Projected Use of Long-Term-Care Services by Enrolled Veterans

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Purpose: The purpose of this article is to describe the projected use for long-term-care services through 2012. Design and Methods: We constructed a static-component projection model using age, function, and other covariates. We obtained enrollee projections from the Veterans Health Administration (VHA) and combined these with nursing home and community long-term-care service use rates from the 1999 National Long-Term Care Survey and the 2000 National Health Interview Survey. Results: Over the next decade, the number of oldest veterans (aged 85+) will double, and VHA-enrolled veterans aged 85 and older will increase sevenfold. This will result in a 20–25% increase in use for both nursing home and home- and community-based services. VHA currently concentrates 90% of its long-term-care resources on nursing home care. However, among those who receive long-term care from all formal sources, 56% receive care in the community. Age and marital status are significant predictors of use of either type of formal long-term-care service for any given level of disability. VHA’s experience with the mandatory nursing home benefit suggests that even when the cost to the veteran is near zero, only 60–65% of eligibles will choose VHA-provided care. Assisted living represents nearly 15% of care provided during the past decade to individuals in nursing homes, and approximately 19% of veterans using nursing homes have disability levels comparable to those of men supported in assisted living. Implications: As most of the increased projected use for long-term care will be for home- and community-based services, VHA will need to expand those resources. Use of VHA resources to leverage community services may offer new opportunities to enhance community-based long-term care.

Key Words: Projection models, Nursing home utilization, Home- and community-based service utilization, Veterans Health Administration, National Long-Term Care Survey

During the past decade, there have been attempts to change the locus of long-term-care services, to expand their scope and delivery, and to create new services better suited to the specific needs of frail elders, while limiting their total cost. In 1992, the Veterans Health Administration (VHA) offered long-term-care services heavily weighted toward provision of nursing home care (approximately 95% of all long-term-care expenditures). In contrast, about 85% of Medicare and Medicaid long-term-care funding went to nursing homes. By 2002, VHA had expanded community services somewhat, but nursing homes still captured 89% of long-term-care expenditures. At the same time, Medicare and Medicaid policy changes and state program expansion reduced nursing home expenditures to 70–75% of the total long-term-care funding in those programs. These changes included greater use of nursing home preadmission screening, expansion of the role of Medicaid home- and community-based (HCBS) waivers, development of assisted living, expansion of new programs such as the Programs of All-Inclusive Care for the Elderly, and changes in medical care.

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delivery through expansion of Medicare and Medicaid managed care.

The Veterans Millennium Healthcare and Benefits Act of 1999 (a) required VHA to provide veterans access to a continuum of long-term-care services including geriatric evaluation, noninstitutional re-
spite, and adult day health care; (b) required testing of three models of all-inclusive care (modeled on the Program of All-Inclusive Care for the Elderly) and assisted living; and (c) specifically created a mandatory nursing home benefit for those veterans with a service-connected disability rating of 70% or greater (Priority 1a, or P1A). The Act also required the VHA to maintain the nursing home bed capacity that was available in 1998. Thus, the Act had the potential to expand community-based long-term-care services (HCBS) but also to expand nursing home use. In this article, we characterize the enrolled veteran population in 2002 by measures of factors believed to influence projected use for long-term-care services and, using VHA’s population projections and the current LTC [long-term care] Policy Model (Version 3.1), present the projected future use for nursing home and HCBS services for the next decade. We do not address unpaid, informal help in HCBS. The primary goal of these projections is to identify the types of qualitative changes required for VHA long-term-care programs, as they currently function, to meet likely use. By their nature, these projections are based on current patterns of supply of services and demands for care given specific needs, which makes the precise numerical estimates somewhat uncertain.

