

Section I

Executive Summary

CACI, INC.-FEDERAL (CACI) was commissioned by the Department of Veterans Affairs (VA) to provide assistance in projecting the estimated cost of providing health care to veterans enrolled within the VA health care system for each fiscal year (FY) from FY 2003 through FY 2005. CACI subcontracted with Milliman USA (Milliman) to develop these projections. This analysis consists of two major components:

1. Projecting veteran enrollment in the VA health care system and
2. Calculating the estimated health care costs associated with providing services to these Enrollees.

The Veterans Health Administration (VHA), within the Department of Veterans Affairs, administers the largest integrated health care system in the nation. In October 1996, Congress enacted the Veterans' Health Care Eligibility Reform Act of 1996, Public Law 104-262. Although the law simplified the system, it is a significant change from previous regulations. It required VHA to implement a priority-based enrollment system. The number of Priority Levels VHA will be able to deliver care to will be a function of available funding levels and of the utilization of health care services by enrollees.

Each year, VHA undergoes a rigorous review of demand for health care services from veterans and projects an estimate of the costs to deliver care against that demand. The results of these analyses are used to develop VHA health care budgets and to provide executive level information in the decision support for the number of enrollees VHA can fiscally manage. The purpose of this analysis is to provide data and information that will assist the Secretary of the Department of Veterans Affairs with the annual enrollment decision. This decision determines number of veteran priority groups VA can continue to enroll for health care services for FY 2004. It is understood that VA will enroll veterans for health care services in FY 2004 who can be fiscally supported by available resources such that the quality of care and access to care will not be compromised.

General Model Description

The following outline provides a general description of the methodology used to develop the VA Enrollee Health Care Projection Model (the model). The model was created by CACI and Milliman to support VA's Enrollment Level Decision and over the past five years has been enhanced to support CARES, the VA budget process, and other VA planning initiatives.

Enrollment Projections

1. Obtain baseline actual enrollment by scrambled SSN
2. Develop enrollment rates using historical enrollment and historical VetPop
3. Develop projections of new enrollees using the rates developed in Step 2, the baseline from Step 1 and VetPop projections
4. Apply mortality rates to enrollment projections

Workload Projections

1. Summarize private sector health care utilization averages by geographic area.
2. Adjust utilization to reflect the health care services in the Medical Benefits Package.
3. Adjust utilization to reflect the age and gender characteristics of the projected veteran enrollee populations.
4. Adjust utilization to reflect the estimated veteran enrollee reliance on VHA for their health care needs (Veteran enrollee survey data and CMS match data used to assess reliance).
5. Adjust utilization to reflect the morbidity of the projected veteran enrollee populations relative to the underlying private sector populations (VA patient diagnosis data and CMS match data is used to assess relative morbidity levels).
6. Adjust utilization to reflect the estimated degree of health care management observed within the VA health care system relative to the loosely managed level observed in the local community (VA inpatient diagnosis and workload data used to assess Degree of Management).
7. Adjust utilization to reflect the residual differences between modeled and actual historical VA workload (estimates of unmeasured morbidity, reliance and degree of health care management differences).

Unit Cost Projections

1. Obtain baseline Cost Distribution Report (CDR)-based VA unit cost data.
2. Unit cost data adjusted for health care service mix inherent in data.
3. Adjust unit costs to reconcile to historical VA total health care obligations.

Expenditure Projections

1. Enrollment, Workload and Unit Cost Projections are combined to produce Expenditure Projections.

Summary Results

The VA Enrollee Health Care Projection Model projects that in FY 2004 VHA will require \$25.660 billion to care for all enrolled veterans. It should be noted that this estimate, as well as the other estimates presented in this report, do not comprise the total medical care budget requirements. These estimates do not include projected expenditures for Long Term Care services (both Nursing Home and Home Health). Non-modeled programs including CHAMPVA, Readjustment Counseling, Spina Bifida, Foreign Medical Program, Dental, and care for non-veterans are also excluded. The model further projects that in FY 2004 there will be an average enrollment of 7.262 million veterans; unique fiscal year enrollees of 7.632 million veterans; a year-end live enrollment of 7.350 million veterans; and unique fiscal year patients of 4.702 million veterans.

Total veteran enrollment for each fiscal year is calculated in terms of member months to estimate enrollee exposure to the VA health care system. The average projected enrollment for each fiscal year (member months divided by 12) is detailed in Table I-1. Enrollment market share is generally already high in Priority Levels for veterans with service-connected disabilities. The majority of the future growth in enrollment comes from Priority Levels 7 through 8. Enrollment for Priority Level 8 was suspended on January 17, 2003. Continued suspension of Priority Level 8 enrollment is uncertain, therefore, under VA direction, future enrollment was projected under three scenarios. These enrollment scenarios are:

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Scenario 0: Assumes that enrollment of Priority Level 8 veterans was never suspended, and is never suspended through the FY 2005 enrollment projections. This scenario allows for estimates of the impact of the enrollment suspension decision when compared to Scenario 1.

Scenario 1: Assumes that enrollment of Priority Level 8 veterans was suspended on January 17, 2003 and remains suspended through the FY 2005 enrollment projections.

Scenario 2: Assumes that enrollment of Priority Level 8 veterans was suspended on January 17, 2003 but is re-instated in January 2004 and enrollment remains open through the FY 2005 enrollment projections.

Table I-1 also presents the resulting nationwide projected health care expenditures based on the projected average enrollment for each scenario by fiscal year.

<u>Table I-1</u>			
<u>Projected Average Enrollment</u>			
<u>Fiscal Year</u>	<u>Scenario 0</u>	<u>Scenario 1</u>	<u>Scenario 2</u>
2002	6,369,400	6,369,400	6,369,400
2003	7,019,837	6,961,175	6,961,175
2004	7,529,520	7,262,308	7,483,024
2005	7,955,840	7,498,951	7,955,840

<u>Projected Health Care Expenditures</u>			
<u>Fiscal Year</u>	<u>Scenario 0</u>	<u>Scenario 1</u>	<u>Scenario 2</u>
2002	\$19,887,567,000	\$19,887,567,000	\$19,887,567,000
2003	23,033,230,015	22,969,693,398	22,969,693,398
2004	25,962,983,134	25,645,573,464	25,907,667,556
2005	28,772,336,533	28,182,441,287	28,772,336,533

Table I-2 presents nationwide projected enrollment and health care expenditures for these scenarios for Priority Levels 1 through 7c combined and Priority Levels 8a and 8c combined.

