

STATE OF HOME CARE AND HOSPICE SERVICES IN VIRGINIA:

Care Where Older Virginians Want It



Virginia Commonwealth University, Department of Gerontology

Prepared for the Virginia Association for Home Care and Hospice

VCU

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**VIRGINIA ASSOCIATION FOR
HOME CARE AND HOSPICE**

Advocacy. Education. Guidance.

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Executive Summary

Home health care, including hospice care, is the fastest growing industry in the healthcare sector. It will continue to grow as the population ages and the prevalence of chronic conditions increase. This report describes the home care industry in Virginia.

In the broadest sense, home care refers to health or supportive services provided by health professionals or paraprofessionals to a person in his or her home. Specifically, home care services include skilled care, hospice care, home support services (i.e. personal care, housekeeping, meal preparation), equipment and supplies, and infusion therapy. Some services, such as home health, are typically short-term; others, such as personal care services, are generally considered long-term care services. Virginia law requires that agencies providing home health services, personal care services, or pharmaceutical services in an individual's home be licensed by the state as "home care organizations." Hospice providers, which offer a program of care for individuals in the final stages of illness, must also be licensed by the state.

Home care is what people prefer when they need care. The goal of all home care services is to help people live at home for as long as it is safe and practical for them to do so. Home care offers a solution to the growing challenge of treating chronic conditions by providing a cost-effective way to manage disease on an ongoing basis through oversight of self management and the provision of

interdisciplinary services. The benefits of hospice are many, providing emotional, medical, and spiritual support in a familiar environment for those with terminal illnesses.

Home care may be funded through Medicare, Medicaid, private insurance, long-term care insurance, and private payment. Medicare is the largest funder of home health and hospice. In 2006, home care organizations served tens of thousands of Virginians, most of whom were 65 and older. With the graying of the population, and a subsequent increased need for services, home care is an aging issue. However, home care provides services to Virginians of all ages. We get a clear picture of the characteristics of home health and hospice clients by looking at Medicare data; information on personal care clients is less clear, particularly with those clients who pay privately.

Home care agencies are subject to quality supervision at a number of levels, including state and federal standards, independent accrediting bodies, and customer satisfaction evaluations. One of the most important components of home care quality is staffing. Home care is provided by professionals and paraprofessionals of various disciplines and levels. This includes registered and licensed nurses, home health and personal care aides, physical and occupational therapists, and speech language pathologists. The growth of the home care industry, coupled with a greater demand for services by an aging populations, and diminished supply of workers, has created a workforce

supply crisis. The high cost of recruiting and training workers, including wages and benefit packages, along with rising fuel prices for workers who travel an average of 16.7 miles per visit, poses fiscal challenges to the industry.

Rising healthcare costs and demand, as well as a decreased supply of healthcare workers, have led to the increased use of technology in home care, particularly telemonitoring. Telemonitoring refers to the installation of equipment in a patient's home that collects various clinical measurements such as weight, blood pressure, pulse rate, glucose level, etc. that are monitored and managed by health professionals.

When looking at the future of home care, there are two significant and interrelated trends that will impact the

industry. They are the treatment of individuals with chronic conditions and the integration of acute and long-term care. As people age across the United States and in Virginia, the number of people with chronic conditions will increase.

A home-based disease management model provides a solution. The need to better integrate acute and long-term care systems puts home care in a position to bridge the gap between levels of care and allow for better continuity and quality of care.

Home care holds an important and growing position in healthcare. An increased focus and support of home care services is the best strategy to support Virginians' return to full functioning after an illness and the best way to maximize the independence of older Virginians and those with disabilities.

Introduction and Industry History

Care in the home is not a new concept. It's the usual way people have received care throughout U.S. history. From the establishment of the first formalized visiting nurse associations in the 1880's, home care has continued to evolve as a burgeoning healthcare industry. When a person needs care, they want that care in their home, supported by family and friends. Before the advent of institution-based healthcare, treatment for illness and injury was given to older, frail persons and persons with disabling conditions where they resided. Today the long-term care system is shifting back to an emphasis on care in the home. Home health care, including hospice care of terminally ill patients, is the fastest growing industry in the healthcare sector. This growth is fueled by several factors, including the graying of a population, increased longevity, advances in health technology that allow individuals to be treated at home, and a general desire to avoid the high cost of hospitalization.

This report describes the home care industry in Virginia. Section 1 reviews the types of home care services, the services received by patients, the benefits of home care, and the organizations which provide home care. Section 2 provides detail on who is served and how home care is financed. Section 3 looks at how home care continually improves the quality of services provided. Section 4 reviews the challenges facing home care providers both at present and on the horizon.

SECTION 1:

What is home care?

In the broadest sense, home care refers to health or supportive services provided by health professionals or paraprofessionals to a person in his or her home. Home care plays an important role in both acute and long-term care. Home care provides continued services to a person recovering from a hospital stay, a person leaving a nursing home, or a person trying to stay independent in his or her community, to name a few scenarios. As part of the healthcare and long-term care continuum, home care works closely with other providers to obtain needed services.

The term "home care" is differentiated from "home- and community-based services." "Home- and community-based services" is a broad term that refers to all of the long-term care services provided to an individual in their home and community. It may include home care, but expands to other services such as transportation, home-delivered meals, and adult day services.

What services does home care provide?

Specifically, home care services include skilled care, hospice care, home support services (i.e. personal care, housekeeping, meal preparation, etc.), equipment and supplies, and infusion therapy. Home care is available on a short-term (acute) or long-term basis. Home health services are typically short-term, while personal care services are generally considered long-term care services.

It is important to note that states differ in how they describe home care services based on their own regulatory standards. In Virginia, home care services are specifically defined through the regulation of home care organizations.

The code of Virginia (§ 32.1-162.7) defines a home care organization as "a public or private organization, whether operated for profit or not for profit, that provides, at the residence of a patient or individual in the Commonwealth of Virginia, one or more of the following services: 1) **home health services**, including services provided by or under

direct supervision of any health care professional under a medical plan of care in a patient's residence on a visit or hourly basis to patients who have or are at risk of injury, illness, or a disabling condition and require short-term or long-term interventions; 2) **personal care services**, including assistance in personal care to include activities of daily living provided in an individual's residence on a visit or hourly basis to individuals who have or are at risk of illness, injury, or disabling condition; or 3) **pharmaceutical services**, including services provided in a patient's residence, which include the dispensing and administration of a drug or drugs, and parenteral nutritional support, associated patient instruction, and such other services as identified by the Board of Health by regulation."

Home health services refer to short-term services that are restorative or rehabilitative in nature. These services require the skill of a licensed health care professional such as a registered nurse (RN) or a physical therapist and are based on teaching the individual or family member how to assist in the health care and rehabilitation of the individual back to an independent state. Home health services require a physician's order and include skilled nursing services, therapy services (such as physical, occupational, and speech), aide services, and "ancillary" services such as social work.

Personal care refers to long-term care services that help to maintain independence in the person's home and to avoid institutionalization. These services are provided by unlicensed home health care aides (also called personal care aides) or certified nursing assistants. They consist of assistance with activities of daily living (ADLs) such as bathing, dressing, grooming, toileting, transferring, and walking as well as assistance with housekeeping, meal preparation, shopping, and laundry. In the Virginia home care industry, the term "personal care" usually refers to services provided through a Medicaid home-and-community-based waiver. However, personal care services can be obtained through private duty providers. Under Medicaid regulation, care is overseen by registered nurses and needs are based on "uniform assessments" conducted by government health or social services departments.

"Private duty" is a term that refers to home care services that are paid out of pocket by individuals or through long-term care insurance. Private duty includes long-term care services, particularly personal care, chore, companion, and sitter services, which help individuals to maintain independence by remaining in their own homes. Virginia private duty services that include personal care or nursing care are required to be provided by a licensed home care organization and are subject to state regulatory standards. The term "private duty" may cause confusion as it encompasses a number of home care services. However, the term is used regularly to distinguish those services that are paid privately. According to the Virginia Association for Home Care and Hospice (VAHC) 2007 Salary and Benefits

Survey, the average out-of-pocket hourly charge for private duty personal care is \$19.00; this is also consistent with findings from the 2008 Genworth Financial Cost of Care Survey.

