

Long Term Care Model

DEFINITIONS

Priorities

1 a = 70% or more Service-Connected

1 b = 50-69% Service-Connected

2 through 7 are from current eligibility reform law

Age Groups ***21-64, 65-74, 75-84, 85+***

Disability Levels

- Both the Nursing Home and the Home Health care components of the LTC Model are based on Activities of Daily Living (ADL) deficiency scores***
- Home Care also incorporates Instrumental Activities of Daily Living (IADL) deficiencies***

DEFINITIONS

Market Share (MS)

***ADC treated in VA, Community and State
Nursing Homes (Home Health) under VA auspices
Total Nursing Home ADC (Home Health) estimated
for enrollee population by the LTC model***

EXAMPLE: Market Share FY 2000

***= FY00 ADC / estimated FY00 enrollee NH demand,
based on LTC model***

= 31,090 / 146,000

= 21%

MODEL OVERVIEW

Data Input

- ***Use Rates of males by age and disability level from national (non-VA) surveys***
- ***Projected enrollee population of the facility by age, priority, and disability level of enrollees***
- ***Priority-specific market share VA will provide***

MODEL OVERVIEW

Output

- ***Nursing Home Care average daily census***
- ***Home Health Care number of patients annually***

Projection Unit

- ***VA parent facility, VISN or Nation***
- ***Any target year between 2000 through 2010***
- ***Each Priority***

DATA INPUT SOURCES

Age- and disability level-specific Use Rates

- ***1996 Medical Expenditure Panel Survey (MEPS) for Nursing Home Care rates for males***
- ***1998 National Home and Hospice Care Survey for Home Care rates for males***

Age- and disability level-specific Enrollee population

from actuarial estimates of enrollee population distributed into disability levels based on February 1999 telephone survey of 27,000 enrollees

DATA INPUT SOURCES

VA market share

priority specific share that represents the proportion of the total demand VA can provide, either in a VA, community, or state Nursing Home

FORMULA

Use Rate X Population X Market Share

***by age
by ADL***

***by facility
by age
by ADL
by priority
by year***

by priority

The output -- ADC for Nursing Home care; and annual patients for Home Health care -- is by age, ADL, priority, and year for the parent facility, VISN, or the nation

Note: The Nursing Home and Home Health formulas are identical, except that IADL deficiency scores are considered in the Home Health formula.

MODEL “WHAT IF?” CAPABILITIES

- **Multiple facilities or VISNs can be aggregated into a single “pseudo-facility” for displaying projections.**
- **All variables in the model -- Utilization rates, Market Shares, and Enrollee populations -- can be modified to develop alternative scenarios.**
- **Projections and assumptions that create “What If?” scenarios can be saved to a separate file.**