Table I-2

Projected Average Enrollment

<u>Fiscal Year</u>	<u>Priority Levels 1 through 7c</u>		<u>Priority Levels 8a & 8c</u>		
	<u>Scenarios 0, 1, & 2</u>		<u>Scenario 0</u>	<u>Scenario 1</u>	<u>Scenario 2</u>
	2002	5,180,187	1,189,213	1,189,213	1,189,213
2003	5,638,866	1,380,971	1,322,309	1,322,309	
2004	5,989,595	1,539,925	1,272,713	1,493,429	
2005	6,280,084	1,675,757	1,218,868	1,675,757	

Projected Health Care Expenditures

<u>Fiscal Year</u>	<u>Priority Levels 1 through 7c</u>		<u>Priority Levels 8a & 8c</u>		
	<u>Scenarios 0, 1, & 2</u>		<u>Scenario 0</u>	<u>Scenario 1</u>	<u>Scenario 2</u>
	2002	\$18,583,049,314	\$1,304,517,686	\$1,304,517,686	\$1,304,517,686
2003	21,378,408,823	1,654,821,192	1,591,284,574	1,591,284,574	
2004	23,972,993,138	1,989,989,996	1,672,580,326	1,934,674,417	
2005	26,447,974,387	2,324,362,147	1,734,466,900	2,324,362,147	

Tables I-3 and I-4 present the resulting FY 2004 and FY 2005 nationwide projected health care expenditures based on projected average enrollment for each Priority Level under Scenario 1. The two largest groups are the non-service-connected (NSC) veteran populations of lower income Priority Level 5 and the higher income Priority Level 8c veterans. All of the Priority Levels open to enrollment have increasing enrollment projections through FY 2005. From FY 2004 to FY 2005 Priority Level 7c is projected to have the largest percentage growth – 8.7%, while the average growth over Priority Levels 1 through 7c is 4.8%. During the same period, under enrollment Scenario 1 Priority Level 8 enrollment is projected to decrease 4.2% due to the closed enrollment policy and mortality. The projected expenditures under enrollment Scenario 1 increase each year. In addition, the smaller Priority Levels 1 and 4 require greater expenditures per enrollee than the other Priority Levels.

Table 1-3: Scenario 1

<u>Priority Level</u>	<u>Projected Average Enrollment for FY 2004</u>	<u>Projected Average Expenditures Per Enrollee for FY 2004</u>	<u>Projected Health Care Expenditures for FY 2004</u>	<u>Cumulative Projected Expenditures by Priority Level</u>
1	656,117	\$7,694	\$5,048,067,240	\$5,048,067,240
2	459,019	3,400	1,560,721,339	6,608,788,579
3	921,892	2,731	2,517,312,539	9,126,101,118
4	241,348	13,496	3,257,231,818	12,383,332,936
5	2,597,365	3,891	10,105,310,470	22,488,643,406
6	146,370	1,151	168,428,435	22,657,071,841
7a	29,581	1,888	55,837,223	22,712,909,064
7c	937,901	1,344	1,260,084,074	23,972,993,138
8a	46,002	1,781	81,929,527	24,054,922,665
8c	<u>1,226,709</u>	<u>1,297</u>	<u>1,590,650,799</u>	25,645,573,464
Total	7,262,308	\$3,531	\$25,645,573,464	

Table 1-4: Scenario 1

<u>Priority Level</u>	<u>Projected Average Enrollment for FY 2005</u>	<u>Projected Average Expenditures Per Enrollee for FY 2005</u>	<u>Projected Health Care Expenditures for FY 2005</u>	<u>Cumulative Projected Expenditures by Priority Level</u>
1	670,924	\$8,099	\$5,433,582,682	\$5,433,582,682
2	469,545	3,590	1,685,803,708	7,119,386,390
3	952,986	2,873	2,737,629,382	9,857,015,772
4	257,908	14,047	3,622,961,004	13,479,976,776
5	2,719,577	4,132	11,237,757,254	24,717,734,031
6	158,017	1,228	194,020,271	24,911,754,302
7a	31,731	1,991	63,175,065	24,974,929,367
7c	1,019,395	1,445	1,473,045,019	26,447,974,386
8a	44,472	1,924	85,575,836	26,533,550,222
8c	<u>1,174,396</u>	<u>1,404</u>	<u>1,648,891,064</u>	28,182,441,287
Total	7,498,951	\$3,758	\$28,182,441,287	

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This report and all of the associated databases and summary reports were produced for the internal use of the Department of Veterans Affairs. If any portion of this report or the associated databases is released, reference must be made to the entire report. If this report or associated databases are released to parties outside the government, CACI, INC.-FEDERAL and Milliman USA, Inc. do not accept liability to any such third party.

Exhibits I-1 through I-4 provide additional detail supporting these projections.

A patient projection model was also developed based on historical veteran enrollee and patient data, the projection of unique Enrollees and various adjustment factors. This process is described in Section XIII– Patient Projection Analysis. The projected unique patients for each fiscal year under Scenario 1 are as follows:

Table I-5

<u>Fiscal Year</u>	<u>Projected Unique Patients for Priority Levels 1 – 6</u>	<u>Projected Unique Patients for Priority Level 7</u>	<u>Projected Unique Patients for Priority Level 8</u>	<u>Total Projected Unique Patients</u>
2002	3,157,084	429,260	654,908	4,241,252
2003	3,376,654	489,773	669,538	4,535,965
2004	3,521,970	538,716	641,003	4,701,689
2005	3,640,583	580,160	614,791	4,835,534