Hospice is another service frequently provided in the home, although it can be received in any setting. According to the National Hospice and Palliative Care Organization (NHPCO), 74.1% of hospice patients die in the place they call home (private residences, nursing or residential facilities). The code of Virginia (§ 32.1-162.1) defines hospice as "a coordinated program of home and inpatient care provided directly or through an agreement under the direction of an identifiable hospice administration providing palliative and supportive medical and other health services to terminally ill patients and their families. A hospice utilizes a medically directed interdisciplinary team. A hospice program of care provides care to meet the physical, psychological, social, spiritual, and other special needs which are experienced during the final stages of illness, and during dying and bereavement. Hospice care shall be available twenty-four hours a day, seven days a week." Hospice providers must be licensed by the state. While hospice care is provided by an interdisciplinary team of professionals, about 5.1% of clinical hours are provided by hospice volunteers (NHPCO, 2007).

Why home care?

The goal of all home care services is to help people live at home for as long as it is safe and practical for them to do so. Home care promotes dignity by allowing a person to remain as independent as possible in their own home. Research on the benefits of home care indicates that home care may prevent or postpone unnecessary institutionalization. A recent report to Congress by the Medicare Payment Advisory Commission (MedPac) concluded "that older adults who do not have help with ADLs [activities of daily living] are more likely to be hospitalized for acute illness than adults who receive the help that they need" (Virginia Secretary of Health and Human Resources, 2007). In Virginia, 71% of all discharged Medicare home health clients remain in the community rather than go to an institution. Only 27% are admitted to an acute care hospital while receiving home health. On both counts, Virginia's home care providers surpass the national averages (Centers for Medicare and Medicaid Services [CMS], 2008).

Caring for a person at home can be more cost-effective than institutional care. There is considerable research exploring cost-effectiveness; however, it is difficult to summarize or compare studies because of the breadth and complexity of home care. Nevertheless, there is research that supports home care as a cost-effective healthcare approach. For example, a research study concluded that one year of long-term oxygen therapy at home costs less

than one day in the hospital (Dunne, 2000). Analysis of a Veteran's Administration home care program demonstrated that home care reduced hospital readmission costs by 29%. A meta-analysis of the impact of home care on hospital days demonstrated a statistically significant relationship between home health use and reduced hospitalization (Hughes, Ulasevich, Weaver, Henderson, Manheim, Kubal, & Bonarigo, 1997). It is important to note that cost-effectiveness on an individual level is dependent on many factors, including severity of condition, functional status, and hours of care needed.

Home care may provide a solution to the growing challenge of treating chronic conditions. A recent study by the Kaiser Family Foundation reported that the number of working-age adults with at least one chronic condition increased by 25% over a recent ten-year period (Hoffman & Schwartz, 2008). Ongoing disease management is not easily accomplished through acute and short-term care. Home care provides a way to manage chronic conditions on an ongoing basis. It is particularly well suited because it includes the provision of interdisciplinary services and incorporates self management, an important aspect of chronic care management. Home care also provides a shift from a purely medical focus, providing functional and social supports.

Home care also serves as an important support to family caregivers. The availability of home care to family members caring for friends and family members may be that extra support that enables caregivers to keep their loved ones at home for longer periods of time. For people with cognitive impairments such as dementia, home care in a familiar environment may be more acceptable than care in an unfamiliar institution.

The benefits of hospice are many, providing emotional, medical, and spiritual support to terminally ill individuals and their families. By allowing a person to receive these services in their home, hospice allows an individual to spend his or her remaining time in a familiar environment with familiar faces. Recent research suggests that hospice patients live an average of one month longer than patients not receiving hospice (Connor, Pyenson, Fitch, Spence, & Iwasaki, 2007). The benefits of hospice extend to cost savings. Researchers at Duke University found that hospice reduced Medicare costs by an average of \$2,309 per hospice patient (Taylor, Ostermann, Van Houtven, Tulsy, & Steinhauser, 2007). Additionally, a June 2008 MedPac report stated that "beneficiaries who elect hospice incur less Medicare spending in the last two months of life than comparable beneficiaries who do not, but also that Medicare spending for beneficiaries is higher for hospice enrollees in the earlier months before death than

it is for non-enrollees. In essence, hospice's net reduction in Medicare spending decreases the longer the patient is enrolled, and beneficiaries with very long hospice stays may incur higher Medicare spending than those who do not elect hospice." Hospice in the home may be even more cost-effective.

Perhaps most important, home care is most desired by older adults. It is clear that people want choice and control over their everyday decisions. Healthcare decisions are no exception and the preferences of people are clear. According to a 2008 AARP report, an overwhelming majority (87%) of people with disabilities age 50 or older would like to be cared for in their own home (Kassner, Reinhard, Fox-Grage, Houser, Accius, Coleman, & Milne, 2008). A 2007 study by Prince Market Research reported that seniors feared having to live in a nursing home more than their own death (Clarity, 2007).

Support for home care has happened at the state level. A 2006 report of the Joint Legislative Audit and Review Commission (JLARC) entitled "The Impact of an Aging Population on State Agencies" stated that the "The Supreme Court's 1999 Olmstead decision and an increasing preference for in-home services have also contributed to an increase in State support for home and community-based services."¹ According to the state's long-term care policy that was enacted through HB 2036 of the 2005 Session of the General Assembly, "The Commonwealth shall seek to ensure that...service delivery consistent with the needs and preferences of older adults occurs in the most independent, least restrictive, and most appropriate living situation possible."

However, the largest proportion of long-term health care dollars goes to nursing home care. And in the Medicare program, home healthcare is just a fraction of total expenditures. According to 2004 estimates by the Centers for Medicare and Medicaid Services (CMS) Office of the Actuary, home health spending amounted to \$609 million in Virginia. This includes all payer sources for home health. Despite the desire of individuals to remain in their home, and its cost-effectiveness, only 5% of Virginia's 2000 health expenditures were spent for home health and personal care. This is compared to 7% on nursing home care (Kaiser Family Foundation, 2004). In fact, Virginia ranks 45th in Medicaid per capita spending on home health and personal care (Public Policy Institute New York State, 2006). A 2007 AARP survey of Virginia members found that nine out of ten AARP members support Virginia shifting resources from institutional care to home- and community-based services. Seventy percent of members stated they would be more likely to vote for a state candidate who supported this shift.

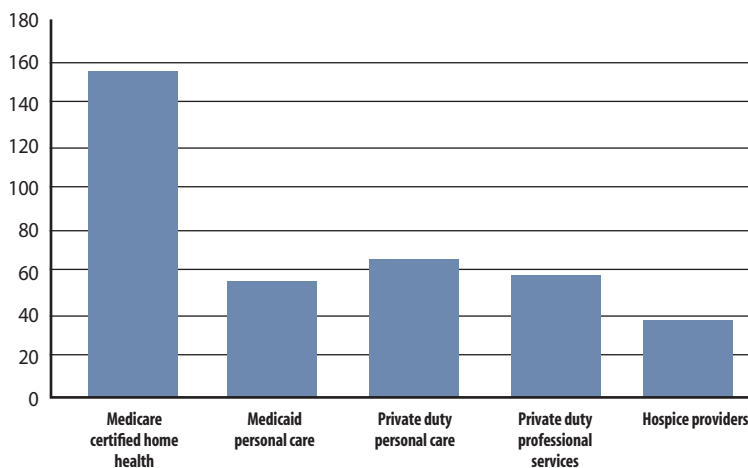
1 In 1999, the United States Supreme Court, in its decision *Olmstead v. L.C.* stated that persons with disabilities who live in, are "at risk" of living in, or are eligible for placement in facilities or institutions, have a right to live in the community if: 1) they and their treatment teams agree that they can live successfully in the community; 2) they choose to live in the community; and 3) there are resources available to help them live in the community.

Who provides home care?

