HCFE Data Brief

HCFE DB# 2005-02

FORECASTING TRENDS IN VA LONG-TERM CARE IN THE ABSENCE OF THE MILLENNIUM ACT THROUGH FISCAL YEAR 2002

John Gardner, Ph.D.
Ann Hendricks, Ph.D.

July 20, 2005

Health Care Financing & Economics

VA Boston Health Care System Research & Development
150 South Huntington Avenue (Mail Stop 152H), Boston, MA 02130 • Phone: (857) 364-6058 • http://www.hcfe.org

ACKNOWLEDGEMENT

This work was funded (MRR 00-018) by the Department of Veterans Affairs, Veterans Health Administration, Health Services Research and Development Services. This report presents the findings and conclusions of the authors and does not necessarily reflect the opinions of VA or HSR&D.

INTRODUCTION

Section 101 of the Veterans Millennium Healthcare and Benefits Act - Public Law 106-117 (Millennium Act) requires the Veterans Health Administration (VHA) to provide necessary nursing home care to any veteran in need of such care if he or she has a service-connected (SC) disability rated 70% or more and to provide access for all enrolled veterans to a continuum of extended care services. VHA must ensure that staffing and level of services is not less than in fiscal year 1998. The Act further require VHA to compare the costs incurred under the provisions of Section 101 and the costs that would have been incurred if Section 101 had not been enacted. This paper describes the methods we used to make this comparison through FY2002 and presents information about the trends and the best estimate of long-term care (LTC) utilization and costs occasioned by the provisions of the Act.

METHODS

The analysis has two components. First, we projected trends of LTC utilization for categories of Veterans Affairs (VA) patients, distinguished by age, gender and eligibility status (particularly SC disability) and drew conclusions about program costs. Second, we examined trends for long-term patients with highest priority for LTC under the Millennium Act (veterans with 70% or higher SC disability) and drew conclusions about whether costs would have been different for this group alone.

To project the volume of extended care services that VA patients would have received if the Millennium Act had not been passed, we estimated the volume of each type of extended care service for each of 30 groups (defined by the interaction of 5 patient age categories and 6

service-connectedness rating categories). We compared the projected utilization based on population and utilization trends from FY1995 through FY2002 (to include pre-Act experience) with actual utilization in FY1999 through FY2002.

RESULTS

Underlying Trends

Trends in numbers of LTC patients identified from VA utilization data are primarily affected by five forces, which are summarized here:

1) **The age distribution of the veteran population is growing older**. The number of male veterans 75 or older grew rapidly from FY1995 through FY2002. This group accounted for about 10% of the male veteran population in FY1995, 19% by FY2002. The number of veterans aged 55 to 64 has also been growing since FY1998.
2) **VA patient population is increasing.** Growth was slow pre-FY1998, rapid thereafter for age ranges 45 and older, especially veterans 65 and older. Much of this growth was attributed to eligibility reform and the implementation of the Veterans Equitable Resource Allocation methodology for allocating budgets among VA networks (Hendricks, 2000).[1]
3) **The number of patients in LTC programs increased at a moderate rate**. VA's Office of Geriatric and Extended Care (OG&EC) initiated or expanded programs.. Some programs grew more rapidly than others; a few have actually seen declines in patient workload.
4) **The location for delivering care shifted from inpatient to outpatient settings**. This trend, evident throughout all medical care systems since the late 1980s, is especially evident in VA

[1] Hendricks, A. (2000). "*Assessing the Veterans Equitable Resource Allocation Budget: Summary Report.*" HSR&D Center for Health Quality, Outcomes, and Economic Research. Bedford, MA.

since eligibility reform in FY1997. For VA LTC, this was also recommendation of the Federal Advisory Committee.[2]

5) **VA automated utilization data improved since FY1997**. Improvements increased the capture of outpatient contract utilization in particular and made the increase in LTC patients appear greater than it may have been between FY1995 and FY1997.

These forces sometimes offset and sometimes reinforced each other with a net effect that complicates forecasts of trends. We chose to express VA patient workload and LTC patient counts in relation to the underlying veteran population because these relationships are the most stable, especially given the trends in VA patient population growth, the shift to outpatient care and improved data capture. Using the underlying veteran population as the reference point focuses on the more basic question of the extent to which VA has been serving its potential patient population.

The analysis required to estimate the impact of section 101 is heuristic rather than statistical. That is it comprises a careful examination of trends in LTC to discern any changes around the time of the Millennium Act or after. Because the Act was passed in 1999, the analysis looks for anticipation effects in 1999 or implementation effects any time after that year.

- **The available evidence suggests that, at least through FY2002, the Millennium Act has had little effect on the volume of LTC services delivered to VA patients and therefore little effect on the cost for those services.**

The trends show that growth in the number of patients precedes passage of the Act and is related to the first four trends mentioned above.

[2] Department of Veterans Affairs. (1998). "*VA Long-Term Care At The Crossroads*". Report of the Federal Advisory Committee on the Future of VA Long-Term Care. Washington, DC: Geriatrics and Extended Care.

Veteran Population By Gender: Trends for female veterans and VA patients differ slightly at times from those for males, but 97% of all VA LTC patients are male and trends for male veterans govern what happens to VA LTC. The analyses that follow therefore concentrate on trends for male veterans.

Veteran Population By Age: Veterans aged 55 to 64 and 75 and older accounted for larger shares of the male veteran population in FY2002 compared to FY1995. For men over 74, the increase was especially sharp, from 10% to 19% of male veterans, a growth from approximately 2.7 million veterans to about 4.4 million (Figures 1 and 2).

Figure 1. Male Veteran Population Age Groups As % of All Veterans, FY1995 and FY2002

