

# The Department of Veterans Affairs Health Care Enrollment Projections

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# What is It?

- A Health Care Services Demand Model
- Projects utilization and expenditures for the enrolled veteran population
- Based on private sector benchmarks that have been adjusted for the characteristics of the enrollee population and the VA health care delivery system
- Provides detailed projections for approximately 50 health care service categories



# Model Evolution

- Initial models were global in nature and only projected one year ( $22 \times 7 \times 2 = 308$  models)
- Major enhancements since the initial model
  - Less reliant on survey data
  - Incorporates more VA data
  - 20-year projections
  - More detailed and robust adjustments
  - $143 \times 8 \times 3 \times 3 \times 20 = 205,920$  models
- Complexity has increased
- Enhancements continue to expand the uses of the model



# Model Uses

- Secretary's Annual Enrollment Level Decision
- CARES Baseline & Analyses
- Enrollee Cost Sharing Analyses
- Budget Formulation
- Market & Unmet Demand Analyses
- Planning Model for VISNs
- Scenario Testing
- Policy Decision Analyses
- VERA Funding Allocations within VISNs
- Special Analyses
- Private Sector Contracting



# Model Attributes

- Built from the bottom up
  - Detailed models aggregated up to the total rather than total model allocated down to the detail
- Based on demand, not supply
- Readily adaptable to changes in underlying assumptions
- Assumptions and methodologies have been subject to rigorous review

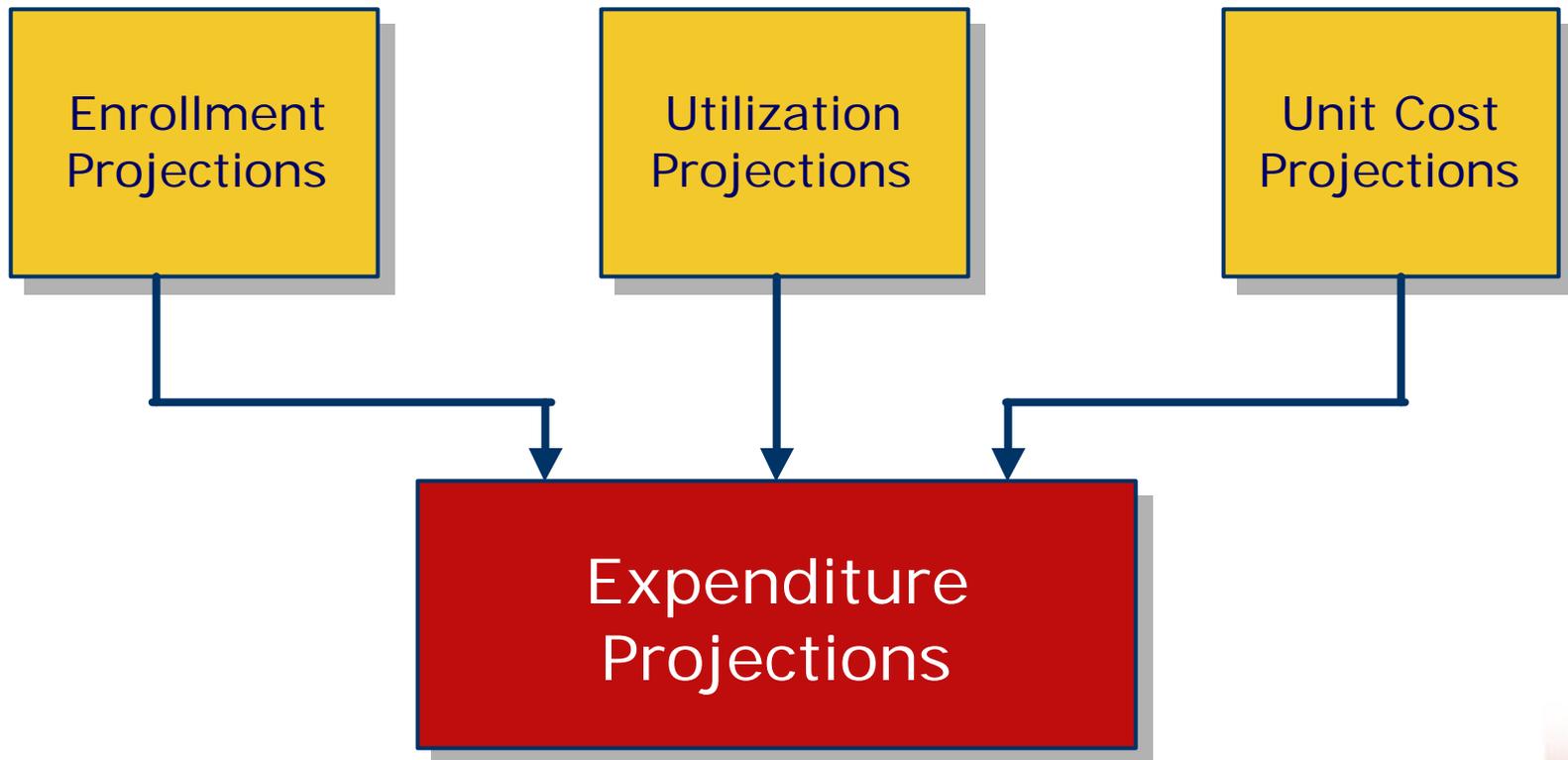


# General Model Overview

- Enrollment Projections
- Workload (Utilization) Projections
- Unit Cost Projections
- Expenditure Projections



# Model Overview



# Model Detail

- Geographic Area
  - Preferred Facility
  - County- or ZIP-of-Residence
- Age Bands (<45, 45-64, 65+)
- Enrollee Type
- Priority Level
- Approximately 50 Service Lines
- Up to 20 Years

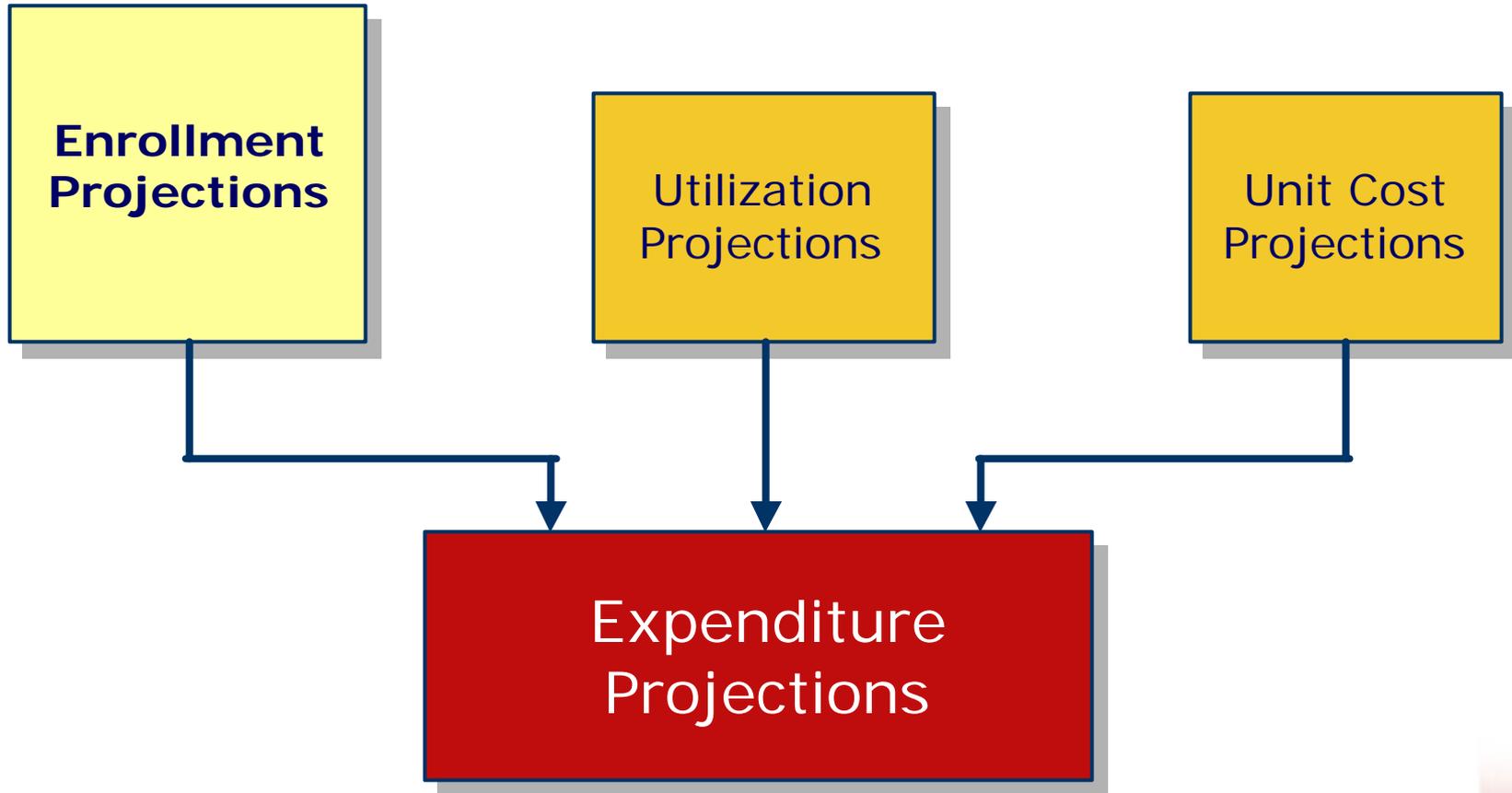


# Enrollee Types

- Enrollee Pre
  - Used VA health care during FY96-FY98
  - Currently enrolled in the VA Health Care System
- Enrollee Post
  - Did not use VA health care during FY96-FY98
  - Currently enrolled in the VA Health Care System
  - Lower Morbidity and Reliance



# Enrollment Projections



# Enrollment Projections

- Enrollment Baseline
- VETPOP
  - Priority, Age, Gender, County
  - Mortality
- Enrollment Pool (VETPOP less Enrollees)
- Enrollment Rates – Constant by Priority, Age Band, County and Enrollee Type