Methods

Population Definition

The level of long-term-care use generally follows the distribution of disabilities in a population. For our purposes, we included both persons who report receiving human assistance (hands on, supervision, or standby help) with activities of daily living (ADLs; Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963) or instrumental activities of daily living (IADLs; Lawton & Brody, 1969) because of a health problem, and those who report requiring mechanical or nonhuman help with an ADL (low-level ADL disability). We included the latter because requiring mechanical help provides an objective mark of difficulty in accomplishing an activity, but we consider individuals with low-level ADL disabilities to be similar to those who have disability only with IADLs with respect to their need for nursing home and HCBS services (Spector, Fleishman, Pezzin, & Spillman, 1999). ADLs represent the primary activities necessary to carry out basic functions, such as eating, dressing, and bathing; IADLs include tasks necessary for independent community living, such as shopping, managing finances, and cooking.

Although the long-term-care population overwhelmingly has one or more chronic IADL/ADL disabilities, not all users of long-term-care services have such disabilities, nor do all who have disabilities have them for an extended period. For example, after an acute exacerbation of congestive heart failure, a veteran may have no disabilities, or may have difficulty only with mobility related to in-hospital deconditioning, but still receive short-term home care services. Similarly, changes in medical practice have shifted a portion of traditionally acute care into the nursing home or home care setting. Thus, the long-term-care population includes some people with no ADL or IADL disability.

Data Sources

Although VHA has extensive data on veterans who receive medical care through VHA, only limited data are available on the functional status of those veterans. What is available is recorded for specific populations (e.g., VHA Nursing Home Care Unit residents, Home Based Primary Care patients). For those who do not receive medical care, data are even sparser, for example, with regard to marital status. Although part of the evaluation effort of the Millennium Act was to incorporate routine assessment of functional status, this is only now being implemented system wide. Therefore, we combined data from VHA surveys of the enrolled veteran population, the National Long-Term Care Survey (NLTCS), the National Nursing Home Survey (NNHS), and the National Health Interview Survey (NHIS). We discuss our use of each of these sources below.

VHA (through the Office of the Assistant Deputy Under-Secretary for Health) conducted two extensive surveys of enrollees in 1999 and 2002; a third survey, conducted in 2004, was not available for this analysis. A fourth survey, conducted in 2005, was coordinated with the 2004 NLTCS screener and will be used for the 2007 model update. These surveys assess areas of projected use for VHA services, insurance availability, and functional status (self-reported IADLs and ADLs). All were telephone surveys, with 60–70% response rates (19,000 respondents in 1999 and 38,000 respondents in 2002).

Several national surveys address long-term-care needs, and we used them in this study. Perhaps the best primary data source available is the NLTCS (1982, 1984, 1989, 1994, and 1999), which contains longitudinal and cross-sectional data on a nationally representative sample of about 42,000 U.S. residents on Medicare, aged 65 years or older at some point during 1982–1999, with 17,000–20,000 age-eligible survivors at each of the five waves of whom about 4,500–5,500 are classified as disabled, with 1,200–1,300 in institutional residence. At the time of each new survey, a cohort sample of about 5,000 adults...
passing their 65th birthday in the prior 5 years is added to the surviving sample to replace the deaths that occurred since the prior survey and to ensure that the new sample is representative of the entire elderly (aged 65 and older) Medicare population. The NLTCS covers both institutionalized and noninstitutionalized individuals, and response rates are excellent for all five waves of the survey (95% and greater; Manton, Corder, & Stallard, 1997). All institutionalized individuals received a detailed interview, except in 1982. A screener interview targets noninstitutionalized disabled individuals for further study using a detailed community interview. The screening interview is initially administered via telephone, but slightly more than 20% of those screened require an in-person interview to complete the screening survey. These 20% are a nonrandom representation of the screened population. Thus, the NLTCS employs a nationally representative longitudinal design with cross-sectional replenishment at ages 65–69.

The NLTCS questionnaire items used to assess ADL limitations identify activities in which the respondent receives active physical help from another person during the prior week. This provides an objective anchor against which one can compare the use of standby help or special equipment to cope with lower levels of limitation. The questionnaire also probes for activities in which help is needed but not received, so that the entire spectrum of ADL limitations is represented. The assessment of IADL limitations is based on questionnaire items that establish that the respondent cannot perform an activity due to a disability or health problem. This removes socially defined roles as reasons for not performing activities such as cooking, doing housework, or managing bills. All NLTCS records are linked to Medicare claims data for 1982–2001, with ongoing periodic updating to allow tracking of mortality, Medicare claims, and enrollment or disenrollment in a health maintenance organization or managed care organization.