According to the Virginia Department of Health's Office of Licensure and Certification, there are 223 home care organizations in Virginia. These home care organizations include private duty agencies, personal care providers, and home health providers that do not receive Medicare. There are also 190 Medicare certified home health agencies. (personal communication, August 7, 2008). According to CMS' Home Health Compare website, there are 244 Medicare certified home health agencies in Virginia. There are exemptions to the state home care organization licensing requirements that create some complexity in determining the exact number of home care providers. For example, providers of chore, companion, or homemaker services, as well as Medicare certified home health providers, do not have to obtain a state license. Virginia has 104 licensed hospice providers, with 72 of them being Medicare certified. The number of home health agencies and hospice providers has increased tremendously over the last 20 years as a result of Medicare and Medicaid coverage.

As the number of home care agencies has grown, so has the need for organizations to support the industry. The Virginia Association for Home Care and Hospice (VAHC) was established in 1983 to promote the home care interests and needs of providers, consumers, and policy makers in Virginia. VAHC members include Medicare certified, licensed, Medicaid Waiver, personal care, private duty, hospice, pharmacy and DME agencies. Driven by its mission, VAHC is the recognized voice dedicated to representing the home care and hospice interests and needs of providers, consumers and policy makers in the Commonwealth of Virginia through advocacy, education and networking. At the national level, the National Association for Home Care, established in 1982, represents the interests of home care providers.

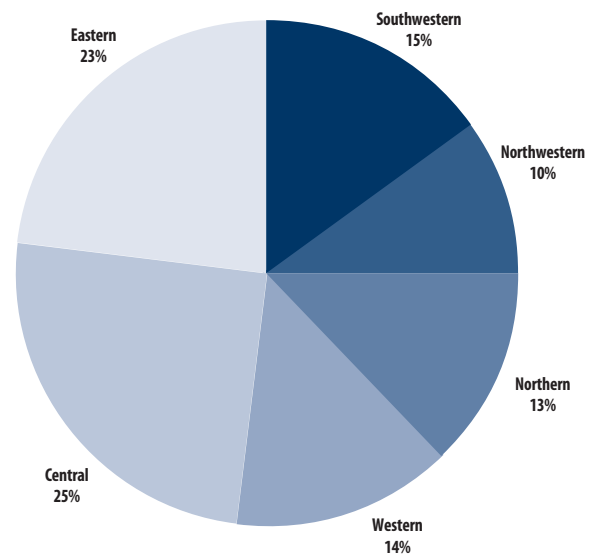
FIGURE 1. Number of VAHC members by home care service, as extracted from VAHC membership demographic information.



As the primary organization for home care and hospice in Virginia, with 240 members, VAHC's membership characteristics with important information about the home care industry. As Figure 1 demonstrates, the largest number of VAHC members provides Medicare certified home health services. It is important to note that this information does not necessarily reflect the industry as a whole. Medicaid personal care providers, for example, are underrepresented.

In terms of distribution, Figure 2 describes the distribution of VAHC members across Virginia. Home care organizations appear more heavily concentrated in the central and eastern parts of the state.

FIGURE 2. Geographic distribution of VAHC members, as identified through VAHC membership data.



The majority of home health agencies are proprietary. According to VAHC's 2007 Salary and Benefits Survey, 64% of participating organizations were for-profit, 46% were freestanding, 32% were hospital-based, and 21% were part of a corporate chain. Although there has been considerable discussion regarding the effect of nonprofit or for-profit status on quality in the nursing home arena, no effect has been established in home care (Han, McAuley & Remsburg, 2007).

SECTION 2:

Who pays for home care?

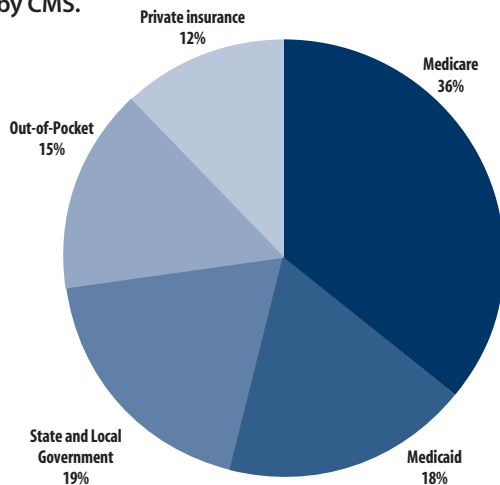
Services within home care are operationally defined by their reimbursement sources. Table 1 provides an overview of primary reimbursement methods for various home care services (VAHC, n.d).

Although there are a number of payment sources, the focus in this report will be on those paid by Medicare. This is because most of our data on home care comes from Medicare-certified home health services and Medicare-certified hospice. Aside from being the largest funder of home care and hospice, Medicare certified agencies are required to collect a large amount of data on each client. Although private health insurance covers both home health and hospice, a consolidated data source is not available from these various health plans. Consolidated data is also not easily available for recipients of private duty services, which are privately paid out of pocket and are thus not subject to the oversight of Medicare or Medicaid.

Medicare and Medicaid home health

According to national data from the Center for Medicare and Medicaid Services (CMS), 37% of payments for home health are from Medicare (Figure 3). Another 20% is funded from state and local governments, 19% is from Medicaid, 15% is out-of-pocket, and 12% is from private insurance (National Association for Home Care and Hospice, 2008).

FIGURE 3. Payment sources for home health, as identified by CMS.



The enactment of Medicare in 1965 is largely responsible for its growth as an industry and eventually Medicare became the largest funder of home health services. By covering home health services to older adults and persons with disabilities as part of the Part A benefit, Medicare is

TABLE 1. Primary reimbursement methods for home care and hospice services

	Medicare	Medicaid	Commercial Insurance	Long-term Care Insurance	Consumer Pays Out of Pocket
Home Health	X	X	X	X	
Hospice	X	X	X	X	
Personal Care		X			
Private Duty				X	X

a consistent source of funding to agencies providing home health services. Changes in Medicare have been largely responsible for ups and downs in the home care industry. Most notably, the industry experienced a decline as a result of coverage and reimbursement changes enacted through the passage of the Balanced Budget Act of 1997. The implementation of a home health prospective payment system in 2007 has helped the industry achieve greater financial stability and has boosted its continued growth. In order to be reimbursed by Medicare, an agency must be a Medicare-certified home health agency meaning it must meet specific federal criteria under CMS.

In 2006, Medicare certified home health agencies in Virginia made 1,988,817 visits to 74,887 patients. The average number of visits per patient was 27. The total Medicare reimbursement to these providers was \$283,785,585, with an average pay per patient of \$3,790 (CMS, 2006). Payments to home health providers constituted 6% of total fee-for-service Medicare payments. Total Medicare payments for inpatient short-stay hospital visits were \$2,380,596,836, almost eight times more than the total home health expenditures (CMS, 2007). The Medicare home health benefit is by far one of Medicare's cost effective programs.

Medicaid also pays for home health services, but this is a relatively small benefit in the Medicaid program. In 2006 Medicaid provided home health services to 4,055 Virginians. In 2006, the average per recipient expenditure by Medicaid for home health services was \$1,278. By comparison, the average per recipient payment for all services was \$5,085. Medicaid payment for home health services totaled \$5,181,527, consisting of .12% of total Medicaid expenditures. By comparison, Medicaid payments for home- and community-based waiver services comprised 7.6% of total Medicaid payments and payments to nursing facilities comprised 16% of all Medicaid payments (Virginia Department Medical Assistance Services [DMAS], 2006).

Medicare and Medicaid hospice

In 1982, Congress created a Medicare hospice benefit, reserving such services for terminally ill Medicare beneficiaries with life expectancies of six months or less. In 2006 Medicare certified hospice providers in Virginia saw 18,100 patients with 1,134,819 days of treatment. The total Medicare reimbursement to these providers was \$148,040,088. The average pay per patient was \$8,179. Patients received hospice for an average of 63 days. (CMS, 2006) A recent independent Duke University study demonstrated that, on average, hospice saves Medicare more than \$2,300 per patient and goes on to say, “Given that hospice has been widely demonstrated to improve quality of life of patients and family members...the Medicare program appears to have a rare situation whereby something that improves quality of life also appears to reduce costs” (Taylor, et al., 2007). In 2006, Medicaid hospice expenditures totaled \$19,783,111, indicating a relatively small benefit; however, these payments were almost four times more than Medicaid home health payments.

