# Veteran Health Care Enrollment and Expenditure Projections

# FY 2002-2012

From the FY 2003 Baseline Health Care Demand Model



#### **Department of Veterans Affairs**

Veterans Health Administration Office of Policy and Planning (105) September 2002

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# **Executive Summary**

The VHA Office of Policy and Planning (OPP) presents the latest analyses of veteran enrollment, utilization, and expenditures for fiscal years 2002 through 2012 based on the FY 2003 VHA Baseline Health Care Demand Model and the FY 2002 VHA Survey of Veteran Enrollees. These analyses provide a picture of veteran demand for VA health care in coming years under current enrollment policy.

This is the fourth year that the VHA Office of Policy and Planning has used the health care demand model to make enrollment-related projections and analyses. This year's rigorous review of the demand for VA health care confirms and updates previous projections.

This report also includes key highlights from the FY 2002 VHA Survey of Veteran Enrollees concerning enrollee income, insurance coverage, and reliance on VA health care. The results from this survey were incorporated into FY 2003 demand model.

The complete technical report containing detailed enrollment and expenditure projections from the FY 2003 demand model is on the VHA OPP web site at vaww.va.gov\vhaopp.

#### **Key Factors Impacting Projections**

Overall, from FY 2002 to FY 2012, average enrollment increases 39 percent from 6.4 million to 8.9 million veterans (see Figure 1- 1). The associated projected expenditures more than double, growing from \$23.7 billion in 2002 to \$48.9 billion in 2012 (see Figure 1- 5). The key factors impacting the projections over the ten-year period are:

- Health care inflation
- Enrollment growth
- Utilization trends
- Enrollment mix changes
- Aging of the enrollee population
- Degree of health care management improvements

The 106 percent net increase in expenditures is comprised of a 140 percent increase due to inflation and increases in enrollment and utilization offset by a 14 percent decrease resulting from patient mix changes and assumed improvements in the degree of health care management. These changes are detailed below.

 Approximately 40 percent of the increase in future expected expenditures is due to assumed health care cost inflation. The average annual impact in the model for inflation is 3.5 percent.  An additional 40 percent of the increase in future expected expenditures is due to increasing enrollment. The average annual impact in the model for enrollment increases over the ten-year period is 3.4 percent. Seventy percent of the increase in enrollment is for Priority 7 veterans; however, only 30 percent of the increase in expenditures is for Priority 7 enrollees.

The growth in Priority 7 enrollment is primarily due to a constant enrollment rate assumption (current enrollment policy) and the relatively low current market share. Although the enrollment rates are relatively low, the pool of potential Priority 7 enrollees is very large.

- The remaining 20 percent of the increase is due to other factors, such as assumed utilization trends. The average annual impact in the model for these other factors is two percent.
- About 85 percent of the decrease in future expected expenditures is due to enrollment mix changes over the ten-year period. The enrollment mix consists of priority, enrollee type, age and gender. The influx of enrollees, including Priority 7 enrollees, into the VA health care system since FY 1999 results in lower average expenditures per enrollee since these enrollees have lower expected utilization rates than enrollees who were patients before FY1999. Imbedded in this decrease is a slight increase due to the aging of the enrollee population.
- The remaining 15 percent of the decrease is due to assumed improvements in the degree of health care management in VHA.

As a result of all of the above factors, the make-up of the average enrollee and the average patient changes between 2002 and 2012.

Projected unique patients increase 31 percent from 4.4 million in 2002 to 5.7 million in 2012. The average annual increase is 2.7 percent, compared to the 3.4 percent average annual increase for enrollment. Priority 7 enrollees have relatively lower workload demand than the other priority levels and therefore they are less likely to be patients. In addition, even though the projected number of patients is increasing, the relative workload demanded by the future average patient is expected to decrease for most services. The exceptions are Nursing Home and Home Health, Radiology and Pathology, and Pharmacy.

# **Enrollment Highlights**

 Veteran, Enrollee, and Patient Trends. From FY 2002 to FY 2012, the veteran population is projected to decline 21 percent, while enrollees increase by 39 percent and unique patients increase by 31 percent. The annual growth rate for enrollees and patients begins to slow in FY 2008

The veteran, enrollee, and patient populations are all projected to age from FY 2002 to FY 2012, with the veteran population aging slightly more than the enrollee and patient populations. The portion of the veteran population age 65 and over increases from 36.2 percent to 40.3 percent (or +4.1 percent), while the enrollee (live-end-of-year) and patient populations age 65 and over each increase by 2.6 percent.

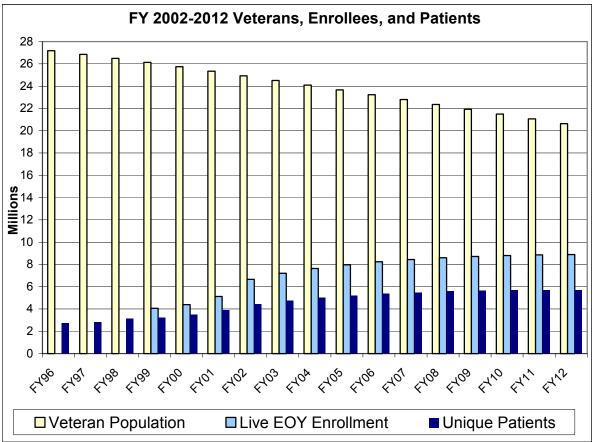


Figure 1-1

• Veterans. The Priority 7 veteran population is projected to decline 21 percent over the next ten years, while Priority 7 enrollees increase by 76 percent and Priority 7 patients increase by 83 percent.

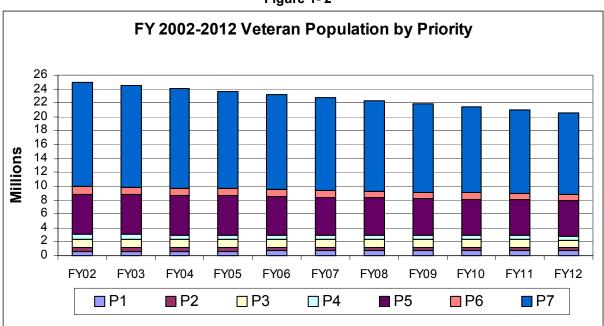


Figure 1-2

 Enrollees. Average enrollment is projected to increase 39 percent from FY 2002 to FY 2012, with an average annual increase of 3.4 percent. Seventy percent of the increase in enrollment is in Priority 7; however, only 30 percent of the increase in expenditures is for priority 7 veterans.

Priorities 6 and 7 are the two largest growing groups of enrollees, with Priority 6 enrollees projected to grow by 93 percent and Priority 7 enrollees by 90 percent from FY 2002 to FY 2012. Priority 2 enrollees are projected to be the smallest growing group, with a five percent increase during the same timeframe.

Enrollment in Priorities 2, 3, 4, and 5 begins to decline during the next ten years. Priority 4 enrollees are expected to decrease each year beyond FY 2002 for a nine percent total decrease. Priority 2 enrollment begins to decline in FY 2008, Priority 3 in FY 2009, and Priority 5 in FY 2010.

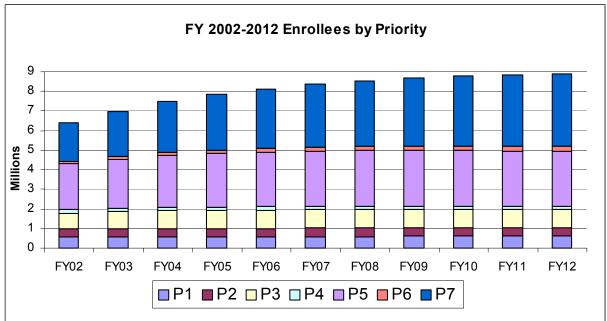


Figure 1-3

Unique Patients. Projected patients increase 31 percent from 4.4 million in FY 2002 to 5.7 million in FY 2012. The average annual increase is 2.7 percent, compared to the 3.4 percent average annual increase in enrollees.

Priorities 6 and 7 are the two largest growing groups of patients as well as enrollees. Priority 6 patients are expected to increase 94 percent and Priority 7 patients 83 percent by FY 2012. The number of patients within Priority 4 is expected to decrease by ten percent, which is consistent with the decrease in Priority 4 enrollees.

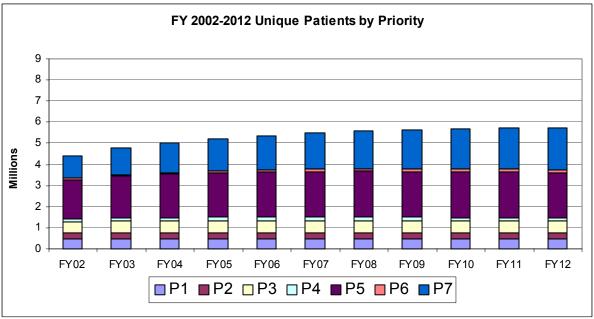


Figure 1-4

# **Expenditure Highlights**

 Total Expenditures. Projected expenditures continue to rise each fiscal year. There is a projected 106 percent growth in total expenditures from FY 2002 (\$23.7 billion) to FY 2012 (\$48.9 billion).

The greatest growth in expenditures from FY 2002 to FY 2012 occurs with Priority Group 7, driven largely by the increase in Priority 7 enrollment. Priority 7 expenditures will increase 268 percent (from \$2.6 billion to \$9.6 billion); however, only 30 percent of the increase in total expenditures is for Priority 7 enrollees.

Expenditures for Priority 4-6 are expected to increase 89 percent for the same time period.

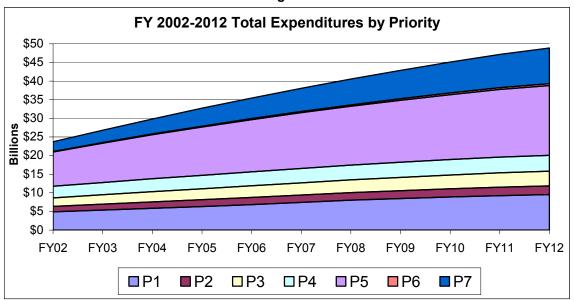


Figure 1-5

• **Expenditures Per Enrollee.** Most of the projected increase in enrollment is in Priority 5 and Priority 7. Since these two groups contain the largest number of enrollees, it is important to look at the respective expenditures.

The average expenditure per enrollee of \$3,943 for Priority 5 enrollees in FY 2002 is expected to increase to \$6,662 by FY 2012, a growth of 69 percent. A growth of 94 percent in average expenditures per Priority 7 enrollee is expected from FY 2002 to FY 2012, increasing the cost from \$1,332 to \$2,585.

Priority 6 enrollees reflect the second highest increase in average expenditures, with average expenditures increasing from \$1,164 to \$2,166, an 86 percent increase. This is significant because Priority 6 enrollment has been declining, but enrollment is projected to increase starting in FY 2002. The increase in expenditures for Priority 6 may be associated with the recent diagnosis of

diabetes as a war-related illness along with an increasing number of Gulf War illnesses.

 Expenditures by Clinical Service. The shift from inpatient to outpatient care in VHA continues. In FY 2002, the projected proportion of inpatient to outpatient expenditures is 46 percent inpatient to 54 percent outpatient. By FY 2012, the proportion of outpatient expenditures is projected to rise to 61 percent.