A strength of the NLTCS is the large sample size at ages 85 and older—a population for whom it is often difficult to get estimates because of its relatively small size. The NLTCS includes more than 2,400 people aged 85 and older and more than 825 people aged 90 and older in each survey, and the 1994 and 1999 surveys included additional oversampling of the population aged 95 and older (n = 540 in 1994 and n = 600 in 1999).

Comparison of the NLTCS and the VHA enrollment file as of December 2002 found 1,543 enrolled veterans in the NLTCS panel, of whom 1,404 were eligible for the 1999 survey; the predicted number of enrolled veterans based on the age/gender distribution in the population was 1,459. This was representative of 92% of Veterans Affairs (VA) enrollees older than 65, as 8% of enrollees older than 65 do not have Medicare. The weighted NLTCS sample, adjusted for the Medicare participation, was 2,985,364, compared to an actual enrollment of 3,054,502 (< 2% difference). Comparison of the veteran subsample of the NLTCS with the nonveteran, gender-matched subsample of the NLTCS demonstrated a similar distribution of both characteristics and service use. In the subsequent data, we used these veterans, who represent a random sample of the Medicare-eligible VA population, to standardize the ADL and IADL disability levels from the 2002 VA Survey of Enrollees.

The NLTCS has the strength of being a unified survey of institutionalized and noninstitutionalized individuals, but it is limited to those older than 65. Other surveys have the strength of covering all ages, but they are restricted to populations that are either noninstitutionalized (NHIS, Health Retirement Survey, Survey of Income and Program Participation) or only receive a particular service (National Home and Hospice Care Survey [NHHCS], the 1996 Medical Expenditure Panel Survey–Nursing Home Component [MEPS-NHC]).

To estimate the proportion of the U.S. population in nursing homes in 1999 by age, marital status, and number of ADL limitations, we formed a fraction using data from two sources: the NNHS and the NHIS. This method estimated the proportion of the 1999 U.S. population in nursing homes exclusive of residents in other institutional settings (dormitories, prisons, military barracks, etc.).

The NNHS current nursing home resident sample consists of a two-stage stratified random sample of U.S. nursing home residents. The first stage of the sample consists of 1,423 nursing homes selected from a population of 18,000 nursing homes via a stratified random sample. The second stage obtained data from 8,215 current nursing home residents from a sample of up to six residents per home. Data on residents were obtained via a combination of personal interviews and review of residents’ medical records.

The NHIS is a multistage random sample of individuals from noninstitutionalized dwelling units in the United States. It includes an oversampling of Hispanics and African Americans. Data were obtained regarding 97,059 residents via personal interviews in 37,573 households. Because of the small number of veterans represented in the population younger than 65, we used the entire gender-standardized sample.

We classified age as 18–64, 65–74, 75–84, and 85 or older. We categorized marital status as married versus other, with age- and gender-specific proportions imputed from the 2002 Survey of Enrolled Veterans. Both the NHIS and NNHS defined the following five daily limitations: (a) bathing/showering, (b) getting in and out of bed/chairs (transferring), (c) dressing, (d) toileting, and (e) eating.

In subsequent data presentations, these five ADLs represent the core activities for disability classification. The common IADLs as measured in the 2000
The total veteran population is projected to decline by 5 million over the next decade, and the portion aged 65 and older will decline by 300,000. However, the number of veterans aged 85 and older will increase by 600,000, and the oldest-old and older will increase by 3%. We described persons in the enrolled veteran population as being in one of six disability classes: Class 0 (no disability), Class 1 (IADL disability or ADL deficits that do not require the assistance of others, which we classified as low-level disability), Class 2 (one ADL deficit requiring the assistance of others), Class 3 (two ADL deficits), Class 4 (three ADL deficits), Class 5 (four ADL deficits), and Class 6 (five or more ADL deficits). For veterans older than 65, we compared nursing home use rates from the NLTCS and the NNHS/NHIS, although we ultimately used the NLTCS because of problems with the NHIS estimates among those with significant disability and those aged 85 and older due to small numbers. For veterans younger than 65, we used the NNHS/NHIS and NHHCS/NHIS as the sources for service-use rates.