Table I-6

<u>Priority Level</u>	<u>Projected Average Enrollment for FY 2004</u>	<u>Projected Total Unique Enrollees For FY 2004</u>	<u>Estimated Current, Live Year-End Enrollment for FY 2004</u>	<u>Estimated Unique Patients for FY 2004</u>
1	656,117	685,665	660,854	572,765
2	459,019	476,524	463,331	319,581
3	921,892	961,650	935,480	564,266
4	241,348	261,703	236,467	199,739
5	2,597,365	2,755,892	2,642,432	1,799,138
6	146,370	154,679	151,794	66,482
7a	29,581	31,634	30,461	18,669
7c	937,901	1,013,918	977,511	520,047
8a	46,002	46,628	45,284	27,207
8c	1,226,709	1,244,123	1,206,627	613,796
Total	7,262,308	7,632,416	7,350,245	4,701,689

Table I-7

<u>Fiscal Year</u>	<u>Projected Average Enrollment</u>	<u>Projected Total Unique Enrollees</u>	<u>Estimated Current, Live Year-End Enrollment</u>	<u>Estimated Unique Patients</u>
2002	6,369,400	6,850,377	6,688,010	4,241,252
2003	6,961,175	7,352,163	7,091,317	4,535,965
2004	7,262,308	7,632,416	7,350,245	4,701,689
2005	7,498,951	7,860,390	7,559,140	4,835,534

In performing this analysis various data and representations provided by the Department of Veterans Affairs were relied upon. This information was used without audit.

The results contained in this report are projections. Actual results will differ from those projected here for many reasons. It is impossible to determine how world events will unfold. Those events that impact the economy and the use of the nation’s military may have a profound impact on enrollment and expenditure projections. It is important that actual enrollment and costs be monitored and the projections updated regularly.

Overview of VA Enrollee Health Care Projection Model Methodology

Everything related to the VA Enrollee Health Care Projection Model begins with the enrolled veteran population. Every veteran in the veteran health care enrollment database has a county of residence. All of the counties in the United States were grouped into Sectors that represent a significant number of veteran Enrollees. A Sector, as used throughout this report, is defined as a cluster of geographically adjacent counties, within a CARES-defined submarket. In urban areas Sectors are often made up of a single county. The development of the Sector areas is fully discussed in Section II-4– County Consolidation Methodology. Each Sector area is contained within a single CARES-defined market or submarket area. Consequently, market and submarket level projections can be calculated by summarizing the Sector level projections. Enrollees are also assigned to a preferred facility, where the veteran’s care is managed by a VA health care provider. The cost models reflect the projected health care demand of the Enrollees by Sector area. Cost models are also developed to reflect the projected health care demands of Enrollees by their preferred facility. It is not anticipated that all of the enrollee’s VA-demanded health

care will necessarily be obtained from that Facility; consequently, the cost models are enrollee-based, not facility-based.

Expenditures were projected for providing the health care benefits defined in the Medical Benefits Package as well as other VA special program services to the Enrollees. Expected utilization by Sector (or preferred facility), Enrollee Type (Enrollee Pre and Enrollee Post), Age Group (Under Age 45, Ages 45 to 64, Ages 65 to 84 and Ages 65 and Over), and Priority Level (Priority Levels 1 through 8c) were developed using private sector utilization adjusted to reflect the veteran enrollment population and an appropriate level of managed care for VA (discussed in more detail in Section III-4– Degree of Community Management Adjustments). This health care utilization is detailed by several Inpatient and Ambulatory medical service categories. VA special program services were projected using historical VA workload data. Estimated VA unit costs based on the CDR and related data sources were applied to the expected utilization by medical service category.

From the utilization and VA unit cost data, expected per member per month (PMPM) costs were calculated for each combination of Sector, Enrollee Type, Age Group, and Priority Level veteran Enrollees. The PMPM cost is the average cost of providing health care to each member (enrollee) for a one-month period of time.

Each cost model has been adjusted to reflect relative veteran morbidity and reliance on VA for obtaining health care services. These adjustments vary by CARES defined submarket, Enrollee Type, Age Group, Priority Level and health service category.

The partial reliance adjustments reflect the fact that the majority of veterans, particularly those who qualify for Medicare, have another choice for health care services. Consequently, veterans can utilize health care from providers both inside and outside of VA concurrently. The partial veteran reliance in these models reflects estimated current veteran reliance on the VA Health Care System.

The relative morbidity adjustments reflect the relative health status of veteran Enrollees compared to the private sector populations underlying the utilization benchmarks. These adjustments are based on a diagnosis-based risk adjustment methodology which incorporates the

responses to the 1999, 2000 and 2001 Survey of Enrollees (SOE) and the 1999 Health Survey of Veterans (Veterans SF-36 & Health Behaviors).

Exhibits I-5 through I-8 provide Scenario 1 VISN-specific projections for each fiscal year in the study. These exhibits display average enrollment, health care expenditures, unique enrollees and unique patients for each VISN, based on the enrollee's VISN of residence.

Exhibit I-9 illustrates the variations by Priority Level due to reliance, morbidity, age/gender, VA unit costs, geographic area and other factors. The "All" row shows the overall impact that each factor has on the model. For instance, the underlying base model is increased by 15% to account for the age/gender mix of veteran Enrollees. It is also increased by 41% to account for the relative higher morbidity of veteran Enrollees. On the other hand, it is reduced by 62% to account for the fact that veteran Enrollees, on average, only demand 38% of their health care from VA.

Exhibit I-10 illustrates the variations by VISN due to each adjustment that was applied to the models. Specifically, this exhibit shows the relative impact that reliance, morbidity, age/gender, VA unit costs, geographic area and other variations have on the VA Enrollee Health Care Projection Model at the national level. For example, VISN 2 has an average PMPM cost for FY 2002 that is only 79% of the national average PMPM cost. Exhibit I-10 indicates that VISN 2 Enrollees have one of the lowest levels of reliance and are the second least morbid (healthiest). On the other hand, the age/gender mix implies they are average (1.00 relativity) due solely to age and gender cost differences. Unit costs in VISN 2 are 5% lower than average and the utilization differences due to location result in costs that are only 2% higher than the VA national average. Together, these differences generate an average PMPM cost for VISN 2 that is the lowest compared to all other VISNs. Similar comparisons can be done for each VISN.

Exhibit I-11 details the properties of each model factor. This table documents when factors vary by region (County, Sector, VISN, etc.), Age Group, Priority Level, and Enrollee Type.