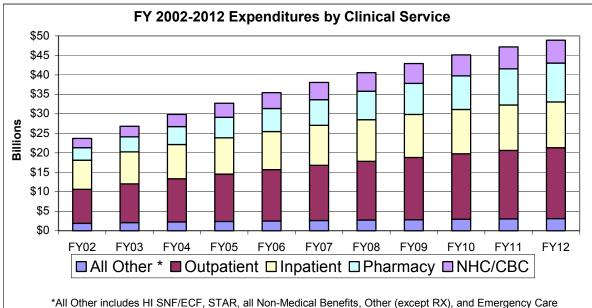


Figure 1-6

- Acute Inpatient Expenditures. Acute inpatient expenditures are projected to increase by 58 percent, from \$7.460 billion in FY 2002 to \$11.768 billion in FY 2012.
- **Outpatient Expenditures**. Outpatient expenditures are projected to increase by 108 percent, from \$8.739 billion in FY 2002 to \$18.162 billion in FY 2012.
- Inpatient/Outpatient Expenditures by Priority. In FY 2002, Priorities 1-6 are projected to comprise 69 percent of enrollees, but 93 percent of inpatient and 87 percent of outpatient expenditures.

In FY 2012, Priorities 1-6 are projected to comprise 58 percent of enrollees, but 88 percent of inpatient and 78 percent of outpatient expenditures.

- Outpatient Pharmacy. Outpatient pharmacy expenditures are projected to increase by 207 percent, from \$3.238 billion in FY 2002 to \$9.948 billion in FY 2012.
- Nursing Home and Community-Based Care. Nursing home expenditures are expected to increase by about 133 percent, from \$2.1 billion in FY 2002 to \$4.9 billion in FY 2012. Home Health expenditures are expected to increase by 209 percent, from \$318 million in FY 2002 to \$984 million in FY2012.

#### About the FY 2003 Baseline Health Care Demand Model

The 2003 baseline demand model is based on current enrollment policy and assumes that no new policy decisions will be implemented between 2002 and 2012. The baseline model does not reflect the impact of Public Law 107-135, which establishes a Geographic Means Test. These baseline projections provide policy makers with a picture of demand in future years under current enrollment policy for planning purposes. The VHA Office of Policy and Planning can use the model to update these projections to reflect proposed policies and to track the effects of policies once they are implemented.

Developed by VHA in partnership with a private sector actuary, the model provides veteran enrollment, utilization, and expenditure projections by age, gender, priority, county, preferred facility, and VISN.

- The enrollment projections are based on VHA's actual experience factored with expected deaths and new active duty separations. The model projects average enrollment, unique enrollees, and live-year-end enrollment for each fiscal year. Except as noted, the enrollment projections presented in this document reflect average enrollment.
- Utilization projections are based on private sector benchmarks adjusted to reflect the VA health care services package, veteran age, gender, morbidity, reliance on VA versus other health care providers, and degree of health care management in VA versus the community standard.
- The expenditure projections reflect the projected health care demand of enrollees based on preferred facility and on their county of residence using VA unit cost data and adjusted for inflation, health care wage trends, health care sector costs trends, and unit cost intensity adjustments.

Chapter 8 of this document contains more information on the VHA Health Care Demand Model, including a process map.

# About the FY 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

The 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA (2002 VHA Survey of Veteran Enrollees) consisted of a stratified random sample of VHA enrollees, and completed telephone interviews of approximately 37,000 enrollees (about 1,800 per VISN) during April and May 2002. The VHA Office of Policy and Planning conducted similar surveys in FY 1999 and 2001. Results of these surveys have been incorporated into the VHA health care demand model used to project enrollment, utilization, and expenditures. Key results of the FY 2002 survey are also presented in this document.

# Veteran, Enrollee, and Patient Trends

## FY 2002-2012 Veteran, Enrollee, and Patient Trends

From FY 2002 to FY 2012, the veteran population is projected to decline 21 percent, while enrollees increase by 39 percent and unique patients increase by 31 percent. The annual growth rate for enrollees and patients begins to slow in FY 2008.

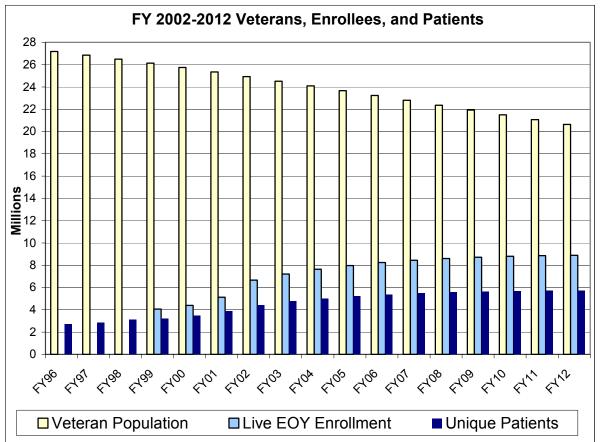


Figure 2-1

Figure 2-1 shows the estimated veteran population for FY 1996 through FY 2012, along with actual enrollees and patients for FY 1996 through FY 2001 and projected enrollees and patients for FY 2002 through FY 2012.

- From FY 1999, when enrollment was implemented, to FY 2012, enrollees are projected to grow by 118 percent, from 4.068 million in FY 1999 to 8.888 million in FY 2012. The corresponding growth in patients during this time is 77 percent, from 3.224 million to 5.713 million.
- Seventy-nine percent of enrollees were patients in FY 1999; this percentage is projected to drop to 69 percent by FY 2002 and then gradually decrease to 64 percent by FY 2012.

 From FY 1996, when the Eligibility Reform Act was passed, to FY 2012, patients are projected to grow 109 percent, with patients increasing from 2.734 million to 5.713 million.

The make-up of the average enrollee and the average patient changes between 2002 and 2012. The influx of enrollees, including Priority 7 enrollees, into the VA health care system since FY 1999 results in lower average expenditures since these enrollees have lower expected utilization rates than enrollees who were patients before FY1999. Priority level 7 enrollees have relatively lower workload demand than the other priority levels and therefore are relatively less likely to be patients.

In addition, even though the projected number of patients is increasing, the relative workload demanded by the future average patient is expected to decrease for most services. The exceptions are Nursing Home and Home Health, Radiology and Pathology, and Pharmacy.

### FY 2002-2012 Veterans by Priority

The Priority 7 veteran population is projected to decline 21 percent over the next ten years, while Priority 7 enrollees increase by 76 percent and Priority 7 patients increase by 83 percent.

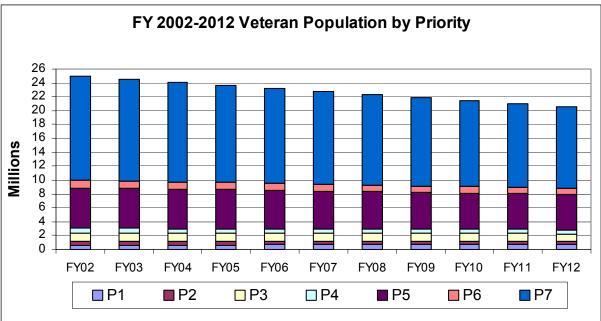


Figure 2-2

# FY 2002-2012 Enrollees by Priority

Veteran enrollment in VHA continues expanding. Average enrollment is projected to increase 39 percent from FY 2002 to FY 2012, with an average annual increase of 3.4 percent.

- Seventy percent of the increase in enrollment is in Priority 7; however, only 30 percent of the increase in expenditures is for priority 7 veterans. The priority 7 enrollment growth is primarily due to the constant enrollment rate assumption (current enrollment policy) and the relatively low current market share. Although the enrollment rates are relatively low, the pool of potential enrollees is very large for Priority 7.
- Priorities 6 and 7 are the two largest growing groups of enrollees, with Priority 6 enrollees projected to grow by 93 percent and Priority 7 enrollees by 90 percent from FY 2002 to FY 2012. Priority 2 enrollees are projected to be the smallest growing group, with a five percent increase during the same timeframe.
- Enrollment in Priorities 2, 3, 4, and 5 begins to decline during the next ten years. Priority 4 enrollees are expected to decrease each year beyond FY 2002 for a nine percent total decrease. Priority 2 enrollment begins to decline in FY 2008, Priority 3 in FY 2009, and Priority 5 in FY 2010.
- FY 2005 is expected to be the first year that Priority 7 enrollment exceeds all other priorities. Prior to FY 2005, Priority 5 has held the majority of enrollees.
- Priority 7 enrollees will comprise 31 percent of FY2002 enrollees compared to 42 percent of FY 2012 enrollees.

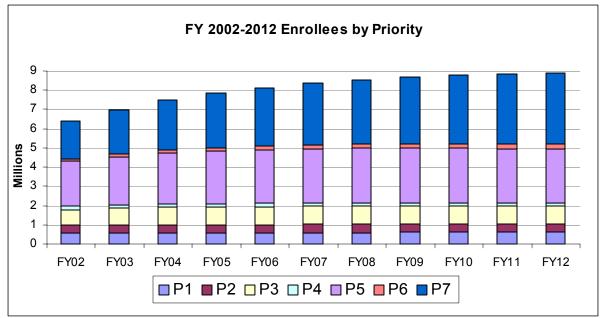


Figure 2-3

# FY 2002-2012 Patients by Priority

- Projected patients increase 31 percent from 4.4 million in FY 2002 to 5.7 million in FY 2012. The average annual increase is 2.7 percent, compared to the 3.4 percent average annual increase in enrollees.
- Priorities 6 and 7 are the two largest growing groups of patients as well as enrollees. Priority 6 patients are expected to increase 94 percent and Priority 7 patients 83 percent by FY 2012.
- The number of patients within Priority 4 is expected to decrease by ten percent, which is consistent with the decrease in Priority 4 enrollees.

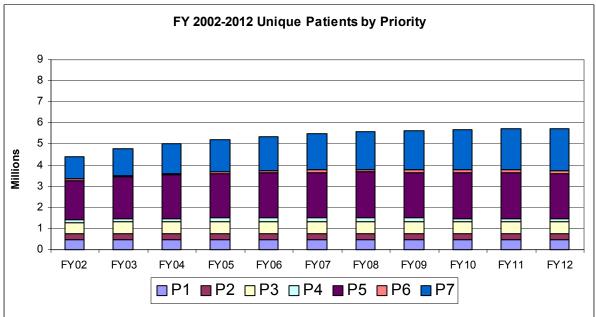


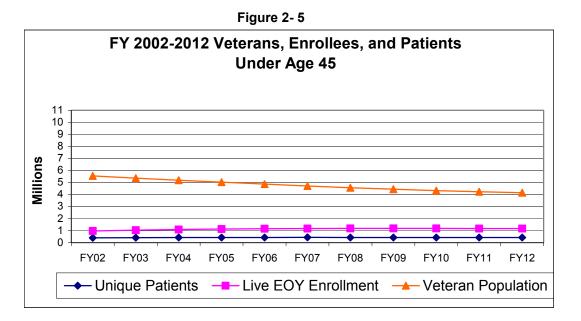
Figure 2-4

## FY 2002-2012 Veteran, Enrollee, and Patient Age Trends

The veteran, enrollee, and patient populations are all projected to age from FY 2002 to FY 2012, with the veteran population aging slightly more than the enrollee and patient populations. The portion of the veteran population age 65 and over increases from 36.2 percent to 40.3 percent (or +4.1 percent), while the enrollee (live-end-of-year) and patient populations age 65 and over each increase by 2.6 percent. For all three groups, the proportion of the population under age 45 decreases slightly more than the population age 45 to 65 during this timeframe.

The following charts show FY 2002 to FY 2012 projections for veterans, enrollees, and patients by three age groups: under age 45, ages 45 to 64, and age 65 and over.

- The under age 45 veteran population is projected to decline 25 percent over the next ten years, while enrollees under age 45 increase by 19 percent and patients increase by six percent.
- The age 45-64 veteran population is projected to decline 21 percent over the next ten years, while enrollees age 45-64 increase by 30 percent and patients increase by 26 percent.
- The age 65 and over veteran population is projected to decline just eight percent over the next ten years, while enrollees age 65 and over increase by 36 percent and patients increase by 41 percent.