Table 1. Projected Total Veteran Population and VA-Enrolled Veteran Population: 2002–2013

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<tbody>
<tr>
<td>Total</td>
<td>25,618,274</td>
<td>25,179,316</td>
<td>24,737,492</td>
<td>24,290,413</td>
<td>23,840,398</td>
<td>23,387,978</td>
<td>22,934,227</td>
<td>22,481,330</td>
<td>22,030,497</td>
<td>21,583,531</td>
<td>21,142,824</td>
<td>20,709,281</td>
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<td>≥65</td>
<td>9,784,438</td>
<td>9,659,313</td>
<td>9,518,035</td>
<td>9,349,442</td>
<td>9,212,162</td>
<td>9,132,845</td>
<td>9,041,663</td>
<td>8,966,745</td>
<td>8,877,456</td>
<td>9,050,300</td>
<td>9,189,359</td>
<td>9,206,029</td>
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<td>≥65 (%)</td>
<td>65.4%</td>
<td>65.8%</td>
<td>66.1%</td>
<td>66.2%</td>
<td>66.2%</td>
<td>66.2%</td>
<td>66.2%</td>
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<tr>
<td>Enrolled</td>
<td>6,253,065</td>
<td>7,044,182</td>
<td>7,358,870</td>
<td>7,526,160</td>
<td>7,671,906</td>
<td>7,716,496</td>
<td>7,760,112</td>
<td>7,794,691</td>
<td>7,824,158</td>
<td>7,854,625</td>
<td>7,884,091</td>
<td>7,913,557</td>
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<tr>
<td>≥65 (%)</td>
<td>52.1%</td>
<td>54.1%</td>
<td>55.2%</td>
<td>55.4%</td>
<td>55.5%</td>
<td>55.6%</td>
<td>55.7%</td>
<td>55.8%</td>
<td>55.9%</td>
<td>56.0%</td>
<td>56.1%</td>
<td>56.2%</td>
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<tr>
<td>≥85</td>
<td>133,428</td>
<td>222,955</td>
<td>281,545</td>
<td>344,166</td>
<td>410,296</td>
<td>478,059</td>
<td>533,982</td>
<td>581,962</td>
<td>623,696</td>
<td>651,811</td>
<td>670,051</td>
<td>679,488</td>
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<td>≥85 (%)</td>
<td>2.1%</td>
<td>3.2%</td>
<td>3.8%</td>
<td>4.6%</td>
<td>5.3%</td>
<td>6.1%</td>
<td>6.8%</td>
<td>7.4%</td>
<td>7.9%</td>
<td>8.4%</td>
<td>8.7%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Veterans</td>
<td>19.9%</td>
<td>29.2%</td>
<td>32.5%</td>
<td>35.2%</td>
<td>37.6%</td>
<td>40.7%</td>
<td>43.2%</td>
<td>45.0%</td>
<td>47.0%</td>
<td>48.5%</td>
<td>49.1%</td>
<td>51.0%</td>
</tr>
</tbody>
</table>

Notes: Projections are to September 30 of each year. Projections are from 2002; actual enrollments for 2003-2006 are slightly lower and are shown in parentheses. VA = Veterans Health Administration.
share of enrollees to increase from 31% to 43% in 2013. Most striking, the enrollment of all veterans aged 85 and older is projected to grow from 20% to 51%. Although there is an expected increase in the number of enrolled veterans aged 65 or older in the next decade, nearly 60% of the increase is projected to be among veterans aged 85 or older (Table 1; VHA Office of the Undersecretary of Health Policy and Planning, 2003). The relative immediate impact is greater over the next 5 years, as the number of enrolled veterans aged 85 and older will increase fourfold. This is the group with the highest prevalence of ADL and IADL disability and the highest rates of formal long-term-care service use, as well as the group for which the estimates are least precise. Among other factors, the availability of the Part D Medicare drug benefit may affect the currently observed enrollment rates among aged veterans.