Over 150,000 detailed cost models (see equation below) were developed as well as the preferred facility and state projection allocation models. Each individual cost model includes the estimated annual expenditures by health care service category based on the projected average enrollment and the PMPM costs for that model. A report writer was also developed that allows

VA to composite these cost models in various ways. The national cost models for FY 2002 through FY 2005 are included in Appendices D through G. All of the cost models generated for the analysis are contained electronically in the CD-ROMs delivered separately.

Number of Cost Models:

506 Sector Locations
X 4 Age Groups
X 10 Priority Levels
X 2 Enrollee Types
X 4 Fiscal Years
161,920 Cost Models

Model Enhancements

Several enhancements were made to the actuarial modeling effort. The enrollment projections were updated to reflect the latest version of VetPop (the VA Office of the Actuary's estimates of the total veteran population). These estimates were further enhanced to include necessary detail at the age, gender, Priority Level and county levels. This latest version of VetPop was developed by VA from analysis of the new Census 2000 data. In addition, VHA provided an updated historical enrollment file with enrollment data for FY 1999, FY 2000, FY 2001 and FY 2002.

The most visible enhancement made to the enrollment projection methodology is that they are no longer projected on an individual county basis, but are, instead, projected on the aggregated level of consolidated counties, or "Sectors." This approach increased statistical credibility through elimination of projections for small populations. It also increased efficiency in scenario modeling through decreased time elapsed for enrollment projection scenarios and cost and utilization projection scenarios.

It has been suggested that transition occurs among Priority Levels over time in the Enrollee population. No provision was made for this phenomenon in prior enrollment projections. Therefore, historical data was studied to determine Priority Level transition patterns and incorporate them into the enrollment projection process. In addition, geographic migration between Sectors was studied and a model was developed and implemented to reflect this type of migration in the enrollment projection process.

Finally, the modeling for Geographic Means Test (GMT) Priority Levels 7 and 8 enrollment, which was first introduced during CARES II, has now been incorporated into the main enrollment projection process. The projection algorithm now:

1. Splits Priority Level 7 veterans into GMT Priority Levels 7 and 8 as they enroll and
2. Tracks the number of veterans who would have enrolled if enrollment had been open for the entire projection period.

Those who would have enrolled, but were denied because of a change in enrollment policy, are tracked so that in case of a future relaxation of enrollment policy the impact of “pent-up” demand on enrollment can be measured. This enables more rapid turn-around for scenarios involving changes to open-enrollment policies for GMT Priority Levels 7 and 8 veterans.

Pursuant to the Health Care and Eligibility Reform Act of 1996 (Public Law 104-262), VA established a priority based enrollment system. Although veterans are not required to enroll with VA to receive medical care for a service-connected condition, all veterans are encouraged to enroll. In order to better understand and analyze utilization patterns of veterans who used VA for some or all of their health care enrollees were defined as Enrollee Pres and Enrollee Posts. An Enrollee Pre is defined as an enrollee who used the VA Health Care System during fiscal years 1996, 1997 or 1998 and enrolled during the first six months of enrollment (between October 1, 1998 and March 31 1999). Enrollee Posts are all other veteran Enrollees in the health care enrollment database.

The service line detail in the utilization and expenditure projection model was greatly expanded to account for several of VA’s special programs. Six outpatient mental health VA programs were identified from the Ambulatory workload data and projected separately based on specific workload analyses, including: Day Treatment, Homelessness, Methadone Treatment, Mental Health Intensive Case Management (MHICM), Work Therapy and Community MH Residential Care. The projection of special VA program bed section care services was also enhanced, including the expansion of Psych & PTSD Residential Rehab Program into two separate service lines: Psychiatric Residential Rehabilitation Treatment (PRRTP) and PTSD Residential Rehabilitation (PRRP). Residential Rehabilitation Treatment was also redefined such that specialized PTSD and substance abuse services were integrated into other service lines. Further

details regarding these projection enhancements can be found in Section IV- Special VA Program Projections.

Based on analysis of VA prosthetics data, VA Program Equipment and Services projections were also developed and implemented in the model. This is further discussed in Section V- VA Workload Data Manipulations. This service line represents equipment and services provided by many of the VA special programs that are not represented by a private sector benefit.

VA unit costs represented within the model were expanded to include Glasses/Contacts, Hearing Aids, Durable Medical Equipment and Prosthetics (Section VII- VA Unit Costs). VA administers these medical items through national dispensaries that achieve significant cost savings over the private sector. Appropriate unit costs for these service lines were developed utilizing the national prosthetics data provided by VA.

The Degree of Community Management – Section III-4 (DoCM) analysis was enhanced to assess management levels by Market area. Market areas divide the nation into approximately 100 areas using county borders. The model's predictive powers should be enhanced regionally with the DoCM assumptions used for each VISN expanded to each Market area. Nationally, the FY 2002 VA DoCM levels for medical, surgical, psychiatric and substance abuse are -28%, -64%, 1% and -5%, respectively. These levels vary significantly by Market.

The reliance adjustments (further discussed in Section III-3) were updated using similar methodologies from previous ELDA efforts and more recent data. In addition, reliance factors were developed at the Market level rather than the VISN level. Historical VA supply constraints are reflected in the reliance adjustments, given that VA supply impacts the tendency for veteran enrollees to seek care at a VA facility. That is not to say that supply is the only factor impacting reliance. Location of VA facilities, perceived quality of care at VA facilities, availability of other insurance and other factors also play an important role in determining an enrollee's likelihood to seek care within the VA Health Care System. Reliance adjustments at the VISN level tended to overestimate workload in some Markets while underestimating it in others since the factors impacting enrollee reliance vary significantly by Market within the VISNs.

One issue that complicates the development of veteran morbidity factors is that of reliance (further discussed in Section III-2). Unlike the vast majority of members of commercial

insurance programs, veterans who use VHA health care facilities are usually not reliant on VHA health care facilities for 100% of their health care needs. That is not to say that no veteran relies 100% on VHA for their health care needs, but many do not. These reliance issues are difficult to isolate and quantify. Health status based risk adjusters have routinely been used to develop relative morbidity factors for the projection model; however, for this analysis the Centers for Medicare and Medicaid Services (CMS) data match information was used to develop a more robust morbidity analysis for the group of enrollees Ages 65 and Over since this information is assumed to provide 100% of those enrollees' diagnoses (DoD information for enrollees who are military retirees and use TRICARE/military treatment facilities is not included).