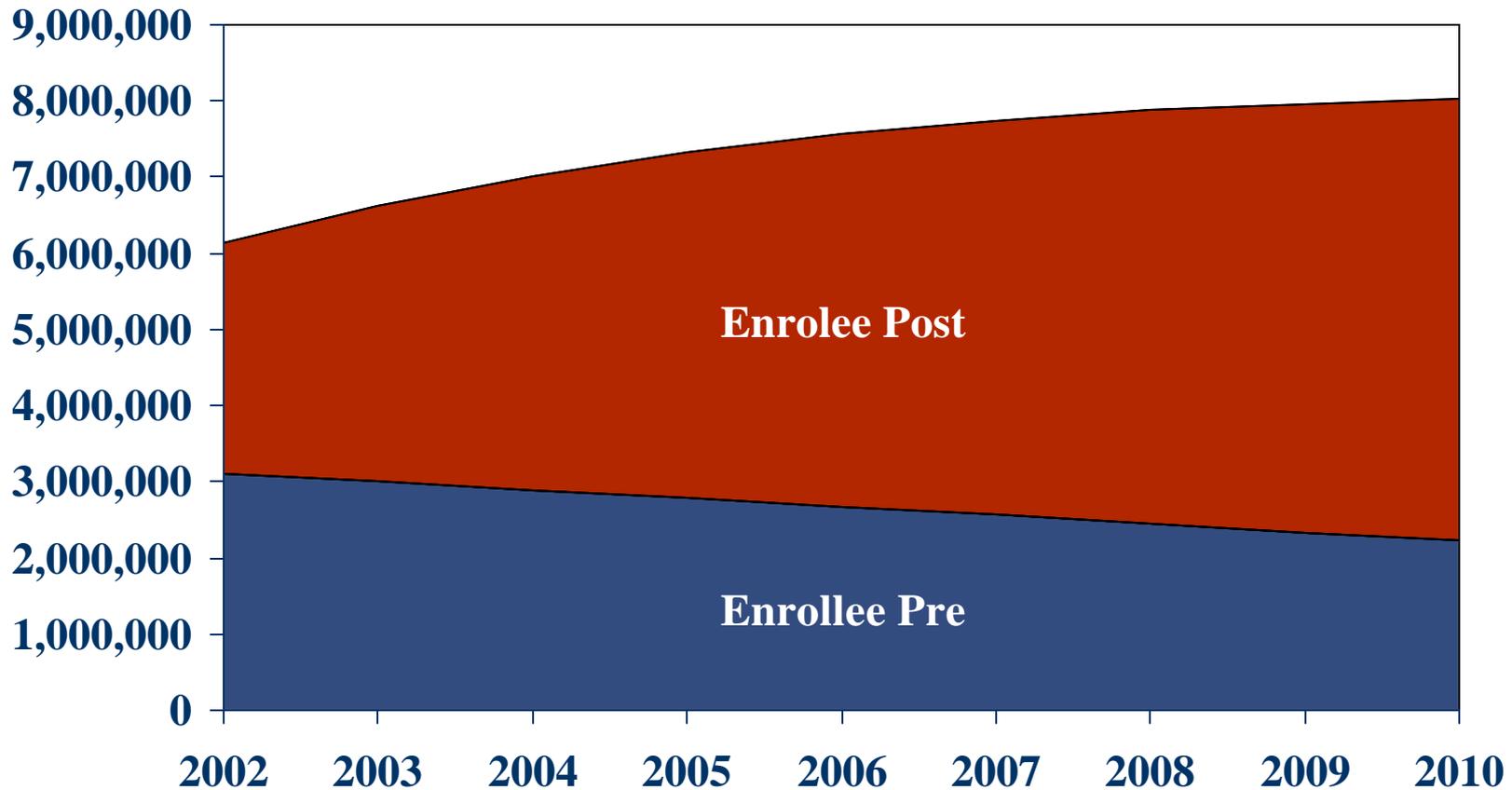


# Projected Average Enrollment

<u>Fiscal Year</u>	<u>Projected Enrollee Pre</u>	<u>Projected Enrollee Post</u>	<u>Total Projected Average Enrollment</u>
2002	3,099,210	3,042,813	6,142,023
2003	3,000,441	3,623,523	6,623,964
2004	2,893,711	4,117,573	7,011,284
2005	2,783,195	4,535,808	7,319,003
2006	2,671,233	4,887,728	7,558,961
2007	2,559,307	5,182,156	7,741,463
2008	2,448,438	5,427,193	7,875,631
2009	2,339,375	5,629,352	7,968,727
2010	2,232,669	5,794,625	8,027,294

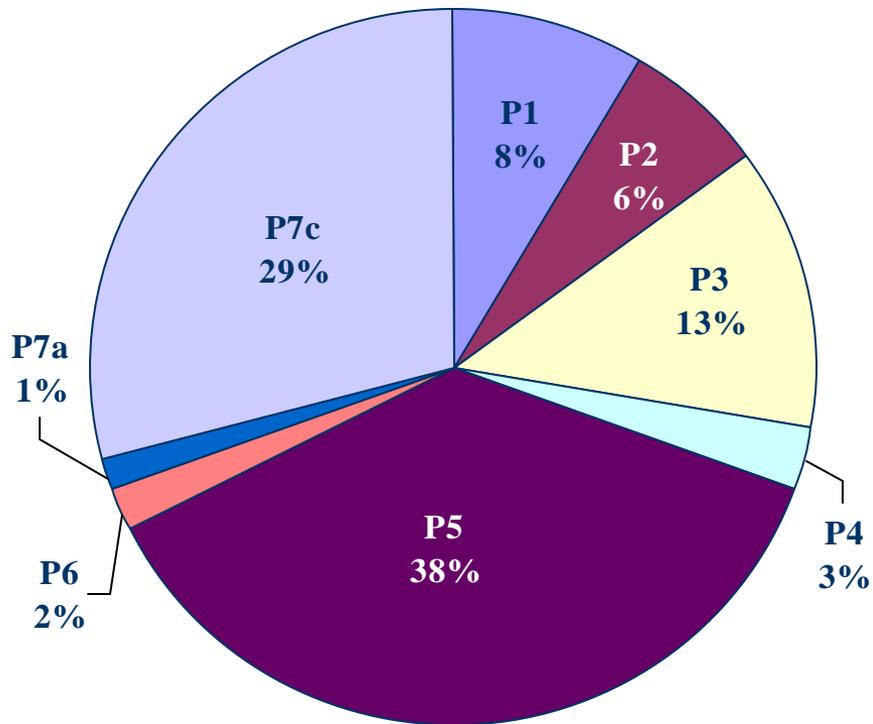


# Projected Average Enrollment

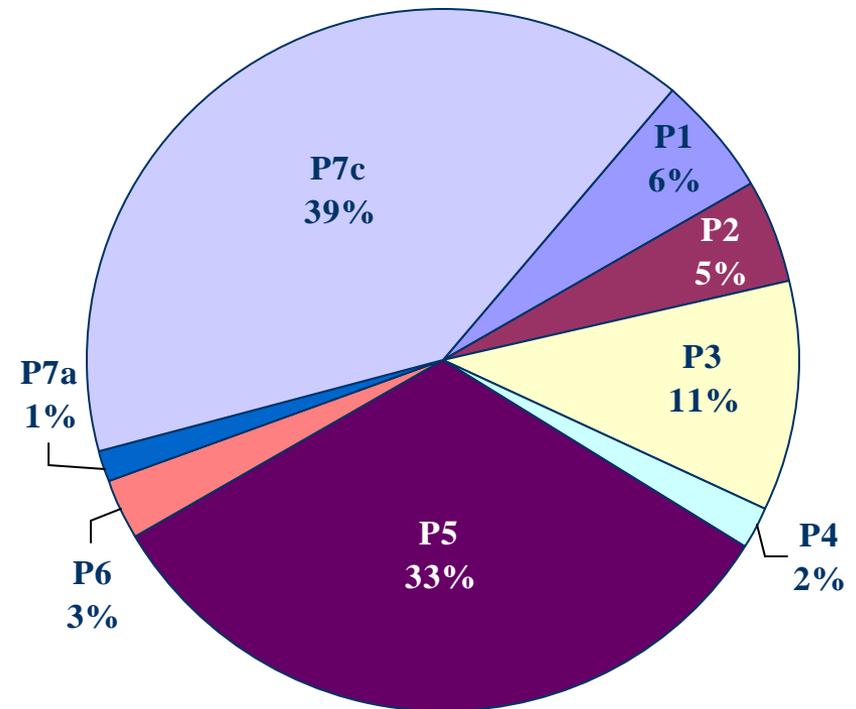


# Projected Average Enrollment

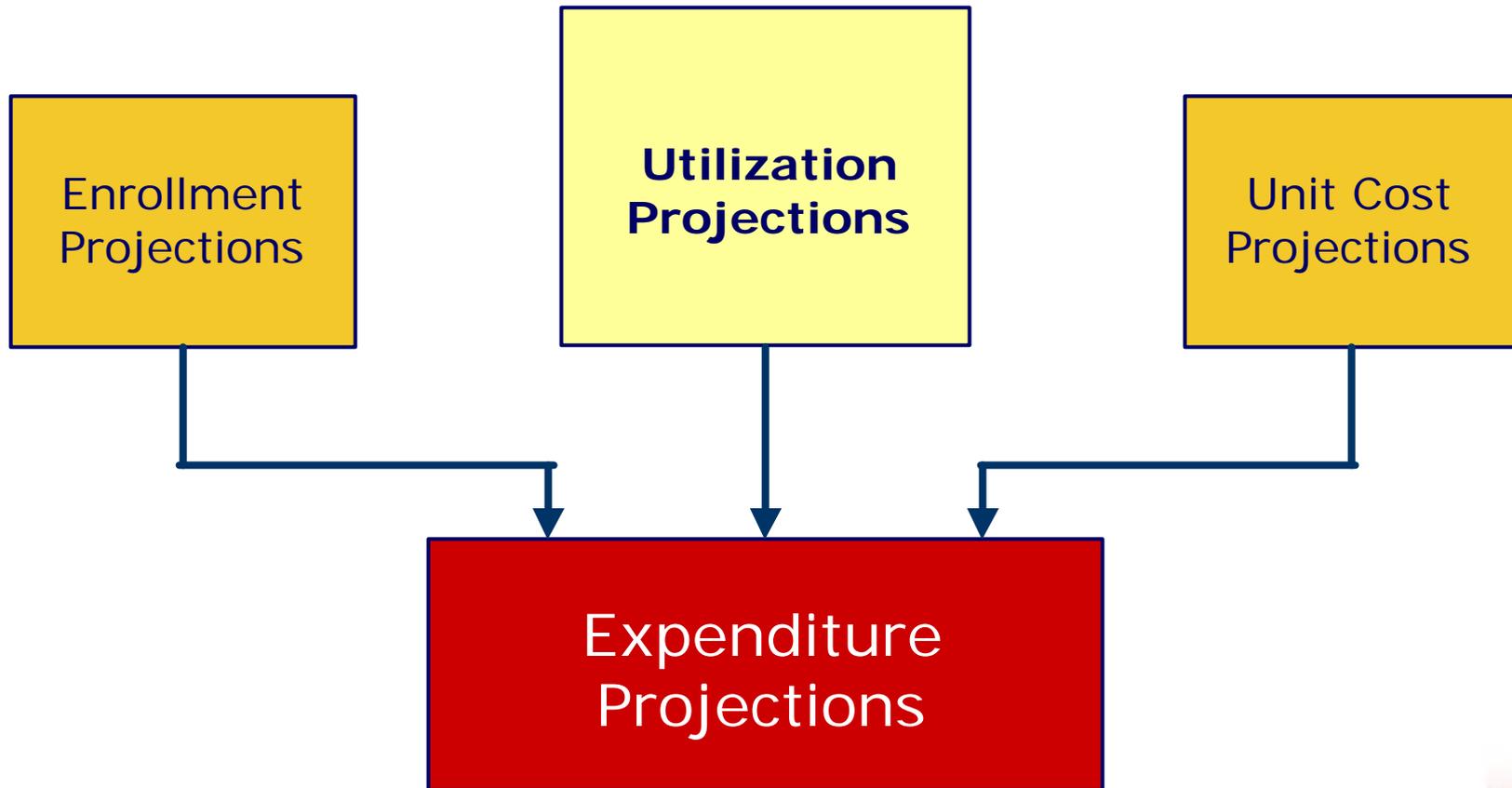
2002



2010



# Utilization Projections



# Utilization Projections

- Private Sector Benchmarks
- Health Care Services
- Geographic Area
- Age/Gender
- Reliance
- Morbidity
- Degree of Health Care Management
- Residual Differences