**Service Use by the Enrolled Veteran Population, 1998–2002**

For predicting service use, the LTC Policy Model projects use for institutional (i.e., inpatient) programs and HCBS (i.e., outpatient) programs, excluding geriatric clinics but including homemaker/home health aide and hospice services. Contract care is allocated to its institutional (i.e., contract nursing home) and HCBS (e.g., skilled home health) components. Thus, for example, in fiscal year 2001, the VHA long-term-care budget spent $1.6 billion (88.5%) on inpatient programs and $235 million on HCBS programs.

A significant aspect of the Millennium Act was the creation of a mandatory benefit for nursing home care for PIA veterans (≥70% service-connected disability). By removing cost, which was significant for nursing home care, it was assumed (and feared) that a deluge of PIA veterans would exhaust all VA nursing home capacity. (This is, in part, because a nursing home benefit is worth between $39,000 and $89,000/year, depending on the area of the country, a substantial value for those requiring nursing home care.) Thus, the nursing home use of the P1As represents the observed projected use for a long-term-care service VHA must provide, without significant monetary costs to the user. By 2002, the average daily census (ADC) of P1As was 8,280, with 3,115 in nursing home care units, 3,100 in community nursing homes, and 605 in state homes. With 322,000 P1As enrolled in 2002, the observed use of VHA-provided nursing home beds by P1As represented just 2.1% of the total P1A population (the national average of nursing home residence among the male population is 3.7%), suggesting that factors other than cost affect the choice of VHA as a provider of nursing home care (and the large financial benefit it represents). Using geocoding of P1A veterans with respect to their nearest nursing home care units, analysis suggested that propinquity may be a significant predictor, as slightly more than half of all P1As in VHA nursing home beds lived within 30 min of those facilities (Kinostan, Martingdale, Ripley, & Stallard 2004). Nursing home use appears to decline significantly somewhere between 60 and 120 min of drive time from a VA nursing home care unit (risk ratios = 0.83 and 0.62, respectively). Although P1As represent 26% of nursing home care unit ADC, they use more than 70% of the community nursing home beds (Table 2). The other significant factor, for which data do not exist, is the number of P1A veterans who have already spent down and are currently receiving Medicaid-funded nursing home care. However, the impact of this factor should decline over time as new eligible veterans have access to the benefit. A significant difference between the VHA-provided nursing home benefit and Medicaid-funded nursing home care is the absence of estate recovery provisions for VHA-provided nursing home care.

**Results**

**Disability Estimate of Enrolled Veteran Population, 2002–2013**

Despite declining age-specific disability prevalence rates, the number of veterans with high levels of ADL disability is projected to increase, especially among those aged 85 and older. Assuming higher declines in disability will have only a modest impact on the number of veterans with disabilities.

The total enrollee population in 2002 was 6.2 million, of which 5.6% had two or more ADL disabilities and 15.1% had any IADL/ADL disability. However, among veterans older than 65, 6.3% had two or more ADL disabilities and 16.4% had at least one IADL or ADL disability. Over the 2003–2013 period, among those aged 65–74, the number with two or more ADL disabilities will remain roughly constant at 4.2% (63,000) to 3.9% (74,000), whereas among those aged 75–84 the number with two or more ADL disabilities will decline from 6.7% (99,672) to 5.5% (76,600). Among those aged 85 and older, however, the number with two or more ADL deficits will quadrupe from 22,215 to 80,027 in 2008, rising to more than 92,000 in 2013. This will occur even though the proportion with two or more ADL deficits will decline from 16% to 13.6%. Among that 13.6%, roughly 40% will have five or more ADL deficits. Despite the overall decline in disability among the population, the absolute growth among those with five or more ADL deficits will be as large a share of the total enrolled veteran growth as any other category of ADL disability (see Figure 1).

