Comparison of a Veterans-Directed Home Care Program vs Community Nursing Home Placement

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For most veterans, home care rather than living in a community nursing home is certainly preferred. Therefore, it was important to these authors to research the cost-effectiveness between home care and nursing home care.

As the average age of Americans increases, particularly with the aging of the baby boomer generation, the need for greater services for age-related illnesses will likely expand. Many age-related illnesses require support or assistance from others in order for the afflicted individual to adequately function.[1] Although nursing home services are necessary for the more severely affected individuals who need the assistance of trained staff, many simply need an able-bodied person to provide continuous supervision and support to prevent injury and ensure safety.

To assist the individuals who simply need an able-bodied caregiver to remain in their homes, the U.S. Center for Medicare & Medicaid Services (CMS) initiated a project in 2003 that involved giving these individuals funds to "hire" a person of their choice to assist them.[1-3] This consumer-directed model, in which the consumer has the power to choose a person to provide long-term, supportive services in the home (vs a health insurer or similar group choosing an agency), was initially trialed in several states. Consumer-directed care was shown to be popular with users, with reports of greater satisfaction and feelings of safety with the consumer-directed care compared with more typical, agency-directed home care services.[3-5] In addition, public policy makers felt that consumer-directed home programs would be less costly. Early indications and studies seem to support this assertion, but more research on cost savings needs to be done.[6]

The VA has initiated a consumer-directed program for veterans. The VA began a movement toward community-based care in the 1990s and continues to expand and improve both the quality and scope of its community-based programs. The VA currently offers a variety of community-based programs. Home Based Primary Care programs provide primary care services in the home for veterans unable to commute to a clinic. Adult Day Health Care programs provide care during working hours for cognitively impaired veterans, enabling their caregivers to work or perform other functions, as well as monitoring veteran health and providing some basic care. The Homemaker/Home Health Aide program enables veterans to remain in their own homes by arranging for a local agency to do basic household chores and cleaning for veterans unable to do so. A relatively new program, Home Telehealth places computerized devices in veterans' homes to aid in treatment effectiveness and compliance.[7]

As part of this expansion of community-based programs, the Veterans-Directed Home Care (VDHC) program was initiated to provide funds to local and state agencies to administer a consumer-directed home care program for veterans. The funds come from VA, are adminis-

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tered by the local agency, and are directed to a caregiver by the veteran (or the veteran's representative). The local agency is responsible for evaluating the potential user (the veteran), as well as the potential caregiver, to ensure that both are eligible, that the service is needed, and that the caregiver has the capability of providing the veteran with the needed services in the veteran's home. In addition, the local agency monitors the veteran and the caregiver to ensure that the care provided is appropriate and adequate and that there is no abuse or neglect of the veteran. The VA also pays an administrative oversight fee to the agency for their part of administrating the program, based on the county of residence of the veteran. The agency provides monitoring in terms of the veteran receiving the services according to the care plan (through a series of home visits and follow-up by phone); training for the veteran in terms of learning how to hire, interview, and manage the care provider; and the initial assessment and care plan establishment.

The VA program, unlike many state-run consumer-directed programs, however, does not provide financial management services. It should also be mentioned that participation in the VDHC program precludes the provision of other VA community-based program services—a veteran cannot be enrolled in the VDHC program and receive other community-based services concurrently. Forty-one VAMCs currently offer VDHC services, but the expectation is that the program will eventually be offered at all VAMCs.

The VDHC program not only assists older veterans dealing with chronic medical conditions that arise from aging, but also can assist younger veterans with chronic issues related to combat injuries and other conditions connected with their military service. These younger individuals often resist nursing home and other traditional long-term care services, because they lack peers in most traditional long-term care institutions, and such services are viewed as being for older individuals. The VDHC program can thus assist younger veterans with serious, persistent combat injuries so they may remain in their home environments and are better able to associate with their peer groups.

The purpose of this study was to compare the cost-effectiveness and patient satisfaction of a VDHC with traditional community nursing home care. A VDHC enables qualified veterans to select their own caregivers, who provide continuous care up to 24 hours a day, 7 days a week, and are reimbursed for their services, enabling the veteran to function at home rather than being moved into a community nursing home.