The actual-to-expected analysis (Section VI) was expanded to include adjustments for Glasses/Contacts, Hearing Aids, Durable Medical Equipment, and Prosthetics using the FY 2002 prosthetics workload data provided by VA. The actual-to-expected adjustments were also enhanced to incorporate a credibility adjustment. This enhancement produced more reasonable adjustments for services with relatively small amounts of workload experience. The national actual-to-expected ratios across all Ages, Priority Levels, and Enrollee Types were unaffected by this adjustment.

The budget reconciliation (Section VIII) adjustment process was enhanced to allow a more service specific budget reconciliation. VA was able to supply the total FY 2002 budget obligations with detailed budget obligation amounts for major service areas such as Inpatient Acute services, Inpatient Sub-acute care, Outpatient, Prosthetics, etc. Previous ELDAs reconciled to a single budget obligation amount. For the Preliminary and Final FY04 ELDA, the service area specific budget obligation amounts were used to reconcile the FY 2002 national projections to the FY 2002 budget obligations.

In the past, VA has requested various cost sharing projections from Milliman for use in policy-making decisions, and enhancements were made to the model to enable faster, more efficient response to these requests. While these projections utilized the projection model, the appropriate adjustment factors were developed and implemented into the model for every analysis. The model was enhanced to incorporate various cost sharing levels by service and fiscal year automatically. The model projections report cost sharing revenue into five categories: Inpatient, Long Term Care, Residential Rehabilitation Treatment, Outpatient, and Prescription Drugs. The copay levels in effect as of August 1, 2002 were used for all fiscal years beyond 2002. Historical

collection rates, third party rates and other adjustments were also carried forward to all future projection years.

Long-term care services were not included in this modeling effort. VA is currently developing new long-term care projection models and they will be incorporated into the VA Enrollee Health Care Projection Model at a later date.

Exhibit I-1
Veterans Affairs Healthcare Cost Analysis
Projected Enrollment and Costs for FY02
Nationwide Composite by Priority Level

Priority	Annual Average Enrollment	PMPM Health Care Cost	Annual Health Care Cost	Annual Total Expenditures
1	620,696	\$566.22	\$6,794.65	\$4,217,412,997
2	421,110	251.27	3,015.19	1,269,728,485
3	823,202	203.41	2,440.91	2,009,363,664
4	203,824	1,022.51	12,270.17	2,500,960,710
5	2,247,017	282.09	3,385.03	7,606,224,569
6	118,725	82.79	993.51	117,954,700
7a	24,385	139.68	1,676.21	40,873,884
7c	721,228	94.81	1,137.68	820,530,305
8a	43,793	126.28	1,515.32	66,360,265
8c	1,145,420	90.08	1,080.96	1,238,157,421
All Priorities	<u>6,369,400</u>	<u>\$260.20</u>	<u>\$3,122.36</u>	<u>\$19,887,567,000</u>
1 to 6	4,434,575	\$333.02	\$3,996.24	\$17,721,645,124
7	745,613	96.27	1,155.30	861,404,190
8	1,189,213	91.41	1,096.96	1,304,517,686
All Priorities	<u>6,369,400</u>	<u>\$260.20</u>	<u>\$3,122.36</u>	<u>\$19,887,567,000</u>

Note: All numbers on this exhibit are rounded, but the sums and products are computed using unrounded values. Therefore, it may not be possible to exactly match the sums or products shown.

Exhibit I-2
Veterans Affairs Healthcare Cost Analysis
Projected Enrollment and Costs for FY03
Nationwide Composite by Priority Level

Scenario 1: Priority Level 8 suspended effective 1/17/2003

<u>Priority</u>	<u>Annual Average Enrollment</u>	<u>PMPM Health Care Cost</u>	<u>Annual Health Care Cost</u>	<u>Annual Total Expenditures</u>
1	639,627	\$604.60	\$7,255.24	\$4,640,649,800
2	444,314	267.04	3,204.45	1,423,782,883
3	880,480	215.56	2,586.71	2,277,543,374
4	223,408	1,075.44	12,905.34	2,883,152,735
5	2,447,873	303.47	3,641.63	8,914,238,869
6	133,714	89.35	1,072.14	143,361,071
7a	27,205	148.72	1,784.64	48,551,432
7c	842,245	103.60	1,243.26	1,047,128,659
8a	47,357	136.32	1,635.89	77,470,468
8c	1,274,952	98.95	1,187.35	1,513,814,106
All Priorities	6,961,175	\$274.97	\$3,299.69	\$22,969,693,398

Scenario 1: Priority Level 8 suspended effective 1/17/2003

1 to 6	4,769,416	\$354.39	\$4,252.67	\$20,282,728,732
7	869,450	105.02	1,260.20	1,095,680,092
8	1,322,309	100.28	1,203.41	1,591,284,574
All Priorities	6,961,175	\$274.97	\$3,299.69	\$22,969,693,398

Scenario 0: No Priority Level 8 suspension

1 to 6	4,769,416	\$354.39	\$4,252.67	\$20,282,728,732
7	869,450	105.02	1,260.20	1,095,680,092
8	1,380,971	99.86	1,198.30	1,654,821,192
All Priorities	7,019,837	\$273.43	\$3,281.16	\$23,033,230,015

Scenario 2: Priority Level 8 suspended effective 1/17/2003 and resumed effective 1/1/2004

1 to 6	4,769,416	\$354.39	\$4,252.67	\$20,282,728,732
7	869,450	105.02	1,260.20	1,095,680,092
8	1,322,309	100.28	1,203.41	1,591,284,574
All Priorities	6,961,175	\$274.97	\$3,299.69	\$22,969,693,398

Note: All numbers on this exhibit are rounded, but the sums and products are computed using unrounded values. Therefore, it may not be possible to exactly match the sums or products shown.