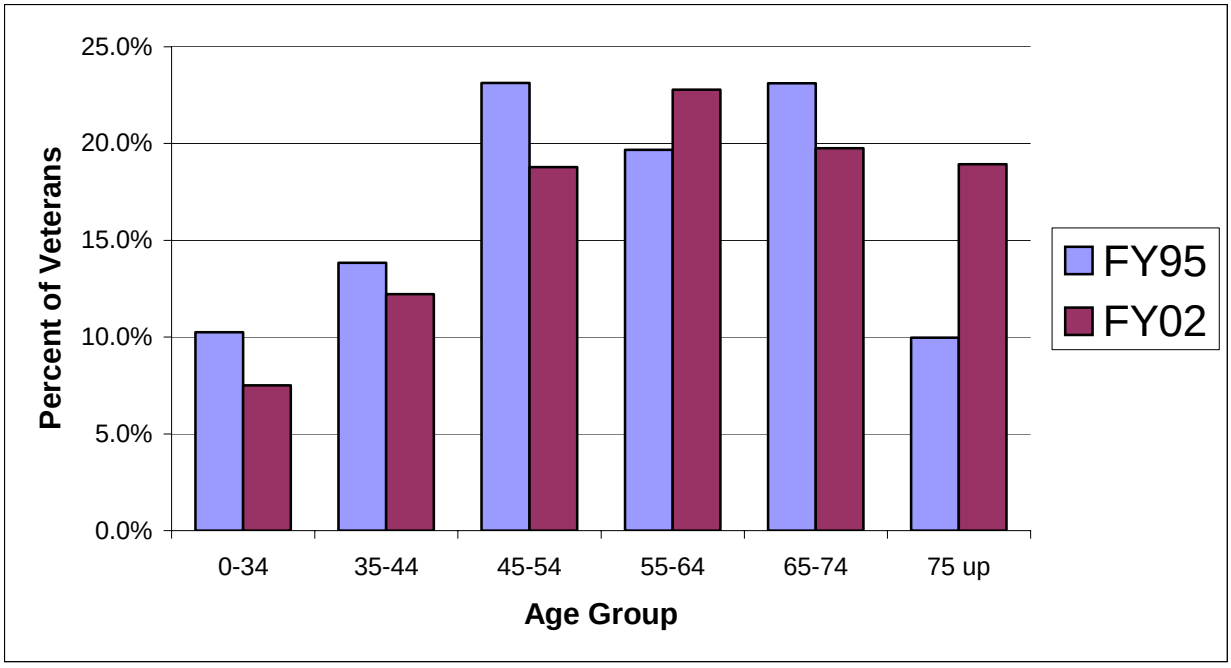


Figure 2. Growth in Male Veteran Population By Age Group, FY1995-FY2002

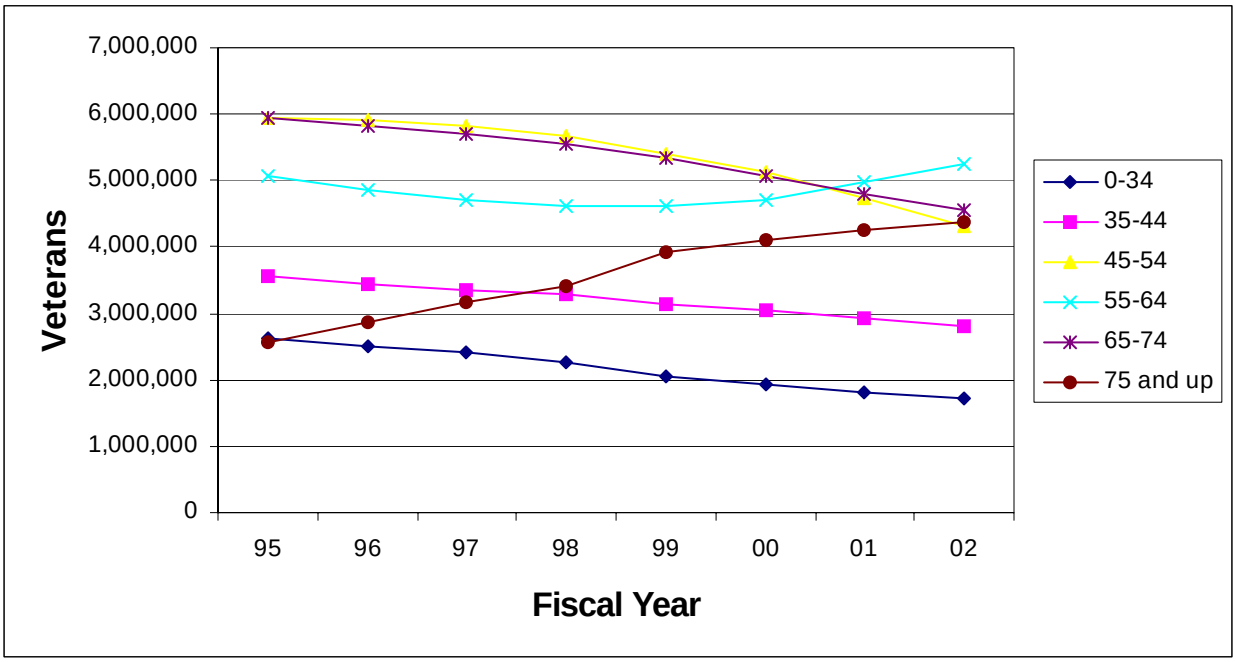
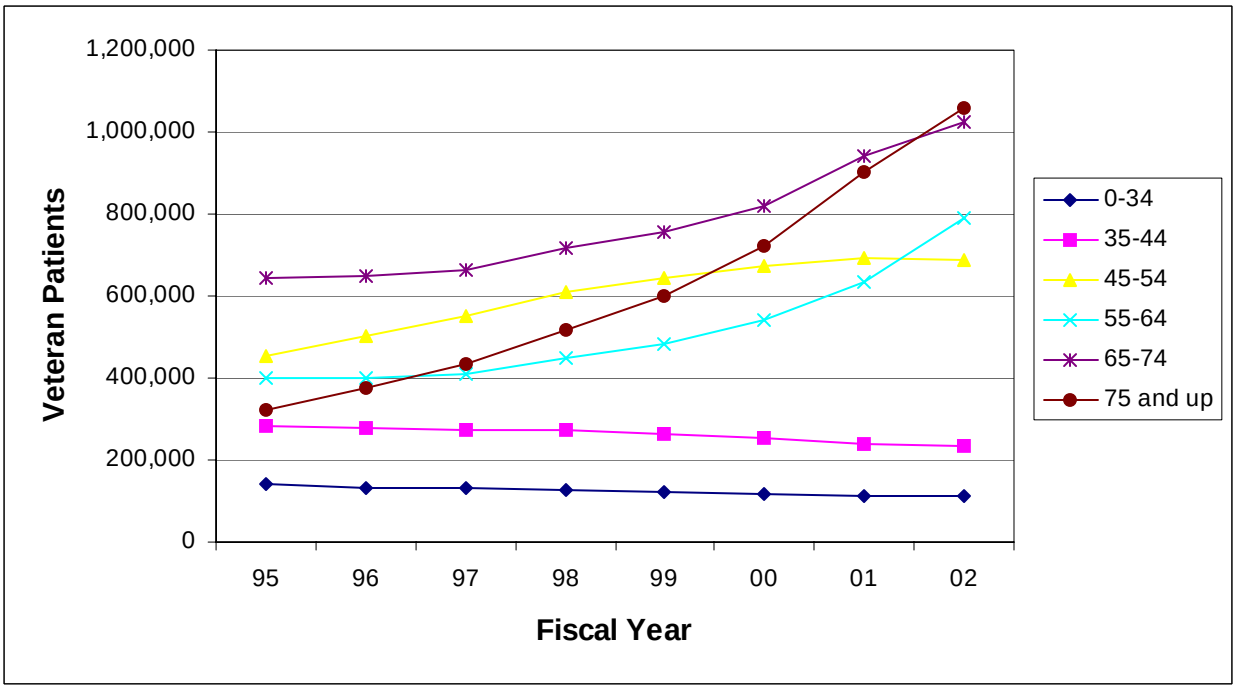


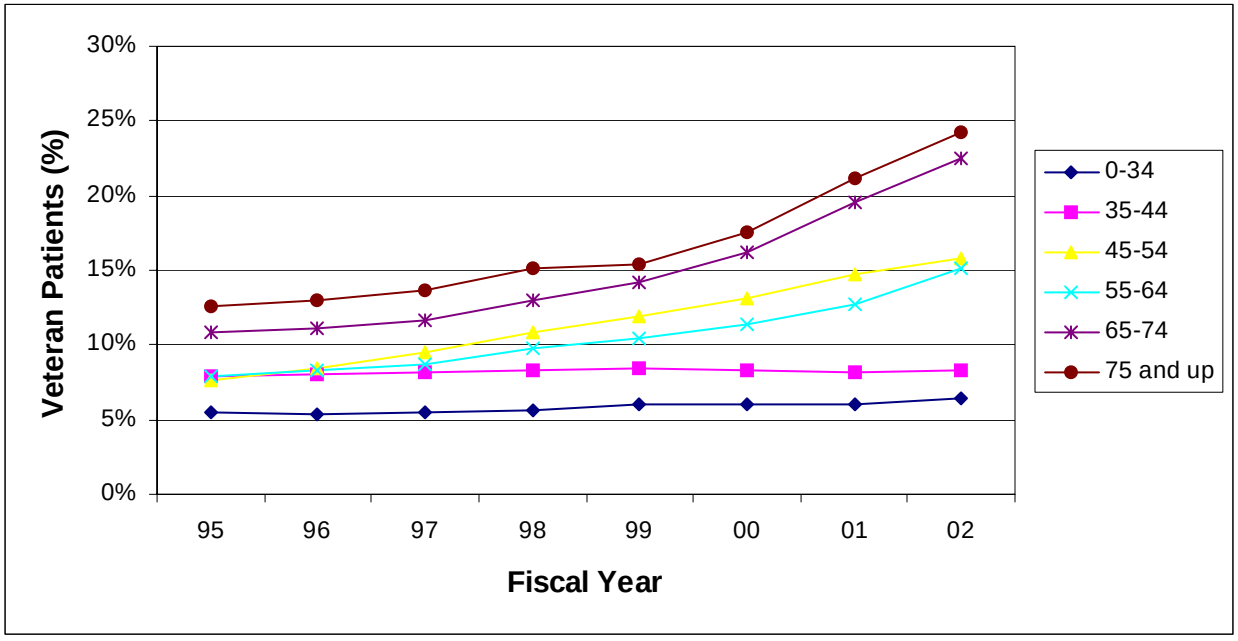
Figure 3. Number of Male VA Veteran Patients By Age Group, FY1995-FY2002



Male Veteran VA Patients: Although the number of male veterans in some age groups was falling from FY1995 through FY2002, the number who were patients grew consistently for all age groups 45 years of age and older (Figure 3).