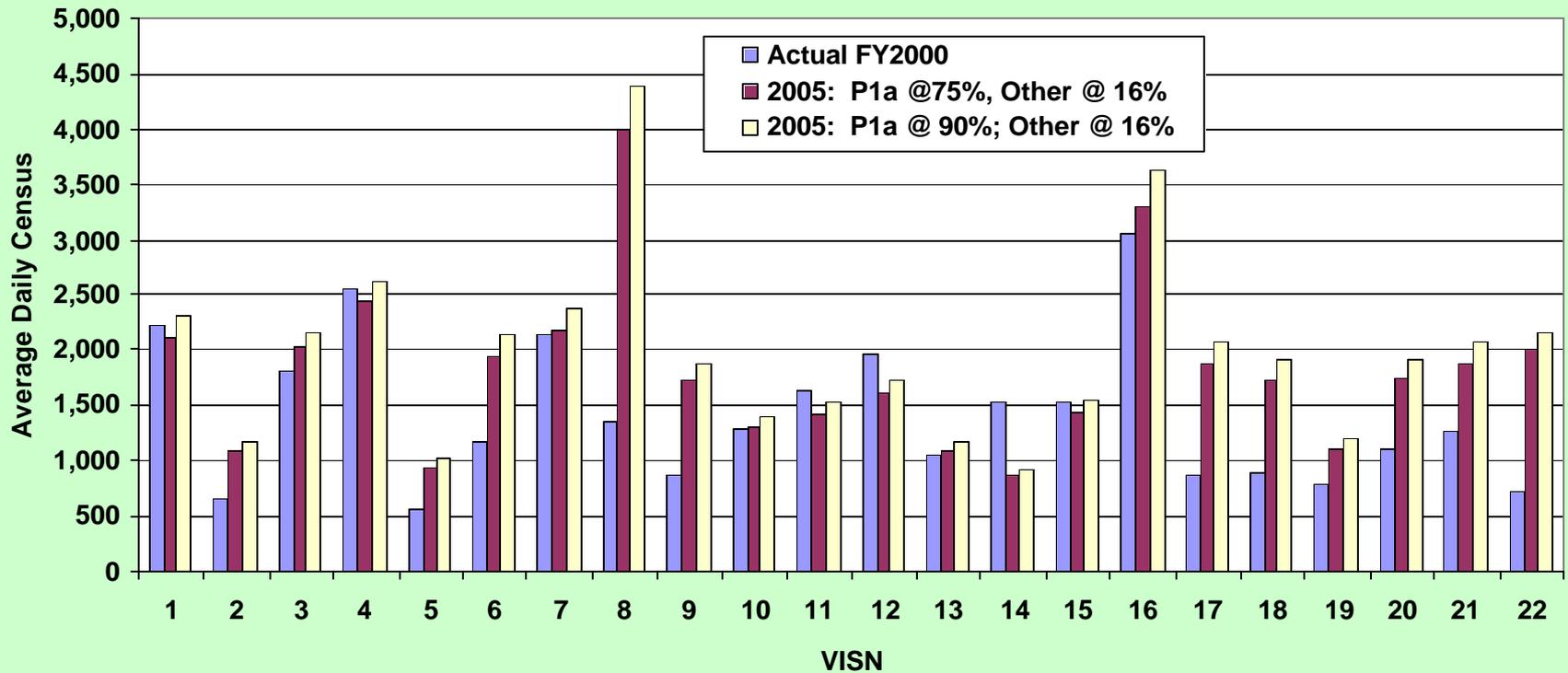
EXAMPLES of Model Output

Scenario *EXAMPLES*

- ***For NH care, the VA market share for Priority 1a enrollees increases from 49% to 90%, phased in over 5 years.***
- ***For NH care, the VA market share remains constant at 16% for all other priorities.***
- ***For HH care, the VA market share rises from 10%-24% for all Priorities, phased in over 5 years.***
- ***All variables can be adjusted.***

Nursing Home Average Daily Census by VISN													
Actual FY00 vs Projected with Phased-in Mill Bill Implementation in FY02, FY05, and FY10													
VISN	Total FY00 Actual	FY02			% Change from FY00 Actual	FY05			% Change from FY00 Actual	FY10			% Change from FY00 Actual
		Priority 1a @ 66%	All Other Priorities @ 16%	Total		Priority 1a @ 90%	All Other Priorities @ 16%	Total		Priority 1a @ 90%	All Other Priorities @ 16%	Total	
1	2,225	798	1147	1,945	-13%	1,031	1,286	2,317	4%	913	1,315	2,228	0%
2	666	304	715	1,019	53%	391	789	1,180	77%	346	805	1,151	73%
3	1,809	549	1300	1,849	2%	709	1,457	2,166	20%	611	1,501	2,112	17%
4	2,559	700	1501	2,201	-14%	908	1,710	2,618	2%	803	1,824	2,627	3%
5	578	304	541	845	46%	415	602	1,017	76%	378	596	974	69%
6	1,178	758	1054	1,812	54%	996	1,141	2,137	81%	928	1,147	2,075	76%
7	2,147	766	1245	2,011	-6%	1,027	1,352	2,379	11%	949	1,360	2,309	8%
8	1,353	1,533	2178	3,711	174%	1,966	2,418	4,384	224%	1,663	2,449	4,112	204%
9	872	633	1004	1,637	88%	823	1,056	1,879	115%	746	1,037	1,783	104%
10	1,278	363	829	1,192	-7%	474	926	1,400	10%	439	955	1,394	9%
11	1,645	405	896	1,301	-21%	532	993	1,525	-7%	492	1,045	1,537	-7%
12	1,965	415	1093	1,508	-23%	535	1,191	1,726	-12%	478	1,240	1,718	-13%
13	1,052	333	650	983	-7%	439	739	1,178	12%	372	775	1,147	9%
14	1,520	221	534	755	-50%	292	635	927	-39%	252	695	947	-38%
15	1,518	429	900	1,329	-12%	558	1,000	1,558	3%	508	1,028	1,536	1%
16	3,065	1,273	1847	3,120	2%	1,691	1,941	3,632	19%	1,525	1,888	3,413	11%
17	865	763	957	1,720	99%	1,044	1,032	2,076	140%	916	1,025	1,941	124%
18	902	682	942	1,624	80%	882	1,029	1,911	112%	770	1,029	1,799	99%
19	783	395	604	999	28%	530	681	1,211	55%	492	709	1,201	53%
20	1,121	718	878	1,596	42%	958	972	1,930	72%	892	983	1,875	67%
21	1,268	691	1034	1,725	36%	918	1,151	2,069	63%	808	1,161	1,969	55%
22	723	633	1198	1,831	153%	838	1,330	2,168	200%	737	1,361	2,098	190%
Total	31,090	13,663	23,047	36,710	18%	17,957	25,431	43,388	40%	16,016	25,928	41,944	35%