The distribution of disability in the enrolled veteran population is similar to the distribution in the general U.S. male population aged 65 and older.
The only disability level for which enrolled veterans appear to differ from the general male population is low-level disability (Disability Class 1), for which there is slightly greater low-level disability among veterans (7.8% vs 6.4%; see Table 3).

There is controversy over whether disability rates are declining among elders, at what level of disability, and at what rate. A recent meta-analysis (Freedman, Martin, & Schoeni, 2002) concluded that both ADL and IADL disability are declining, although there was uncertainty as to the rate. The above projection assumes that the decline in disability from the 2002 level is at the same rate as the observed mortality decline—approximately 0.6% per year. Manton and Gu (2001) suggested higher rates of disability decline (up to 2.4% for IADL deficits). If disability were to decline at this observed rate (i.e., greater than the mortality decline), the impact by 2013 would be slight (a 6.9% decline in those with two or more ADL disabiliites, or 17,000 veterans in a total population of 244,000 with two or more ADL disabilities). Even among those with IADL disabiliites, the decline is only 8.3% of the total low-level disability group (24,000 among 292,000).

Projecting Long-Term-Care Service Use, 2002–2013

To describe current long-term-care service use and project it forward, VHA developed a LTC Planning Model (Version 2.2) that used the age- and disability-specific nursing home use rates from the 1996 MEPS-NHC. For the current projections, we modified that model to (a) stratify the population by gender, (b) stratify the population by marital status, (c) use a uniform disability definition across data sources and between population definition and use-rate definition, (d) update service-use rates, and (e) incorporate disability decline. The following projections are based on the age/gender/marital status/disability class service-use rates. The rates are based on the NLTCs for those aged 65 and older, on the NNHS/NHIS for nursing home use, and on the NHHCS/NHIS for HCBS use for those younger than 65.

These current model projections do not explicitly include cognitive status but incorporate it indirectly as it impacts functional disability. A more complex revision of the LTC Planning Model (in preparation) will explicitly incorporate cognitive impairment. Preliminary analyses of the veteran subsample in the NLTCS suggest rates of cognitive impairment somewhat higher than those in the general male population (6.16% for those with mild–moderate cognitive impairment [Mini-Mental State Examination score ≤21] compared to 5.9% in the general population; 4.36% for those with moderate–severe cognitive impairment [Mini-Mental State Examination score ≤15] compared to 3.96% in the general population). Although there is an increase in cognitive impairment with disability class, even among those with five and six ADL dependencies, there is a substantial portion without significant cognitive impairment (30–50%). Because of the incomplete mapping of cognitive impairment and disability level, readers must use caution when comparing individuals with similar disability levels in settings with different levels of supervision. For example, institutionalized individuals in Disability Class 1 (low-level ADL disability) are very likely cognitively impaired, requiring 24-hr supervision. Although HCBS could be a potential substitute for those with significant ADL dependencies who do not have significant cognitive impairments, more direct substitutes would be services that provide supervision in noninstitutional settings (e.g., adult foster care, group homes, community assisted living) for those with cognitive impairment.

In comparing the same stratified rates for those aged 65 and older using the two sources (NLTCs vs NNHS/NHIS [for nursing home] or NHHS/NHIS [for HCBS]), we noted that whereas the projected...
numerators were similar, the NHIS denominators were low for those aged 85 and older and those in Disability Classes 2–6 (cumulative prevalence of 5.6% vs 7.1%), producing higher rates for the population groups with the greatest growth over the next decade and with the highest service use. This may have led to higher estimates in the earlier VA model and in other models based on MEPS (a subsample of NHIS).

The projection took the cell-specific rate and applied it to the age/gender/marital status/disability class–specific enrolled veteran population projected for that year to produce the ADC for nursing home and HCBS use. For nursing home use, ADC is a point prevalence for the day; for HCBS use, ADC is a point prevalence for the survey month.

Projected Nursing Home Use for Enrolled Veterans, 2002–2013

Projected nursing facility use will increase 22% over the next decade, all of it among those aged 85 or older. More than half of those in institutional settings will have four or more ADL impairments. Experience with P1As suggests that if a mandatory nursing home benefit is offered at little cost, 60–65% will choose VHA to provide nursing home care.