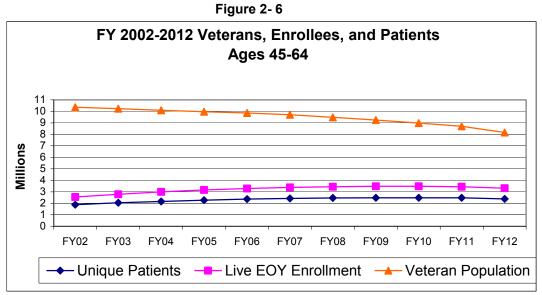
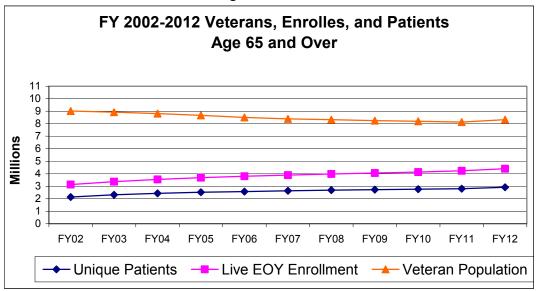
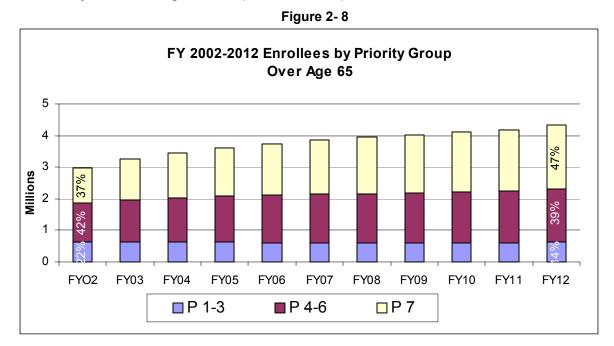


Figure 2-7

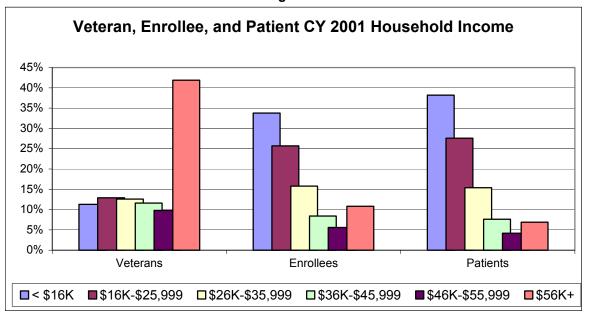


 While the proportion of enrollees over age 65 changes just slightly over time, the distribution of 65+ enrollees within the priority groups changes more significantly, with Priorities 1-3 decreasing from 22 percent to 14 percent of 65+ enrollees and Priority 7 increasing from 37 percent to 47 percent.



## Veteran, Enrollee, and Patient Income

 VA enrollees and patients have significantly lower household income than the veteran population as a whole.



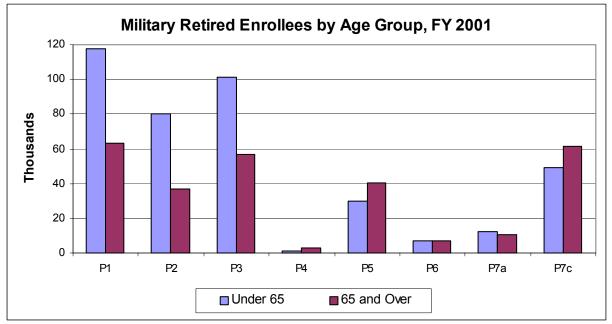


Source: 2002 VHA Survey of Veteran Enrollees Health and Reliance on VA and March 2001 Current Population Survey

## **Retired Military Enrollees and Patients**

Out of a retired population of over 2.5 million, approximately 800,000 veterans are enrolled in VHA health care. Military retirees receive a federal pension, retain most of their active duty benefits, and become eligible for veterans benefits. Military members may retire for reasons other than length of service. Most often this occurs because a member incurs a permanent disability or becomes medically unfit for military service while serving on active duty. As illustrated in Figure 2- 10, most retirees are in the service-connected Priorities 1 through 3.

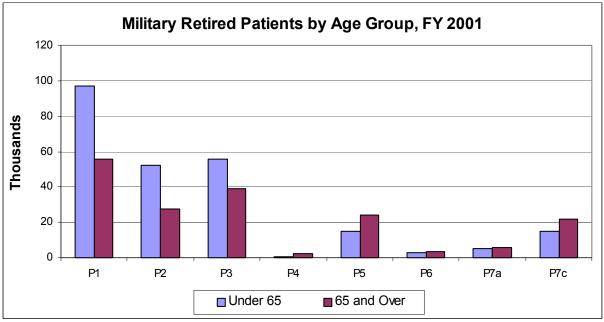
- Eighty-one percent of retired military enrollees are in priority groups based on service-connected or catastrophic disabilities, with most in Priority 1.
- Retired military enrollees comprise over a third of all enrollees in Priority 1 (36 percent) and Priority 2 (34 percent), 24 percent of all Priority 3 enrollees, 15 percent of all Priority 5 enrollees, but only eight percent of all Priority7 enrollees.
- According to data from the FY 2002 VHA Veteran Enrollee Survey, 56 percent of military retirees who are enrolled in VHA are also enrolled in TRICARE for Life, DoD's Medicare supplemental coverage.





Data Source: VA enrollment data matched to DoD data, September 2001

- During FY 2001, 63 percent (422,973) of military retirees who were enrolled in VHA received VA health care.
- While Priority 7 enrollees comprise 20 percent of retired military enrollees, they comprise 31 percent of retired military patients.





Data Source: VA enrollment data matched to DoD data, September 2001

# **Expenditure Projections**

#### FY 2002-2012 Expenditures

 Total Expenditures. Projected expenditures continue to rise each fiscal year as depicted in Figure 3-1. There is a projected 106 percent growth in total expenditures from FY 2002 (\$23.7 billion) to FY 2012 (\$48.9 billion).

The greatest growth in expenditures from FY 2002 to FY 2012 occurs in Priority 7, driven largely by the increase in Priority 7 enrollment. Priority 7 expenditures will increase 268 percent (from \$2.6 billion to \$9.6 billion); however, only 30 percent of the increase in total expenditures is for Priority 7 enrollees.

Expenditures for Priority 4-6 are expected to increase 89 percent for the same time period.

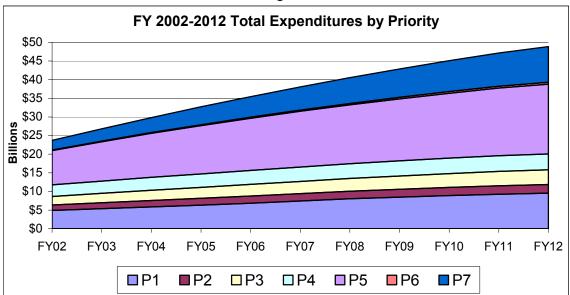


Figure 3-1

 Key Factors Influencing Projections. The 106 percent net increase in expenditures is comprised of a 140 percent increase due to inflation and increases in enrollment and utilization offset by a 14 percent decrease resulting from patient mix changes and assumed improvements in the degree of health care management. These changes are detailed below.

Approximately 40 percent of the increase in future expected expenditures is due to assumed health care cost inflation. The average annual impact in the model for inflation is 3.5 percent.

An additional 40 percent of the increase in future expected expenditures is due to increasing enrollment. The average annual impact in the model for enrollment increases over the ten-year period is 3.4 percent. Seventy percent of the increase in enrollment is for Priority 7 veterans; however, only 30 percent of the increase in expenditures is for Priority 7 enrollees.

The remaining 20 percent of the increase is due to other factors, such as assumed utilization trends. The average annual impact in the model for these other factors is two percent.

About 85 percent of the decrease in future expected expenditures is due to enrollment mix changes over the ten-year period. The enrollment mix consists of priority, enrollee type, age and gender. The influx of enrollees, including Priority 7 enrollees, into the VA health care system since FY 1999 results in lower average expenditures per enrollee since these enrollees have lower expected utilization rates than enrollees who were patients before FY1999. Imbedded in this decrease is a slight increase due to the aging of the enrollee population.

The remaining 15 percent of the decrease is due to assumed improvements in the degree of health care management VHA.

• **Expenditures Per Enrollee.** Most of the projected increase in enrollment is in Priority 5 and Priority 7. Since these two groups contain the largest number of enrollees, it is important to look at the respective expenditures.

The average expenditure per enrollee of \$3,943 for Priority 5 enrollees in FY 2002 is expected to increase to \$6,662 by FY 2012, a growth of 69 percent. A growth of 94 percent in average expenditures per Priority 7 enrollee is expected from FY 2002 to FY 2012, increasing the cost from \$1,332 to \$2,585.

Priority 6 enrollees reflect the second highest increase in average expenditures, with average expenditures increasing from \$1,164 to \$2,166, an 86 percent increase. This is significant because Priority 6 enrollment has been declining, but enrollment is projected to increase starting in FY 2002. The increase in enrollment and expenditures for Priority 6 may be associated with the recent diagnosis of diabetes as a war-related illness along with an increasing number of Gulf War illnesses.

#### FY 2002-2012 Expenditures Under/Over Age 65

 Total 65+ Expenditures. In FY 2002, the 46 percent of enrollees that are age 65 and over account for \$12.05 billion in expenditures, or 50 percent of the projected \$23.7 billion in total expenditures.

By FY 2012, this age group will increase slightly to 49 percent of enrollees and account for \$25.6 billion in expenditures, or 52 percent of the projected \$48.9 billion in total expenditures.

- Core Priorities 65+. In FY 2002, Priorities 1-6 comprises 63 percent of the 65+ enrollees, but account for 86 percent of 65+ expenditures. By FY 2012, this group decreases to 54 percent of the 65+ enrollees and expends 77 percent of 65+ expenditures.
- **Priority 7, 65+ Enrollees**. In FY 2002, 1.102 million Priority 7, 65+ enrollees account for 37 percent of the 65+ enrollee population, but utilize only 14 percent of total 65+ expenditures and 27 percent of 65+ pharmacy expenditures.

By FY 2012, this group will increase to 47 percent, or 2.028 million enrollees, but still utilizes only 23 percent of total 65+ expenditures and 35 percent of the 65+ pharmacy expenditures.

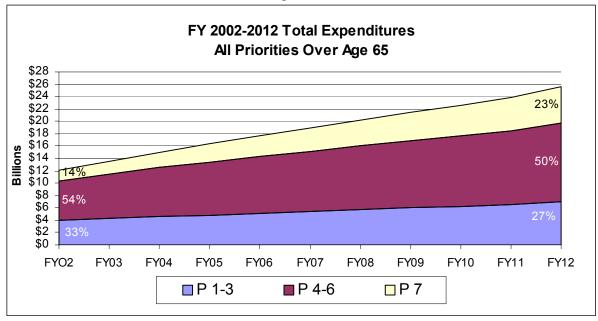


Figure 3-2

# FY 2002-2012 Expenditures by Clinical Service

The shift from inpatient to outpatient care in VHA continues. In FY 2002, the projected proportion of inpatient to outpatient expenditures is 46 percent inpatient to 54 percent outpatient. By FY 2012, the proportion of outpatient expenditures is projected to rise to 61 percent.