**Nursing Home Average Daily Census
 FY00 Actual vs. 2005 Phased-in Mill Bill Implementation:
 75% and 90% Market Share for P1a and 16% Market Share for Other**



**Table 1. Projected NH ADC and Expenditures: 2000-2010
Assuming Phased-in Millennium Bill Implementation**

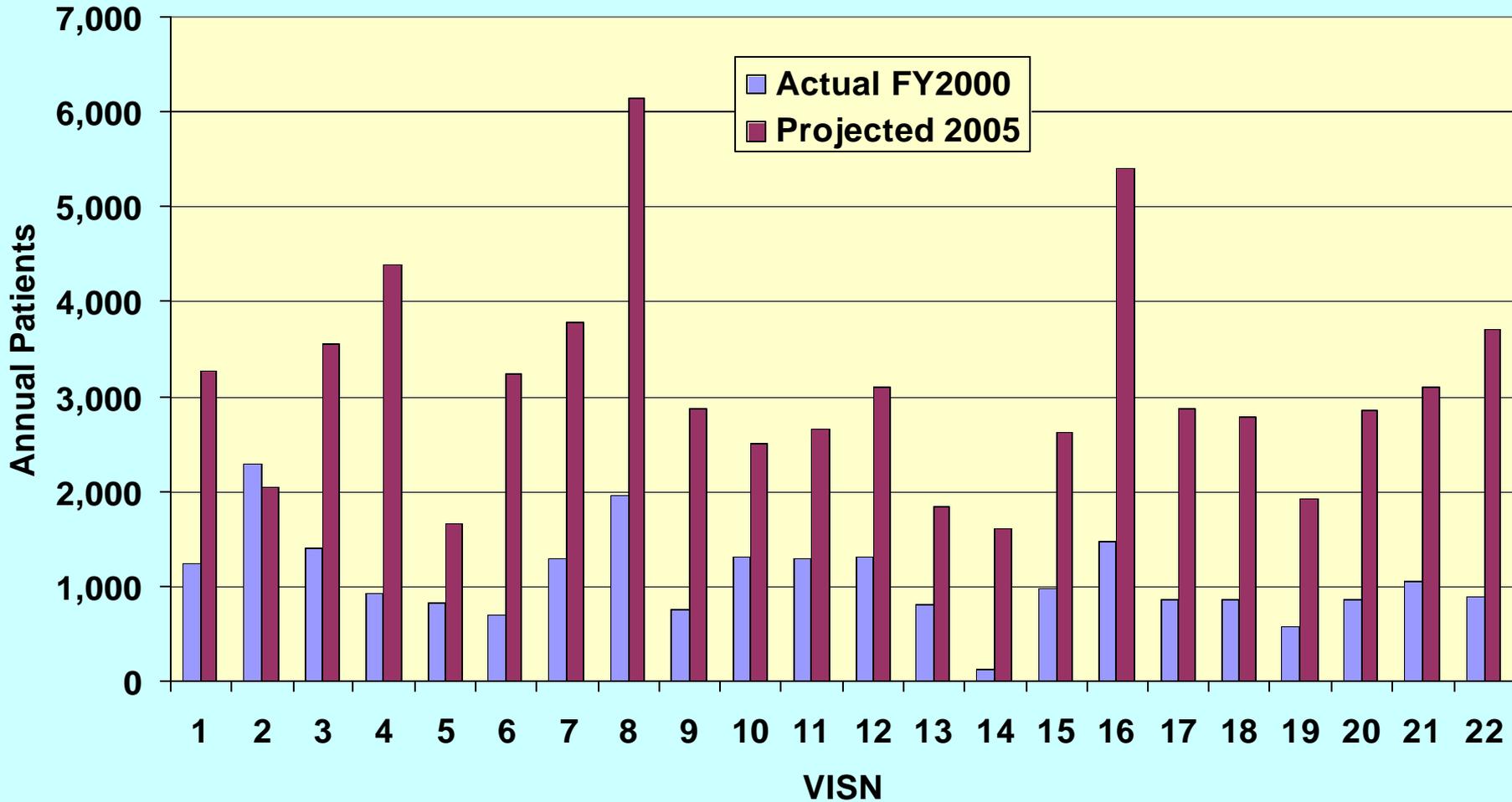
FY98 VANH Beds =				
14,847	FY00	Fiscal Year and Market Share		
Nursing Home Care	Actual	2002 @ 66%; 16%	2005 @ 90%; 16%	2010 @ 90%; 16%
Total Average Daily Census	31,090	36,710	43,388	41,944
VA*	11,812	14,105	14,105	14,105
State**	15,593	16,846	19,231	19,658
Comm***	3,685	5,759	10,052	8,182
Program Mix	100%	100%	100%	100%
VA	38%	38%	33%	34%
State	50%	46%	44%	47%
Comm	12%	16%	23%	20%
Expenditure (\$ millions)****	\$1,876	\$2,584	\$2,838	\$2,755
VA per diem FY00 = \$313	\$1,353	\$1,978	\$1,978	\$1,978
State per diem FY00 = \$51	\$295	\$327	\$373	\$382
Comm per diem FY00 = \$124	\$228	\$279	\$487	\$396
* VA ADC = larger of (13,426 VANH ADC from FY98) or (FY98 VA NH Beds at 95% Occupancy Rate)				
** State ADC through FY06 estimated from planned State NH bed availability; held constant thereafter				
*** Community ADC = VA Share of Total ADC minus VA ADC minus State ADC				
**** Expenditures inflation-adjusted thru FY02; constant thereafter				