# Private Sector Utilization Benchmarks

- Geographic area specific
- Large nationwide databases with extensive detail
- Commercial and Medicare Over 65
- Used extensively by private sector health plans (validated/credible)
- Researched and updated annually



# Health Care Services

- Medical Benefit Package
- Millennium Bill Services
- VA Non-Medical Bed Section Services
- Impact of copays and unlimited benefits on utilization
- Ability to perform analyses regarding additional health care services



# Age/Gender Adjustment

- Predominantly Male
- No Children
- Older under age 65 population, on average
- Younger ages 65 and over population, on average
- Specific adjustments by health care service



# Reliance Adjustment

- Veterans have access to non-VA health care
- Reliance adjustment reflects enrollee reliance on VHA for their health care needs (0% to 100%)
- Survey of enrollees (two years)
- HCFA data match for ages 65 and over
- Varies by several health care service categories
- Varies by Enrollee Type, Age Group, Priority Level, and VISN



# Morbidity Adjustment

- Historically VHA health care users have been sicker than private sector health care users
- Diagnosis-based methodology comparing health status of veteran enrollee and private sector populations
- VHA patient diagnosis data, SF-36 survey data and HCFA data match
- Impact of reliance
- Varies by inpatient and outpatient separately for mental health and non-mental health services
- Varies by Enrollee Type, Age Group, Priority Level and VISN



# Degree of Community Management

- Private sector is measured on a spectrum of 0% (loosely managed) to 100% (well managed)
- Severity-adjusted APR-DRG inpatient length of stay analysis
- No data for outpatient analysis
- Adjustments can vary by service line
- All adjustments vary by VISN and Fiscal Year

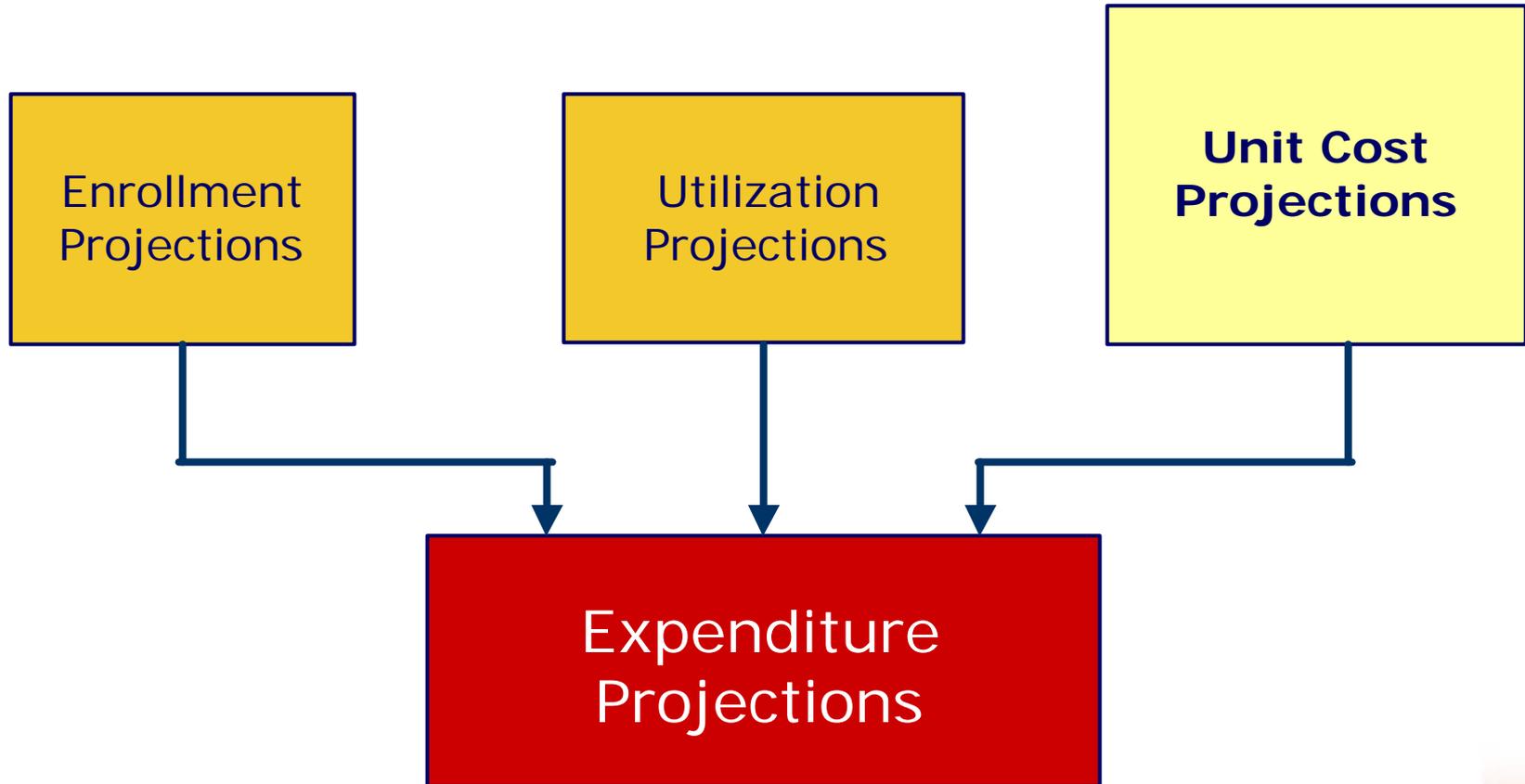


# Residual Differences

- Actual VA workload data compared to model projections
- Classified detailed VA data in terms of actuarial model service lines
- Residual (actual-to-expected) adjustments reflects unmeasured morbidity, reliance and degree of community management
- Does NOT reflect VA supply
- Varies by Enrollee Type, Age Group, Priority Level and health care service categories



# Unit Cost Projections

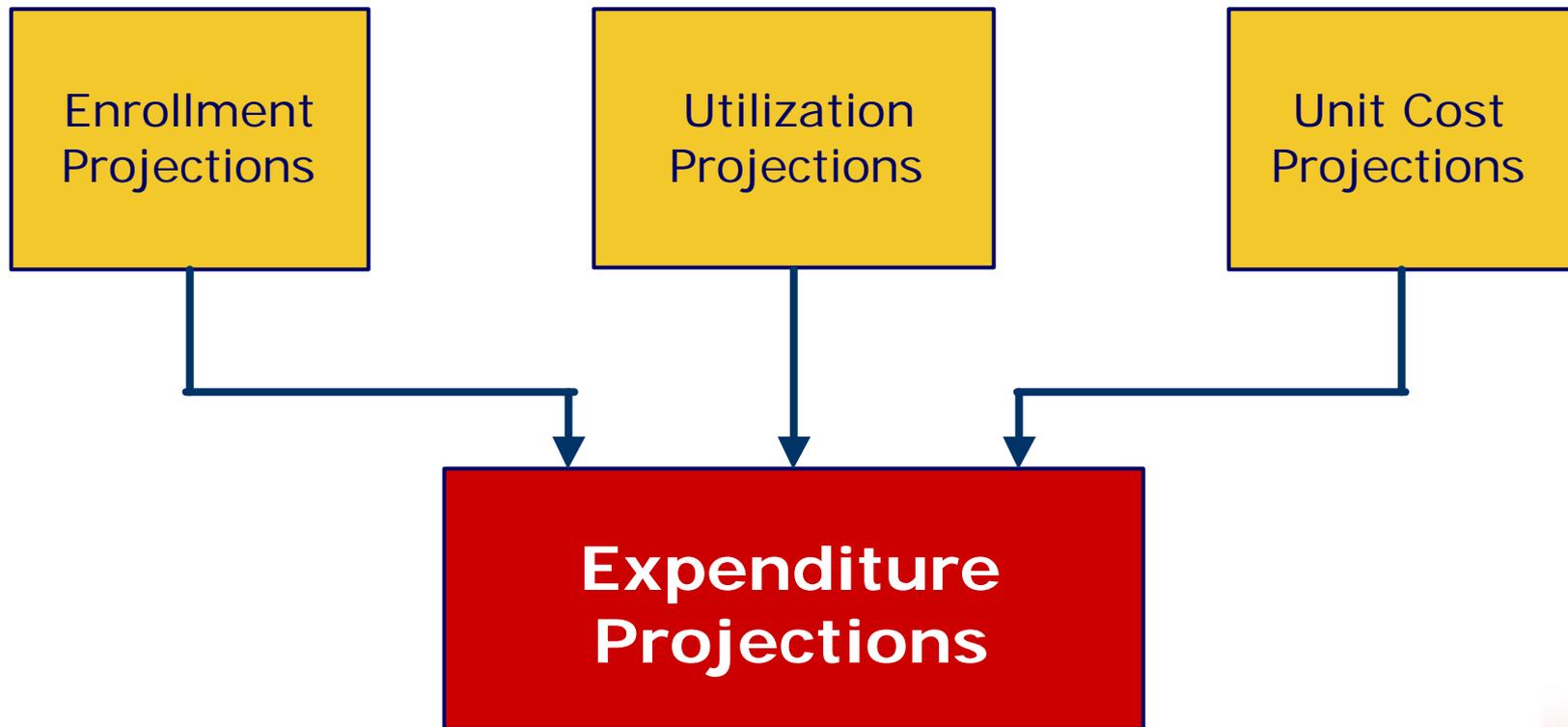


# VA Unit Costs

- VHA Unit Cost Data (CDR)
- Obtained annually from the ARC
- Major facility detail
- Adjusted for health care service mix