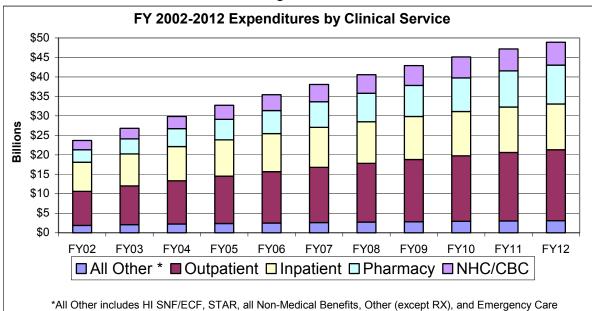


Figure 3-3

- Acute Inpatient Expenditures. Acute inpatient expenditures are projected to increase by 58 percent, from \$7.460 billion in FY 2002 to \$11.768 billion in FY 2012.
- **Outpatient Expenditures**. Outpatient expenditures are projected to increase by 108 percent, from \$8.739 billion in FY 2002 to \$18.162 billion in FY 2012.
- Inpatient/Outpatient Expenditures by Priority. In FY 2002, Priorities 1-6 are projected to comprise 69 percent of enrollees, but 93 percent of inpatient and 87 percent of outpatient expenditures.

In FY 2012, Priorities 1-6 are projected to comprise 58 percent of enrollees, but 88 percent of inpatient and 78 percent of outpatient expenditures. See chapter on Inpatient and Outpatient Expenditures for more details.

- Outpatient Pharmacy. Outpatient pharmacy expenditures are projected to increase by 207 percent, from \$3.238 billion in FY 2002 to \$9.948 billion in FY 2012. See the chapter on Outpatient Pharmacy for more details.
- Nursing Home and Community-Based Care. Nursing home expenditures are expected to increase by about 133 percent, from \$2.1 billion in FY 2002 to \$4.9 billion in FY 2012. Home Health expenditures are expected to increase by 209

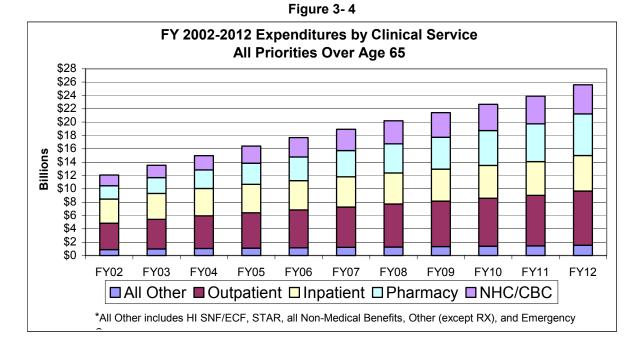
percent, from \$318 million in FY 2002 to \$984 million in FY2012. See the chapter on Nursing Home and Community-Based Care for more details.

 Vision and Hearing. Vision and hearing expenditures, which comprise one percent of total health care expenditures, are projected to increase 98 percent from \$254 million in FY 2002 to \$503 million in FY 2012.

In FY 2002, Priorities 1-6 are projected to comprise 69 percent of enrollees, and utilize 85 percent of all vision and hearing expenditures. By FY 2012, Priority 1-6 enrollees will decrease to 58 percent and their utilization of vision and hearing expenditures are expected to decrease to 77 percent.

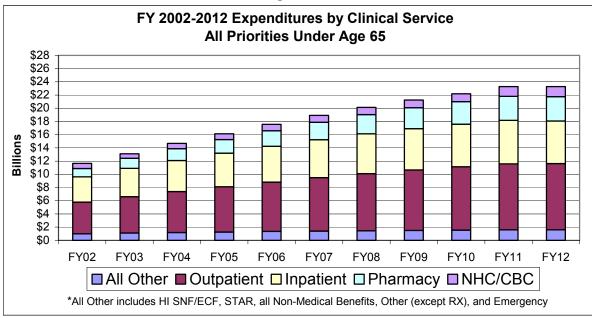
In FY 2002, Priority 7 are expected to comprise 31 percent of all enrollees and utilize 15 percent of all vision and hearing expenditures; in FY 2012, projections reveal Priority 7's will comprise 42 percent of all enrollees and 23 percent of all vision and hearing expenditures.

# FY 2002-2012 Expenditures by Clinical Service Under/Over Age 65



 Enrollees age 65 and over account for a higher proportion of nursing home and prescription drug expenditures than enrollees under age 65.

Figure	3-	5
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## Special Disability Population Expenditures

One of VA's top priorities is serving veterans with special needs. Figure 3-6 identifies the special disability conditions defined in the Annual Capacity Report and the actual and projected costs associated with each condition as developed by the Allocation Resource Center. They reflect the emphasis placed on providing high-quality care to these core service populations.

Trends show that demand for specialized mental health services continues to increase, with a reduced emphasis on inpatient stays. Many veterans who seek care at VA have some type of mental illness making their medical care treatment more difficult than treating the same medical conditions but without coexisting mental health or substance abuse conditions.

- Growth is projected in seriously mentally ill, traumatic brain injury and spinal cord dysfunction patients.
- The costs for treating traumatic brain injuries increase 96 percent between FY 2001 and FY 2004. The costs for treating amputations, blindness, and spinal cord dysfunction increase approximately 24 percent.

		FY01	FY02			FY03		FY04	
Special	Unique		Unique		Unique		Unique		
Disability	Patients	Cost	Patients	Cost	Patients	Cost	Patients	Cost	
Amputation	4,092	\$5,517	3,935	\$5,949	3,776	\$6,371	3,618	\$6,795	
Blindness	12,386	\$66,338	12,374	\$69,590	12,364	\$76,593	12,377	\$82,752	
Seriously Mentally III*	281,727	\$2,228,455	288,574	\$2,305,407	296,358	\$2,387,224	304,142	\$2,469,040	
Spinal Cord Dysfunction	10,793	\$249,597	11,701	\$261,715	12,745	\$286,907	13,760	\$309,572	
Traumatic Brain Injury	266	\$7,034	278	\$9,018	303	\$11,370	330	\$13,771	
Total	309,264	\$2,556,941	316,862	\$2,651,679	325,546	\$2,768,465	334,230	\$2,881,930	
*\$s in Thousands Source: Allocation Resource Center									

#### Figure 3-6 Special Disability Population **Total Patients and Costs Associated with Condition\***

\*\*Seriously Mentally III includes Substance Abuse, Homeless Chronically Mentally III, PTSD and Psychotic Disorders

Priority 4 has the largest projected growth in expenditures between FY 2001 and FY 2004, estimated at 18 percent. Other enrollment priorities have expected growth around 12 percent, except for Priority 2 and Priority 7c.

		FY01	FY02 FY03		FY03		FY04	
Priority	Unique		Unique		Unique		Unique	
	Patients	Cost	Patients	Cost	Patients	Cost	Patients	Cost
1	97,773	\$737,719	102,274	\$764,746	106,783	\$797,135	111,286	\$828,178
2	21,890	\$125,277	20,709	\$125,226	19,526	\$125,589	18,344	\$125,870
3	26,425	\$184,371	26,975	\$190,621	27,523	\$197,709	28,073	\$204,599
4	48,635	\$741,553	52,283	\$781,145	56,029	\$828,272	59,736	\$873,620
5	100,279	\$694,703	100,655	\$720,598	101,085	\$749,467	101,527	\$778,379
6	1,913	\$8,155	978	\$3,291	979	\$3,291	980	\$3,292
7a	1,134	\$6,373	1,047	\$6,635	962	\$6,887	876	\$7,145
7c	11,215	\$58,790	11,941	\$59,417	12,659	\$60,115	13,408	\$60,847
Total	309,264	\$2,556,941	316,862	\$2,651,679	325,546	\$2,768,465	334,230	\$2,881,930
*s in Thousands Source: Allocation Resource Center								

Figure 3-7 **Special Disability Population** Total Patients and Costs Associated with Condition\*

as in mousand

ation Resource Center

## Cost of Base and New Workload for FY 2001-2004

Using FY 2001 through FY 2004, Figure 3-8 illustrates the cumulative effect of annual changes in case mix and inflation and the addition of new annual workload on the composition of future year's budgets.

For example, changing case mix and inflation increases the cost of the FY 2001 workload from \$21.3 billion in FY 2001 to \$24.5 billion in FY 2004. In FY 2004, the FY 2001 workload accounts 79 percent of the \$31.1 billion in FY 2004 expenditures; the FY 2002 workload, nine percent; the FY 2003 workload, eight percent, and the FY 2004 workload four percent.

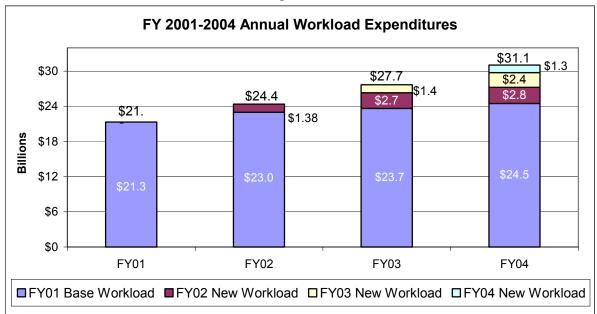


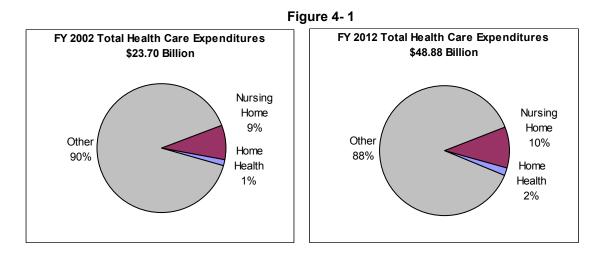
Figure 3-8

# **Nursing Home and Community-Based Care**

#### FY 2002-2012 Nursing Home Expenditures

Nursing Home care is offered under VA auspices in VA, community, and state nursing homes. VA bed capacity is planned to reach its FY 1998 level and then remain at that level. Once this VA nursing home capacity is reached, all nursing home program growth will occur in state and community nursing homes. Projections are based on reaching a 16 percent overall market share after FY 2004, with FY 2002 - FY 2004 at 15.3 percent, 14.4 percent, and 14.9 percent, respectively.

Nursing home and home health is expected to grow from 10 percent of total expenditures in FY 2002 to twelve percent of total expenditures in FY 2012.



 Priority 1a enrollees (SC 70%+) who need nursing home care represent mandatory workload. The market share for Priority 1a is expected to rise from approximately 45 percent in FY 2002 to level out at 85 percent by FY 2008.

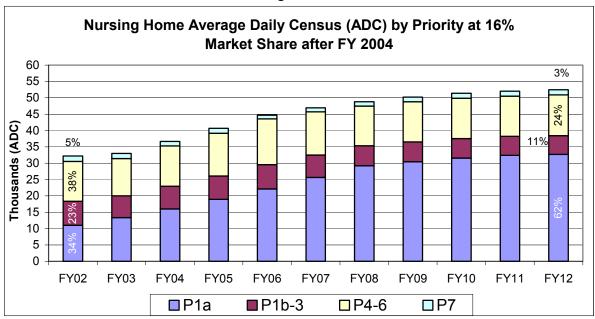


Figure 4-2

Nursing home expenditures are expected to increase by about 133 percent, from \$2.1 billion in FY 2002 to \$4.9 billion in FY 2012 as shown in

- Figure 1- 5.
- The corresponding average daily census is expected to increase by 63 percent, from 32,282 in FY 2002 to 52,470 in FY 2012. Peak demand for nursing home care is projected to occur in FY 2013.