The total projected use for nursing home care by enrolled veterans is 1.85% overall, with 3.14% of those aged 65 and older using institutional facilities on a given day (point prevalence or ADC). Growth in nursing home projected use is expected to be 22% over the next decade, with all of the increase being accounted for by those aged 85 and older (Figure 2). Of those in nursing homes, 34% are in Disability Class 6, whereas 19% are in Disability Classes 1 or 2. The proportions in Disability Class 1 or 2 remain relatively constant through the decade, as does the proportion in Disability Class 6.

The observed use by P1As of VHA nursing home care is 62% of the projected use for nursing home care among P1As. This is similar to, but somewhat higher than, the P1A general projected use for nonacute VHA medical care (56%). As an experiment in the strength of influences on projected use for VHA-provided nursing home care, with no cost barriers, and significant financial incentives to use VHA nursing home care because of the lack of estate recovery, nearly 37% of eligible veterans make other choices. These may be due to geographical considerations, lack of knowledge, procedural barriers, or perceived quality differences between VA and non-VA nursing home care. It does indicate that a substantial portion of eligible veterans will use a nursing home benefit in VHA. By comparison, the reliance of P1As on VA for acute inpatient care is approximately 42%. For 2004, we found a similar percentage of P1A veterans in nursing home beds provided by VHA (62%, or 8,753 identified among 14,096 projected total nursing home users).

The impact of marital status and disability on institutionalization rates is substantial. Generally, institutional use rates are 2–4 times greater among persons 65 and older than among those younger than

Table 3. National Long-Term Care Survey Enrolled Veteran Sample by Disability Class and HCBS Use

<table>
<thead>
<tr>
<th>Disability Class</th>
<th>Enrolled, Community-Dwelling Veterans</th>
<th>Community-Dwelling Males (Gender Weighted to Enrolled Veterans)</th>
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<tr>
<td></td>
<td>Disability</td>
<td>HCBS Use</td>
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</tr>
<tr>
<td>Total</td>
<td>2,752,552</td>
<td>100.00</td>
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Note: HCBS = home- and community-based services.
were considered community assisted living. Those facilities that had 24-hr medical care were not. In the housing supplement to the NLTCS, provided between those settings that provide 24-hr simultaneous skilled treatment needs. which include formal aide services provided without need for skilled care, are lower than those based on services and aide services limited to the period of home respite, and care coordination. Estimates based only on the NHHCS, which includes only skilled services and aide services limited to the period of need for skilled care, are lower than those based on the NLTCS linked with Medicare home health files, which include formal aide services provided without concurrent skilled treatment needs.

Supportive housing services—in which supervision and hands-on support are available—are divided between those settings that provide 24-hr medical care (usually onsite nursing) and those that do not. In the housing supplement to the NLTCS, those facilities that had 24-hr medical care were classified as institutions, whereas those that did not were considered community assisted living. The estimates for HCBS include community assisted living, although that is not currently part of the VHA benefit package. We included it because those individuals receive support for their IADL/ADL deficits, which would need to be met somewhere. Such community assisted living facilities and smaller types of settings, such as group homes, offer the personal care and supervision of nursing homes without the onsite integration of medical care provided in institutional settings. Thus, they are distinct from other HCBS, which provide care for specified portions of the day to individuals in their own residences.

There is a substantial amount of HCBS used by VHA enrollees. Again, comparing the growth in service use by those aged 85 and older and the general growth in service use, most of the growth over the next decade will be among those aged 85 and older. As with disability, VHA enrollees appear to be similar to all men in the NLTCS in terms of their use of HCBS (Table 3). Note that, unlike in the case of nursing home care, there is substantial service use among individuals with no IADL/ADL deficits. These are possibly individuals receiving post-acute home care services focused on medical, rather than functional, issues. Again, there are significant differences in service use between those who are married and those who are not married. Among older unmarried individuals with higher levels of disability, formal service use approaches 80–90%. However, the lower use rates among persons younger than 65 may reflect access difficulties. As these projections are based on actual use, and most care is paid for outside of VHA, where coverage for individuals younger than 65 is erratic, low use is not equivalent to low need. Thus, the increase in use by disability level for those aged 65 and older may well reflect better coverage through the Medicare home health benefit as well as community waiver programs. The observed difference may be made up by informal community supports for persons younger than 65.