Exhibit I-3
Veterans Affairs Healthcare Cost Analysis
Projected Enrollment and Costs for FY04
Nationwide Composite by Priority Level

Scenario 1: Priority Level 8 suspended effective 1/17/2003

Priority	Annual Average Enrollment	PMPM Health Care Cost	Annual Health Care Cost	Annual Total Expenditures
1	656,117	\$641.15	\$7,693.85	\$5,048,067,240
2	459,019	283.34	3,400.12	1,560,721,339
3	921,892	227.55	2,730.59	2,517,312,539
4	241,348	1,124.67	13,495.98	3,257,231,818
5	2,597,366	324.22	3,890.60	10,105,310,470
6	146,370	95.89	1,150.70	168,428,435
7a	29,581	157.30	1,887.57	55,837,223
7c	937,901	111.96	1,343.52	1,260,084,074
8a	46,002	148.42	1,780.98	81,929,527
8c	1,226,710	108.06	1,296.68	1,590,650,799
All Priorities	7,262,308	\$294.28	\$3,531.33	\$25,645,573,464

Scenario 1: Priority Level 8 suspended effective 1/17/2003

1 to 6	5,022,113	\$375.96	\$4,511.46	\$22,657,071,840
7	967,482	113.35	1,360.15	1,315,921,298
8	1,272,713	109.52	1,314.19	1,672,580,326
All Priorities	7,262,308	\$294.28	\$3,531.33	\$25,645,573,464

Scenario 0: No Priority Level 8 suspension

1 to 6	5,022,113	\$375.96	\$4,511.46	\$22,657,071,840
7	967,482	113.35	1,360.15	1,315,921,298
8	1,539,925	107.69	1,292.26	1,989,989,996
All Priorities	7,529,520	\$287.35	\$3,448.16	\$25,962,983,134

Scenario 2: Priority Level 8 suspended effective 1/17/2003 and resumed effective 1/1/2004

1 to 6	5,022,113	\$375.96	\$4,511.46	\$22,657,071,840
7	967,482	113.35	1,360.15	1,315,921,298
8	1,493,429	107.95	1,295.46	1,934,674,418
All Priorities	7,483,024	\$288.52	\$3,462.19	\$25,907,667,555

Note: All numbers on this exhibit are rounded, but the sums and products are computed using unrounded values. Therefore, it may not be possible to exactly match the sums or products shown.

Exhibit I-4
Veterans Affairs Healthcare Cost Analysis
Projected Enrollment and Costs for FY05
Nationwide Composite by Priority Level

Scenario 1: Priority Level 8 suspended effective 1/17/2003

Priority	Annual Average Enrollment	PMPM Health Care Cost	Annual Health Care Cost	Annual Total Expenditures
1	670,924	\$674.89	\$8,098.65	\$5,433,582,682
2	469,545	299.19	3,590.29	1,685,803,708
3	952,986	239.39	2,872.69	2,737,629,382
4	257,908	1,170.63	14,047.51	3,622,961,004
5	2,719,578	344.35	4,132.17	11,237,757,255
6	158,017	102.32	1,227.84	194,020,271
7a	31,731	165.91	1,990.97	63,175,065
7c	1,019,395	120.42	1,445.02	1,473,045,019
8a	44,472	160.35	1,924.26	85,575,836
8c	1,174,396	117.00	1,404.03	1,648,891,064
All Priorities	7,498,951	\$313.18	\$3,758.18	\$28,182,441,287

Scenario 1: Priority Level 8 suspended effective 1/17/2003

1 to 6	5,228,958	\$397.02	\$4,764.19	\$24,911,754,303
7	1,051,126	121.79	1,461.50	1,536,220,084
8	1,218,868	118.58	1,423.01	1,734,466,900
All Priorities	7,498,951	\$313.18	\$3,758.18	\$28,182,441,287

Scenario 0: No Priority Level 8 suspension

1 to 6	5,228,958	\$397.02	\$4,764.19	\$24,911,754,303
7	1,051,126	121.79	1,461.50	1,536,220,084
8	1,675,757	115.59	1,387.05	2,324,362,147
All Priorities	7,955,840	\$301.38	\$3,616.51	\$28,772,336,533

Scenario 2: Priority Level 8 suspended effective 1/17/2003 and resumed effective 1/1/2004

1 to 6	5,228,958	\$397.02	\$4,764.19	\$24,911,754,303
7	1,051,126	121.79	1,461.50	1,536,220,084
8	1,675,757	115.59	1,387.05	2,324,362,147
All Priorities	7,955,840	\$301.38	\$3,616.51	\$28,772,336,533

Note: All numbers on this exhibit are rounded, but the sums and products are computed using unrounded values. Therefore, it may not be possible to exactly match the sums or products shown.

Exhibit I-5
Veterans Affairs Health Care Analysis
Fiscal Year 2002 Projections by VISN

<u>VISN</u>	<u>Projected Average Enrollment</u>	<u>Estimated Healthcare Expenditures</u>	<u>Projected Unique Enrollees</u>	<u>Projected Unique Patients</u>
1	301,569	\$908,184,165	324,241	201,397
2	195,298	480,187,223	204,744	119,125
3	354,449	1,142,165,911	372,688	214,501
4	394,964	1,060,597,765	425,585	253,781
5	159,823	599,556,711	170,300	103,425
6	309,501	883,811,332	334,378	205,445
7	358,226	1,123,934,337	385,172	238,177
8	566,110	1,648,500,243	610,283	381,321
9	283,267	1,016,067,203	305,229	192,756
10	230,970	615,304,565	250,062	151,118
11	267,131	746,908,685	289,004	176,863
12	280,271	878,183,129	303,040	186,005
15	256,355	723,497,607	275,922	172,252
16	514,485	1,719,071,685	556,510	362,175
17	265,219	851,576,507	286,692	182,737
18	259,863	821,397,730	278,491	180,080
19	175,037	542,532,699	187,901	118,843
20	266,710	884,382,196	284,287	179,409
21	273,291	861,549,327	295,375	182,247
22	346,500	1,184,371,003	374,224	229,876
23	310,363	870,323,539	336,249	209,720
National ⁽¹⁾	6,369,400	\$19,562,103,563	6,850,377	4,241,252

⁽¹⁾ National totals may not match sum of VISN entries due to rounding.