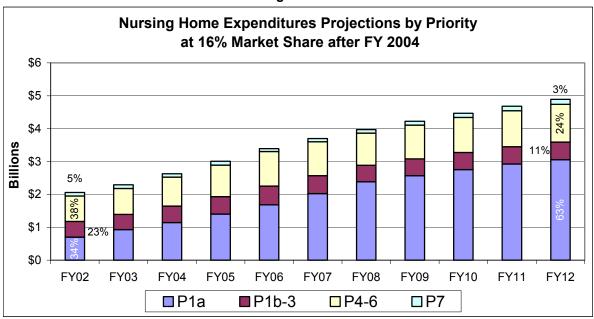
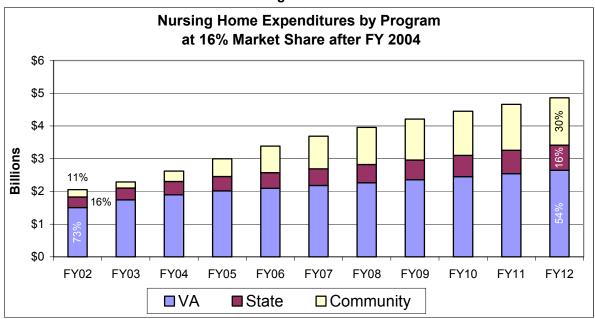


Figure 4-3

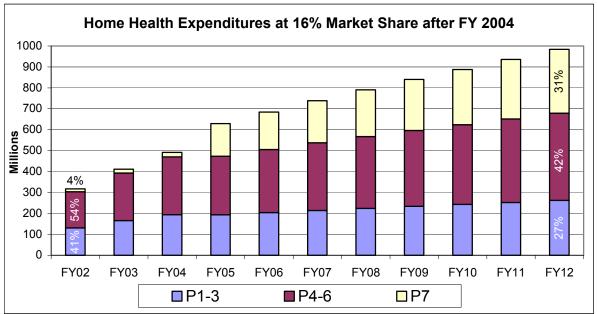
Figu	ıre	4-	4
		-	-



# FY 2002-2012 Home and Community-Based Care Expenditures

VA offers a variety of home and community-based care programs, including Home Based Primary Care, Contract Home Health Care, VA and contract Adult Day Health Care, Homemaker/Home Health Aide, Hospice Care, and Respite Care. All projections are based on a 16 percent market share for all priorities after FY 2004.

- Expenditures are expected to increase by 209 percent, from \$318 million in FY 2002 to \$984 million in FY 2012 as shown in Error! Not a valid link..
- The average daily census in these programs is projected to increase by 109 percent, from 21,679 in FY 2002 to 45,363 in FY 2012.





# **Outpatient Pharmacy**

## FY 2002-2012 Pharmacy Expenditures

- Outpatient pharmacy expenditures are projected to increase by 207 percent, from \$3.238 billion in FY 2002 to \$9.948 billion in FY 2012 (Figure 5-1).
- The increase in projected pharmacy expenditures is being driven by a projected 39 percent increase in enrollees and a projected increase in utilization from an average of 29,284 scripts per 1,000 enrollees to 35,352 per 1,000 during this period. Medical inflation and the introduction of new drug therapies are also key drivers in increasing pharmacy expenditures.

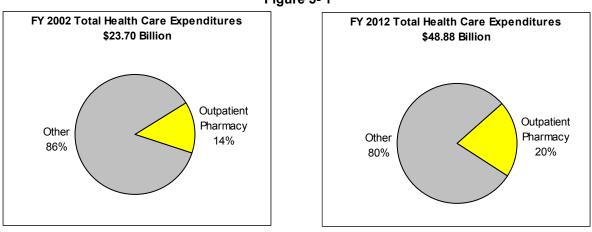
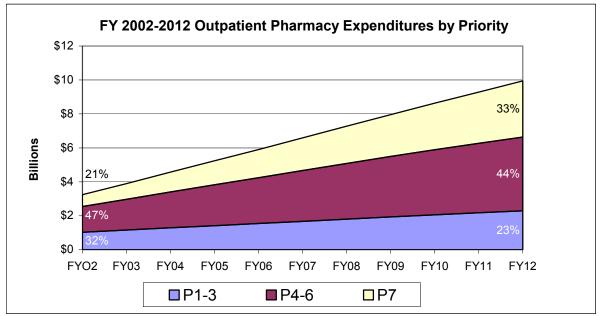


Figure 5-1





# Pharmacy Expenditures by Priority

Figure 5-2 shows the projected distribution of outpatient pharmacy expenditures for Priority groups 1-3, 4-6, and 7 for FY 2002 and FY 2012.

 FY 2002 pharmacy expenditures for Priorities 1-3 are projected at \$1.023 billion; Priorities 4-6, \$1.524 billion; and Priority 7 at \$.691 billion.

By FY 2012, pharmacy expenditures for Priorities 1-3 are projected to rise to \$2.29 billion; Priorities 4-6, \$4.349 billion; and Priority 7 at \$3.309 billion.

 Core Priorities. In FY 2002, Priorities 1-6 are projected to comprise 69 percent of enrollees and 79 percent of pharmacy expenditures.

By FY 2012, Priorities 1-6 are projected to comprise 88 percent of enrollees, but only 66 percent of pharmacy expenditures, and the proportion of Priority 7 pharmacy expenditures grows to 33 percent.

#### Pharmacy Expenditures Under/Over Age 65

In FY 2002, 46 percent of enrollees are projected to be age 65 and over and utilize 61 percent of pharmacy expenditures. By FY 2012, it is projected that this age group will increase slightly to 49 percent of enrollees and utilize 63 percent of pharmacy expenditures.

# **Mental Health**

## FY 2002-2012 Mental Health Expenditures

VA provides mental health services for veterans across a continuum of care, from intensive inpatient mental health units for acutely ill persons to residential care settings, outpatient clinics, day hospital and day treatment programs, community-based outpatient clinics, and intensive community case management programs. Mental health expenditures shown do not include psychotropic medications.

- Mental health expenditures in FY 2002 comprised ten percent of the total health care expenditures and are expected to decrease by FY 2012 to seven percent of the total health care expenditures (Figure 6- 1).
- Mental health expenditures are projected to increase 43 percent from \$2.343 billion in FY 2002 to \$3.354 billion in FY 2012 (Figure 6- 2).

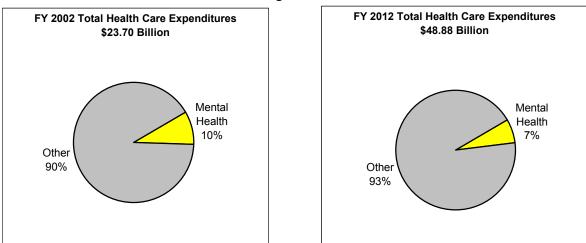
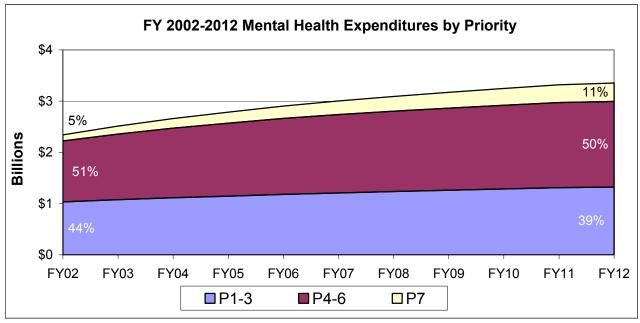




Figure 6-2



#### Mental Health Expenditures by Priority

 Core Priorities. In FY 2002, Priorities 1-6 are projected to comprise 69 percent of enrollees, but 95 percent of all mental health expenditures.

By FY 2012, Priorities 1-6 are projected to comprise 58 percent of enrollees, but 89 percent of all mental health expenditures.

Priorities 1-3 expenditures are projected to increase 28 percent (from \$1.03 billion in FY 2002 to \$1.32 billion in FY 2012). Priorities 4-6 expenditures are projected to increase 40 percent (from \$1.19 billion in FY 2002 to \$1.67 billion in FY 2012).

 Priority 7. Over the next ten years, Priority 7 will account for the largest percent increase in mental health expenditures, a 197 percent increase (from \$121 million in FY 2002 to \$360 million in FY 2012).

#### Mental Health Expenditures Under/Over Age 65

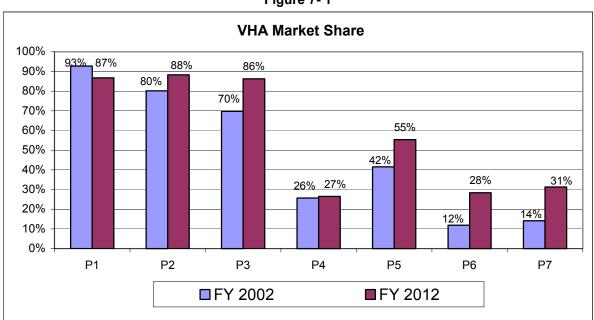
In FY 2002, 54 percent of enrollees are projected to be under age 65 and utilize 82 percent of mental health expenditures; the remaining 46 percent are over age 65 and will utilize 18 percent of mental health expenditures. By FY 2012, those figures remain almost constant: 51 percent of enrollees are under age 65 and are utilizing 81 percent of mental health expenditures while 49 percent of enrollees are over age 65 and are utilizing 19 percent of mental health expenditures.

### Veteran Reliance on VA Health Care

#### VHA Market Share

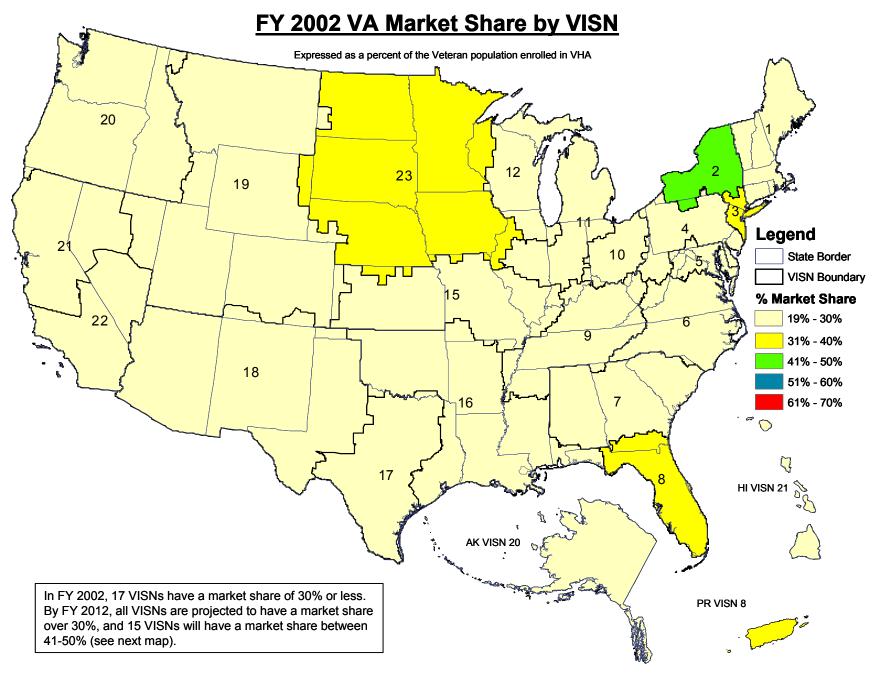
Figure 7-1 shows VHA national market share expressed as a percent of the veteran population enrolled in VHA.

- VHA's overall national market share in FY 2002 is 27 percent and is projected to increase to 43 percent in FY 2012.
- Most veterans eligible for enrollment in Priorities 1 through 3 are enrolled. The significant growth in market share between FY 2002 and FY 2012 occurs in Priorities 3, 5, 6 and 7, with the largest growth in Priority 7.