Home Health Annual Patients by VISN													
Actual FY00 vs Projected with Phased-in Market Share Increases for FY02, FY05 and FY10													
VISN	Total FY00 Actual: Mkt Share = 10%	FY02 @ 16% MS			% Change from FY00 Actual	FY05 @ 24% MS			% Change from FY00 Actual	FY10 @ 24% MS			% Change from FY00 Actual
		Priority 1a	All Other Priorities	Total		Priority 1a	All Other Priorities	Total		Priority 1a	All Other Priorities	Total	
1	1,232	219	1,847	2,066	68%	291	2,974	3,265	165%	226	2,836	3,062	148%
2	2,295	83	1,205	1,288	-44%	112	1,931	2,043	-11%	87	1,836	1,923	-16%
3	1,395	138	2,129	2,267	63%	182	3,389	3,571	156%	138	3,174	3,312	137%
4	927	194	2,511	2,705	192%	258	4,143	4,401	375%	206	4,024	4,230	356%
5	837	96	959	1,055	26%	138	1,525	1,663	99%	116	1,451	1,567	87%
6	705	241	1,835	2,076	194%	339	2,914	3,253	361%	282	2,805	3,087	338%
7	1,298	239	2,148	2,387	84%	332	3,447	3,779	191%	275	3,325	3,600	177%
8	1,959	398	3,508	3,906	99%	519	5,637	6,156	214%	395	5,280	5,675	190%
9	751	189	1,676	1,865	148%	256	2,627	2,883	284%	204	2,477	2,681	257%
10	1,319	108	1,465	1,573	19%	5	2,512	2,517	91%	123	2,284	2,407	83%
11	1,298	120	1,545	1,665	28%	166	2,495	2,661	105%	132	2,431	2,563	97%
12	1,317	122	1,842	1,964	49%	168	2,931	3,099	135%	140	2,821	2,961	125%
13	812	93	1,040	1,133	40%	126	1,725	1,851	128%	103	1,680	1,783	120%
14	127	63	887	950	647%	84	1,514	1,598	1157%	68	1,505	1,573	1137%
15	985	125	1,519	1,644	67%	168	2,458	2,626	167%	134	2,360	2,494	153%
16	1,485	384	3,127	3,511	136%	522	4,884	5,406	264%	423	4,581	5,004	237%
17	866	222	1,625	1,847	113%	330	2,549	2,879	232%	249	2,429	2,678	209%
18	859	186	1,608	1,794	109%	248	2,548	2,796	225%	196	2,405	2,601	203%
19	571	124	1,071	1,195	109%	174	1,741	1,915	235%	146	1,687	1,833	221%
20	863	239	1,562	1,801	109%	329	2,525	2,854	231%	281	2,447	2,728	216%
21	1,061	204	1,749	1,953	84%	273	2,820	3,093	192%	220	2,698	2,918	175%
22	881	178	2,155	2,333	165%	243	3,477	3,720	322%	193	3,373	3,566	305%
Total	23,844	3,965	39,013	42,978	80%	5,263	62,766	68,029	185%	4,337	59,909	64,246	169%

Home Health Care Annual Patients

FY00 Actual vs. 2005 Projected at 24% Market Share

Based on Federal LTC Advisory Comm. & VHA Budget Policy



VHA Office of Policy and Planning

Long Term Care Model

**Table 2. Projected Home Health Patients and Expenditures: 2000-2010
Assuming Phased-in Millennium Bill Implementation**

Home Health Care	FY00	Fiscal Year and Market Share		
	Actual	2002 @ 16%	2005 @ 24%	2010 @ 24%
Patients	23,844	42,980	68,030	64,252
Expenditure (\$ millions)*	\$ 189	\$ 293	\$ 463	\$ 437
* Expenditures inflation-adjusted thru FY02; constant thereafter				