LTC Programs Overall: From FY1997 through FY2002, the proportion of the male veteran population in each age group participating in at least one LTC program in the year has held steady or grown (Figure 4). It is evident from the chart that for age groups of veterans under age 65, the extent of participation in LTC programs during FY2000 and FY2002 represents a simple continuation of trends between FY1997 and FY1999.

Figure 4. Male VA Veteran Patients As % of Male Veteran Population

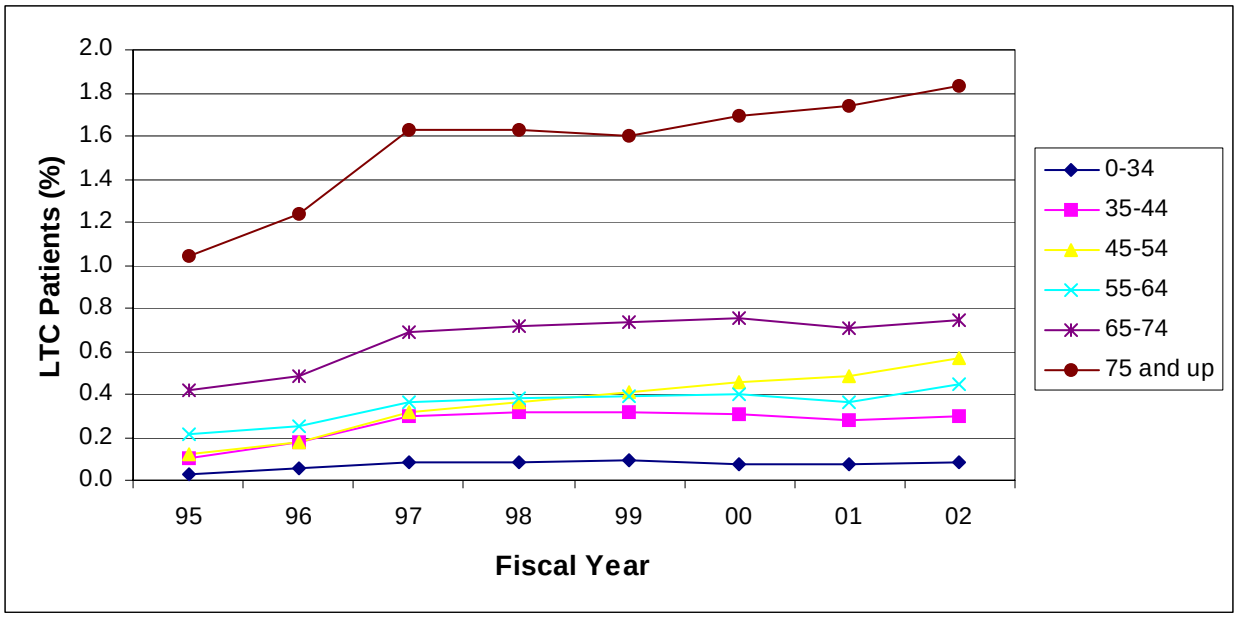


- **For younger age groups, there is nothing to suggest that the Millennium Act had any effect on the rates at which these patients participate in LTC.**

Increased rates of male veteran participation in LTC between FY1995 and FY1997 (Figure 5) are partly due to the expansion in LTC programs, particularly in FY1997. Examples include nursing home care units (NHCU) and the Geriatric Evaluation and Management (GEM) clinics. The

increases are also attributable, however, to the increased comprehensiveness of VA automated utilization data, especially for outpatient services (e.g., follow-up for contract community nursing home (CNH) placements whether paid by VA or not between FY1996 and FY1997.

Figure 5. Male LTC Patients As % of Male Veteran Population

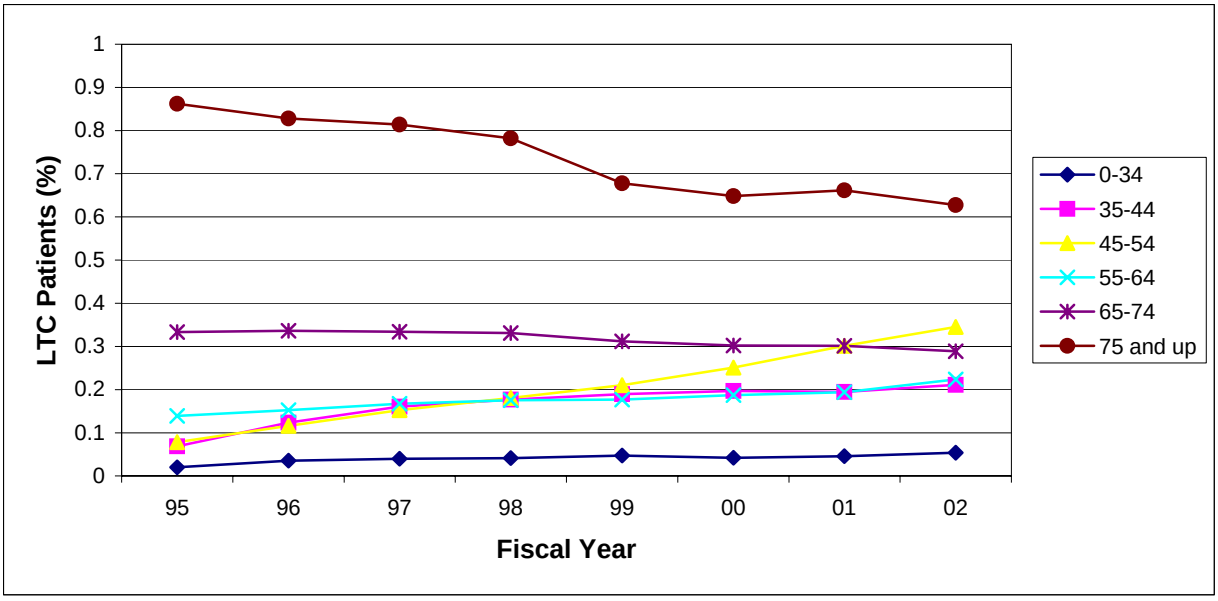


For the oldest age groups, there may be a small effect from the Millennium Act. For male veterans ages 65-74, the FY2001 LTC rate falls slightly below the trend line from FY1997 to FY2000, but by FY2002 the rate has returned very close to the earlier trend line, suggesting the FY2001 drop was natural year-to-year variation.

- **For male veterans aged 75 and older, the rate of general LTC participation in FY2002 was about 1.84%, or about 21% above the projection of 1.52.**

The share of the male veteran population participating in long-term inpatient programs is relatively stable. For veterans aged 65-74, the LTC inpatient rate declined slightly, remaining around 0.3%, but for younger age groups, the rates are steady or rise (Figure 6). There is no indication of an effect from the Millennium Act.