Medicaid personal care

The Department of Medical Assistance Services (DMAS) reimburses personal care providers through a home-and community-based waiver program, which allows individuals to remain in their homes rather than go to a nursing facility. Total Medicaid expenditures in 2006 for person care support services were \$148,653,933. The average per recipient expenditure was \$4,342, serving 46,917 individuals of all ages (DMAS, 2006).

The Medicaid average hourly rate for personal care in 2007 was \$12.54 for the state and \$14.76 for Northern Virginia. There is no automatic adjustment for inflation built into the establishment of these rates. A 2007 DMAS report indicated that if published nursing home inflation factors were used to inflate the 1997 person care hourly rate of \$12.11, the 2006 rate would be \$17.08. The report also indicated that although nursing home costs increased a total of 40% over an 8 1/2 year period, personal care rates

increased only 22-26% over that same period (DMAS, 2007).

It is important to note that Medicaid and Medicare differ significantly in which services they fund, the number of recipients, per recipient payments, and total expenditures. For example, home health is a comparatively large benefit for Medicare while a small benefit for Medicaid. Alternatively, Medicaid personal care services comprise a larger benefit than Medicaid home health both in terms of numbers and dollars. Table 2 provides a comparison of Medicare and Medicaid regarding home health, hospice, and personal care services.

Who is served by home care?

According to national data, 70% of home health patients are 65 and older (National Center for Health Statistics [NCHS], 2000). Because Medicare is the largest payor of home health services and the majority of home health recipients are Medicare recipients, home care is often seen as an aging issue. There are just over one million Medicare beneficiaries in Virginia, with the large majority of them (83%) being age 65 and older. The expected population growth of older Virginians will influence the evolution of the home care industry and healthcare in general. The population of Virginians age 60 and older in 2000 was 1,065,502. By 2030 these numbers are expected to more than double to 2,611,774, with the fastest growth in the 85+ segment. Virginians age 60 and older will then comprise over 25% of the population.

It is important to note, however, that people of all ages receive home care services and characteristics of people served may vary by reimbursement source. For example, a large majority (93%) of Medicaid home health recipients is under the age of 65 (DMAS, 2006).

In trying to understand who is served by home care it helps to look at what types of services they are receiving. Seventy-five percent of home care clients receive medical/skilled services. Forty-four percent of home care clients receive personal care and 37% receive therapeutic services

TABLE 2. Number of recipients, pre recipient payment, and total payments for home care services by type and payor source.

Service	Payor Source					
	Medicare			Medicaid		
	# of recipients	Average per recipient payment	Total Payments	# of recipients	Average per recipient payment	Total Payments
Home Health	74,887	\$3,790	\$283,785,585	4,055	\$1,278	\$5,181,527
Hospice	18,100	\$8,179	\$148,040,088	3,475	\$5,693	\$19,783,111
Personal Care	X	X	X	46,917	\$4,342	\$148,653,933 ²

² Total payments reflect total “personal care” payments broken out of category “personal care support services.” The “number of recipients” and “per recipient payment” reflect analysis of the overall “personal care support services” category; data at this level is not available for “personal care” as a subcategory.

(NCHS, 2000). National data indicates that 51.5% of Medicare home health visits are for nursing care, 20.5% are for home health aide services, and 22.2% are for physical therapy (CMS, 2007).

To understand the characteristics of a Medicare home health client, it is useful to look at the eligibility criteria that must be met in order for Medicare to pay for a beneficiary's home health services. They are: (1) The patient must be under the care of a physician who will certify the need for home health care and has developed a plan of care for that patient; (2) The patient must be homebound; (3) The patient must be in need of skilled nursing care on an intermittent basis or physical therapy or speech-language pathology; or have a continuing need for occupational therapy; and (4) The services must be medically necessary and reasonable.

The medical diagnoses of people receiving home health provide a medical "snapshot" of who is served. Table 3 lists the top ten diagnoses for all Virginia hospital discharges to home health (Virginia Health Information [VHI], 2008). Because this data includes all payor sources, it describes patients of all ages. The existence of "live birth" in the top ten overall diagnoses reminds us that home health clients can be any age. From this we might extrapolate that, after older adults, some of the most common home health clients are new mothers. It is also important to note the small percentages of total, indicating that there are wide arrays of diagnoses when discharged to home health.

When we look at the top Medicare recipient diagnoses for home health, these conditions are generally more descriptive of older adults. According to CMS the six most frequent Medicare home health agency diagnoses are diabetes, heart failure, chronic skin ulcer, hypertension, chronic airway obstruction, and pneumonia (CMS, 2007).

Typically, Medicare home health recipients initiate their services after a hospital or nursing home stay. After hospitalizations, the overwhelmingly majority of hospital patients are discharged to home. However, the second most common discharge is to home health. Of all hospital discharges in Virginia, 9% were discharged to receive home health services. There are more discharges to home health than there are to skilled nursing facilities. (VHI, 2008)

According to a report by the US Office of the Inspector General (OIG), 34-40% of Virginia Medicare home health beneficiaries do not have a prior hospital or nursing home stay; in other words, these individuals initiate home health services at the community level. National data tells us that the top five diagnoses for community beneficiaries are diabetes, chronic skin ulcers, hypertension, heart failure, and osteoarthritis (OIG, 2001).

According to the National Hospice and Palliative Care Organization (2007), four out of five hospice patients are 65 years of age or older — and one-third of all hospice patients are 85 years of age or older. Because more than

TABLE 3. Top ten primary diagnoses for Virginia patients discharged/ transferred to home under the care of an organized home health service organization, 2003-2007.

Diagnosis	Percent of Total Discharges
Rehabilitation procedures	5.70
Osteoarthritis (lower leg) primary	5.46
Congestive heart failure	4.18
Pneumonia	3.07
Osteoarthritis (pelvic region and thigh)	2.31
Obstructive chronic bronchitis	1.82
Osteoarthritis (lower leg)	1.72
Coronary atherosclerosis	1.63
Cerebral artery occlusion (stroke)	1.55
Single live birth	1.50

80% of hospice patients are Medicare beneficiaries, hospice is also a significant aging issue. Similar to home health, although most hospice patients are older adults, hospice serves individuals of all ages. Although cancer was the most frequent hospice diagnosis, cancer now accounts for less than half of hospice patients. The top ten diagnoses for recently hospitalized Virginians who were discharged to hospice services in their homes are shown in Table 4 (VHI, 2008). Please note that this data is reflective of all payor sources.

In order to be eligible to elect the Medicare hospice benefit, beneficiaries must be certified by their attending physician, and the hospice physician, as being terminally ill with a prognosis of 6 months or less to live should the illness run its normal course. When we look at Medicare-specific data, we see a different picture of who is served by hospice. The top ten diagnoses for Medicare hospice beneficiaries across the country are (in descending order): lung/bronchial cancer, congestive heart failure, unspecified debility, chronic airway obstructive disease, Alzheimer's, failure to thrive, stroke, senile dementia, prostate cancer, and breast cancer. Of the seven non-cancer diagnoses, the fastest growing one is Alzheimer's Disease (CMS, 2005).

TABLE 4. Top ten primary diagnoses for Virginia patients discharged from hospital to hospice, 2003-2007.

Diagnosis	Percent of Total Discharges
Congestive heart failure	5.40
Pneumonia	3.89
Acute kidney failure	3.13
Lung cancer	2.75
Aspiration pneumonia	2.60
Septicemia	2.42
Acute respiratory failure	2.30
Cancer of the brain/spinal cord	2.18
Obstructive chronic bronchitis	2.02
Lung cancer (secondary)	1.89

SECTION 3:

Quality Assurance

The provision of care in the home does not exempt it from oversight and quality measures. The Centers for Medicare and Medicaid Services (CMS) at the federal level provides the highest level of oversight. At the state level, the licensure of home care organizations is overseen by the Virginia Department of Health's Office of Licensure and Certification. The Department of Health also conducts the federal certification surveys for Medicare-certified providers and investigates any complaints received against them. The Virginia Department of Health Professions oversees the licensure of home care professionals and paraprofessionals. The Office of the State Long-term Care Ombudsman also receives complaints about community-based long-term care. Funding sources other than CMS also provide oversight and requirements, such as private insurance.

Aside from state and federal licensing and certification regulations, home care and hospice providers can and do participate in quality assurance activities.