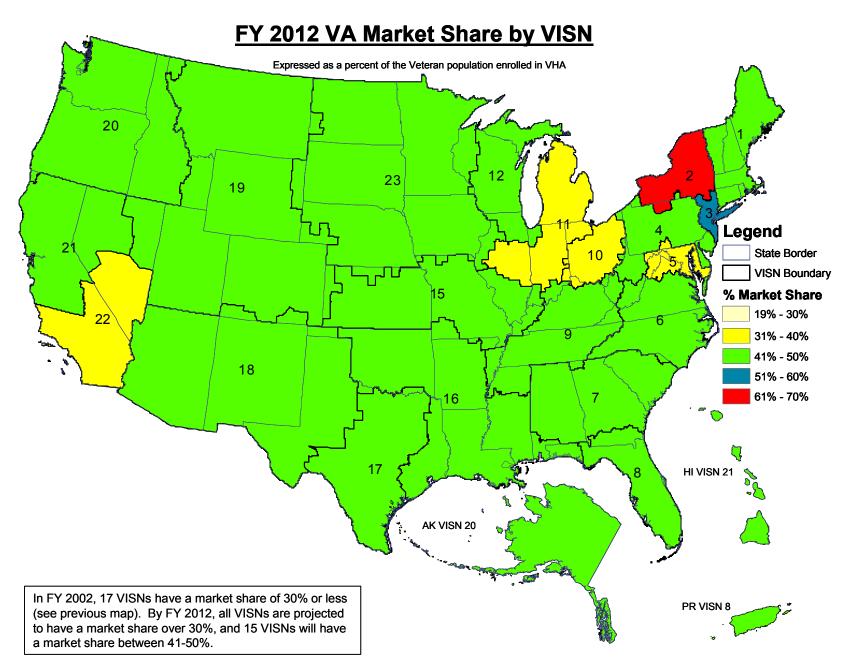




The maps on the following pages illustrate the projected change in VISN market share (average across all priorities) from FY 2002 to FY 2012. In FY 2002, 17 VISNs have a market share of 30 percent or less. By 2012, all VISNs are projected to have a market share greater than 30 percent, and 15 VISNs will have a market share between 41 percent and 50 percent.



Data Source: FY2003 VHA Baseline Health Care Demand Model



### Enrollee Reliance on VA Health Care

The 2002 VHA Survey of Veteran Enrollees assessed the extent to which enrollees who use health care (VA or non-VA) rely on VA for their care. This section presents 2002 enrollee reliance rates for inpatient and outpatient care by priority, age, and VISN from the Survey.

• **2002 National Reliance Rates**. Of enrollees who use health care, those under age 65 rely on VA for care more than enrollees age 65 and over.

Of enrollees who use health care, Priorities 1, 4, and 5 have the greatest reliance upon VA for both inpatient and outpatient care. These are also the priorities with a high proportion of uninsured enrollees (see next section).

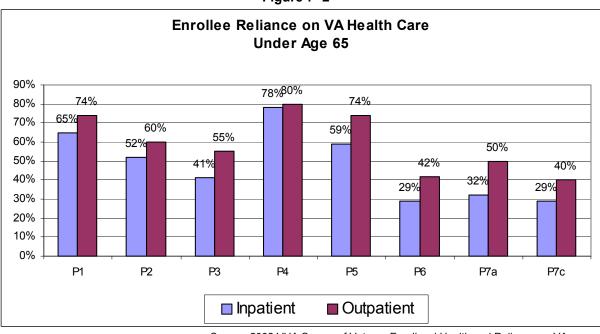
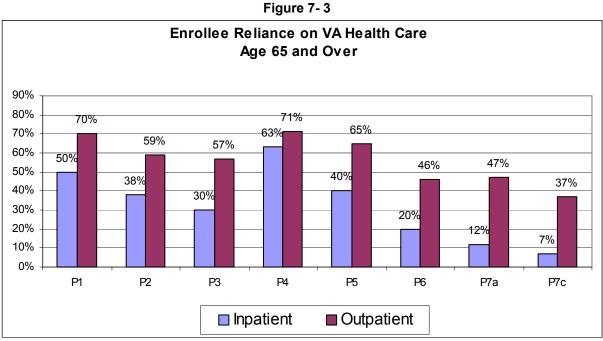


Figure 7-2

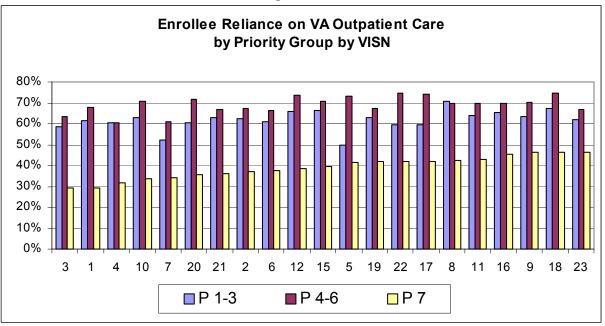
Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA



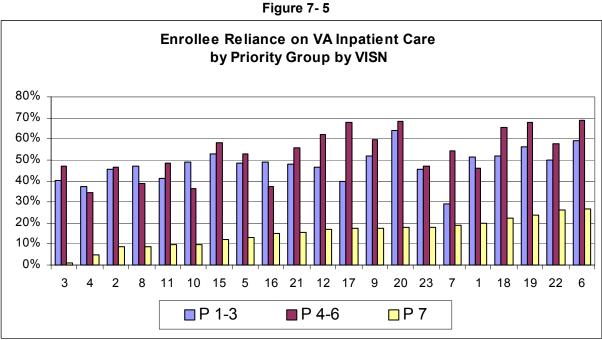
Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

 2002 VISN Reliance Rates by Priority. The following charts, which are sorted from the lowest to highest reliance intensity for Priority 7, illustrate the variation in enrollee reliance on VA health care by priority group and VISN for both inpatient and outpatient care.



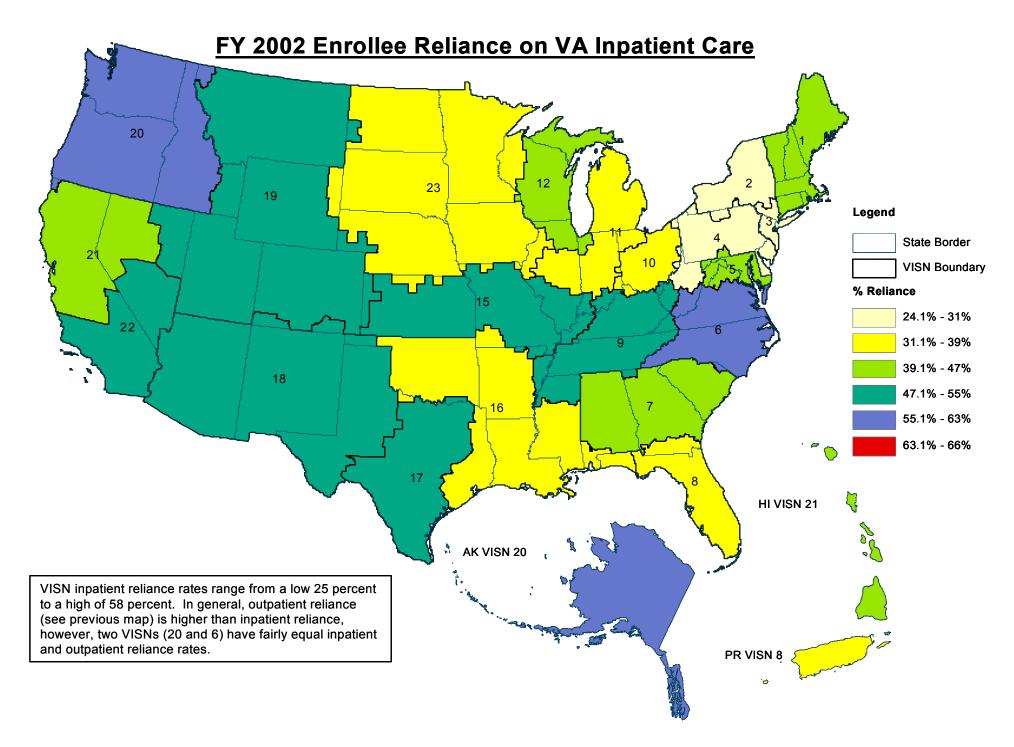


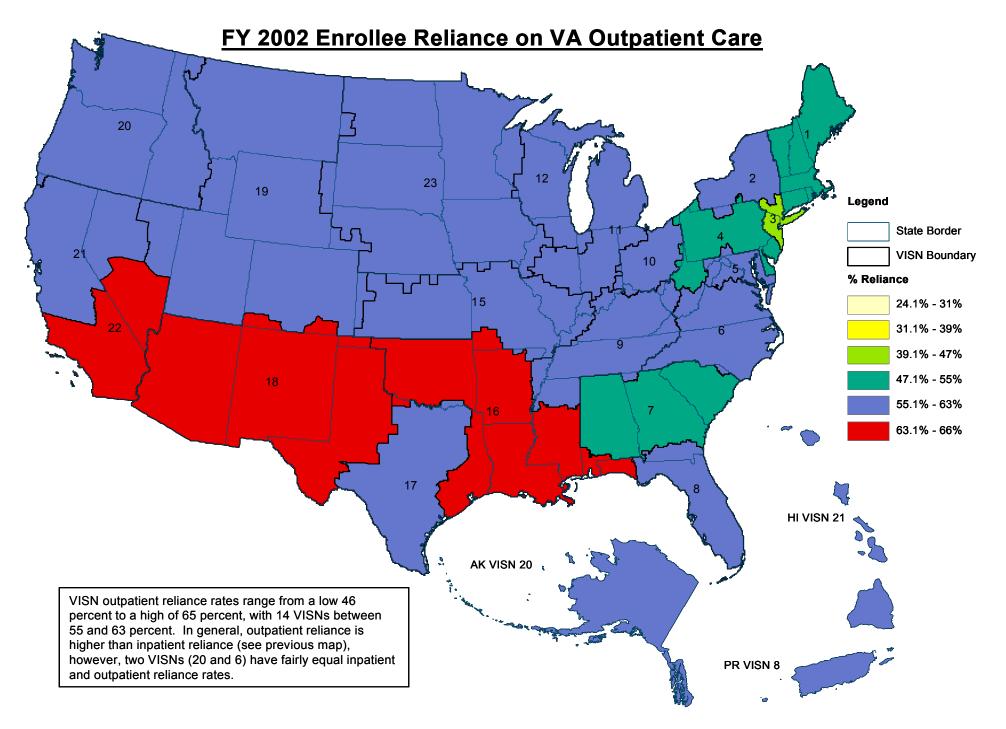
Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA



Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

 2002 VISN Overall Reliance Rates. The maps on the following pages illustrate the variation in enrollee reliance on VA inpatient and outpatient care by VISN. VISN inpatient reliance rates range from a low of 25 percent to a high of 58 percent. In contrast, VISN outpatient reliance rates range from a low of 46 percent to a high of 65 percent, with fourteen VISNs between 55 to 63 percent. In general, outpatient reliance is higher than inpatient reliance, however, two VISNs (20 and 6) have fairly equal inpatient and outpatient reliance rates.





#### **Enrollee Public and Private Insurance Coverage**

- According to data from the 2002 VHA Survey of Veteran Enrollees, 22 percent of enrollees have no public or private health insurance. In contrast, 14 percent of the U.S. population were without health insurance coverage in 2000 according to the March 2001 Current Population Survey conducted by the U.S. Census Bureau.
- Priority 5, which consists predominantly of low-income veterans, has the largest proportion of uninsured enrollees, with 30 percent having no public or private insurance. In contrast, almost 90 percent of Priority 7, which consists predominantly of higher income veterans, have some type of public or private insurance.
- Over half of Priority 7 enrollees have Medicare Part A coverage (57 percent of Priority 7a and 63 percent of Priority 7c enrollees).
- Of those enrollees who have private insurance (exclusive of a Medigap or Medicare supplemental plan), 12 percent responded that the health plan was an HMO or other type of managed care plan.