Figure 6. Male LTC Inpatients As % of Male Veteran Population By Age Group, FY1995-FY2002



For male veterans age 75 or older, however, there appears to be a slight effect. LTC participation for these patients showed a steady and slow decline from FY1995 through FY1998. Then, from FY1998 to FY1999 there was a sharper dip. However, as discussed in more detail below regarding VA Nursing homes, much of that dip is attributable to a large increase in the veteran population in that age range, as veterans who were 18 years old in 1942 (a major year for the WWII cohort) turned 75 in FY1999. In FY2000 and FY2001, the rate leveled off then dipped slightly in FY2002.

If one regarded the FY1998 to FY1999 decline as the beginning of a sharp trend that should have continued, then one would project a large impact from the Millennium Act for this age group, in the neighborhood of about 42% (0.63% vs. 0.44%). That interpretation, however, places unwarranted weight on a single year's departure from previous trends. Extending the trend for FY1995 through FY1998 on to FY2002, the difference between actual and projected rates is

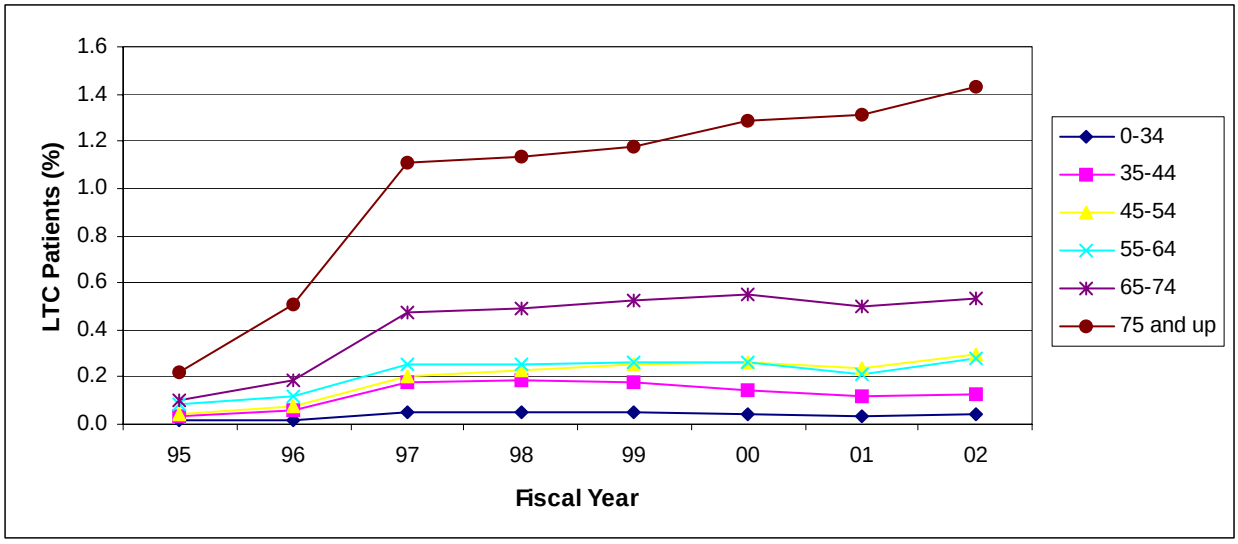
smaller (about 0.63% vs. 0.69%, or about a 9% difference), with the actual rate being slightly below the projected.

- **For male veterans age 75 or older, there may be an impact of the Millennium Act, leading to higher LTC inpatient participation rates than would be expected. The effect is difficult to quantify but could be as large as 16%.**

Outpatient LTC Programs: For long-term outpatient programs there is no apparent Millennium Act effect for veterans under age 65. Effects for older age groups appear to be small in part because increases between FY1995 and FY1997 are largely an artifact of improved automated data for all outpatient services.

For the 55-64 and 65-74 age groups, the FY2001 percentages are slightly below the slight increase projected from the FY1997-FY2000 trend, but in FY2002 the rates return to their FY2000 levels, with no apparent net effect. For veterans aged 75 and older, the trend from FY1997 through FY1999 suggested a FY2002 rate of 1.28%. The actual rate is about 1.43% or about 12% higher than expected (Figure 7).

Figure 7. Male LTC Outpatients As % of Male Veteran Population By Age Group, FY1995-FY2002

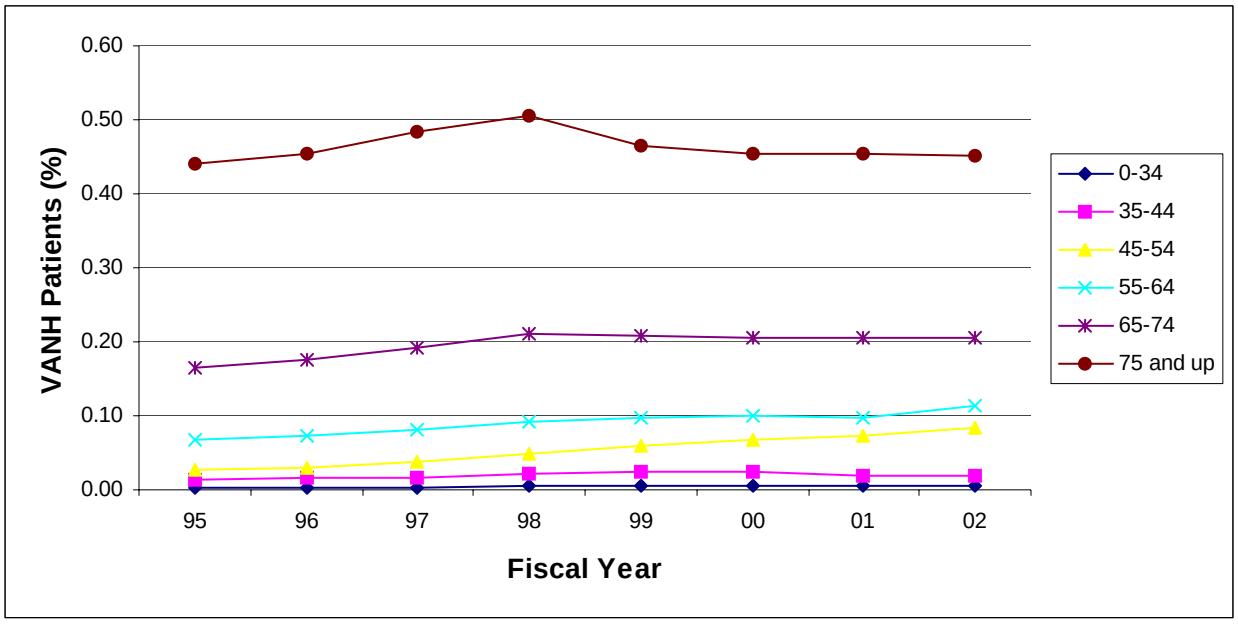


Analysis of Selected LTC Programs

This subsection examines trends in male veteran participation in the five LTC programs serving the largest number of patients. Three of these are inpatient programs; two are outpatient. The state home-nursing homes and state home-domiciliary programs serve large numbers of veterans, but lack of patient-level data over time precludes forecasting by age and SC disability status. These programs are thus not included in these analyses. Other smaller programs (e.g., adult day health care, GEM inpatient) serve too few patients for reliable forecasts by age and disability.

VA Nursing Home: The trends for VA's largest single long-term inpatient program, VA nursing home care, look much like those for participation in any long-term inpatient program, but are more pronounced (Figure 8).

Figure 8. Male Veteran VANH Patients As % of Male Veteran Population By Age Group, FY1995-FY2002



Especially for male veterans aged 75 and older, there is a gradual increase in participation rates from FY1995 through FY1998, then a fairly sharp decline in FY1999. The decline then slows and becomes flat. This age group makes up about half of the nursing home population, so these trends are important in estimating the effect of the Act. The changes in participation rates appear

to coincide with the Act but can also be explained by underlying changes in the veteran population.