# Expenditure Projections

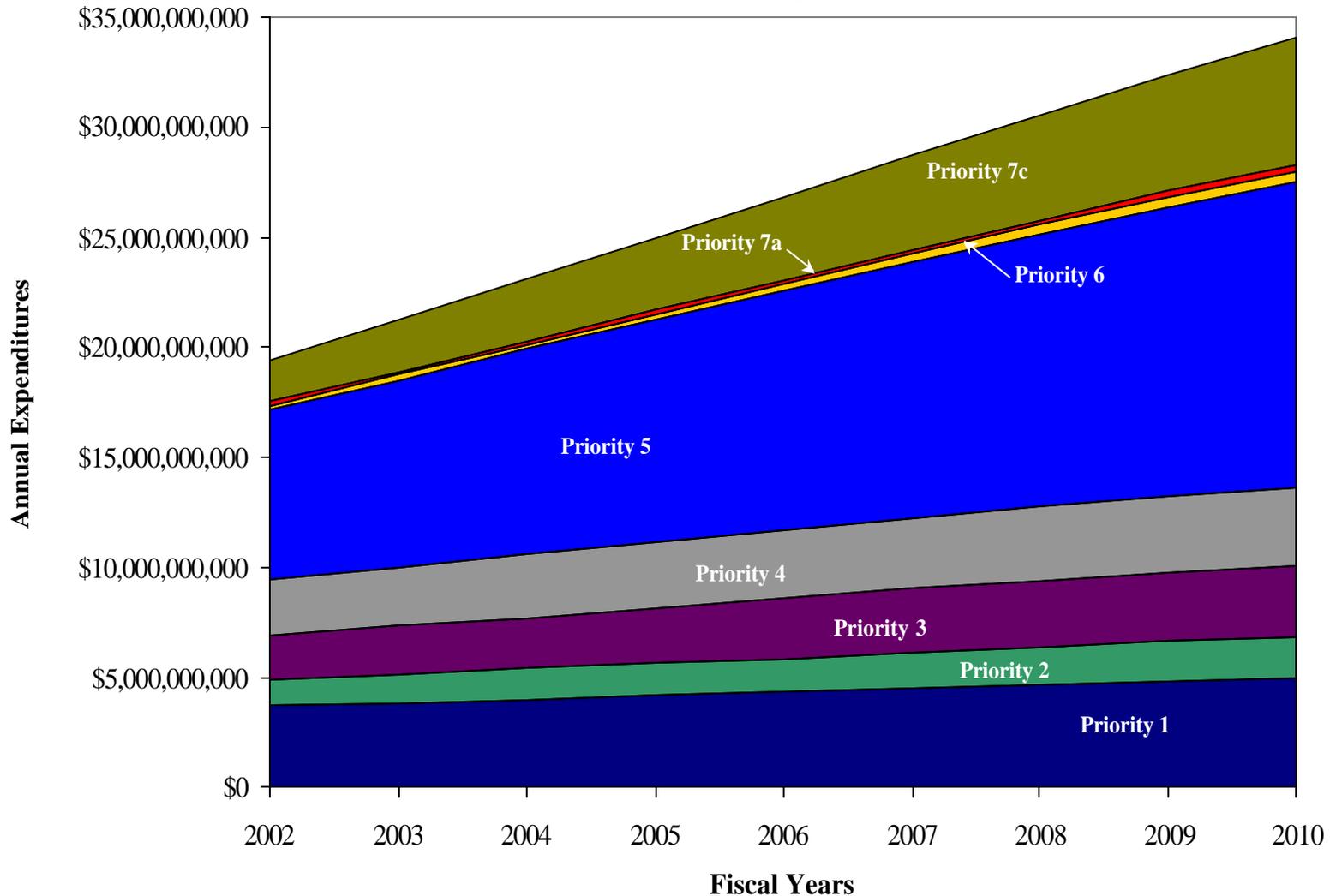


# Expenditure Projections

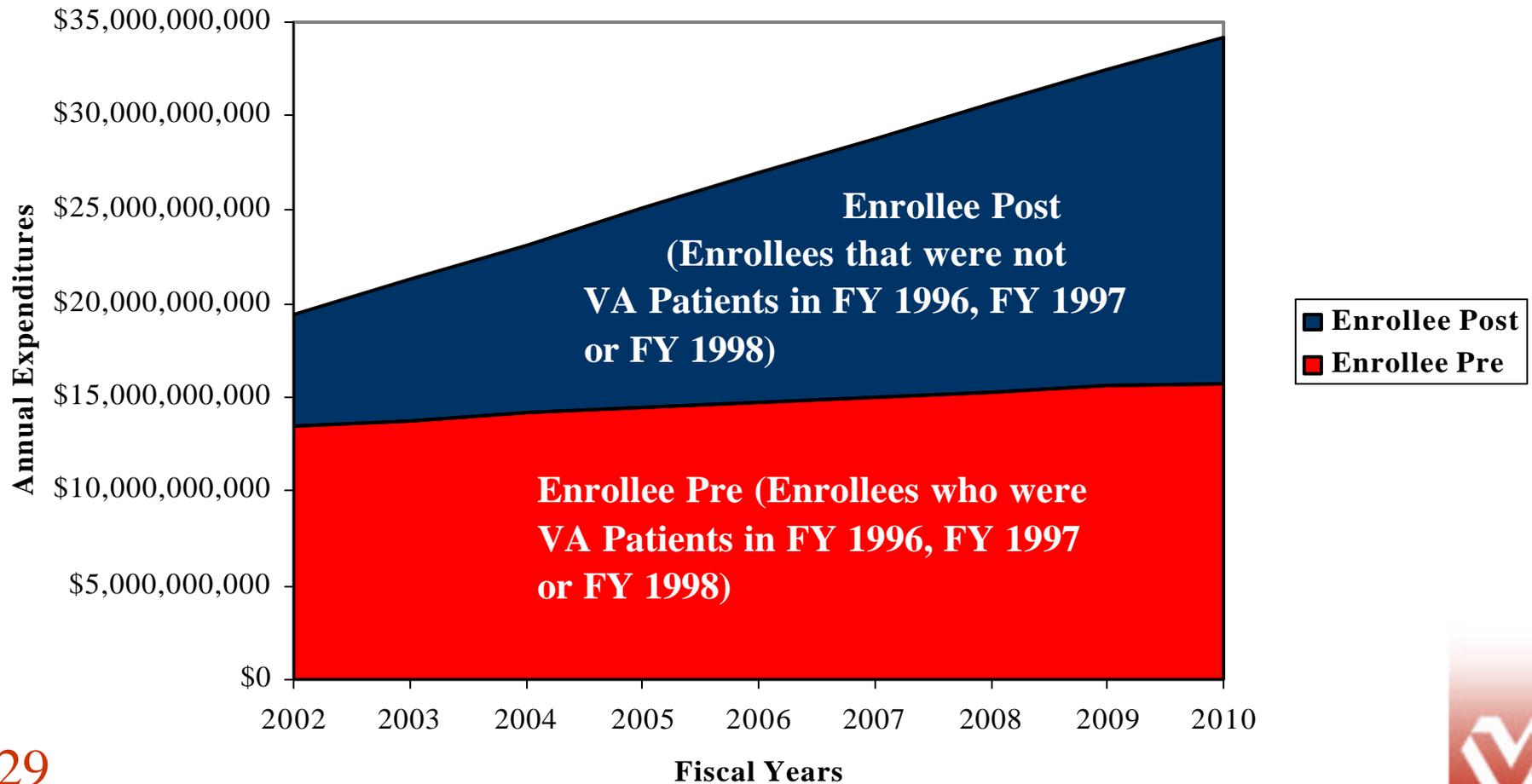
- Enrollment x Utilization x Unit Cost projects expenditures at the greatest level of detail
- Per Member (Enrollee) Per Month
- Model Methodology Outline Handout
- Model Methodology Flow Chart Handout
- Sample Cost Model Handout
  - National
  - Ages 45-64, Priority 5, Enrollee Pre, FY 2002



# Projected Annual Expenditures



# Projected Annual Expenditures



# Relative FY02 Impacts by VISN

<b>VISN</b>	<b>Reliance</b>	<b>Morbidity</b>	<b>Age/ Gender</b>	<b>VA Unit Costs</b>	<b>Area</b>	<b>Other*</b>	<b>Total</b>
1	1.00	0.99	1.07	1.10	1.02	0.99	1.18
2	0.97	0.91	1.07	0.90	0.99	0.97	0.82
3	0.78	0.93	1.10	1.12	1.21	0.99	1.07
4	0.82	0.85	1.08	0.97	1.06	0.98	0.76
5	1.10	0.98	0.96	1.03	1.04	1.01	1.12
6	1.04	1.01	0.93	0.94	0.99	1.00	0.91
7	1.01	1.00	0.94	0.96	1.06	1.00	0.97
8	0.95	0.98	1.06	0.90	1.14	1.03	1.04
9	1.07	1.05	0.98	0.98	1.06	0.97	1.11
10	0.94	1.00	0.98	0.96	0.93	1.03	0.85
11	1.00	1.03	1.00	1.02	0.93	1.01	0.99
12	1.04	1.11	1.04	1.07	0.96	0.97	1.19
13	1.01	1.06	1.08	0.94	0.82	0.97	0.86
14	0.93	1.03	1.08	0.95	0.84	0.97	0.80
15	1.03	1.02	1.01	0.95	0.93	1.01	0.95
16	1.12	1.01	0.96	0.98	1.13	0.99	1.19
17	1.12	0.99	0.93	0.90	1.05	0.99	0.96
18	1.07	1.01	1.00	0.94	0.90	1.00	0.91
19	1.04	1.08	0.97	0.97	0.82	1.00	0.87
20	1.03	1.15	0.89	1.04	0.77	1.03	0.87
21	1.03	0.99	0.99	1.15	0.87	1.04	1.05
22	1.04	1.00	0.92	1.19	0.99	1.02	1.15
<b>National</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>

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



# What Data is Available?

- Enrollment Projection Data
  - Fiscal Year Average Enrollment
  - End-of Fiscal Year Enrollment
  - Fiscal Year Unique Enrollees
  - Fiscal Year Unique Patients
- Enrollment Data Detail
  - Fiscal Years 2002 through 2010
  - Enrollee Type
  - Priority Level
  - Gender
  - 5-Year Age Bands
  - Preferred Facility or VISN
  - County-, State- or VISN-of-Residence



# What Data is Available?

- Utilization & Expenditure Projection Data Detail
  - Fiscal Years 2002 through 2010
  - Enrollee Type
  - Priority Level
  - Age Group (<45, 45-64 & 65+)
  - Preferred Facility



# Where to Find the Data

- OPP Web Site
  - FY 2002 – FY 2010 enrollee projection model results in Excel pivot tables
- PSSG Web Site
  - The actual monthly enrollment data and comparison to the modeled projection data and the VA LTC model
  - Actual and projected enrollment reports and geographic access data are also available