Those home care providers publicly funded by Medicare or Medicaid are subject to quality programs initiating from CMS. Since 2000 Medicare certified home health agencies have been required by CMS to collect and report health assessment information for their clients. The data, termed Outcome and Assessment Information Set (OASIS), provides measures of how well home health agencies are assisting their patients in regaining or maintaining their functional ability. The measures focus on the core purpose of home care services, which is improvement or stabilization of activities of daily living. See Appendix 1 for a list of OASIS quality measures (CMS, 2008).

The outcomes are presented through Home Health Compare, a consumer-focused website offered through CMS that is intended to assist consumers in choosing home health agencies. OASIS data tells us that Virginia scores better than the national average on seven of the eleven quality indicators (NAHC, 2008).

The Virginia Health Quality Center (VHQC), as the Quality Improvement Organization (QIO) in Virginia, works with home health agencies to encourage the adoption, use, and monitoring of best practices and quality measures. In 2007 CMS, along with the state QIO's, launched the Home Health Quality Improvement National Campaign.

Aside from government-initiated quality initiatives, home care agencies may seek independent accreditation. Each accrediting body has its own standards of excellence that must be met to be awarded accreditation. All accreditations are subject to re-evaluation and recertification after a certain period of time. Table 5 outlines the organizations that accredit home care and hospice organizations and the number of Virginia agencies accredited by each.

The Community Health Accreditation Program (CHAP) is an independent, nonprofit, and national accrediting body for community-based health care organizations. Providers wishing to receive accreditation participate in a rigorous self-evaluation process and are evaluated through site visits. The Accreditation Commission for Healthcare (ACHC) is another national accrediting body for home care providers. The Joint Commission's Home Care Accreditation Program is the third national accrediting organization, and has the largest share of accreditations in Virginia.

Virginia home care agencies have also been nationally recognized. Home Care Elite names the top 25% of home care providers in the country whose performance measures in quality, improvement, and financial performance are the best. The 2007 HomeCare Elite list names 39 Virginia agencies.

As the popularity of home health continues to grow, so will means of quality assurance. Concepts like "pay for performance" may provide even more of an incentive for home care providers to continue to implement quality measures. In 2007 CMS announced plans to roll out a demonstration project for pay for performance in home health. In the demonstration, home health payments will be tied directly to performance and performance improvement.

Quality of care is highly dependent on quality of staff. To this end, education and training play an important role in how care is effectively provided. The next section on workforce issues describes training requirements for particular levels of staff. Monitoring criminal backgrounds of professionals and paraprofessionals is another important issue, particularly when workers are in the homes of clients. Virginia law requires that all home care organizations and hospice providers obtain state criminal background checks on employees within 30 days of hire. Employees must

TABLE 5. Type of accrediting body by number of Virginia agencies accredited.

Accrediting body	Number of Virginia agencies accredited
Community Health Accreditation Program (CHAP)	23
Accreditation Commission for Healthcare (ACHC)	11
Joint Commission	196

also provide a sworn disclosure statement regarding their criminal history. Home care workers who provide services privately and who are not employed by a home care organization are not required to have criminal background checks. The responsibility for determining criminal history falls on the consumer.

Perhaps the most important indication of the quality of home health comes from its clients. Although there is no specific mandated measure of client satisfaction from CMS, they do require home health agencies to annually evaluate their programs and to include client satisfaction. Thus, there is no consistent mandatory public reporting of client satisfaction. The 2008 Home Care Pulse Report, an independent evaluation of home care satisfaction, reported that client satisfaction showed steady improvements in 2006

after some years of sporadic improvements and remained relatively consistent in 2007. In general, satisfaction scores were very high; on a 100-point maximum scale, satisfaction ratings were frequently in the 90's. The overall satisfaction score for October of 2007 was 90.3. Survey results indicated that consumers placed high importance on the response of the home care office in handling their requests, i.e. requests to change nurses or aides, dealing with problems or complaints, keeping families informed, accommodating scheduling changes, and handling emergencies. The highest satisfaction ratings were related to patient's interaction with nurses. The lowest satisfaction ratings were related to dealing with the home care office. Interestingly, patient satisfaction declined the longer they received services (Press Ganey, 2008).

SECTION 4:

Challenges facing the home care industry

A. Workforce challenges

Home care is provided by professionals and paraprofessionals of various disciplines and levels.

Skilled nursing services are provided by registered and licensed nurses, home health aides, occupational therapists, physical therapists, and speech language pathologists. Social workers also provide services to home health recipients. Each of these disciplines has their own education, training, licensure, and certification requirements.

There are currently 86,188 registered nurses (RN's) and 28,580 licensed practical nurses (LPN's) licensed in Virginia. In 2006 there were approximately 2,523 RN's working in home health services in Virginia. This comprised about 4.4% of all employment for RN's. The number of RN's working in home health is expected to increase to 3,304 by 2016. In 2006 there were approximately 1,229 LPN's working in home health services in Virginia. This comprised about 6.4% of all employment for LPN's. The number of LPN's working in home health is expected to increase to 1,610 by 2016 (Virginia Employment Commission [VEC], 2006). While RN's do not need to have a specialty in home health to provide these services, they may pursue it independently. For example, the American Nursing Credentialing Center offers a specialty certification in home health nursing.

Skilled services include the provision of rehabilitative services such as physical, occupational, and speech therapies. Like nursing, each of these types of professionals has their own set of professional and educational standards. According to the Virginia Department of Health Professions, physical and occupational therapists both require Master's degrees from accredited programs and must pass national and state licensure exams in order

to practice. It is likely that, in coming years, a clinical doctorate will be required. Speech language pathologists, or speech therapists, are also licensed by the state and must provide proof of certification from an approved accrediting body. Occupational and physical therapy assistants work under the direction of therapists to help clients with activities and exercises outlined in their treatment plans. Table 6 provides median hourly wages in the home health industry for each therapist group. The need for therapists in both home health and the entire healthcare industry continues to increase. The average annual growth rates for physical and occupational therapists are expected to be 3.5% and 3.1%, respectively; this is compared to 1.6% average annual growth rate for all occupations (VEC, 2006).

TABLE 6. Median hourly wage by therapist type.

Therapist Type	Median Hourly Wage
Occupational Therapist	\$31.47
Physical Therapist	\$30.72
Speech Language Pathologist	\$28.04

Home health aides perform various medically related services for patients.

The state regulations for home care organizations specify what types of services home health aides provide when assisting with skilled services. They include:

- 1) Assisting clients with (i) activities of daily living, (ii) ambulation and prescribed exercise, and (iii) other special duties with appropriate training and demonstrated competency; 2) Assisting with oral or topical medications that the client can normally self-administer; 3) Measuring

and recording fluid intake and output; 4) Taking and recording blood pressure, pulse and respiration; 5) Recording and reporting to the appropriate health care professional changes in the client's condition; 6) Documenting services and observations in the client's record; and 7) Performing any other duties that the attendant is qualified to do by additional training and demonstrated competency as allowed by state or federal guidelines.

Home health aides work directly under licensed health professionals such as registered nurses. Home health aides providing Medicare-certified services must meet federal training requirements. These include completing a training program of at least 75 hours with 16 hours devoted to supervised practical training and passing a competency evaluation, as well as obtaining twelve hours of annual training.

Personal and home care aides (also called homemakers, companions, and personal attendants) provide housekeeping and routine personal care services. According to the Virginia Department for the Aging, personal care aides "provide personal assistance, stand-by-assistance, supervision or cues for persons with the inability to perform one or more of the following activities of daily living: eating, dressing, bathing, toileting, grooming, transferring in and out of bed/chair or walking." Personal care aides are not required to be licensed or certified. According to the Department of Medical Assistance Services, Virginia's Medicaid administrator, a personal care aide must meet the following requirements: 1) Must be 18 years of age or older; 2) Must be able to read and write in English to the degree necessary to perform the tasks expected; and 3) Must be able to perform the tasks required. Under the Medicaid program, personal care aides in Virginia are required to complete a 40-hour training course as well as receive 12 hours of annual training. Each personal care agency may develop their own training program; however, they need to incorporate a curriculum developed by the Department of Medical Assistance Services.