Four Possible Scenarios

For male veterans aged 75 and older, several scenarios seem plausible. First, a trend for increasing participation rates from FY1995 to FY1998 might have been disrupted in FY1999. Was this reduction in anticipation of the Millennium Act? Second, the changes in FY1999 could be seen as the beginning of a new trend: a reduction in the participation rate. Should this trend toward reduction in FY2000 to FY2002 be regarded as the effect of the Millennium Act? Third, is it possible that there really was no trend before FY1998, that FY1997 and FY1998 were just anomalies. In this view, the rate of participation for this age group just returned to the level in FY1995-FY1996. In this case, there is no effective impact from the Millennium Act. Fourth, the increase in FY1998 to about 0.50% could represent a new 'normal' level for this age group. The reduction in the participation rate in FY1999 was in anticipation of effects of the Millennium Act, reducing the actual rate back to about 0.45%, or about 10% below the projected (normal) value.

Among these four possibilities, the evidence suggests that the last one is the most credible.

Ruling Out Reductions and "No Trend"

First even though the rate of percentages of male veterans in VA nursing home programs goes down between FY1998 and FY1999, the number of male veteran VA nursing home patients in this age group did not actually fall in those years. The male veteran population in this age group was increasing, with a peak percentage increase in FY1999. The increase in the population was so large that the absolute number of VA nursing home patients in this age group actually

increased by almost one thousand patients between FY1998 and FY1999, despite the reduction in the participation rate.

Second, the patterns for younger groups suggest that there was some general increase in participation rates that represented the normal pattern for approximately FY1995 through FY1999. If a general increase in participation rates for nursing homes is plausible, then the second and third scenarios noted above are not very likely trends in the absence of the Millennium Act. The reduction in participation rates between FY1998 and FY1999 is not matched in any of the other age groups. Nor is there an indication in these other age groups that the participation rates in FY1995 and FY1996 are typical for the group. For FY2000 through FY2002, the participation rates are higher than for FY1995 and FY1996 in all three of these other age groups.

Since FY1999, there was some reduction in the volume of VA nursing home care. While, the total number of unique nursing home patients rose then leveled off, a long-term shift to relatively short-term rehabilitation care continued. The net result was a steady decline in the ADC for VA nursing home care from FY1998 through FY2001. There is no indication of a material change in this trend that might be attributable to the Millennium Act, as shown by two measures in Table 1.

Both measures are based on the number of VA nursing home stays for which any part of the stay falls within the fiscal year. The first measure gives the proportion of those stays that last for less than 30 days (even if part of the stay extends into the next fiscal year). That measure shows a steady rise in short-term stays, from about 21% of stays in FY1995 to 41% of stays in FY2001.

The second measure is the proportion of stays that last 93 days or more. By that measure, long-term stays have fallen consistently since FY1995, from 64% of all VA nursing home stays to 34% by FY2001. Both trends preceded the Millennium Act and do not seem to have changed materially after FY1998.

Table 1. Short and Long VA Nursing Home Stays As Percentage of All VA Nursing Home Stays in the Fiscal Year

Fiscal Year	Less than 30 days (%)	Longer than 92 days (%)
1995	21.4	63.7
1996	24.5	59.1
1997	30.0	51.4
1998	34.0	45.0
1999	36.8	41.2
2000	38.8	38.8
2001	41.4	34.1

Did the Millennium Act Reduce NH Care?

These considerations leave us with two plausible alternative trends that the data on VA nursing home services could be showing. These are the first and fourth scenarios identified above. The first posits that there was a trend toward increasing participation rates before FY1999 and that this trend was interrupted, possibly by the Millennium Act. If this scenario applies, there might well be a fairly substantial effect from the Act, as discussed in more detail below.

The fourth scenario suggests that the increases preceding FY1999 were not really a trend but just a shift to a new level of participation rates, which are reflected in the levels for FY2000 through FY2002. If this scenario applies, there has been no major impact on the volume of VA nursing home services from the Millennium Act. These alternative explanations for the results are discussed in what follows.

The male veteran population aged 75 and older grew fairly steadily until FY1998, then jumped by nearly ½ million (about 15%) between FY1998 and FY1999 and continued growing after that (Figure 2 above). In fact, the rate of growth before FY1999 was strong, but declining: 12% between FY1995 and FY1996, 10% the following year, 8% the next. After the jump in FY1999, growth resumed but at a much slower (and still declining) rate: 5% to FY2000, 4% to FY2001, 2.4% to FY2002. The strong jump in population reflects the fact that in FY1999, those veterans who were age 18 in the first full year of U.S. participation in WWII (1942) became 75.

The number of male veteran VA patients 75 and older grew even faster over this period as shown in Figure 4. The participation rate increased steadily before FY1999, as the number of VA patients in this age range increased about 15% per year. In FY1998, the number of patients grew 19%. In FY1999, however, growth slowed to about 16%. Although the participation rate continued to rise, because of the jump in veteran population in that year, the increase in the participation rate was very small. Following FY1999, the patient population in this age group rose even faster (20% between FY1999 and FY2000, 25% in FY2001, 17% in FY2002).

The male veteran VA nursing home patient participation rate fell by about 8% (from 0.50% to 0.46%) between FY1998 and FY1999. This is not a drop in the actual number of veteran VA nursing home patients in the age group. The veteran population in this age range grew 15%, so the 8% reduction implies that the number of VA nursing home patients in this age group increased only about 7% between FY1998 and FY1999 (15% - 8%), slightly less than the 10.5% that we would have expected based on trends in the preceding three years. The departure from the trend is thus only about 3.5%.

In FY2000-FY2002, the departure from the earlier trend (FY1995-FY1998) became more pronounced. The participation rate fell another 1% in FY2000, then held fairly steady in FY2001 and FY2002. These results suggest that the growth in the number of patients in this age group slowed rather substantially after FY1999. Altogether, the cumulative difference between actual and projected numbers of VA nursing home patients in this age group would have been about 15% by FY2002.

Age and Participation Rates

Male veterans aged 75 and older account for almost half of all VA nursing home patients, so the experience of that group tells much about what is happening to all VA nursing home patients. Other older age groups experienced roughly the same net effect: approximately 15% lower than what one would have expected for FY2002 in the absence of the Millennium Act. Although participation rates were increasing for these age groups, because the veteran population in these groups was declining, the actual number of VA nursing home patients declined.

The timing of this leveling off of growth in participation rates suggests it is unrelated to the Millennium Act. The Act was passed at the beginning of FY2000. The growth in participation rates for 65 to 74 and 75 or older age groups level off between FY1998 and FY1999. For that curtailment of growth to have been the result of the Millennium Act, there would have had to be a strong anticipation effect.

In this scenario, the Millennium Act, which was intended to help assure veterans that they would not be discharged prematurely or unfairly from VA nursing homes, would have had the unintended effects of a) reducing admissions to VA nursing homes once the act was in effect,