These data combine Medicare and NLTCS reports of formal (i.e., paid) home care services. There is some overlap, but the NLTCS reports 30% of home care not covered through skilled sources. Because the number of enrolled veterans using HCBS in the 1999 survey was small, and their similarity to general men in the NLTCS, we used the male rates for estimating the overlap of HCBS and the use of community assisted living.

Although overall 20% of individuals use both skilled home health and other personal care services, the proportion rises to more than 40% among individuals in higher disability classes. Although there is not a large share of any disability class receiving services in assisted living, 80% of those individuals in community assisted living have zero to two ADL disabilities (39,046 of 48,441 in community assisted living), overlapping 19% of the nursing home population. Again, as these individuals likely have significant cognitive impairments, community settings that may be an alternative to institutions (such as group homes or assisted living facilities) would need to provide a similar level of nonmedical supervision.

Using the breakdown of services observed among men in the NLTCS, HCBS use breaks down as follows: skilled nursing (home health agency; 23.1%), hospice (1.5%), formal care (non-skilled; 46%), an overlap group using formal skilled and non-skilled services (20.6%), and community assisted living (8.8%).

Because the VHA-supplied ADC for these services is more than 17,000 (fiscal year 2002) to 31,000 (fiscal...
year 2004), the vast majority of HCBS are provided by other payers, primarily the Centers for Medicare and Medicaid Services and state governments, through both Medicaid and non-Medicaid state funding. At the 2002 VA budget-estimated average per diem cost of all HCBS programs ($41/day), providing all projected HCBS in 2002 would have been $2.1 billion. In contrast, the 2002 nursing home/skilled nursing facility budget line was nearly $2.7 billion.

Discussion

Projected use for long-term-care services will grow substantially over the next decade, by 22% and 24% for nursing home and HCBS services, respectively. Almost all of this growth will be driven by the increasing share of frail, enrolled veterans older than age 85. Although much of this growth is dependent on enrollment projections (transitioning of elderly veterans into VHA), the total population of veterans aged 85 and older will double. As found with pharmaceutical coverage, where VHA provided access to services difficult or costly to obtain through Medicare, enrollments may increase faster than projections. Long-term care, like pharmaceuticals prior to the Medicare Modernization Act of 2004, is a significant area poorly covered and poorly coordinated under Medicare.

Although enrolled veterans tend to be somewhat more disabled than non-enrolled veterans, those younger than 65 have more disability, but those aged 65 and older are only slightly more disabled than their non-enrolled counterparts. Similarly, when compared in terms of service use employing the 1999 NLTCS cohort, they tend to use long-term-care services at rates similar to those of their counterparts matched on age/gender/marital status/disability level. For HCBS, this may represent access difficulties for those younger than 65 due to limited coverage outside of Medicaid.

Factors other than cost drive the use of long-term nursing home care. The creation of a mandatory nursing home benefit for one priority group in the Millennium Act was associated with use of that benefit by nearly 63% of the estimated eligible veterans using nursing home care. Although less than expected, this shows a substantial response to low-cost long-term care but also indicates that other factors are important in the choice of long-term-care provider.

Growth in assisted living facilities has been dramatic in the community but not available in VHA. Currently, assisted living represents nearly 15% of what was previously the nursing home population, suggesting that if VHA relies on declining nursing home use rates in planning supply of nursing home beds, it must consider the expanding share of assisted living as offsetting that decline.

The amount of HCBS used by enrolled veterans, including skilled and nonskilled formal care, is substantial. Currently, those HCBS programs are being supported by a number of other payers, although community long-term-care services have problems with gaps, continuity, and coordination among providers. This large projected use, and present patchwork of programs may provide opportunities for VHA to leverage its funding to organize individual patches into an all-inclusive quilt (Kinosian, Yudin et al., 2004).

References