There are 10,207 home health aides and 10,319 personal care aides in Virginia (VEC, 2004). On average, Virginia home health aides make \$18,632.26 a year while personal and home care aides make \$16,623.16 a year (VEC, 2006). According to the 2007 Salary and Benefits Survey from the Virginia Association for Home Care and Hospice (VAHC), the overall average hourly rate of a certified home health aide in Virginia is \$10.33. However, the survey demonstrated that this rate can range both within and between areas. For example, the hourly rate in Arlington may range from \$8.00 to \$19.00. The hourly rate in Norfolk ranges from \$8.50 to \$10.10. The average hourly rate for a personal care aide is \$9.52 and also varies by region (VAHC, 2007).

Overall, employment in home health services is expected to increase dramatically. The Virginia Employment

Commission estimates this increase to be 69.5% by 2014. The VEC projects that the number of Virginia home health aides will increase from 10,207 to 16,549 (from 2004 to 2014) for a 62% increase. They also project that the number of personal and home care aides will increase from 10,319 to 15,287 (2004-2014) for a 48% increase.

Virginia, with the rest of the country, is experiencing a significant workforce crisis in nursing and direct care workers. According to the Virginia Partnership for Nursing, a statewide nursing workforce initiative established through the Robert Wood Johnson foundation, the retiring of nurse faculty over the next ten years will significantly impact the availability of trained nurses. The average age of nurse faculty in Virginia in 2002 was 53. Coupled with the fact that the average age of RN's out in the field is 45, we will be challenged to recruit and train new nurses to meet the needs of the population. It is projected that by 2020, Virginia will experience a 36% deficit in the number of nurses required by health care employers. According to a 2004 report by State Council of Higher Education in Virginia (SCHEV), if current trends continue the demand for registered nurses in Virginia by the year 2020 will be 69,600. The expected supply of RNs is only 47,000.

It is estimated that 80% of hands-on long-term care is provided by direct care workers such as home health and personal care aides. With tremendous difficulties in recruitment and retention, the workforce crisis may be even more severe in direct care. Increased demand for home care places even more pressure to hire direct care staff to meet this demand. The 2008 Genworth Cost of Care Survey found that the costs of home health aides increased 18% from 2007. Nonetheless, because wages are generally lower in home care than in nursing homes or hospitals, home care providers face challenges in trying to keep staff from moving to these higher-paying environments. Overall, the home care workforce is difficult to assess because it is a dynamic environment with much flexibility for employees. For example, national turnover rates for home health aides vary tremendously (Wright, 2005). Nonetheless, turnover exists and it is costly for providers and disruptive to continuity of care.

Workers are the backbone of home care; therefore, it makes sense that staffing costs are the largest expenses for home care agencies. VAHC agencies employ an average of 46.5 part-time employees; however, the number of part-time employees ranges from 1 to 300. VAHC members also employ an average of 34.9 full-time employees, ranging from 1 to 500 per agency. Aside from salaries and wages, most (89%) organizations provide health insurance to full-time staff. Fifty-four percent provide health insurance to part-time staff. The average cost of a benefits package for a full-time employee is \$6,073 (VAHC, 2007). Traveling costs have become a significant cost issue for home care providers in Virginia with the increase in gas prices. A recent study by the National Association for Home Care

(NAHC) discovered that Virginia's home care providers drove 125,333,052 miles in 2006 to reach their patients. The average home health visit in Virginia was 16.7 miles, significantly higher than the national per visit mileage of 11.2 (NAHC, 2008)

B. Technology challenges

As health costs and demand increases, and workforce shortages pose significant challenges, home care agencies seek new ways to cost-effectively provide quality services. The use of technology in home care has grown significantly as a means to this end. There are four major home care technology areas: fiscal, billing, and backroom technology; point of care technology; electronic medical records; and telehealth and remote patient monitoring technology (telemonitoring). Of particular interest is the use of telemonitoring technology. Telemonitoring refers to the installation of equipment in a patient's home that collects various clinical measurements such as weight, blood pressure, pulse rate, glucose level, etc. This information is electronically transmitted to a home care office, where it is monitored by health professionals. With other types of telehealth systems, patients and health professionals interact virtually. For example, during an online visit a nurse and her patient can see and talk with one another. Multiple activities can be carried out, such as health status assessment, monitoring vital signs, medication supervision, monitoring heart and lung sounds, and patient education (Johnson, Fedor & Hoban, 2008).

Telehealth technology can provide services to individuals living in rural and underserved areas and is a potential solution to home care worker shortages. From a cost perspective, a major impetus for telehealth in home care was the implementation of Medicare's prospective payment reimbursement system. Because agencies are paid per episode rather than based on cost, there is considerable incentive to more cost-effectively manage patients. Telehealth allows agencies to provide quality and cost-effective services while maximizing their number of patients (Rumberger & Dansky, 2006).

The 2007 Philips National Study on the Future of Technology and Telehealth in Home care surveyed 976 home care agencies across the country regarding their use of such technologies. According to the study 17.1% of respondents were using a telehealth system. Of these agencies, 71.3% reported that telehealth services improved patient satisfaction. Almost eighty percent of agencies using telehealth systems reported a resulting decrease in unplanned hospitalizations. Reductions in costs were experienced by almost all of those agencies (NAHC, Philips & Fazzi Associates, 2008).

A review of research on home telecare for elderly patients found that patients were generally satisfied, but preferred a combination of telecare and conventional health care.

Professionals similarly expressed satisfaction with using telecare, citing its cost-effectiveness in saving time and traveling (Botsis & Hartvigsen, 2008).

Virginia home care agencies are no exception to the adoption of home care technology. For example, Sentara Home Care in the Greater Hampton Roads area has been using telehealth systems for years. They currently have about 100 telehealth units that are used in patients' homes to provide them with medical information to monitor patients' conditions. Susan Zell, Director of Compliance and Regulatory Affairs, considers them a quality addition to home care visits and believes that telehealth allows them to be more proactive rather than reactive in their care. For example, the information provided to them via the telehealth units helps clinical staff make care decisions prior to in-person visits. This helps visits to be more targeted and effective. Older adults have responded well to the telehealth units and have been very willing to try them; they are easy to use and staff carefully explains how to use them. Ms. Zell noted that baby boomers will be even more receptive to the use of such technology, as they are more technologically astute.

Technology also has provided new and more cost-effective ways for home care workers to receive training. One example is through the Virginia Association for Home Care and Hospice's "VAHC University." VAHC members have access to an online educational program that assists home care professionals and paraprofessionals in receiving mandatory training. "VAHC University" has over forty online courses. Through web-based technology, classes can be taken anytime, anywhere. This flexibility is particularly important in the home care industry, because most home care workers do not work out of an office.

The use of technology will significantly influence the provision of home care on multiple levels and will likely help the industry meet the growing demand for this type of care. It is aptly noted: "However, the future history of home care will depend mostly on the ability of various stakeholders in the health care system to recognize the value of home care and develop and implement the appropriate incentives to encourage its proper place in the U.S. health care system" (Leff & Burton, 2001).

C. Future Trends

When looking at the future of home care, there are two significant and interrelated trends that will impact the industry. They are the treatment of individuals with chronic conditions and the integration of acute and long-term care.

Chronic diseases are the major cause of disability, illness, and death in the United States. An estimated 2.2 million Virginians live with a chronic disease (Virginia Department of Health, 2006). The highest risk for chronic conditions is with those 65 and older. The top chronic diseases in the

elderly are: diabetes, hypertension, coronary artery disease, arthritis, emphysema, dementia, depression/anxiety, and cerebrovascular disorders (Phillips, 2005). As people age across the United States and in Virginia, the number of people with chronic conditions will increase.

Patients with more than one chronic condition are estimated to account for 95% of all Medicare spending (Vogeli, Shields, Lee, Gibson, Marder, Weiss, & Blumenthal, 2007). The reality is that our current healthcare system is not adequately caring for people with chronic conditions. Our current healthcare system is fragmented, with little coordination between settings. Reimbursement systems also do not address chronic care needs. Medicare, for example, was developed to address acute and short-term care needs. Acute and short-term care are not appropriate ways of managing chronic conditions. Improving Chronic Illness Care, an initiative of the Robert Wood Johnson Foundation, suggests the following approach to chronic care management:

“In comparison with acute conditions, chronic conditions call for a different kind of care: an integrated network of professional expertise, and a far greater reliance on nonprofessional and informal caregiving- that is, on family, friends, and community-level organizations.”