				Private			TRICARE	No
Priority	Medicare A	Medicare B	Medigap2	HMO	Non HMO	Medicaid	for Life	Coverage
P1	52%	43%	17%	9%	13%	4%	16%	27%
P2	41%	37%	21%	16%	19%	5%	19%	23%
P3	45%	41%	24%	16%	20%	6%	15%	20%
P4	66%	55%	18%	3%	6%	15%	1%	25%
P5	54%	48%	22%	7%	9%	9%	2%	30%
P6	28%	26%	17%	27%	24%	3%	11%	22%
P7a	57%	53%	36%	16%	21%	4%	18%	12%
P7c	63%	59%	44%	16%	21%	5%	6%	11%
Total	54%	49%	28%	12%	15%	8%	8%	22%

#### Percent of Enrollees with Various Types of Insurance Coverage<sup>1</sup>

Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance Upon VA

<sup>1</sup>Percentages do not total to 100 because enrollees may have multiple coverage

<sup>2</sup>Or Medicare supplemental plan

<sup>3</sup>Individual or group, excluding Medigap or Medicare supplemental plan

### Enrollee Medicare Coverage

The 2002 VHA Survey of Veteran Enrollees provides a current picture of enrollees' Medicare coverage. These data are particularly relevant to understanding the impact of legislative proposals that authorize CMS to reimburse VHA for the care provided to Medicare-eligible enrollees.

Medicare Part A, the inpatient portion of Medicare, is automatic for most citizens upon reaching the age of 65. Medicare Part B, which provides outpatient coverage, is paid for by beneficiaries who are eligible for Part A. In some cases, citizens who are not eligible for Part A are permitted to purchase Parts A and B. Beneficiaries who have only Part A have elected not to purchase Part B.

The following charts depict the distribution of enrollees' Medicare coverage by age and by priority based on responses to the 2002 VHA Survey of Veteran Enrollees. Of significance is the number of enrollees who have only Medicare Part A or Part B since most proposals to reimburse VHA for care provided to Medicare-eligible enrollees cover only enrollees with both.

- Priority 5 is not only the largest group of age 65 and over enrollees, but also has the largest percentage of enrollees who do not have both Parts A and B. Over four percent of Priority 5 65+ enrollees have no Medicare coverage at all.
- About eight percent of enrollees age 65 or over have neither Medicare Part A nor B, with the largest percentage of 65+ enrollees without Medicare coverage in Priorities 1, 4, and 5.
- While Priority 7 is the second largest group of age 65 and over enrollees, it includes a very small proportion of veterans with no Medicare coverage (1.45 percent of all age 65 and over enrollees), and a very small number (.84 percent of all age 65 and over enrollees) who have Part B only.

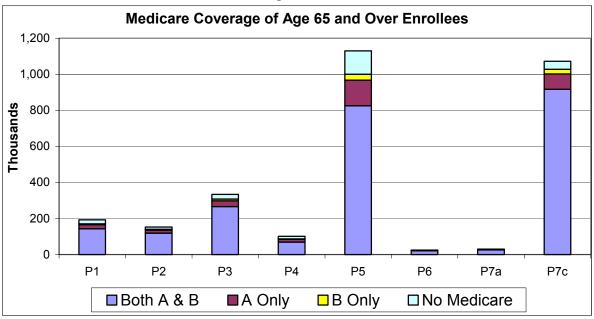


Figure 7-6

Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

- Fifteen percent of all enrollees under age 65 have Medicare Parts A and B.
- Enrollees who qualify for Medicare under age 65 have a disabling condition; therefore, a higher proportion of enrollees under 65 with Medicare coverage are in Priority 4 (catastrophically disabled).

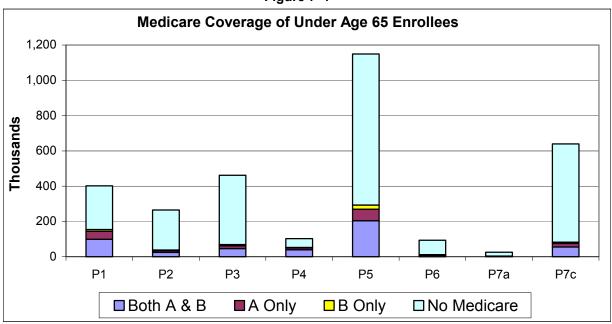
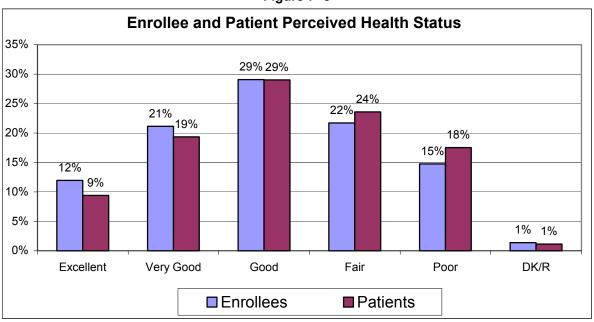


Figure 7-7

Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

### **Enrollee Health Status**

According to data from the 2002 VHA Survey of Veteran Enrollees, 37 percent of enrollees rate their health as poor or fair, 29 percent as good, and 33 percent as very good or excellent. In contrast, 42 percent of patients rate their health as poor or fair, 29 percent as good, and 27 percent as very good or excellent.





Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

### Retired Military Enrollees' Propensity to Use VHA and TRICARE For Life

Many VA enrollees are also eligible for DoD's TRICARE For Life (TFL) health care coverage because they are retired from the military and eligible for Medicare. By enrolling in Medicare Part B, military retirees are automatically covered under TFL. For services covered by Medicare, TFL covers the portion not paid by Medicare. For services not covered by Medicare, most notably pharmacy, beneficiaries must pay the TFL deductibles and copayments. TFL pays for care obtained from DoD and Medicare providers; however, TFL only pays for VA care at the VA facilities that have contracted with DoD to be a TRICARE provider.

In the 2002 VHA Survey of Veteran Enrollees, retired military enrollees who were enrolled in TFL (56 percent) were asked their preference for access to common health care services. The results are presented in Figure 7-9.

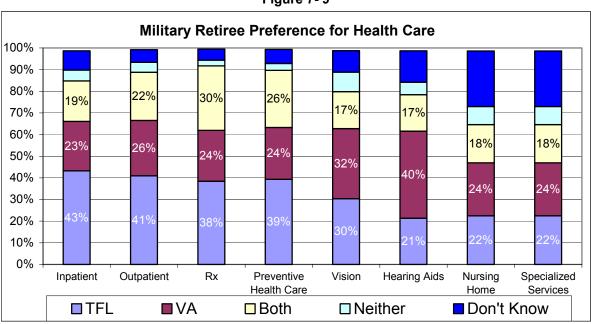


Figure 7-9

Source: 2002 VHA Survey of Veteran Enrollees' Health and Reliance on VA

- Nearly a third of respondents would choose both VA and TFL for preventive care and prescriptions, while another quarter would choose VA only. This is significant because if retirees obtain prescriptions from military treatment facilities they are provided free of charge, and DoD does not require primary care supervision to fill prescriptions.
- Preventive health care and prescriptions had the greatest percentage of respondents that preferred both VA and TFL of all health care services queried.
- Respondents indicated a strong preference for VA hearing aid care, with 57
  percent indicating a preference for VA or both VA and TFL. Possible reasons
  include the fact that TFL does not cover hearing aids and VA provides hearing
  aids for service-connected hearing loss.
- Respondents' greater preference for TFL for outpatient and inpatient care may be economically based. TFL beneficiaries have nearly all out-of-pocket expenses covered except when using VA care. Nevertheless, nearly one half the respondents preferred VA or both VA and TFL. There is a very likely connection to the fact that the preponderance of enrolled retirees are in service-connected priority groups, entailing no VA copayments for their related treatment.

### About the Demand Model

The following pages include a PowerPoint presentation that provides details on the VHA health care demand model and a map of the model processes.

### Robust, Flexible, Accurate Model

- Provides enrollment, utilization, and expenditures by age, gender, priority, county, preferred facility, VISN
- Can run "what if" analyses to inform policy decisions
  - Impact of co-payments and deductibles on utilization and revenues
  - Impact of stopping enrollment or disenrolling a priority group
  - Impact of redefining Medical Benefits Package, e.g., eliminating pharmacy services to Priority 7s
  - Impact of Medicare subvention
    - Model can be produced with Medicare Allowable Charges

## Robust, Flexible, Accurate Model

- Model projected enrollment to  $\pm 4\%$  for 2001 and 2002 to date
- Successful public/private partnership optimizes resources
  - Combines the unique knowledge, capabilities, data, and resources of VA and the private sector actuary
  - Integrates data on VA enrollees and patients, veteran population projections (VETPOP), enrollee surveys, VA actual unit costs, and VA and private sector utilization
  - VA produces some model processes in house

### **Model Provides Data to**

- Develop budget needs for upcoming years
- Determine what enrollment level a proposed budget will support
- Support CARES analyses and evaluation process
- Analyze supply and demand—waiting lists
- Determine local and national market shares
- Project the cost of proposed legislation
- Answer Congressional questions
- Assist in contract pricing



## **Scenario Planning for CARES**

- Model will provide full demand projections based on current policy
- Contract provides for eight additional demand analyses per VISN, for example
  - Impact of stopping enrollment or disenrolling
  - Impact of a change in co-payment fees
  - Impact of a bioterrorism attack
  - Increase in mental health reliance
  - Regional change not affecting all networks
- Some of these scenarios will also be analyzed for ELDA, minimizing costs for CARES

# Well Respected, Private Sector Actuary Provides Credibility

- Milliman USA is the number one firm specializing in health care and actuarial services in the United States
  - Leader in consulting to health plans, with a majority of Blue Cross plans as clients
  - Largest and most respected actuarial firm in the nation consulting to health insurers
  - Performs extensive research and publishes the Health Cost Guidelines—considered the gold standard in the health care industry



## **Model Employs Private Sector Benchmarks**

- Since Eligibility Reform, VA delivery system and case mix more reflective of private sector
- Health care behaviors are determined largely by factors external to VA
- Use of private sector benchmarks, adjusted to VA case mix, allows VA to project future demand unconstrained by past limits on supply—closer measure of unmet need



### Actuary Uses Large, Nationwide Databases with Extensive Detail

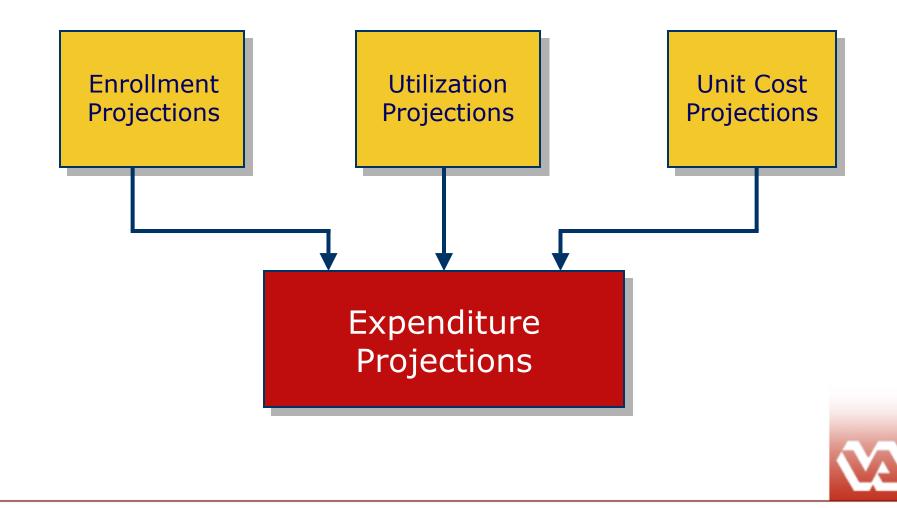
- Includes claims from large indemnity carriers (including the Blues), HMOs, and Medicare
- Researched and updated annually
- Used extensively by health plans and insurance companies to budget for health care costs