METHOD

This study retrospectively compared the costs of care and patient satisfaction ratings of 23 patients in the VDHC program with a sample of 31 controls receiving care via the VA Community Nursing Home (CNH) program. Both programs studied are at 1 large VAMC in the Midwest. The VA CNH program places veterans in non-VA nursing homes in the community that are under contract with the VA. The cost data for both programs (VDHC and CNH) are available and collected as part of standard cost accounting and patient satisfaction surveying that is ongoing in the majority of VA programs. Basic demographic and diagnostic data were also retrospectively collected via the VA's electronic record system. Demographic data included age, gender, and ethnicity. Diagnostic data were quantified via examination of electronic progress note problem lists. Due to considerable variation in diagnoses, most of which were not essential to the need for VDHC or CNH level of care, 5 diagnoses were recorded: dementia, hypertension, diabetes, congestive heart failure (CHF), and major mental illness (defined as a nondementia Axis I diagnosis by the *Diagnostic and Statistical Manual of Mental Disorders-IV*).[8] In addition, an *other* category was created for other major diagnoses that would necessitate a CNH or VDHC level of care, such as cardiovascular accidents (CVAs), multiple sclerosis (MS), and head trauma (traumatic brain injury, anoxic brain injury, etc).

Satisfaction data collected in both programs were reviewed. Participants in the VDHC program were surveyed about every 6 months to rate their satisfaction with the services being provided. CNH residents were also asked for information regarding satisfaction with their living arrangements and services in their nursing home on at least a quarterly basis. Satisfaction surveys were developed separately and locally for each program. As this study was retrospective, it was not possible to use a standardized, uniform survey for both programs. This study was reviewed and approved by the local Institutional Review Board.

RESULTS

The average cost of care for the VDHC program was less than half that of CNH placement (Table 1). Cost savings for 25 veterans would amount to $876,600 a year. (The data did not include medical or specialist care costs that might be incurred.)

There were differences between the VDHC and CNH groups in terms of demographics. The *t* tests between the groups showed that the VDHC

Table 1. Average cost comparison and cost savings VDHC vs CNH

	VDHC	CNH (room and board only)
Average cost per veteran (mo)	$ 2,618.39	$ 5,540.39
For 25 veterans (mo)	$ 65,459.75	$138,509.75
Savings per mo (VDHC vs CNH)	$ 73,050.00	N/A
Savings per y (VDHC vs CNH)	$876,600.00	N/A

CNH = community nursing home; VDHC = Veterans-Directed Home Care.

Table 2. Diagnostic comparison between veterans in VDHC and CNH groups

Diagnosis	VDHC count	CNH count	VDHC (%)	CNH (%)	Difference (%)
ALS	2	0	8.695	0.0	8.695
CHF	3	2	13.04	6.452	6.592
CVA	2	3	8.696	9.677	–.982
Dementia	4	9	17.39	29.03	–11.64
Diabetes	6	14	26.09	45.16	–19.07
Hypertension	14	17	60.87	54.84	6.031
Mental illness	13	13	56.52	41.94	14.58
MS	1	3	4.3478	9.6774	–5.33
Other	9	16	39.13	51.61	–12.48

ALS = amyotrophic lateral sclerosis; CHF = congestive heart failure; CNH = community nursing home; CVA = cardiovascular accident; MS = multiple sclerosis; VDHC = Veterans-Directed Home Care.

group had more female veterans ($P < .001$) and ethnic minority veterans ($P < .05$) than did the CNH group to a statistically significant degree. The CNH group was, on average, about 9 years older than the VDHC group ($P < .001$).

There were also some differences in the diagnoses of the veterans in each group (Table 2). The most common diagnoses are listed as well as those diagnoses that were directly related to the need for VDHC or CNH care. The most common diagnoses were hypertension, mental illness, and diabetes. Of note, both groups had the same number of veterans with significant (Axis I) mental illness (note the exception that dementia was given its own, separate category), although the smaller number of individuals in the VDHC group led to a higher percentage of mentally ill veterans in that group. The VDHC group had fewer individuals with dementia than did the CNH group. Both groups showed a high level of comorbidity between physical and mental illness. In addition, several veterans in both groups had multiple serious medical or psychiatric conditions that, individually, would have necessitated continuous supervision, assistance, and care.

Table 3 shows the frequency of the number of major diagnoses per veteran in each group as well as the percentage of veterans in that group that had that diagnosis, illustrating virtually no difference in terms of quantity of major diagnoses of each group. In addition, both groups of veterans were service connected at a level of 70% to 100%, which is considered fully disabled, indicating that both groups consisted of veterans with severely disabling conditions.