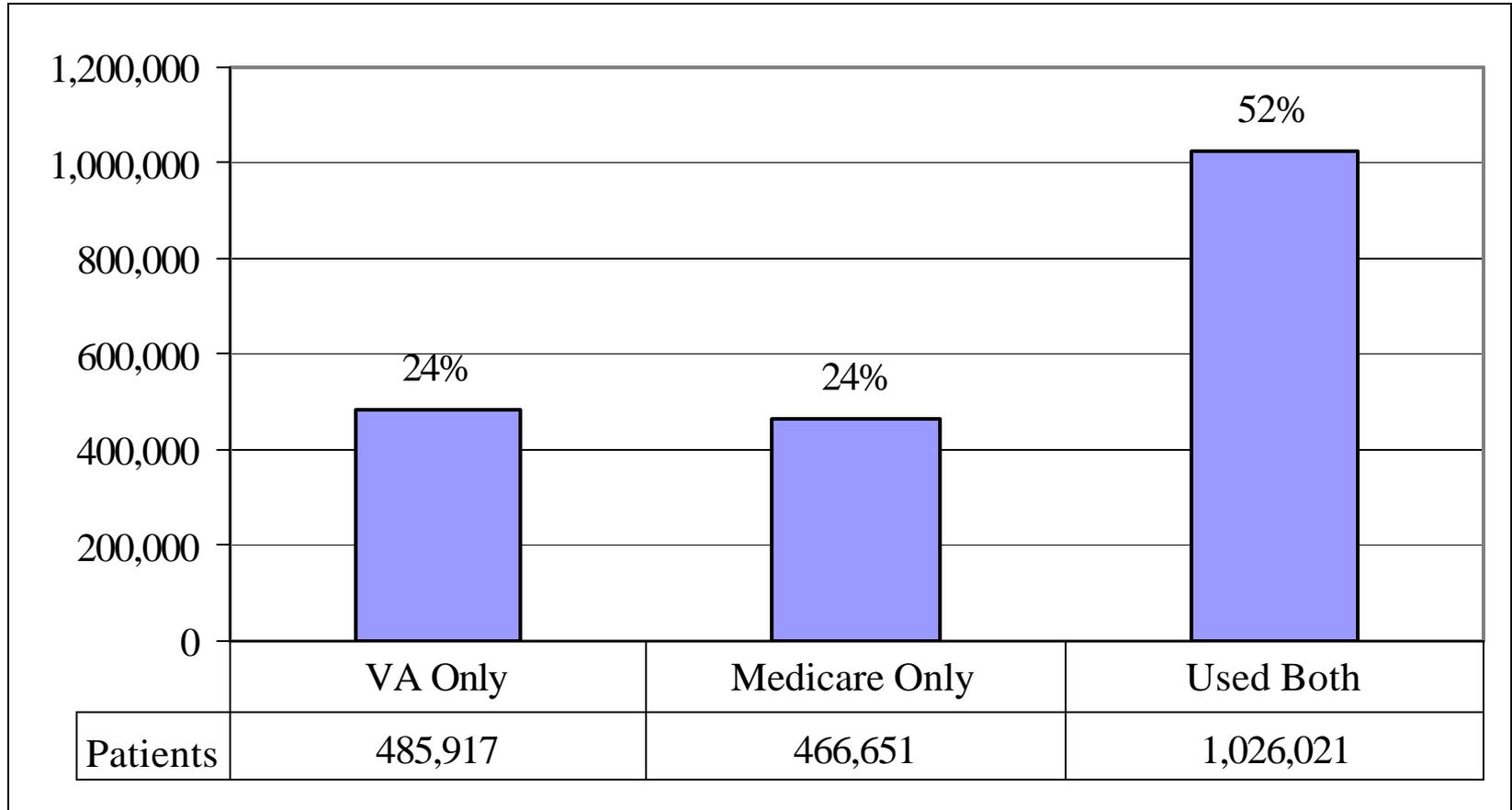
# Where to Find the Data

The VHA Office of Policy and Planning has provided data and support to the following internal offices and initiatives:

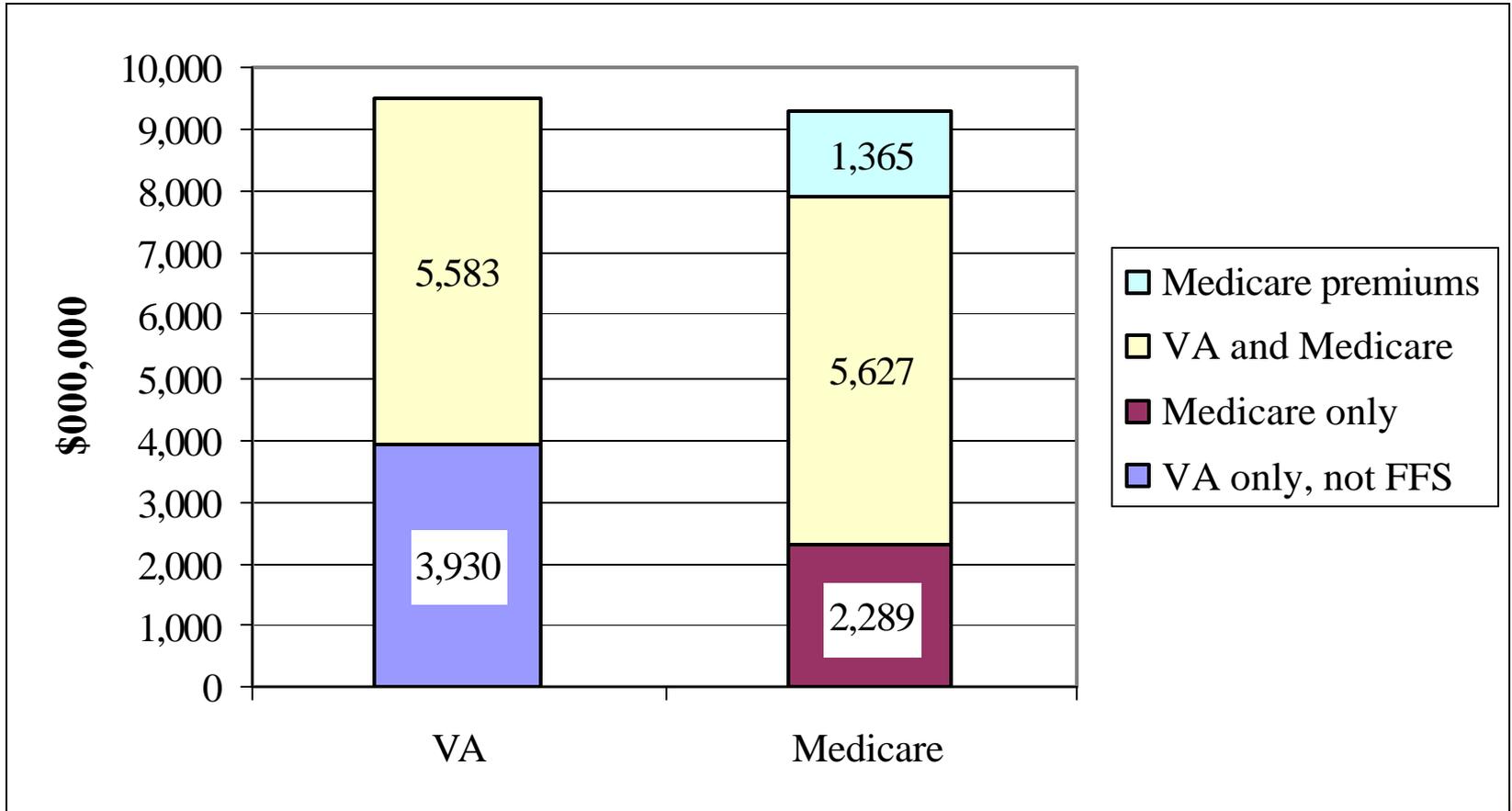
- VSSC
  - KLF Enrollment Reports Section
- ARC Web Site
  - Actual and projected data related to new and past utilization, workload and expenditures is displayed
- CARES Web Site
  - Illustrates applications of the model projections



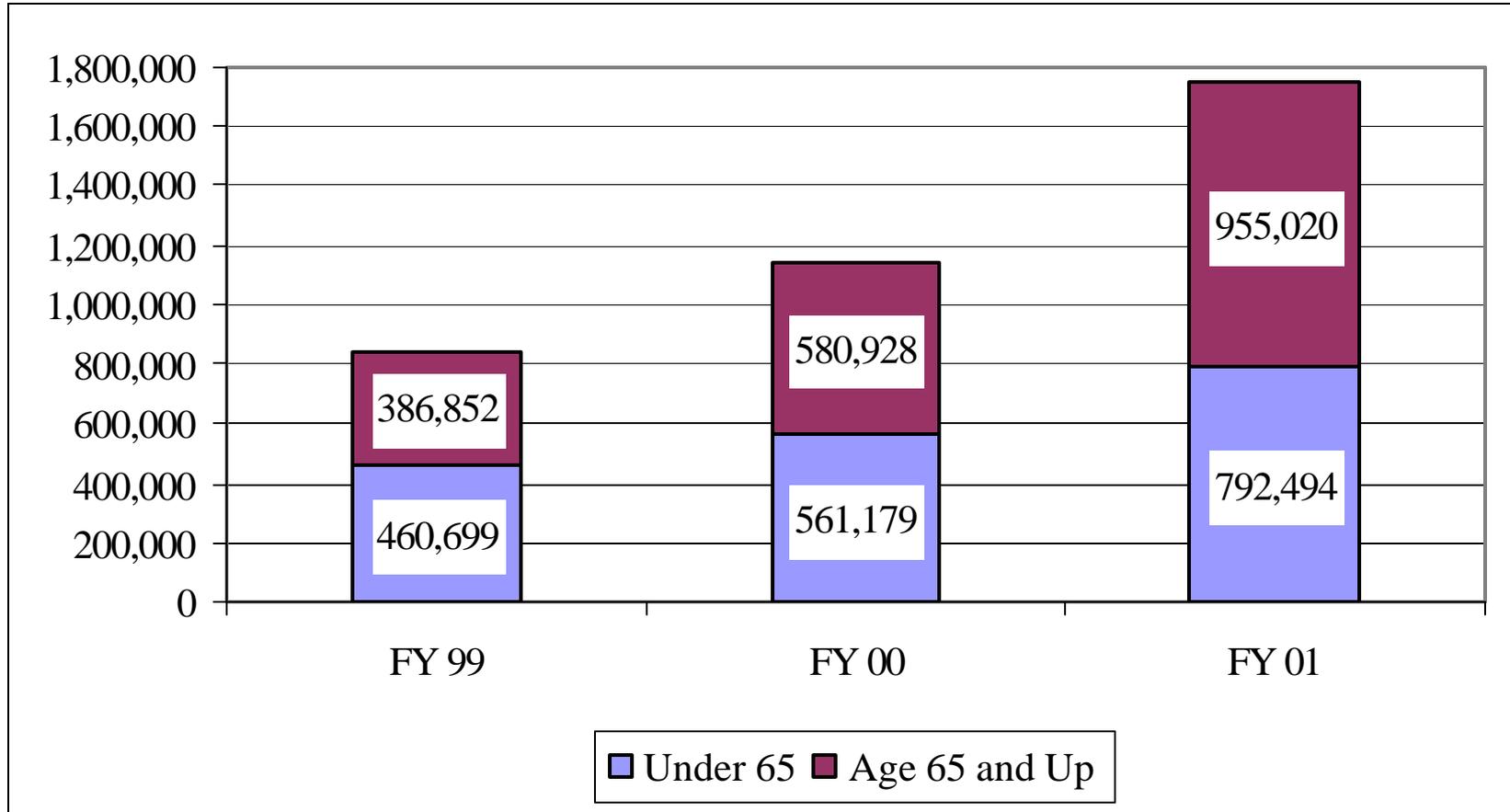
# FY 99 Medicare Eligible Veteran Patients who used VA in FY 97, 98, or 99