## **Projects Veteran Enrollment, Utilization, and Expenditures**

- Monthly projections for 10 years for ELDA, 20 years for CARES
- By ZIP code, county, preferred facility—aggregated up to VISN and national level
- Workload, utilization/1,000 enrollees, and average cost per service provided for 50+ health service categories, including nursing home and community-based LTC
- Projects unique patients based on enrollment and utilization projections

# Model Overview



# **Enrollment Projections**

### **Rates Based on VA's Actual Experience**

- Developed for each single-year age group, gender, priority level, enrollee type (pre/post-eligibility reform), and by county, state, and VISN of residence
- Monthly enrollment projections reduced for expected deaths and increased by new active duty separations

### **Factors that Influence Propensity to Enroll**

• Time since separation from active duty, gender, retirement status, migration, socio-economic conditions, veteran attitudes toward VA are considered

# **Utilization Projections**

### **Private Sector Benchmarks Adjusted For**

- VA health care services package
- Veteran age, gender
- Veteran morbidity
  - Based on VA and private sector patient diagnosis data, VA health status and functioning data (SF-36), and VA-Medicare data match
- Veteran reliance on VA versus other health care providers
  - Rates developed with input from the latest enrollee surveys and VA-Medicare data match

# **Utilization Projections**

### **Private Sector Benchmarks Adjusted For**

- Degree of health care management in VA versus the community standard
  - Utilizes VA workload by diagnoses, CPT codes, LOS, and case-mix adjustment tools (APR-DRG)
- Results of actual-to-expected analyses of projections
  - Residual adjustments reflect unmeasured morbidity, reliance, and degree of health care management

# Unit Cost Projections

## **Unit Cost Trend Rates**

- Developed at the facility level
- Currently use VA unit cost data (CDR)
  - Will use DSS when VA transitions to DSS
- Adjusted for inflation, health care wage trends, health care sector cost trends, and unit cost intensity adjustments



# Health Care Demand Model

## **Tangible Benefits**

- VA can now formulate a health care budget that justifies the base
- Enables a sophisticated level of analysis and reporting that VA could not produce cost effectively in house
- Provides for quick turn around
- Analyses carry credibility of a respected actuarial firm



### **METHODOLOGY DESCRIPTION**

### **PURPOSE:**

The purpose of this outline is to provide a general description of the methodologies used to develop the VA Enrollee Health Care Projection Models. These models were created by Condor Technology Solutions, Inc. and Milliman USA to support VA ELDA and CARES analyses.

### **METHODOLOGY:**

#### **A. 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

#### **B.** Utilization Projections

- 1. Summarize private sector health care utilization averages by geographic area
- 2. Adjust utilization to reflect Medical Benefit Package and Millennium Bill health care services
- 3. Adjust utilization to reflect age and gender characteristics of the projected veteran enrollee populations
- 4. Adjust utilization to reflect the morbidity of the projected veteran enrollee populations relative to the underlying private sector populations (VA patient diagnosis data used to assess relative morbidity levels)
- 5. 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)

- 6. Adjust utilization to reflect the estimated veteran enrollee reliance on VHA for their health care needs (Veteran enrollee survey data and HCFA match data used to assess reliance)
- 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)

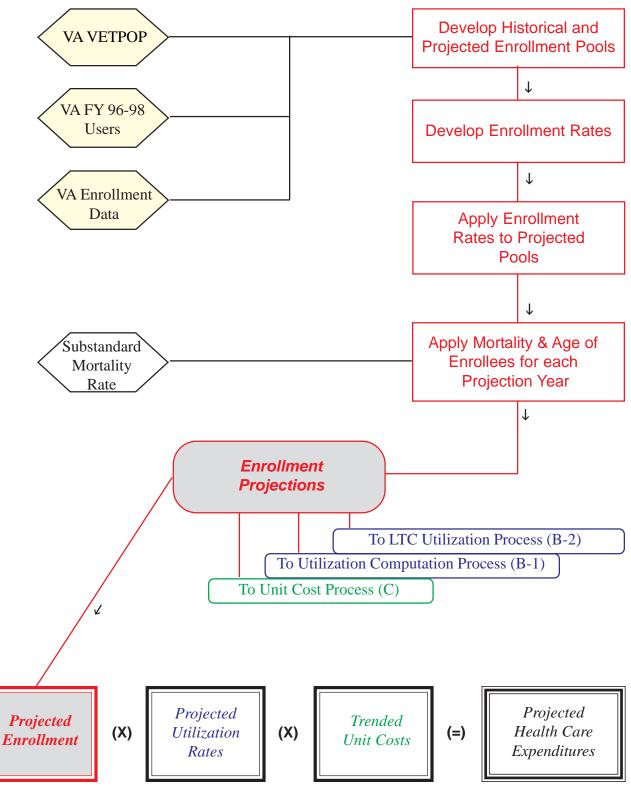
#### **<u>C. Unit Cost Projections</u>**

- 1. Obtain baseline CDR-based VA unit cost data
- 2. Unit cost data adjusted for health care service mix inherent in data
- 3. Adjust unit costs to reflect reconciliation to historical VA total health care obligations

#### **Expenditure Projections**

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

### A: ENROLLMENT PROJECTIONS

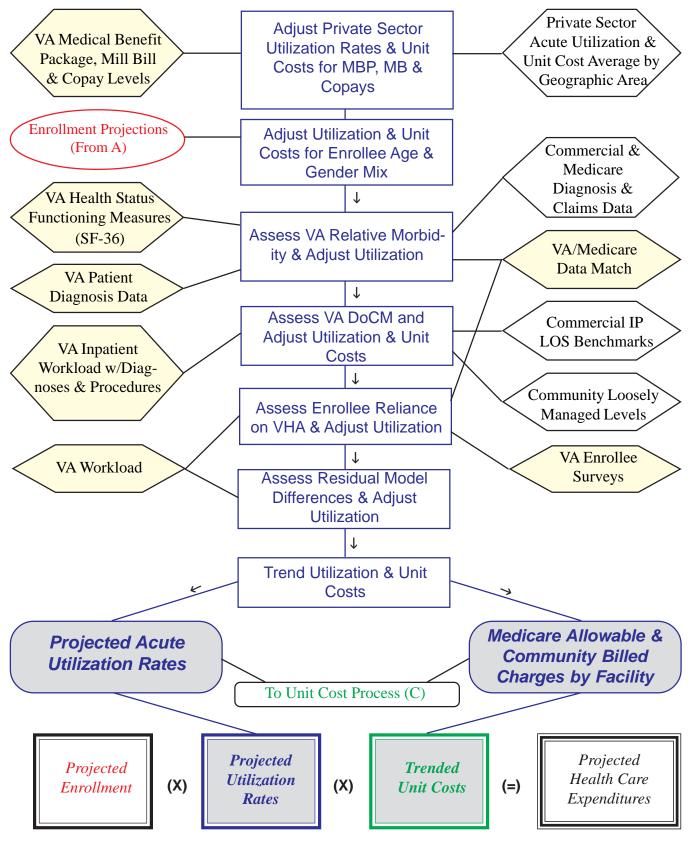




Data source: Condor/Milliman, USA graphic

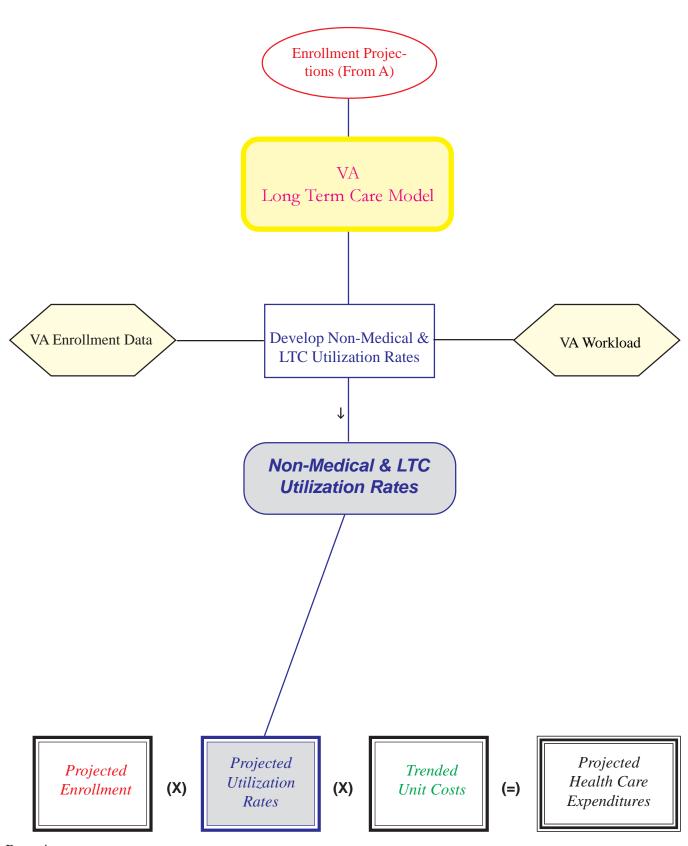
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### B(1): UTILIZATION (Workload)

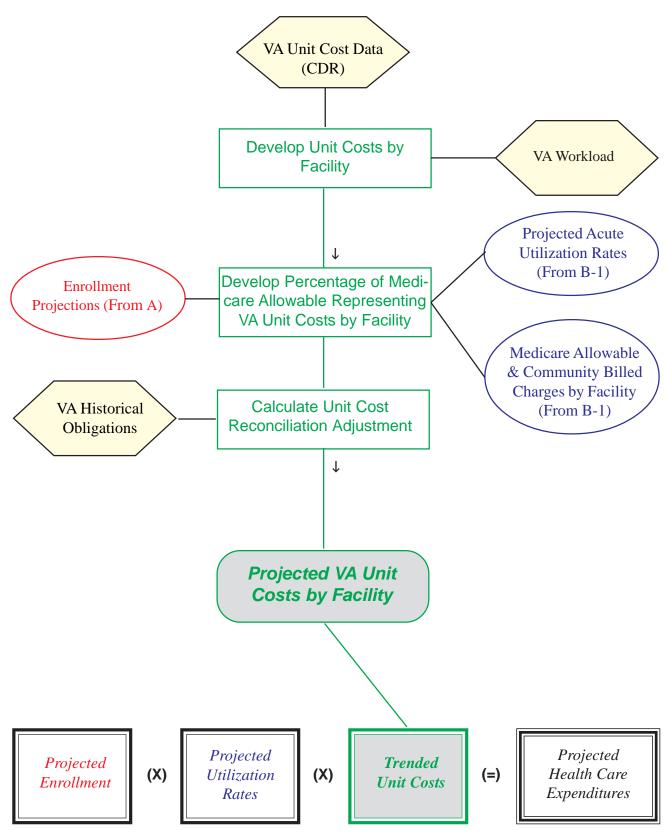


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### Part B-2: LONG TERM CARE UTILIZATION



### **C: UNIT COSTS BY FACILITY**





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