Veterans participating in the VDHC program generally reported satisfaction with the services offered (Table 4). All VDHC participants endorsed either *strongly agree* (93%) or *agree* (7%) to the statement "I am satisfied with the quality of my care." Veteran satisfaction scores related to the ability to make choices regarding their cares were consistently rated high, between 82% and 89%. Direct choices regarding how and by whom care is provided, authority to dismiss a worker, and ability to determine how to spend the budgeted money were all important aspects contributing to the satisfaction of VDHC participants. Providing this type of autonomy and authority in the home environment not only increases veteran satisfaction and sense of security, but also the level of accountability to which workers are held, because they report directly to the veteran. This was supported by satisfaction scores of 93% for workers showing up on time and a 93% confidence rating for veterans to solve problems with caregivers. The only item that was not heavily endorsed was "I would like to have more people to do things with" (39% in strong agreement), suggesting that some individuals in the VDHC may have some unmet social needs. It should be noted that responses to some items were influenced by other factors beyond VDHC care, such as the health of the respondent (eg, "I

am living my life the way I want to") and the location of their residence ("I live where I want to live"). Follow-up questions with the veterans who responded to these statements with dissatisfaction verified that their issues were not reflective of VDHC care but rather of their physical health status or the location of their residence. One additional question was asked of veterans in the VDHC program about the degree of helpfulness of the services provided. All the veterans endorsed that the VDHC program *helped a lot.*

Residents in the CNH program reported satisfaction with almost all the elements asked, although direct comparison to responses from veterans in the VDHC program was not possible given that different surveys were administered by the VA to each group. Results of the CNH program satisfaction survey are given in Table 5. Only about 10% of the residents reported issues or concerns regarding their satisfaction with the nursing home services provided. The concerns that were expressed tended to relate to the institutional nature of the nursing home environment and limitations on movement and independence, such as a desire to go outside of the facility more often and to live at home.

Table 3. Frequency counts and percentages of the number of major diagnoses per group

No. of major diagnoses	No. with this many diagnoses—VDHC group	No. with this many diagnoses—CNH group	VDHC (%)	CNH (%)	Difference (%)
1	8	7	34.78	22.58	12.20
2	6	11	26.09	35.48	–9.397
3	7	10	30.44	32.26	–1.823
4	2	2	8.696	6.452	2.244
5	0	1	0	3.226	3.2258
Total	23	31			

CNH = community nursing home; VDHC = Veterans-Directed Home Care.

DISCUSSION

The results support that VDHC is less expensive than CNH care. As shown in Table 1, the average cost of care for VDHC was about half that of CNH care. This cost difference makes sense when one considers the additional expenses inherent in nursing home care, such as food, 24/7 nursing care, maintenance of the nursing home environment, medications, etc. On the other hand, the veterans in the VDHC group can function without these additional aspects and services that a nursing home provides. In a sense, the costs saved by the VDHC program consist of money for CNH services that are not really needed or necessary, since the veteran in VDHC is able to live at home without them (ie, the veterans in the VDHC program may not require the 24/7 services a CNH provides for skilled nursing care, activities of daily living support, meals, medications, environmental safety, etc).

Some differences exist between the 2 groups of veterans that each program serves. The VDHC group was, on average, younger by almost a decade. In addition, the VDHC group had fewer veterans with dementia than the CNH group had. This age difference is understandable in that older adults with dementia tend to need not only a dedicated caregiver, but also environmental interventions and restrictions, such as those found on a CNH dementia unit, to ensure adequate safety. Beyond a greater number of dementia diagnoses in the CNH group, however, the 2 groups were similar in terms of major health diagnoses, with a large number of veterans in both groups exhibiting both physical and mental health problems.

Satisfaction ratings for VDHC seemed to support that its users were pleased with the quality of care they received. However, a little less than half the VDHC veterans reported they would "like to have more people to do things with." This raises the question of whether certain veterans would have improved opportunities for socialization in a CNH or similar community setting, where they would be around others. However, even in a CNH environment, loneliness is prevalent, leading to high rates of depression among nursing home residents.[9] In addition, the VDHC group was younger than the CNH group. Placing such younger veterans with a predominantly older cohort may worsen, rather than improve, the issue of socialization. Loneliness in older adults has been found to be highly correlated to physical health, and given that veterans in the VDHC program have significant physical health issues, loneliness or lack of socialization is likely, at least partly due to their physical health limitations.[10] A meta-analysis of studies concerning loneliness in older adults by Cattan and colleagues suggests that educational or supportive group activities were