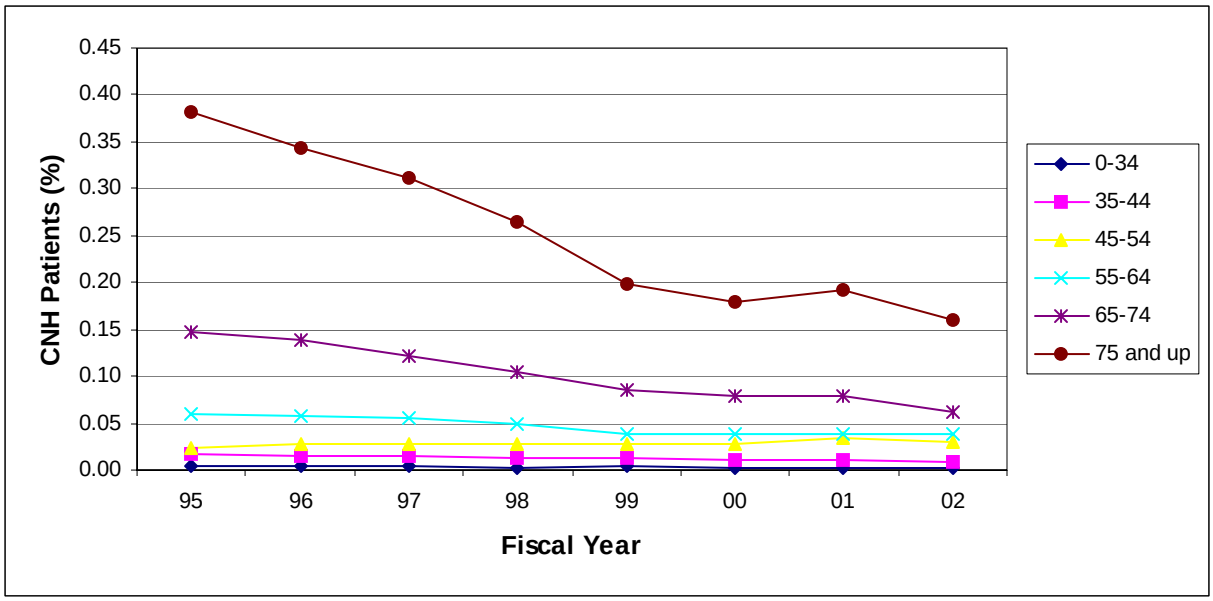
and b) increasing the number of discharges from VA nursing homes after the Act was passed but before it took effect. In fact, admissions to and discharges from VA nursing homes remained fairly constant from FY1999 through FY2002. Although discharges from VA nursing homes did increase between FY1998 and FY1999 by more than 1,500 (not shown), the number of admissions rose by 300 and the total number of veterans receiving care in VA nursing homes increased almost 1,300. In addition, there is no clear evidence of changes in admission or discharge patterns for those veteran patients most directly affected by key provisions of the Act, those with 70% or higher SC disability. Overall, the evidence does not seem to support this hypothesized scenario.

Summary

If the first scenario we identified does not seem to appropriately describe the data, we are left with the fourth: the new levels of participation rates represent a new level that should continue until either the veteran demographic has changed or new policies are undertaken. There was essentially no effect of the Millennium Act on the overall volume of VA nursing home services.

Contract Community Nursing Home: Rates for participation in contract CNHs do show a change after passage of the Millennium Act among male veterans aged 65 and older. For other age groups, participation rates are low and mostly flat throughout the period (Figure 9).

Figure 9. Male Veteran CNH Patients As % of Male Veteran Population

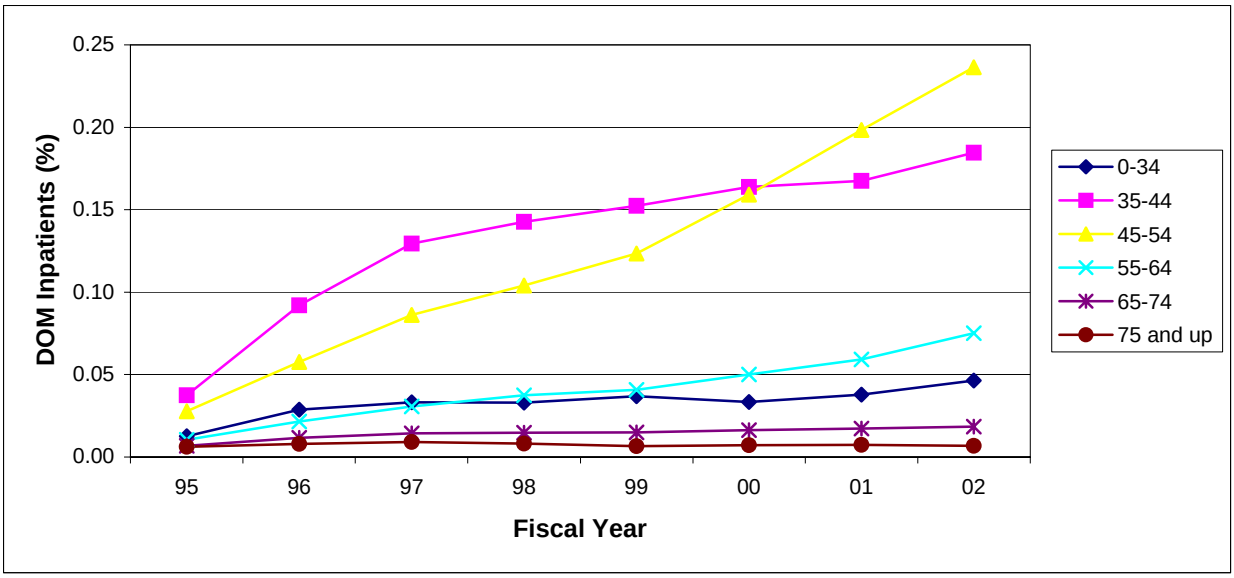


For both older age groups, relatively rapid declines in the number of unique patients in Contract CNHs, especially for veterans aged 75 and older, stopped in FY2000 and FY2001. For this program, the declines in participation rates were more consistent through FY1999. The departure of the rates in FY2000 and FY2001 from earlier trends is much more evident. Assessing the size of any effect from the Millennium Act is very difficult, however, because the proportion of male veterans in CNH became quite low by FY2000 and it is not at all clear that the declines from FY1995 through FY1999 could have continued much longer. Had those declines continued, there would have been no VA patients aged 65 or older in CNH by FY2006.

Domiciliary Inpatient: Participation in VA DOM inpatient programs differs from the nursing home programs in at least one important respect: DOM patients tend to be much younger than nursing home patients. Most DOM programs treat substance abuse or mental health problems, which tend to afflict younger veterans. For DOM programs, the two oldest age groups have low and rather constant participation rates over the period examined. The youngest age group, under

age 34, and those 55 to 64 years old, also have relatively low participation rates, which grew slightly over the period (Figure 10).

Figure 10. Male Veteran DOM Inpatients As % of Male Veteran Population



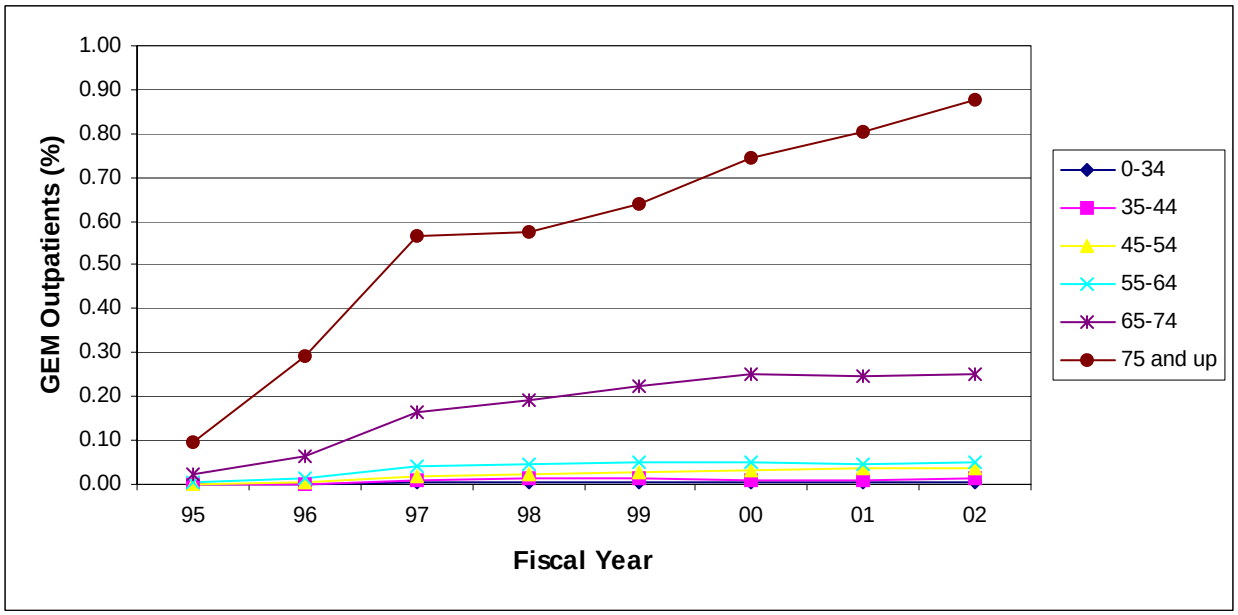
The age groups with highest and fastest growing participation rates in DOM programs are veterans aged 35-44 and 45-54. The period from FY1995 through FY1999 coincided with program expansion. The number of veterans in these age groups has declined slowly and steadily over the period, but the numbers of patients served increased.

