpt Hosp
OTHER	7,946	4,779	1	60%	60%	98% Office
PC	10,829	18,026	161	148%	147%	71% Office, 19% Outpt Hosp, 6% Urgent Care
SURG	913	542	0	59%	59%	51% Office, 45% Outpt Hosp
SURG SUB	1,293	654	0	51%	51%	48% Outpt Hosp, 41% Office
Total	152,941	127,640	469	83%	83%	78% Office, 8% Outpt Hosp, 8% Emergency Room-Hosp, 2% Amb Surg Ctr, 2% Comp Outpt Rehab Fac

Appendix G: Outpatient Private Sector Care RVU Summary (Primary Care) FY 2008

FY08 Outpatient Private Sector Care (PCS) RVUs

vs.

FY08 Business Plan PSC Projected RVUs

Enrollment DMIS Location Code	Enrollment DMIS Location Name Please select DMIS Location by clicking drill down arrow below	Product Line	Projected Demand PSC	PSC Data Source, M2 as of 6/30/2008	% of Projected RVUs < 50% Green
0230	NBHC MCRD SAN DIEGO	DERM	0	0	0%
0230	NBHC MCRD SAN DIEGO	PC	140	79	33%
0029	NMC SAN DIEGO	PC	5,191	3,433	66%
0239	NBHC EL CENTRO	PC	348	236	68%
0407	NBHC NTC SAN DIEGO	PC	2,874	2,266	79%
6215	TRICARE OUTPATIENT-CHULA VISTA	PC	190	236	124%
0231	NBHC NAS NORTH ISLAND	PC	982	1,298	132%
0232	BMC MCAS MIRAMAR	PC	316	1,318	417%
6215	TRICARE OUTPATIENT-CHULA VISTA	PC	709	3,779	533%
6215	TRICARE OUTPATIENT-CHULA VISTA	PC	79	2,503	3169%

Appendix H: NMCS D ED Visit and Facilities Charges Nov 08 - Jul 09

median cost - \$599

Enr Site Parent	NMCS D
Product Line	ER

				Data	
Person ID	Svc Date	Procedure	Provider Specialty	Amt Billed by Provider	Amt Paid by TRICARE
1270419581	11/8/2008	CT ANGIO,NECK,W CONTRST MAT(S)	Facility charges - use for facility charge	\$1,804	\$561
		CT CRVCL SPINE WO CNTRST MAT	Facility charges - use for facility charge	\$1,114	\$248
		CT HD/BRN WO CNTS MAT FURT SEC	Radiology	\$251	\$49
		CT HEAD/BRAIN W/O CONTST MATRL	Facility charges - use for facility charge	\$965	\$194
		CT SFT TISE NECK WO CNTRST MAT	Radiology	\$252	\$50
		EMERGENCY DEPT VISIT	General Practice	\$221	\$59
		MAGNETIC IMAGE, NECK SPINE	Facility charges - use for facility charge	\$2,149	\$479
			Radiology	\$315	\$62
		OFFICE CONSULTATION	General Surgery	\$568	\$184
		SPECIAL SUPPLIES	Facility charges - use for facility charge	\$116	\$93
	#N/A	Facility charges - use for facility charge	\$19,701	\$19,701	
11/8/2008 Total				\$27,456	\$21,680
1270419581 Total				\$27,456	\$21,680
1186526410	3/21/2009	ASSAY OF ETHANOL	Facility charges - use for facility charge	\$94	\$17
		BASIC METAB PANEL (CALC,TOTAL)	Facility charges - use for facility charge	\$74	\$13
		BLOOD TYPING, RH (D)	Facility charges - use for facility charge	\$45	\$11
		COMPLETE CBC W/AUTO DIFF WBC	Facility charges - use for facility charge	\$68	\$12
		EMERGENCY DEPT VISIT	Facility charges - use for facility charge	\$1,551	\$1,551
			General Practice	\$637	\$227
		HEMOGLOBIN, FETAL	Facility charges - use for facility charge	\$68	\$12
		OBSERVATION CARE	Facility charges - use for facility charge	\$305	\$305
		ULTRASND LIMITED 1+ FETUSES	Facility charges - use for facility charge	\$299	\$60
			Radiology	\$131	\$31
	US,ABDM,REAL TME W IMG DOC,LTD	Facility charges - use for facility charge	\$436	\$76	
#N/A	Facility charges - use for facility charge	\$21,631	\$17,305		
3/21/2009 Total				\$25,339	\$19,621
1186526410 Total				\$25,339	\$19,621
1291448638	2/19/2009	ASSAY OF ETHANOL	Facility charges - use for facility charge	\$94	\$16
		BLOOD TYPING, RH (D)	Facility charges - use for facility charge	\$45	\$13
		EMERGENCY DEPT VISIT	General Practice	\$637	\$217
			Obstetrics/Gynecology	\$160	\$160
		FETAL NON-STRESS TEST	Facility charges - use for facility charge	\$294	\$20
		OBSERVATION CARE	Facility charges - use for facility charge	\$122	\$122
		OF/OTH OP VST,NEW:PROB HX 10MN	Facility charges - use for facility charge	\$173	\$22
		RAD EXM,SPINE,CERV;2/3 VIEWS	Facility charges - use for facility charge	\$151	\$27
		ULTRASND LIMITED 1+ FETUSES	Facility charges - use for facility charge	\$299	\$63
			Radiology	\$131	\$30
	US,ABDM,REAL TME W IMG DOC,LTD	Facility charges - use for facility charge	\$436	\$74	
#N/A	Facility charges - use for facility charge	\$22,736	\$18,409		
2/19/2009 Total				\$25,280	\$19,173
1291448638 Total				\$25,280	\$19,173

* Complete list of charges not shown due to length of data.

Appendix I: List of Abbreviations and Acronyms

BUMED- Bureau of Medicine and Surgery
CAMO- Consult and Appointment Management Office
CHCS-Composite Health Care System
CPT-Current Procedural Code
DOD-Department of Defense
DRG- Diagnosis Related Group
E&M-Evaluation & Management
ED- Emergency Department
ER-Emergency Room
FTE-Full Time Equivalent
FY-Fiscal Year
GME- Graduate Medical Education
GS-General Schedule
HEDIS-Health Employer Data Information Set
MCSC-Managed Care Support Contractor
MHS- Military Health System
MSMO- Multi-Service Market Office
MTF-Medical Treatment Facility
RMC- Referrals Management Center
ROFR- Right of First Refusal
RVU-Relative Value Unit
TCON- Telephone Consult
TMA-TRICARE Management Activity