Table 4. Reported satisfaction with Veterans-Directed Home Care program

Statement	SA	A	D	SD	DK	SA (%)
I get all the care I think I need	23	2	2	1		82
I get to choose when my care is provided	23	4	1			82
I am satisfied with the quality of my care	26	2				93
I get everything that is in my care plan	25	3				89
My care coordinator is helpful to me	26	2				93
I can choose who provides my care	25	3				89
My caregivers do things the way I want them done	25	3				89
My caregivers treat me with respect	26	2				93
My caregivers show up for work when they are supposed to	26	2				93
I am confident that I could solve problems I may have with my caregivers	26	2				93
I can dismiss a worker if I want to	25	3				89
I decide how I spend my free time	21	5	1	1		75
I can do the activities that are important to me	18	5	3		2	64
There are things I would like to do outside the home that I don't do now	16	9	1	2		57
I have the assistance I need to go to the places I want to go	19	6	1		2	68
I can get out and about when I want to	14	10	3	1		50
I would like opportunities to do new things	18	6	1	3		64
I have friends or family I can count on when I need them	18	8	1	1		64
I am happy with the amount of contact I have with family and friends	19	4	4	1		68
I would like to have more people to do things with	11	5	8	2	2	39
I live where I want to live	22	1	5			79
I feel safe in my current situation	19	1	5	3		68
I have enough privacy	20	7	1			71
I control how the money in my VDHC budget is spent	23	4			1	82
I have enough choices about the services and products I use	20	7	1			71
I am living my life the way I want to	14	9	2	2	1	50
I am more independent now than I was before the VDHC program	18	7		2	1	64

A = agree; D = disagree; DK = don't know/unknown/no response; SA = strongly agree; SA (%) = percentage who endorsed *strongly agree*; SD = strongly disagree.

Table 5. Reported satisfaction with community nursing home services

Question	Yes	No	N/A	Comments
Resident satisfied with care he/she receives at the CNH	30	0	0	
CNH staff is courteous and treats resident with dignity	29	1	0	
Does the resident like the food?	27	0	3	Some respondents on tube feedings
Resident is able to eat in the dining room	27	0	3	Some respondents on tube feedings
Daily activities are offered for the resident	30	0	0	One resident reported wanting to go outside more often
Spiritual services are offered	30	0	0	
Resident has adjusted to the placement	28	2	0	Several expressed desire to want to live independently at home

CNH = community nursing home; N/A = not applicable.

most effective at reducing loneliness.[11] Encouraging participation in these groups by VDHC users, perhaps targeting ways to cope with their physical issues and limitations, may help to reduce loneliness. By contrast, some (albeit a minority) of the CNH residents were dissatisfied with not being able to leave the facility often, to go outside, and to live in their own homes. This dissatisfaction with nursing home care (lack of independence and a feeling of home) is rather commonplace. For veterans who are able, the VDHC program offers the opportunity to live at home with greater independence, thereby reducing feelings of homesickness and dependency.

One notable weakness of the present retrospective study is that 2 different surveys were used to assess the satisfaction of both groups. It is possible that if identical satisfaction surveys were used, more differences between the 2 groups could have become apparent.

Nursing homes and related long-term care settings will always be a necessary component of the continuum of long-term care, especially for those who need environmental interventions and restrictions (eg, those with certain behavioral symptoms of dementia), need the assistance of more than 1 caregiver, or need frequent or daily monitoring by nursing or other clinical staff. However, considering the high cost of nursing home care, programs such as VDHC can reduce costs for those veterans whose conditions can be adequately managed through the care and attention of a sole, nonclinical caregiver. In addition, providing care in the veteran's home is more satisfying for the veteran. Socialization and self-image aspects, especially for younger veterans, are likely to be better at home under VDHC-style care than in a nursing home facility, where the difference in age, cohort, and patterns of socialization can often lead to depression and other poor outcomes.[12] In this study, the finding that VDHC users were significantly younger than veterans in CNHs is somewhat supportive of the idea that younger disabled veterans prefer not to live in institutional settings with an older cohort.

VDHC and similar programs have the potential to save considerable amounts of money by providing an alternative to a more expensive, more intensive, nursing-home level of care for those who need only a nonprofessional to provide constant assistance or supervision. Considering the high costs of nursing home care, even having a relatively small percentage of patients able to use VDHC-style programs vs CNH, admission could save significant health care costs.

Beyond cost savings, however, VDHC and similar programs enable persons to remain in their home environment, where they are generally happier and more satisfied. Although long-term care has made great strides in attempting to *deinstitutionalize* nursing homes and make them more *homelike* via cultural transformation and other methods, the preference of the majority of persons is to remain in their homes. Also, moving people from their homes into nursing homes often results in depression and related issues, which adds

further to the cost of nursing home care. In addition to real cost savings, VDHC-style programs can give some individuals who in the past would have gone into nursing homes the one thing that they would very likely deem priceless—the ability to remain in their own homes. ●

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