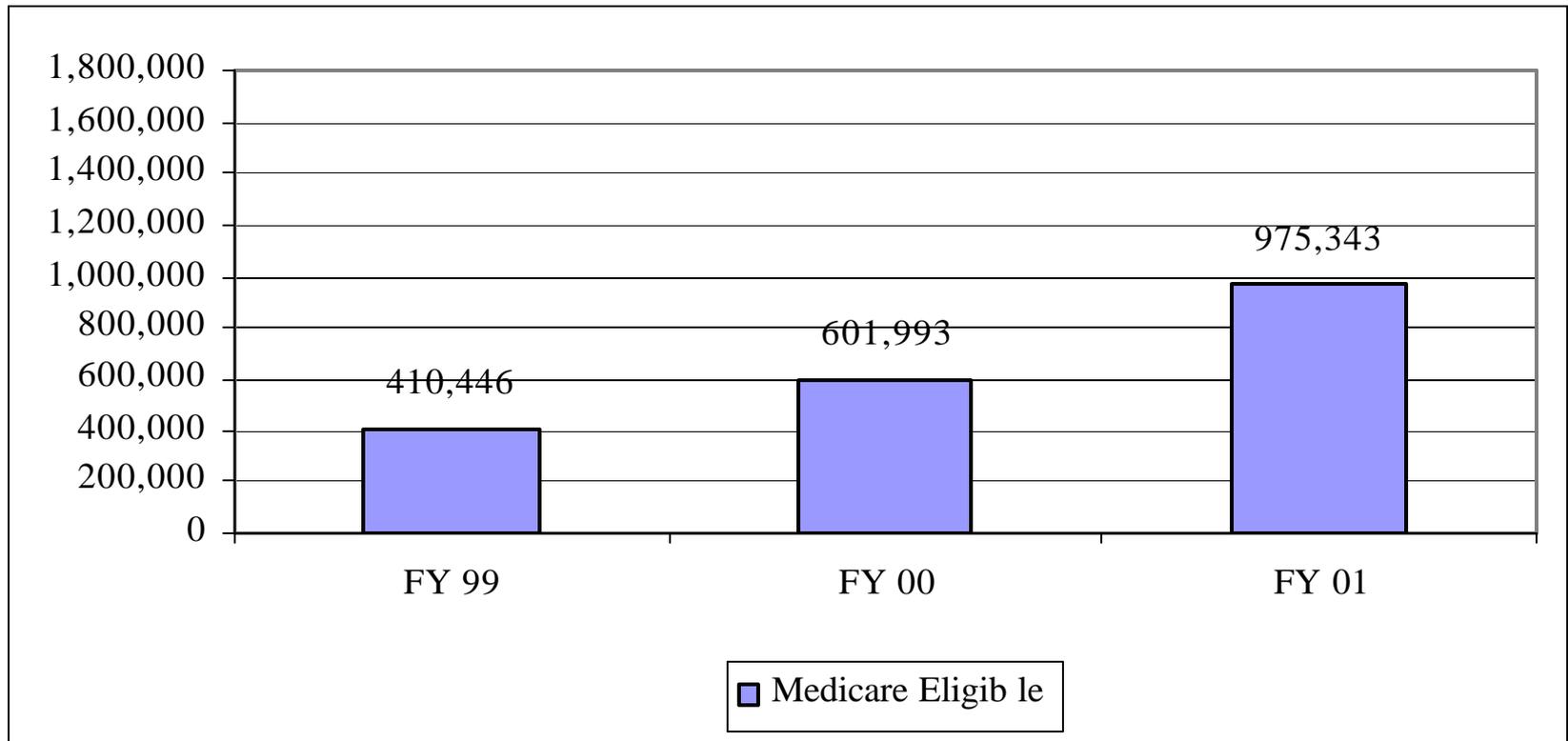
# FY 99 Expenditures Components for Dual VA and Medicare Users



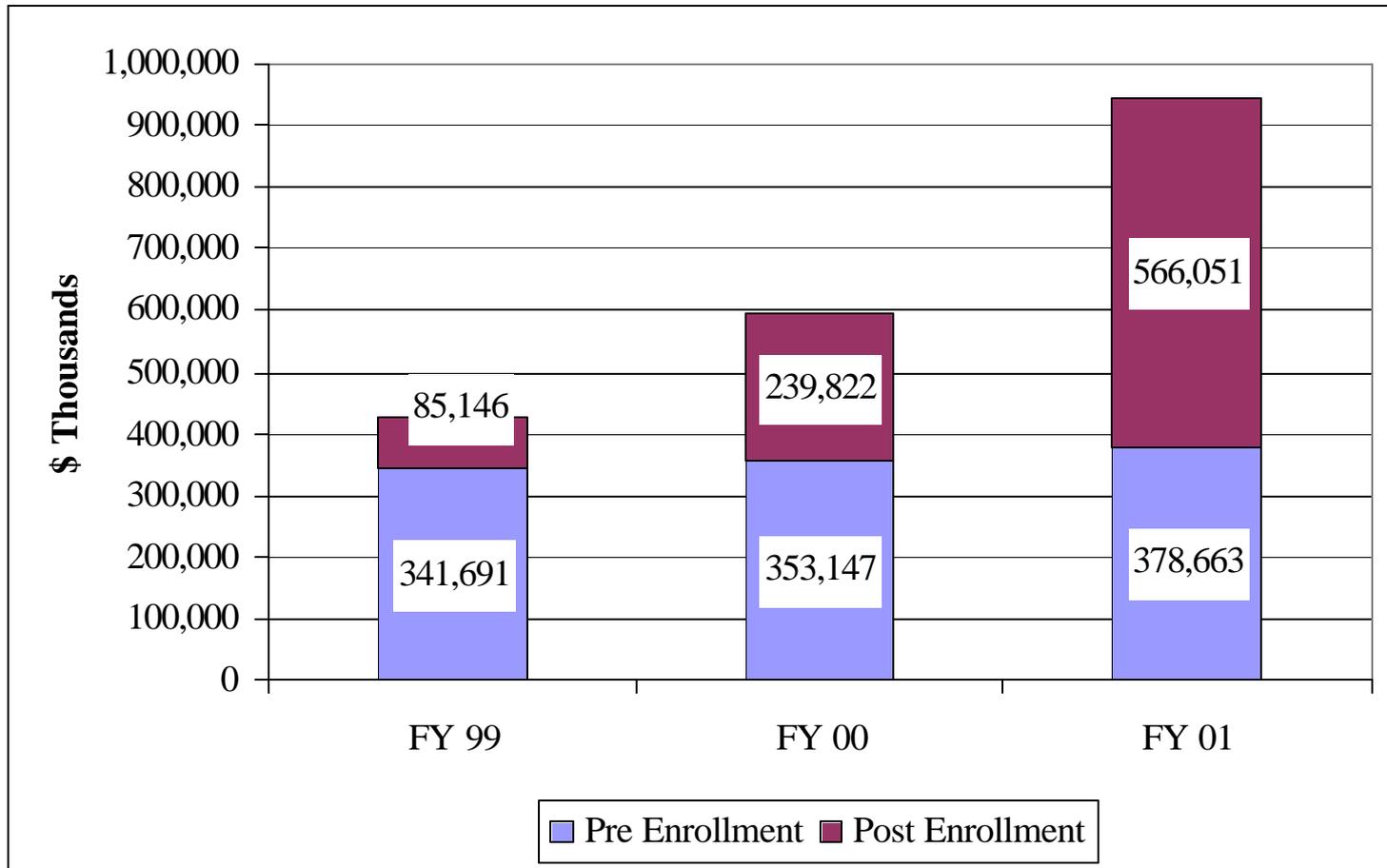
# Priority 7 Enrollees, FY 99 to FY 01



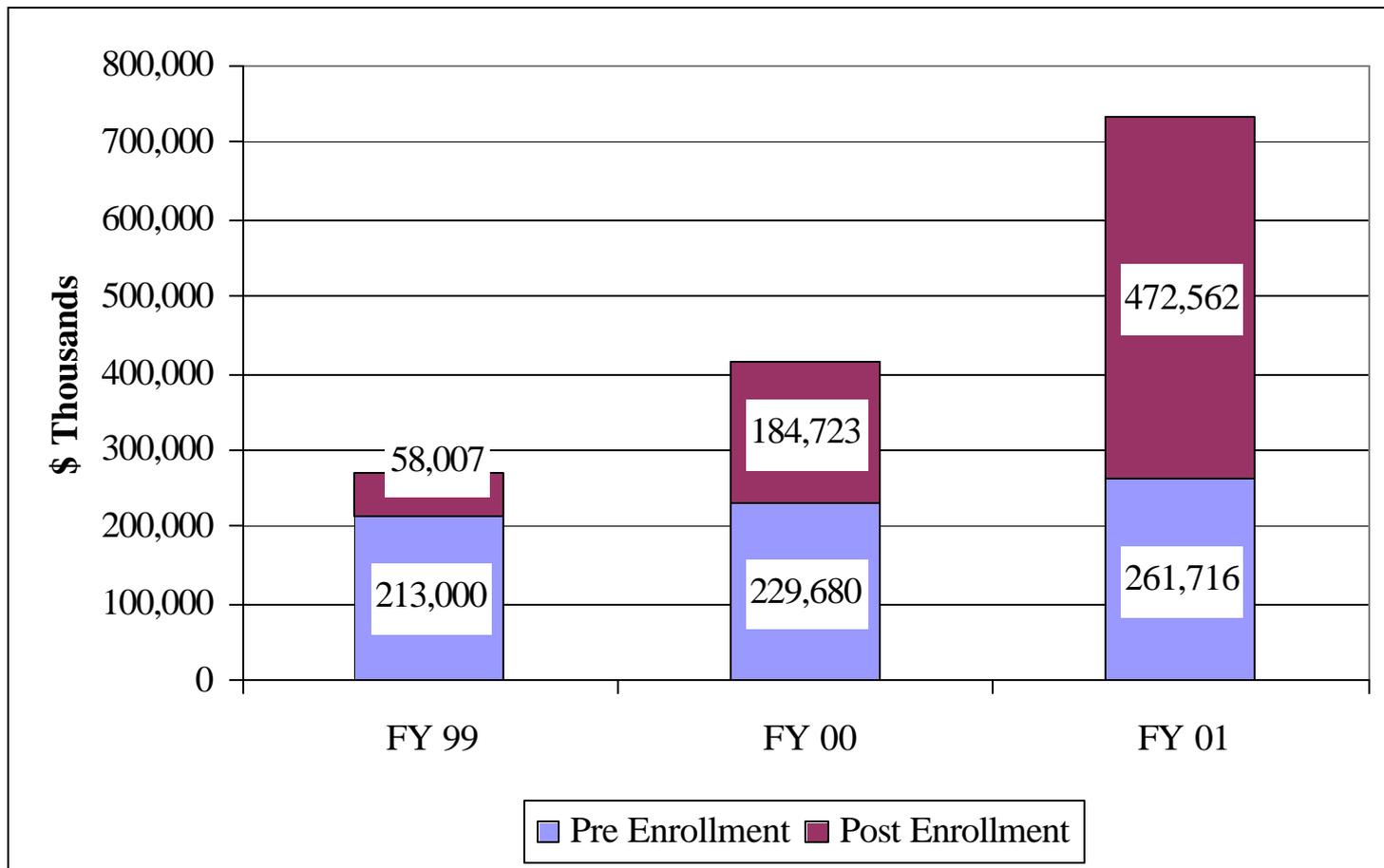
# Priority 7 Medicare Eligible Enrollees, FY 99 to FY 01