Exhibit I-6
Veterans Affairs Health Care Analysis
Fiscal Year 2003 Projections by VISN

<u>VISN</u>	<u>Projected Average Enrollment</u>	<u>Estimated Healthcare Expenditures</u>	<u>Projected Unique Enrollees</u>	<u>Projected Unique Patients</u>
1	328,387	\$1,035,864,059	348,105	215,116
2	208,299	548,562,942	219,491	127,285
3	377,969	1,298,331,580	399,965	229,439
4	430,710	1,212,516,684	455,717	271,184
5	174,372	691,794,143	184,646	111,748
6	340,444	1,030,664,807	358,827	219,893
7	393,018	1,309,256,333	414,337	255,470
8	624,605	1,917,910,290	664,847	413,283
9	310,291	1,190,744,667	327,400	205,862
10	253,219	715,122,010	267,577	161,469
11	294,102	870,747,197	311,998	190,347
12	306,386	1,007,151,722	323,720	198,073
15	280,072	835,390,365	295,490	183,842
16	562,664	1,983,721,915	591,896	383,462
17	291,741	985,917,237	307,333	194,910
18	282,947	950,522,814	297,185	191,441
19	190,863	622,158,223	201,163	126,778
20	290,373	1,012,701,772	305,744	192,060
21	299,810	1,003,444,254	316,105	194,601
22	379,943	1,380,029,498	399,640	245,521
23	340,960	1,011,263,015	360,976	224,179
National ⁽¹⁾	6,961,175	\$22,613,815,525	7,352,163	4,535,965

⁽¹⁾ National totals may not match sum of VISN entries due to rounding.

Exhibit I-7
Veterans Affairs Health Care Analysis
Fiscal Year 2004 Projections by VISN

<u>VISN</u>	<u>Projected Average Enrollment</u>	<u>Estimated Healthcare Expenditures</u>	<u>Projected Unique Enrollees</u>	<u>Projected Unique Patients</u>
1	341,739	\$1,144,086,604	360,551	222,092
2	215,056	609,126,009	225,317	130,571
3	391,052	1,432,874,902	411,667	235,799
4	446,758	1,342,160,762	470,565	279,928
5	183,975	776,801,344	193,710	116,962
6	357,439	1,164,416,294	374,970	229,723
7	412,891	1,477,778,957	433,090	266,903
8	655,851	2,152,589,132	693,758	430,110
9	324,679	1,349,023,355	340,804	214,126
10	265,270	803,352,932	279,120	168,302
11	309,774	980,656,179	326,948	199,122
12	318,384	1,112,592,005	335,020	204,428
15	291,207	930,924,485	305,666	189,934
16	583,787	2,205,246,073	611,318	395,120
17	305,801	1,104,100,930	320,534	202,684
18	294,118	1,060,993,377	307,678	197,804
19	198,786	692,042,681	208,545	131,207
20	303,915	1,129,951,568	318,397	199,590
21	311,033	1,122,359,664	326,469	200,827
22	395,435	1,547,500,820	414,182	254,747
23	355,359	1,127,104,911	374,107	231,709
National ⁽¹⁾	7,262,308	\$25,265,682,983	7,632,416	4,701,689

⁽¹⁾ National totals may not match sum of VISN entries due to rounding.

Exhibit I-8
Veterans Affairs Health Care Analysis
Fiscal Year 2005 Projections by VISN

<u>VISN</u>	<u>Projected Average Enrollment</u>	<u>Estimated Healthcare Expenditures</u>	<u>Projected Unique Enrollees</u>	<u>Projected Unique Patients</u>
1	351,964	\$1,245,112,524	370,406	227,506
2	219,515	664,378,210	229,298	132,820
3	400,280	1,557,286,021	420,166	240,335
4	458,571	1,462,672,015	481,937	286,589
5	191,840	857,064,780	201,300	121,346
6	371,550	1,292,454,235	388,776	238,110
7	429,355	1,639,935,185	449,128	276,646
8	679,814	2,374,445,412	716,696	443,299
9	336,139	1,499,560,209	351,919	220,917
10	275,089	888,276,342	288,699	173,905
11	322,648	1,085,997,562	339,522	206,451
12	327,930	1,211,635,493	344,269	209,519
15	299,681	1,020,995,090	313,780	194,736
16	600,100	2,413,457,551	627,012	404,382
17	317,267	1,216,151,296	331,624	209,158
18	303,204	1,169,374,074	316,543	203,134
19	205,186	758,897,178	214,792	134,918
20	314,916	1,245,462,567	329,061	205,977
21	319,821	1,235,697,752	334,872	205,868
22	407,859	1,708,606,928	426,112	262,386
23	366,224	1,236,551,373	384,479	237,530
National ⁽¹⁾	7,498,951	\$27,784,011,796	7,860,390	4,835,534

⁽¹⁾ National totals may not match sum of VISN entries due to rounding.

Exhibit I-9
Veterans Affairs Health Care Analysis
Relative National Impacts of Model Assumptions by Priority Level for FY 2002

<u>Priority</u>	<u>Reliance</u>	<u>Morbidity</u>	<u>Age/ Gender</u>	<u>VA Unit Costs</u>	<u>Area</u>	<u>A to E</u>	<u>Other*</u>	<u>Total</u>
1	0.50	2.04	1.12	0.98	1.00	1.01	1.09	1.23
2	0.39	1.33	1.06	0.97	1.01	0.95	1.07	0.55
3	0.36	1.21	1.04	0.97	1.01	0.94	1.05	0.44
4	0.53	3.01	1.22	1.06	1.03	0.98	1.07	2.22
5	0.44	1.34	1.17	0.96	1.02	0.89	1.06	0.64
6	0.26	0.95	0.90	0.95	1.00	0.85	1.06	0.19
7a	0.24	1.03	1.26	0.93	1.01	1.06	1.03	0.32
7c	0.20	0.97	1.31	0.88	1.03	0.91	1.05	0.22
8a	0.25	1.06	1.11	0.91	1.00	1.06	1.02	0.29
8c	0.21	0.99	1.20	0.86	1.01	0.91	1.06	0.21
All	0.38	1.41	1.15	0.96	1.02	0.93	1.03	0.58

* Other includes the impact of all remaining model assumptions, such as copay utilization and actual-to-expected adjustments.