This vision relies heavily on the home care industry to provide ongoing care for individuals with chronic conditions.

Similarly, Disease Management is a trend that will likely receive more attention as home care providers seek to cost-effectively manage multiple chronic diseases. According to The Center on an Aging Society at Georgetown University (2004) “disease management programs are designed to improve the health of persons with specific chronic conditions and to reduce health care service use and costs associated with avoidable complications, such as emergency room visits and hospitalizations.” Evidence continues to show that individuals with chronic conditions do not receive recommended care and may avoid hospitalizations with better chronic disease management strategies. Although managed care organizations have traditionally utilized disease management programs, home care is well-suited to them.

The Chronic Care Model (CCM) developed by Wagner (1998) is an accepted model of chronic care management. The CCM posits six essential elements: 1) community resources; 2) healthcare organization; 3) self-management support; 4) delivery system design; 5) decision support; and 6) clinical information systems. It has recently been suggested that this model be expanded to a home-based chronic care model. The proponents make several points supporting how home health is inherently well-suited to carry out the principles of the CCM. First home health is provided in the place a patient feels most comfortable and with an “army” of professionals necessary for integrated care. Technological advances in the home care industry offer cost-effectiveness ways of ongoing disease management. Nurse-managed care provides a case management foundation that is partnered with physician direction. Infrastructure exists for the development of increased self-management, which is already implemented in many home health care plans. Proponents do suggest that reimbursement systems may need to evolve to better support chronic care management in the home, particularly as home health services currently have a significant acute focus (Suter, Hennessey, Harrison, Fagan, Norman, & Suter, 2008).

Overriding the development of these models is the need to better integrate acute and long-term care systems. Virginia has already begun to address this through various initiatives. A Medicaid-based initiative is developing two integrated models, one that is community-based and the other through managed care organizations. “No Wrong Door” is a web-based initiative using a one-stop service approach to simplify and improve service delivery for the state’s older population and adults with disabilities. The “Money Follows the Person” initiative helps individuals transition more easily through care settings by breaking down reimbursement barriers that are tied to settings. In 2006 the General Assembly appropriated funds to develop additional Program of All-Inclusive Care for the Elderly (PACE) sites. In the PACE model, all long-term care services are provided in the community and are centered around an adult day health care model.

Through all of these initiatives, it is clear that home care plays a significant role. Opportunities and challenges await the home care industry as we refine chronic care and disease management in the setting of people’s choices.

Conclusion

Virginia's population is growing and it is aging. The number of persons needing care after acute care episodes and those with chronic disabilities will increase in the coming years. Those in need of rehabilitation and long-term health care want to be cared for and supported in their own home. Home care is a cost-effective way to meet these growing needs, through an integrated model. The home care industry has been providing high quality care for the past half century and continues to develop technological innovations and to improve the quality of home care services. An increased focus and support of home care services is the best strategy to support Virginians return to full functioning after an illness and the best way to maximize the independence of older Virginians and those with disabilities.

APPENDIX 1. OASIS Home Health Quality Measures

Home Health Quality Measures (OBQI³ Outcomes)**Utilization Outcomes**

- Discharged to Community
- Acute Care Hospitalization (lower values preferred)
- Any Emergent Care (lower values preferred)

End-Result Outcomes

- Improvement in Grooming
- Stabilization in Grooming
- Improvement in Upper Body Dressing
- Improvement in Lower Body Dressing
- Improvement in Bathing
- Stabilization in Bathing
- Improvement in Toileting
- Improvement in Transferring
- Stabilization in Transferring
- Improvement in Ambulation/Locomotion
- Improvement in Eating
- Improvement in Light Meal Preparation
- Stabilization in Light Meal Preparation
- Improvement in Laundry
- Stabilization in Laundry
- Improvement in Housekeeping
- Stabilization in Housekeeping
- Improvement in Shopping
- Stabilization in Shopping
- Improvement in Phone Use
- Stabilization in Phone Use
- Improvement in Management of Oral Medications
- Stabilization in Management of Oral Medications
- Improvement in Dyspnea
- Improvement in Urinary Tract Infection
- Improvement in Urinary Incontinence
- Improvement in Bowel Incontinence
- Improvement in Pain Interfering with Activity
- Improvement in Number of Surgical Wounds
- Improvement in Status of Surgical Wounds
- Improvement in Speech and Language
- Stabilization in Speech and Language
- Improvement in Confusion Frequency
- Improvement in Cognitive Functioning
- Stabilization in Cognitive Functioning
- Improvement in Anxiety Level
- Stabilization in Anxiety Level
- Improvement in Behavior Problem Frequency

³ OBQI or “Outcomes-based Quality Improvement” is a method to measure quality improvement using patient outcomes.