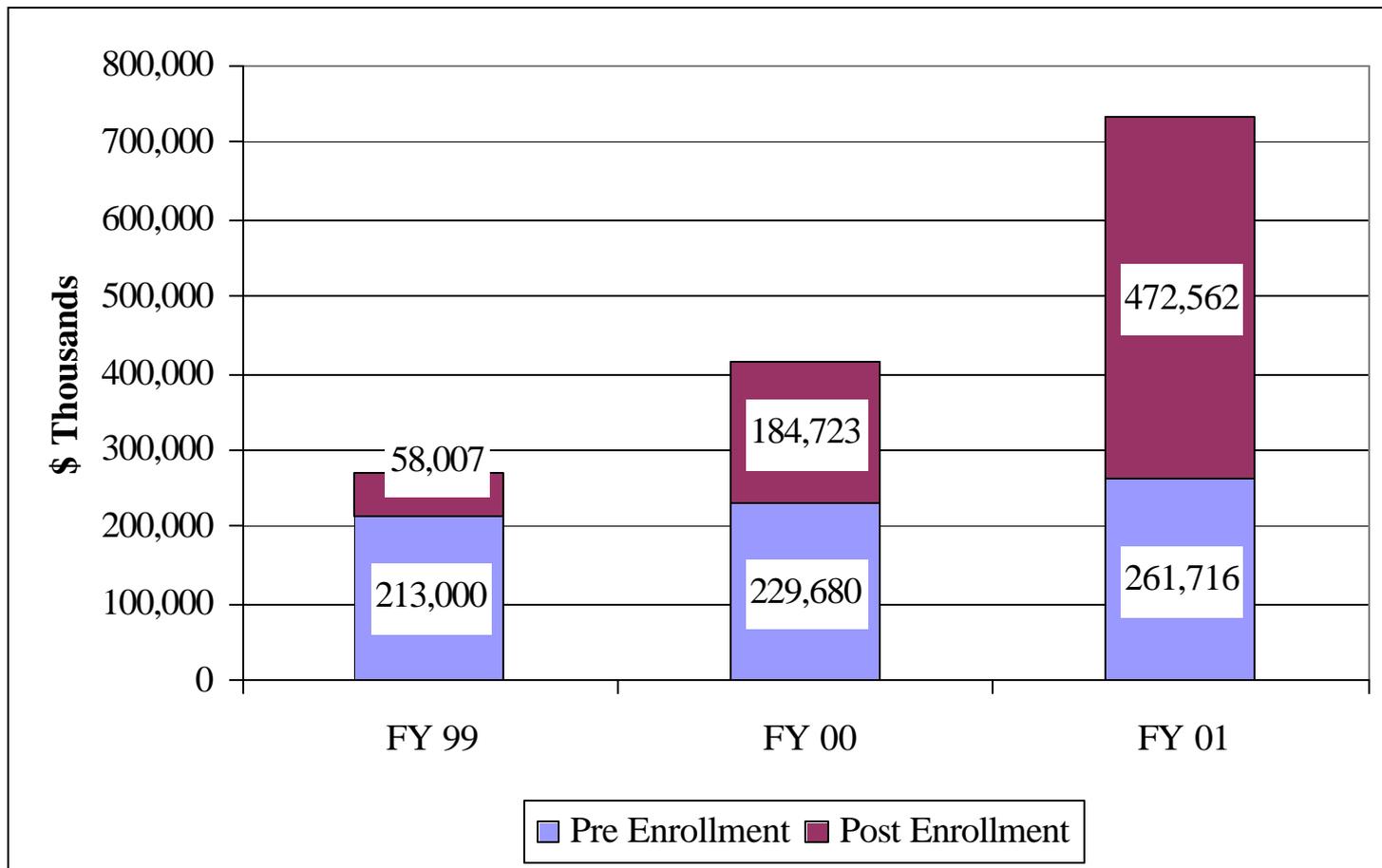
# Priority 7 Age 65+ Total Expenditures, FY 99 to FY01



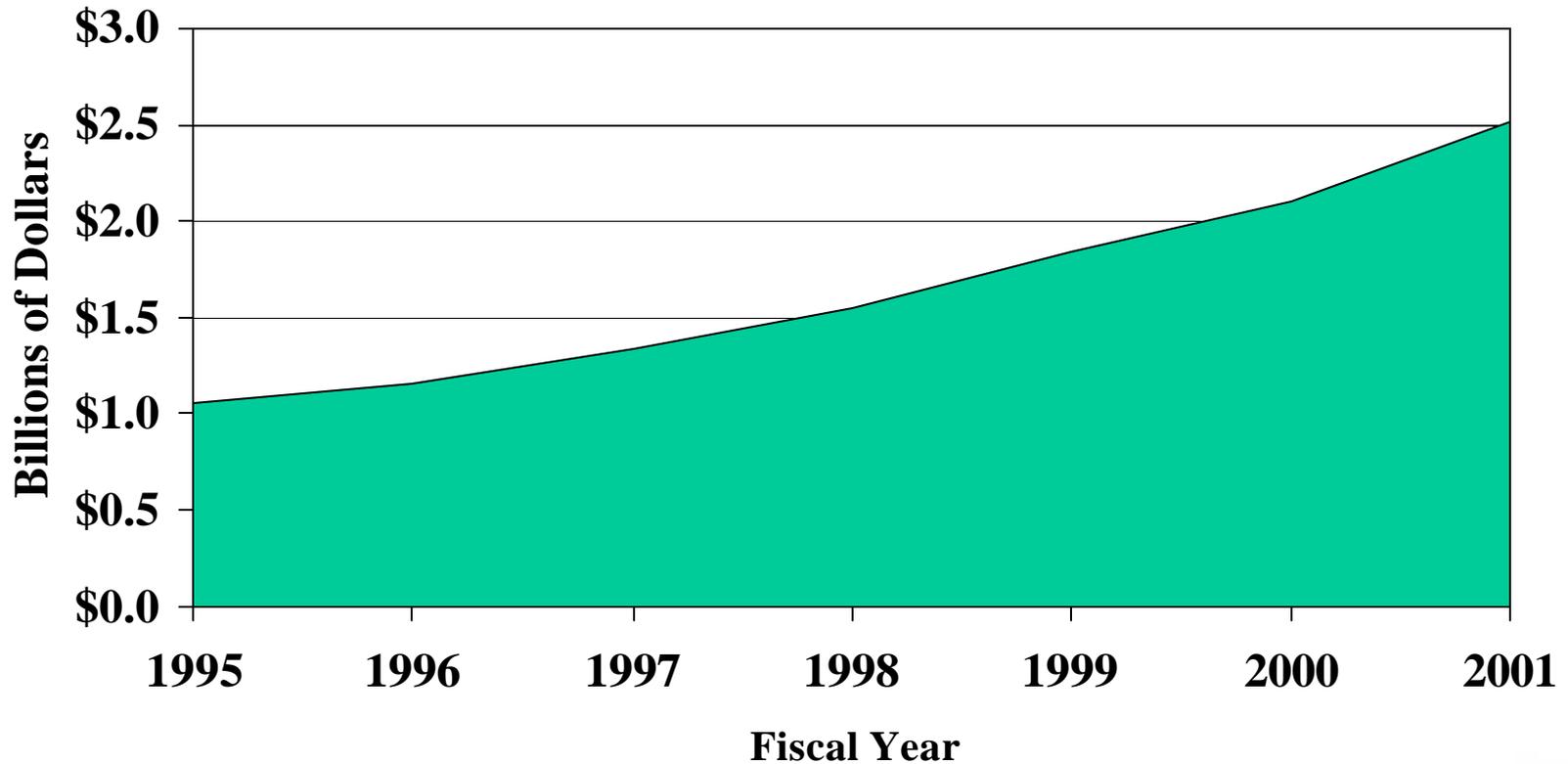
# Priority 7 Age 65+ Outpatient Expenditures, FY 99 to FY 01



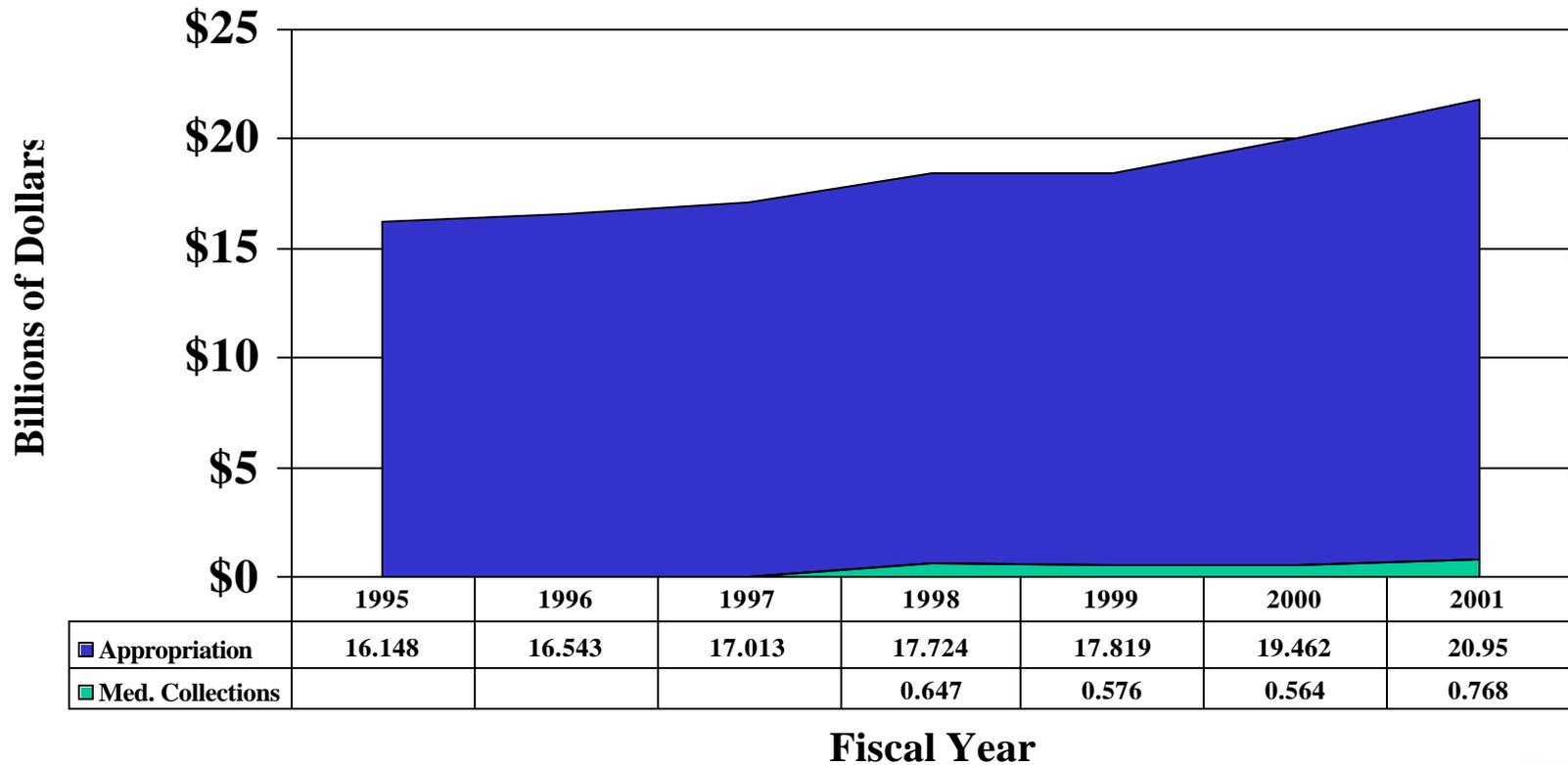
# Priority 7 Age 65+ Outpatient Expenditures, FY 99 to FY 01