Exhibit I-10
Veterans Affairs Health Care Analysis
Relative Impacts of Model Assumptions by VISN for FY 2002

<u>VISN</u>	<u>Reliance</u>	<u>Morbidity</u>	<u>Age/ Gender</u>	<u>VA Unit Costs</u>	<u>Area</u>	<u>A to E</u>	<u>Other*</u>	<u>Total</u>
1	0.95	0.94	0.98	1.03	1.01	1.00	1.01	0.91
2	0.92	0.88	1.00	0.95	1.02	0.99	1.03	0.79
3	0.79	0.90	0.98	1.17	1.17	0.98	1.02	0.95
4	0.84	0.87	0.99	1.03	1.10	0.99	1.01	0.81
5	1.08	1.04	1.01	1.08	1.05	0.99	1.03	1.31
6	0.97	1.06	1.01	0.91	1.03	1.01	1.03	1.00
7	0.95	1.09	1.00	1.00	1.03	1.01	1.05	1.12
8	0.95	0.94	1.00	0.89	1.10	1.00	1.02	0.88
9	1.11	1.07	1.03	0.93	1.06	1.00	1.03	1.22
10	0.92	1.01	1.00	0.99	0.97	1.00	1.02	0.91
11	0.89	1.05	1.00	1.01	0.96	0.99	1.02	0.91
12	0.97	1.09	0.99	0.99	0.98	0.99	0.99	1.00
15	0.95	1.01	1.00	0.96	0.97	0.99	1.04	0.91
16	1.00	1.09	1.01	0.95	1.07	1.00	1.03	1.14
17	1.13	1.03	1.01	0.93	0.98	1.01	1.06	1.14
18	1.18	1.00	1.01	0.98	0.87	0.99	1.05	1.05
19	1.08	1.10	1.01	1.04	0.83	1.00	1.02	1.05
20	1.21	1.06	1.01	1.13	0.79	1.01	1.05	1.22
21	1.13	0.92	1.01	1.14	0.86	1.00	1.04	1.07
22	1.21	0.89	1.01	1.13	0.96	1.00	1.06	1.24
23	0.92	1.06	1.00	0.97	0.89	0.99	1.01	0.84
All	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

* Other includes the impact of all remaining model assumptions, such as copay utilization and actual-to-expected adjustments.

Exhibit I-11

**Description of Factors Used in Developing Parameter Estimates
 In the CACI/Milliman VA Demand Model**

Parameter/Factor	Sector/State/National	Age Groups	Priority Groups	Enrollee Type	Other
Enrollment Rates*	Sector	<45, 45-64, 65+	1a, 1b, 2, 3, 4, 5, 6, 7a, 7c		
Enrollee Mortality*	National	Specific Age	1, 2, 3, 4, 5, 6, 7		Gender
Area	Sector	<65, 65+			Benefit
Copay	National		1, 2, 3, 4, 5, 6, 7a, 7c, 8a, 8c		Benefit & Fiscal Year
Covered Benefit	National	<65, 65+	1, 2, 3, 4, 5, 6, 7a, 7c, 8a, 8c		Benefit & Fiscal Year
Age/Gender	National	14 age bands			Gender & Benefit
Morbidity*	VISN	<65, 65-69, 70-74, 75-79, 80-84, 85+, Birth year cohorts	1, 2, 3, 4, 5, 6, 7a, 7c (1a, 1b for Special Disability)	Pre, Post	Benefit
Reliance Rates*	CARES sub-Market	<65, 65+	1, 2, 3, 4, 5, 6, 7a, 7c	Pre, Post	Benefit
Trend Rates					Benefit & Fiscal Year
Degree of Community Management	CARES sub-Market				Benefit
Actual/Expected*	National	<65, 65+	1, 2, 3, 4, 5, 6, 7a, 7c	Pre, Post	Benefit

*Priority Level 7 rates were also applied to Priority Level 8 veterans for these parameters.

Exhibit I-11a

**Description of Factors Used in Developing Parameter Estimates
 FY03 vs. FY04 VA Enrollee Health Care Projection Model**

Parameter/Factor	Sector/State/National		Age Groups		Priority Groups		Enrollee Type		Other	
	FY03	FY04	FY03	FY04	FY03	FY04	FY03	FY04	FY03	FY04
Enrollment Rates*	County	Sector	<45, 45-64, 65+	Same	1a, 1b, 2, 3, 4, 5, 6, 7a, 7c	Same	Pre, New Post			
Enrollee Mortality*		National	Specific Age	Same	1, 2, 3, 4, 5, 6-7	1, 2, 3, 4, 5, 6, 7			Gender	Same
Area	County or Facility	Sector	<65, 65+	Same					Benefit	Same
Copay		National			1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7a, 7c, 8a, 8c			Benefit & Fiscal Year	Same
Covered Benefit		National		<65, 65+	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7a, 7c, 8a, 8c			Benefit & Fiscal Year	Same
Age/Gender		National	14 age bands	Same					Gender & Benefit	Same
Morbidity*	VISN	Same	<65, 65+	<65, 65-69, 70-74, 75-79, 80-84, 85+, Birth year cohorts	1, 2, 3, 4, 5, 6, 7a, 7c (1a for NH only)	1, 2, 3, 4, 5, 6, 7a, 7c (1a, 1b for Special Disability)	Pre, Past Post, New Post	Pre, Post	Benefit	Same
Reliance Rates*	VISN	CARES sub-Market	<65, 65+	Same	1, 2, 3, 4, 5, 6, 7a, 7c (1a for NH only)	1, 2, 3, 4, 5, 6, 7a, 7c	Pre, Past Post, New Post	Pre, Post	Benefit (& FY for NH only)	Benefit
Trend Rates									Benefit & Fiscal Year	Same
Degree of Community Management	VISN	CARES sub-Market							Benefit	Same
Actual/Expected*	National	Same	<45, 45-64, 65+	<65, 65+	1, 2, 3, 4, 5, 6, 7a, 7c	Same	Pre, Past Post, New Post	Pre, Post	Benefit	Same

*Priority Level 7 rates were also applied to Priority Level 8 veterans for these parameters.