As for possible Millennium Act impacts, the 45-54 age group seems most likely to show such an effect. For this age group, there is a fairly abrupt departure from trend between FY1999 and FY2000, and the departure continues into FY2001 and FY2002. The actual rate in FY2002 is 0.236%; the projection is about 0.22%, for a difference of about 6% of the projected level.

GEM Outpatient: Growth in GEM outpatient participation from FY2000 through FY2002 seems to fit extensions of the previous growth trends. Growth in the participation rates is evident

for veterans age 65 or older. As one would expect for geriatric programs, other age groups show very low participation rates, and those rates change very little over the period. Growth in rates for older patients is consistent with program expansions during this period. There is very little indication of any change in growth that would be attributable to the Millennium Act (Figure 11).

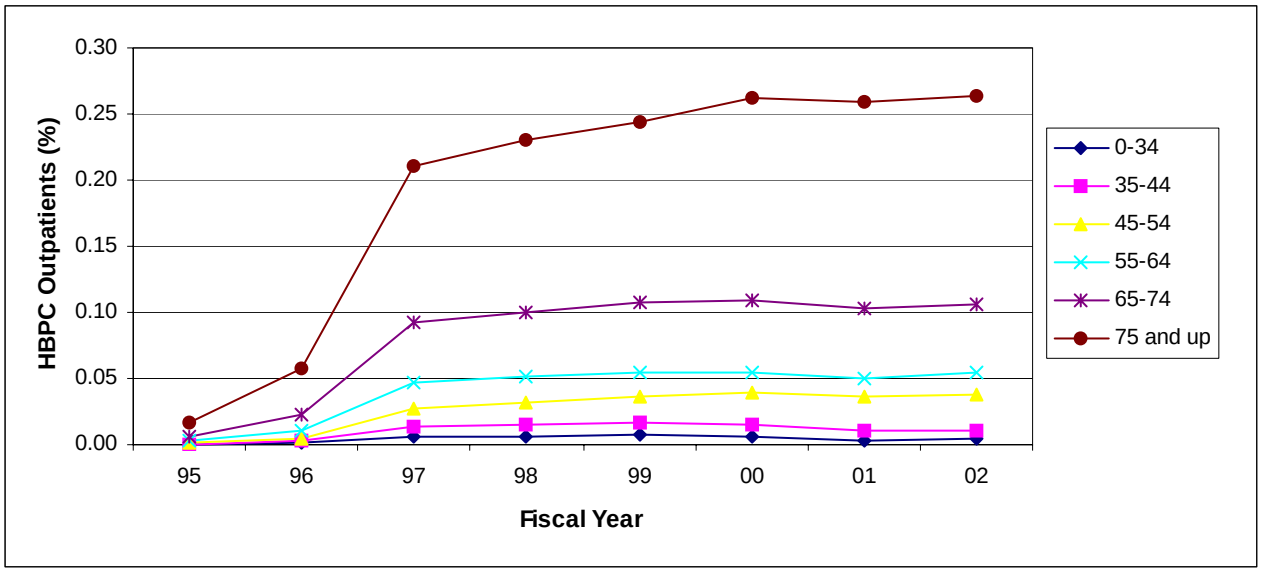
Figure 11. Male Veteran GEM Outpatients As % of Male Veteran Population



HBPC Outpatient: VA HBPC is one of the largest outpatient programs in terms of unique patients served. Like GEM outpatient programs, the highest participation rates for HBPC are for veterans age 65 and older. For veterans aged 65-74, the participation rates are essentially flat from FY1997 through FY2002 (Figure 12). For veterans aged 75 and older, the participation rates increase steadily from FY1997 through FY2000, then level off in FY2001 and FY2002. Growth from FY1999 to FY2000 is faster than it had been from FY1997 to FY1999. If the FY1999 to FY2000 growth defines a new, faster trend that should have continued through FY2002 then the participation of this age group would be expected to be about 8% higher in FY2002 than it actually was. However, if FY2000 is just a temporary departure from the

FY1997 to FY1999 trend, then the projected level for FY2002 would be only about 4% higher than the actual level. In all, there appears to be very little evidence of an impact of the Millennium Act on unique patients in HBPC.

Figure 12. Male Veteran HBPC Outpatients As % of Male Veteran Population



Costs and Utilization

The number of unique patients served by LTC programs is a major factor in program costs. For most programs, there is little or no effect from the Millennium Act through FY2002, but for male veteran patients aged 75 or older, participation in inpatient LTC may be as much as 16% higher by FY2002 than it would have been in the absence of the Millennium Act. For LTC outpatient programs, the difference would be about 12% (Figure 7). Because many patients participate in both LTC inpatient and outpatient programs, the overall increase for this age group would be about 13.5%.

Patients aged 75 or older account for more than half of all LTC patients (Table 1) so changes in their participation rates can have a large effect on the total number of LTC patients. For

example, this age group accounts for approximately $922 million out of the total of $2.041 billion in LTC costs in FY2000, about $739 million out of $1.625 billion in inpatient LTC costs.

Even if the Millennium Act has an effect on LTC participation for this age group, estimating its impact on costs is necessarily speculative. If these additional LTC patients would not have been VA patients at all without the Millennium Act, then their total VA medical costs would be added because of the Act. In addition to 13.5% of the $922 million LTC costs, the added cost would include 13.5% of $895 million of other (non-LTC) costs that these LTC patients have. The total is approximately $245 million, or about 5% of the total cost of VA care for LTC patients in FY2000.

If these additional LTC patients would have been VA patients even in the absence of the Millennium Act, then their additional costs would have been considerably less than the above amounts. A rough estimate might be the amount of their VA LTC costs or about $125 million. That estimate assumes that they would have incurred their non-LTC costs anyway. Alternatively, if the new LTC inpatients might have been participants in LTC outpatient programs, a rough estimate of their additional cost would be the difference between average LTC inpatient costs and average LTC outpatient costs in this age group, multiplied by the projected number of new LTC inpatients, or about $68 million. These estimates are upper limits on the possible impact of the Millennium Act.

These possible effects involve substantial sums of money, but in relation to the total VHA budget for medical care and for LTC patients, the amounts are not very large. With a total VA medical

care budget of $20 billion annually by FY2002, the upper range estimate ($245 million) of an effect is about 1.25 percent of that budget. Total VA cost for LTC patients (including LTC and all other VA care) was about $4.8 billion in FY2000. The upper limit estimate of effect is equivalent to about 5 percent of that amount. Lower estimates are one-half ($125 million) or one-quarter ($68 million) of that 5 percent, depending on the care that one assumes would have been received by these patients in the absence of the Millennium Act. Finally, if the number of new patients attributable to the Millennium Act is less than the upper limit estimate of 13.5%, these estimates of cost impact would be all correspondingly lower.

The other major factor affecting cost is the intensity of utilization by patients in LTC programs: length of inpatient stays, number of outpatient visits, and number of clinic stops in outpatient visits. These measures are reflected in the ADC, which declined for all inpatient programs except for GEM programs within VA nursing homes and respite care. Similarly, ADC declined for all LTC outpatient programs except for HBPC.