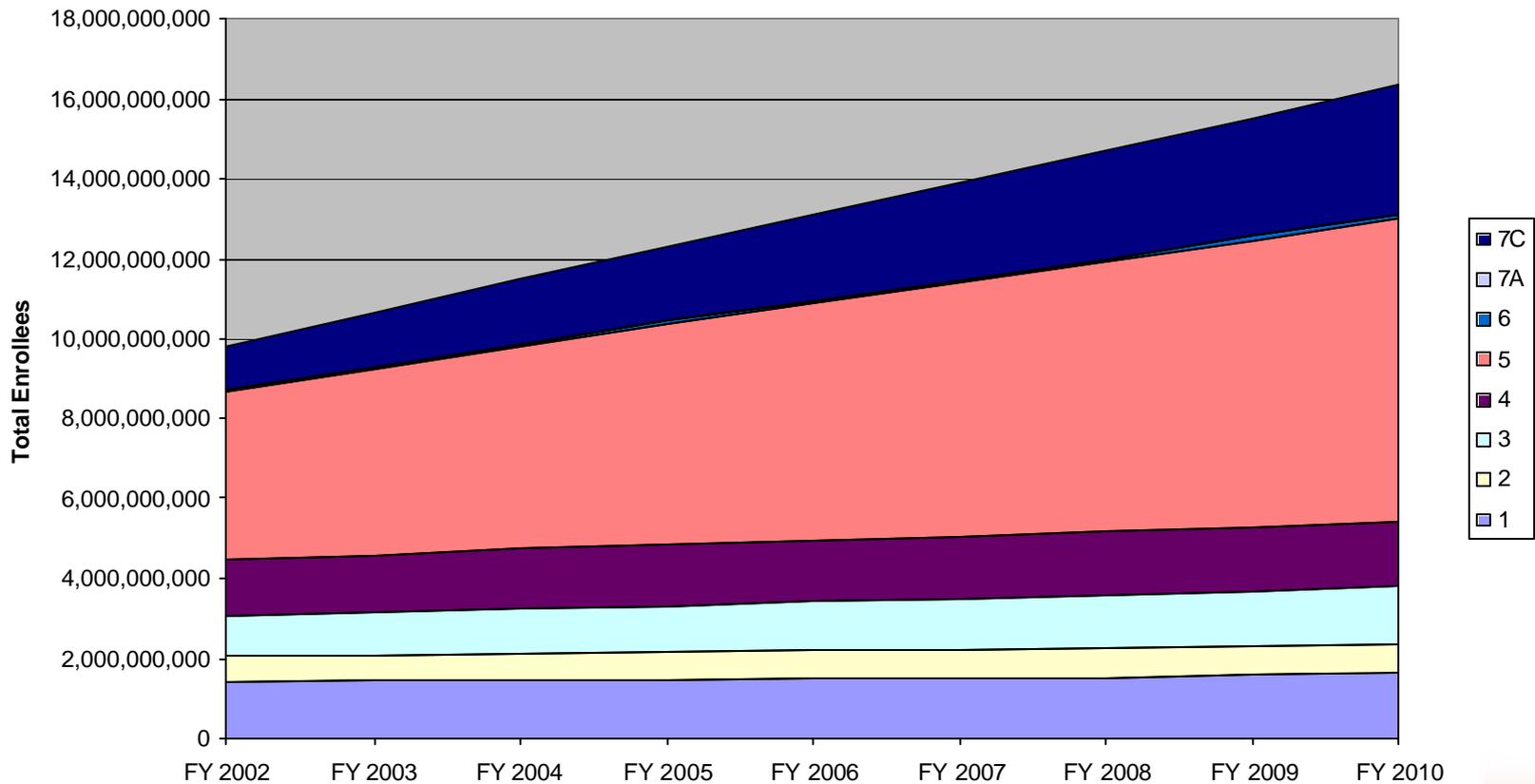
# Pharmacy Obligations



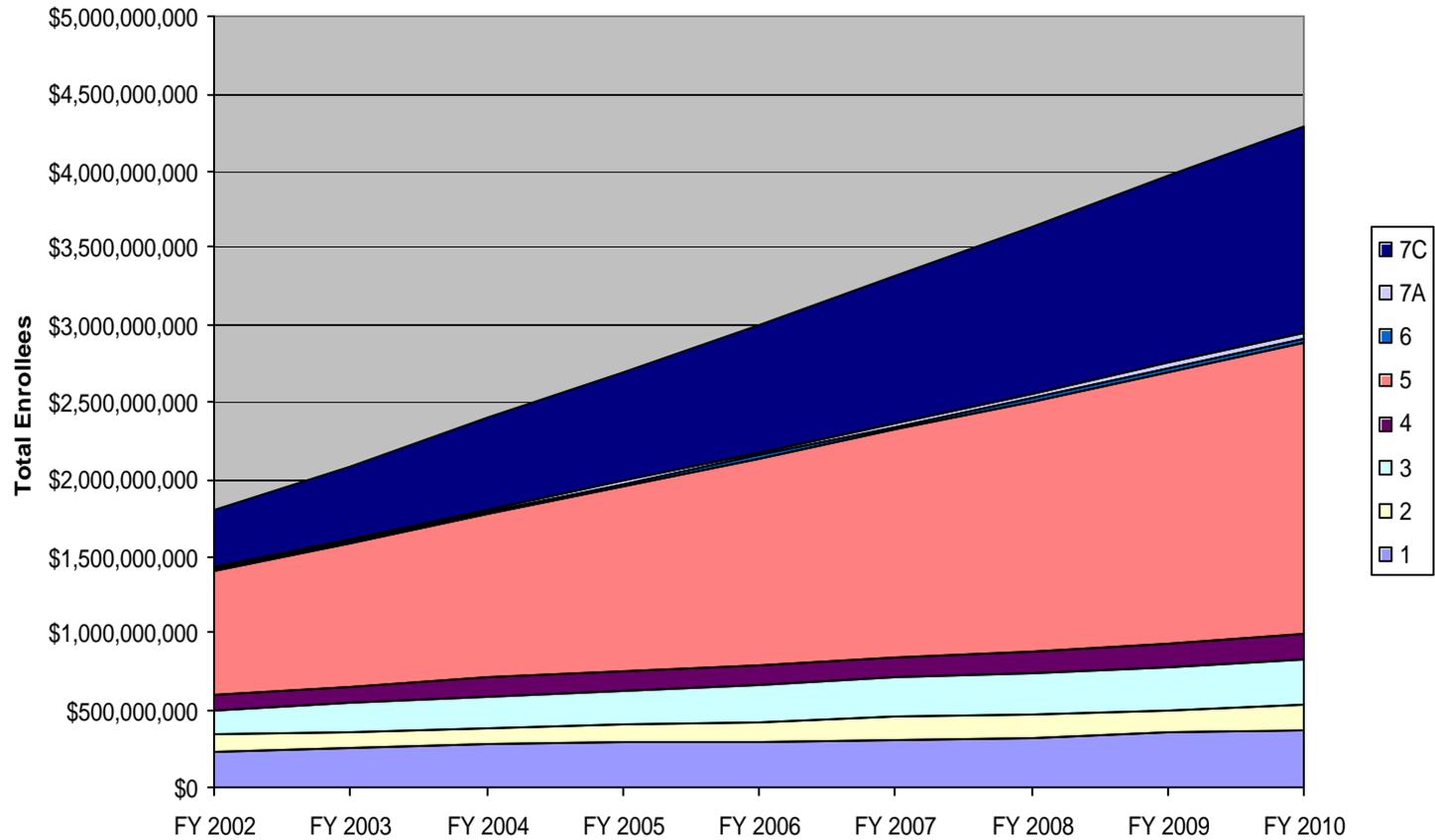
# Medical Care Appropriation



# Total Projected Expenditures for Age 65+ Enrollees, FY 2002-FY2010

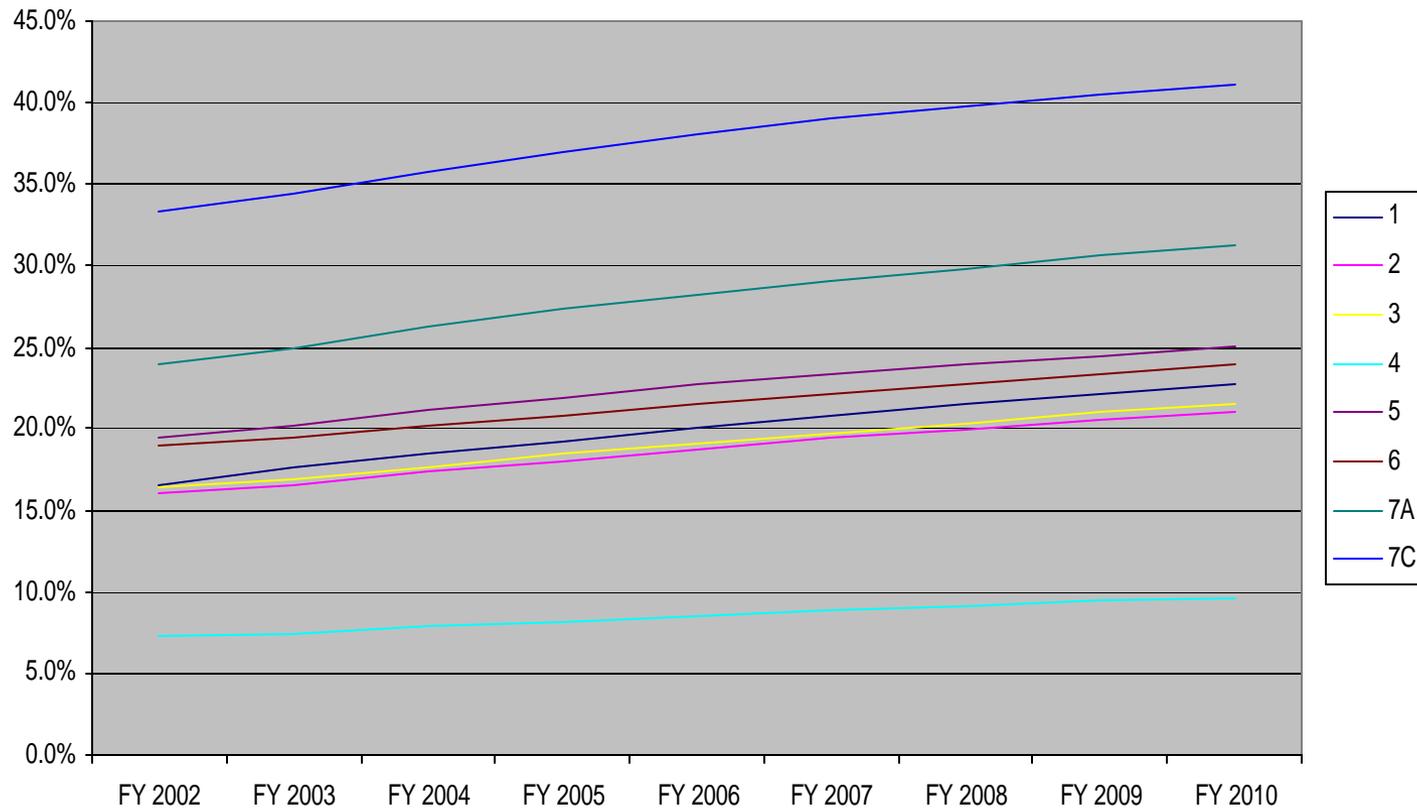


# Projected Pharmacy Expenditures for Age 65+ Enrollees, FY 2002-FY2010



# Projected Pharmacy Expenditures as a Percent of Total Expenditures, FY 2002-FY 2010

Enrollees Age 65+



# Projected Pharmacy Expenditures as a Percent of Total Expenditures, FY 2002-FY 2010

## Enrollees, Age Less Than 65