Whatever the trends in LTC, most were evident before the Millennium Act was passed, certainly before it became effective. For instance, the declines in ADC for both VA nursing home and GEM inpatient programs were evident well before FY2001. The only abrupt change in inpatient programs is for domiciliaries, for which ADC rose between FY2000 and FY2001. The decline in the domiciliary ADC from FY1998 to FY1999 had already effectively stopped between FY1999 and FY2000. That the increase is due to the Millennium Act becoming effective is very unlikely.

For outpatient programs, there are also clear trends before the Millennium Act became effective. Examples include ADHC, geriatric clinics, and community residential care. It is true that the growth in geriatric clinic ADC leveled off from FY2000 to FY2001. That might be related to the Millennium Act. Also, ADC for the HBPC program rose sharply between FY1998 and FY1999, then declined in FY2000 and again in FY2001. For this program, if one wanted to stretch hard, the timing of these changes could conceivably be linked to the Act, but the incentives given the expansion in access required by the Act argue against this.

- **Projections of trends in numbers of LTC patients in the absence of the Millennium Act suggests that the Act might have produced increases in VA costs of care. The upper limit estimate is $250 million per year, or 1.25% of the total VA medical care budget, or up to 5% of the total cost of VA care for LTC patients. However, the actual effect could be considerably less than that, closer to $125 million or $68 million per year, depending on what one assumes about the VA care these patients would have received without the Millennium Act. In contrast, changes in ADCs for LTC programs seem to show no strong indication of an effect of the Millennium Act on intensity of LTC utilization through FY2002.**

Service-Connected Disability

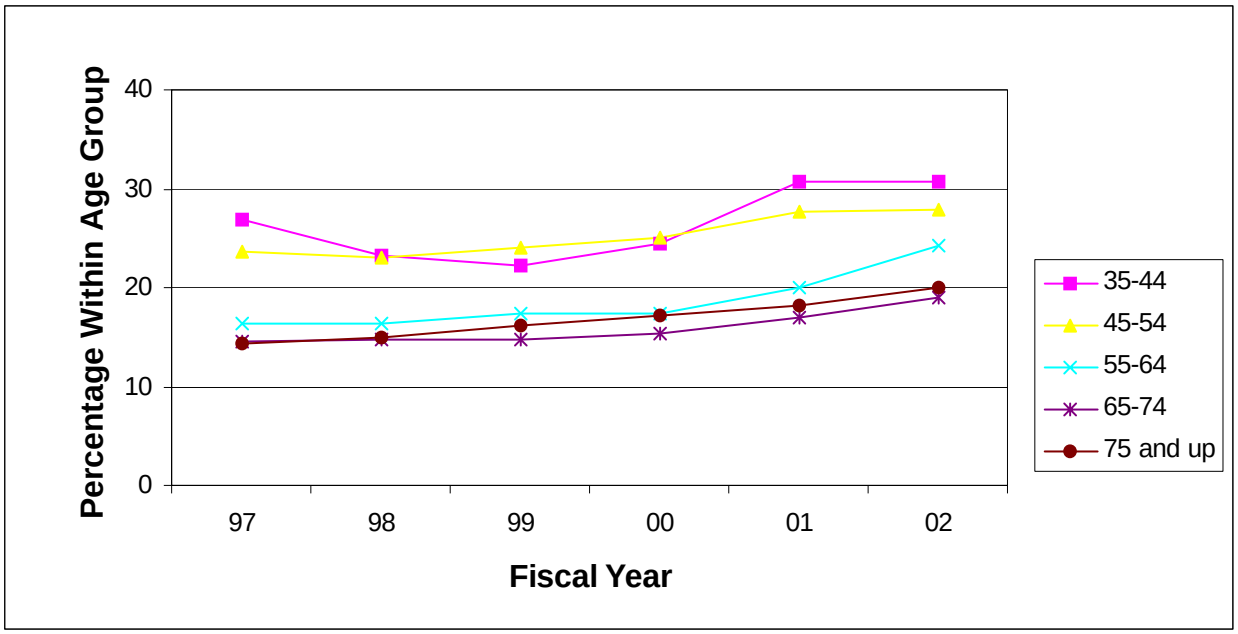
The new provision in the Millennium Act that deals with SC disability provides that veterans who have a 70% or higher rated disability (interpreted to include those rated 60% or higher who are also 100% unemployable) may not be discharged from VA nursing homes without their consent, as long as the treatments they are receiving in the nursing home are medically necessary.

This provision may create two problems: 1) that veterans with 70% or higher disability ratings might not be admitted to VA nursing homes as readily after the Act as they were before, because once admitted the new provision of the Act applies to them; 2) that VA nursing homes may exclude other veterans to make room for those with the higher disability ratings who are now covered by the Act. In the first case, a sudden drop in the proportion of VA nursing home patients with 70% or higher disability ratings would be expected. In the second, one would expect a gradual growth in the share of nursing home patients who have the higher disability ratings.

As in previous analyses, the focus here is on male veterans, who make up almost all VA nursing home patients. The analysis is limited to FY1997 and later because the information on SC disability in the automated utilization data is much more complete for these years. For the period FY1997 through FY2002, Figure 13 shows the percentage of VA nursing home patients within each age group who have SC disability ratings of 70% or more.[3]

[3] The youngest age group, those age 34 and under, is omitted. They account for a very small proportion of nursing home patients, and their percentage with 70% or higher disability varies so much year to year that it would distort the scale of the graph and distract from the central picture.

Figure 13. VA Nursing Home Patients With 70%+ Serv. Conn. Disability (Percent Within Age Group)



- **With regard to the first concern, there is no indication of a sudden drop in the share of VA nursing home patients with 70% or higher disability ratings. That is, there is no indication that veterans who are now given special status under the Millennium Act are not being admitted to VA nursing homes under the same criteria as they were prior to the Millennium Act, nor any indication that they were moved suddenly out of VA nursing homes before the Act's provisions took effect.**

With regard to the second concern, that patients with lesser disability ratings may be moved out (or not admitted) to VA nursing homes in order to make room for veterans with the higher disability ratings, the data show a less clear-cut pattern. In fact, for four of the five age groups shown in Figure 13, VA nursing home patients with the higher disability ratings have been accounting for an increasing proportion of VA nursing home patients in their respective age groups since FY1997. Only for veterans aged 35-44 has the share with high disability ratings

declined. Even for that group, however, the decline was limited to FY1997-FY1999, and the proportion with higher disability ratings has been rising since FY1999.

This increase in the proportion of VA nursing home patients with high disability ratings is fairly consistent and constant over most of the period examined. There is only a slight hint of a possible change in trend that might be due to the Millennium Act. For veterans in age groups 55-64 and 65-74, there does appear in FY2001 to be a small deviation upward from previous trends. But the departures are small, 20% vs. a projected 18% or 17% vs. a projected 16%.

- **Overall, there is no strong indication of sudden increases in the proportion of VA nursing home patients who have 70% or higher disabilities. That is, there is no indication of a sudden change of behavior by VA nursing home administrators in response to the new Millennium Act provisions becoming effective.**

DISCUSSION

The impact of the Millennium Act cannot be estimated statistically given the many possible confounding factors. The analysis is necessarily heuristic and involves careful examination of the trends is veterans' use of VA LTC by age group and SC.

The available evidence suggests that the Millennium Act had at best little effect on the volume of LTC services delivered to VA patients and therefore little or no effect on the cost for those services. One marked change was greater participation in VA LTC by veterans aged 75 and over than would have been predicted from the relatively flat historical trend. This increased participation may have increased annual VA LTC costs by at most $125 million and annual total

VA medical care costs by about $245 million. The latter is about 1% of VA's health care budget.

A number of changes took place during this time, however: the veteran population aging, new budget allocation formula that encouraged enrollment of many more veterans in the VA health care system, expansion of geriatric and extended care programs, and a general movement of VA patient care from inpatient to outpatient settings that mirrored changes in the private sector. These changes have been so pervasive during these years that any change that Congress was anticipating in passing the Act easily could have been obscured.