REFERENCES

- AARP. (2007). *2007 Virginia member survey: Long-term care*. Washington, DC: Author.
- Botsis, T. & Hartvigsen, G. (2008). Current status and future perspectives in telecare for elderly people suffering from chronic diseases, *Journal of Telemedicine and Telecare* 14(4), 195-203.
- Centers for Medicare and Medicaid Services [CMS]. (2005). Table A: Top ten diagnostic codes in descending order. Medicare Hospice Data 1998-2005. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/ProspectMedicareFeeSvcPmtGen/downloads/HospiceData1998-2005.pdf>.
- Centers for Medicare and Medicaid Services [CMS]. (2006). Medicare home health agency utilization: Calendar year 2006. *Medicare Statistical Supplement*. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/MedicareFeeforSvcPartsAB/Downloads/HHAst06.pdf>.
- Centers for Medicare and Medicaid Services [CMS]. (2006). Medicare hospice utilization by state: Calendar year 2006. *Medicare Statistical Supplement*. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/MedicareFeeforSvcPartsAB/Downloads/HOSPICE06.pdf>.
- Centers for Medicare and Medicaid Services [CMS]. (2007). 100% Medpar inpatient hospital fiscal year 2006: Short stay inpatient by state. *Medpar Files*. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/MedicareFeeforSvcPartsAB/>.
- Centers for Medicare and Medicaid Services [CMS]. (2007). Figure 7.2.: Percent distribution of Medicare home health visits and charges, by type of visit: Calendar years 1997 and 2005. *Health Care Financing Review 2007 Statistical Supplement*. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/MedicareMedicaidStatSupp/LT/list.asp?listpage=2>.
- Centers for Medicare and Medicaid Services [CMS]. (2007). Figure 7.3: Trends in the six most frequent Medicare home health agency diagnoses: Calendar years 1997 and 2005. *Health Care Financing Review 2007 Statistical Supplement*. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/MedicareMedicaidStatSupp/LT/list.asp?listpage=2>.
- Centers for Medicare and Medicaid Services [CMS]. (2008). Home Health Quality Measures OBQI Outcomes. *Home Health Quality Initiatives*. Retrieved August 25, 2008 from <http://www.cms.hhs.gov/HomeHealthQualityInits/>.
- Centers for Medicare and Medicaid Services [CMS]. (2008). Risk-adjusted home health outcome report for utilization outcomes: April 2007-March 2008. *OASIS-Based Home Health Agency Patient Outcome and Case Mix Reports*. Retrieved August 3, 2008 from http://www.cms.hhs.gov/OASIS/09a_hhareports.asp.
- Clarity. (2007). *Attitudes of seniors and baby boomers on aging in place*. Retrieved August 25, 2008 from http://www.clarityproducts.com/research/Clarity_Aging_in_Place_2007.pdf.
- Connor S.R., Pyenson B., Fitch K., Spence C., & Iwasaki K. (2007). Comparing hospice and nonhospice patient survival among patients who die within a three-year window, *Journal of Pain Symptom Management* 33(3), 238-46.
- Dunne, P.J. (2000). The demographics and economics of long-term oxygen therapy, *Respiratory Care*, 4, 223-228.
- Genworth Financial. (2008). *Cost of care survey*. Retrieved August 25, 2008 from http://www.genworth.com/content/genworth/www_genworth_com/web/us/en/products_we_offer/long_term_care_insurance/long_term_care_overview/what_is_the_cost_of_long_term_care.html.
- Han, B., McAuley, W.J., & Rensburg, R. E. (2007). Agency ownership, patient payment source, and length of service in home care, 1992-2000, *Gerontologist*, 47, 438-446.
- Hoffman, C. and Schwartz, K. (2008). Eroding access among nonelderly U.S. adults with chronic conditions: Ten years of change, *Health Affairs*. Retrieved August 25, 2008 from <http://content.healthaffairs.org/cgi/reprint/hlthaff.27.5.w340v1>.
- Home Care Organization Licensing, VA Code Ann. § 32.1-162.7 (1993).
- Hospice Program Licensing, VA Code Ann. § 32.1-162.1 (2007).
- Hughes, Ulasevich, Weaver, Henderson, Manheim, Kubal, & Bonarigo. (1997). Impact of home care on hospital days: A meta analysis, *Health Services Research*, 4, 415-532.
- Johnson, S., Fedor, M.A., & Hoban, M.B. (2008). Telemonitoring: a positive impact on patient outcomes, *Caring* (27)7, 20-25.
- Joint Legislative Audit and Review Commission. (2006). *Impact of an aging population on state agencies* (House Document No. 10). Richmond, VA: Commonwealth of Virginia.
- Kaiser Family Foundation. (2004). *Distribution of health care expenditures by service by state of residence*. Retrieved August 25, 2008 from <http://www.statehealthfacts.org/profileind.jsp?ind=593&cat=5&rgn=48>.
- Kassner, E., Reinhard, S., Fox-Grage, W., Houser, A., Accius, J., Coleman, B., & Milne, D. (2008). *A balancing act: State long-term care reform*. Retrieved August 25, 2008 from <http://www.aarp.org/research/longtermcare/trends/>.
- Leff, B. & Burton, J.R. (2001). The future history of home care and physician house calls in the United States, *Journals of Gerontology: Biological Sciences and Medical Sciences*, 56, M603-608.
- Medicare Payment Advisory Commission. (2008). *Report to the Congress: reforming the delivery system* [Electronic version]. Washington, DC: Author.
- National Association for Home Care and Hospice, *Philips Home Healthcare Solutions*, & Fazzi Associates (2008). Philips national study on the future of technology and telehealth in home care. Retrieved August 25, 2008 from <http://www3.medical.philips.com/resources/hsg/docs/en-us/custom/HomeCareStudy.asp>.
- National Association for Home Care and Hospice. (2008). *Basic statistics about home care*. Retrieved August 25, 2008 from <http://www.nahc.org/facts/>.
- National Association for Home Care and Hospice. (2008). *Virginia fact sheet*. Retrieved August 25, 2008 from <http://www.nahc.org/facts/>.
- National Association for Home Care and Hospice. (2008). *Escalating energy costs threaten health care for critically ill and homebound seniors: Home care nurses, aides and therapists drive 4.8 billion miles per year to reach shut-in patients*. Retrieved August 25, 2008 from http://www.nahc.org/media/mediaPR_062508.html.
- National Center for Health Statistics. (2000). *National home and hospice care survey*. Retrieved August 25, 2008 from <http://www.cdc.gov/nchs/nhhcs.htm>.
- National Hospice and Palliative Care Organization. (2007). *NHPCO facts and figures: Hospice care in America*. Retrieved August 25, 2008 from http://www.nhpc.org/files/public/Statistics_Research/NHPCO_facts-and-figures_Nov2007.pdf.
- Office of Inspector General [OIG]. (2001). *Medicare Home Health Care Community Beneficiaries 2001* (OIG Publication No. OEI-02-01-00070). Washington, DC: U.S. Department of Health and Human Services.
- Phillips, S. L. (2005). *Home based chronic care*. Presented at the American Geriatric Society Annual Meeting. Retrieved August 25, 2008 from http://www.aahcp.org/presentations/2005_phillips.ppt.
- Press Ganey Associates. (2008). *Home care pulse report 2008: Patient perspectives on American health care*. Retrieved August 25, 2008 from http://www.pressganey.com/cs/research_and_analysis/patient_satisfaction/home_health_resources.
- Public Policy Institute of New York State [PPINYS]. (2006). *2006 Medicaid spending on home health care and personal care*. Retrieved August 25, 2008 from <http://www.ppinys.org/reports/jtf/homecare.html>.
- Robert W. Johnson Foundation & The Institute for Health and Aging, University of California, San Francisco. (1996). *Chronic care in America: a 21st century challenge*. Retrieved August 25, 2008 from <http://www.rwjf.org/files/publications/other/ChronicCareinAmerica.pdf>.
- Rumberger, J. & Dansky, K. (2006). Is there a business case for telehealth in home health agencies, *Telemedicine and e-Health*, 12(2), 122-127.
- State Council of Higher Education for Virginia (2004). *Strategic plan and recommendations to ensure an adequate supply of nurses in Virginia*. Retrieved August 25, 2008 from <http://healthresearch.gmu.edu/StrategicPlanEnsuringAdequateSupplyNursesVA2004.pdf>.
- Suter, P., Hennessey, B., Harrison, G., Fagan M., Norman, B., & Suter, W.N. (2008). Home-based chronic care: An expanded integrative model for home health professionals, *Home Healthcare Nurse*, 26(4), 222-229.
- Taylor D.H., Ostermann J., Van Houtven C.H., Tulsy J.A., & Steinhauser K. (2007). What length of hospice use maximizes reduction in medical expenditures near death in the US Medicare program, *Social Science & Medicine*, 65(7), 1466-78.
- The Center on an Aging Society (2004). *Disease management programs: Improving health while decreasing costs*. Washington, DC: Georgetown University.
- Virginia Association for Home Care and Hospice. (n.d.). Terms. Richmond, VA: Author.
- Virginia Association for Home Care and Hospice & SESCO Management Consultants. (2007). *2007 salary and benefits survey*. Bristol, TN: SESCO Management Consultants.
- Virginia Department of Health. (2006). *Chronic disease in Virginia: A comprehensive data report*. Retrieved August 25, 2008 from http://www.vahealth.org/cdpc/documents/2007/2006%20Chronic%20Disease%20Data%20Report_040607.pdf.
- Virginia Department of Health, Office of Licensure and Certification. (2008). Number of home care organizations in Virginia.
- Virginia Department of Medical Assistance Services. (2006). Annual expenditures for medical services by type of medical service and category of eligibility. *Statistical Record of the Virginia Medicaid Program and Other Indigent Health Care Programs*. Retrieved August 25, 2008 from http://www.dmas.virginia.gov/ab-2005_stats.htm.
- Virginia Department of Medical Assistance Services. (2006). Annual unduplicated recipients by type of medical service and age group. *Statistical Record of the Virginia Medicaid Program and Other Indigent Health Care Programs*. Retrieved August 25, 2008 from http://www.dmas.virginia.gov/ab-2005_stats.htm.
- Virginia Department of Medical Assistance Services. (2006). Average expenditure per recipient by type of medical service. *Statistical Record of the Virginia Medicaid Program and Other Indigent Health Care Programs*. Retrieved August 25, 2008 from http://www.dmas.virginia.gov/ab-2005_stats.htm.
- Virginia Department of Medical Assistance Services. (2007). *Fact sheet: Personal care rates and costs*. Richmond, VA: Author.
- Virginia Employment Commission. (2004). Long Term Occupational Employment Projections. *Labor market data*. Retrieved August 25, 2008 from <https://www.vawc.virginia.gov/>.
- Virginia Employment Commission. (2006). Labor market wage rates. *Labor market data*. Retrieved August 25, 2008 from <https://www.vawc.virginia.gov/>.
- Virginia Health Information. (2008). Count of discharges from Virginia hospitals by patient discharge status, 2003-2007. *Virginia Health Information*. Richmond, VA: Author.
- Virginia Health Information. (2008). Top ten primary diagnoses for patients discharged/ transferred to home under the care of an organized home health service organization, 2003-2007. *Virginia Health Information*. Richmond, VA: Author.
- Virginia Health Information. (2008). Top ten primary diagnoses for patients discharged to home-hospice. *Virginia Health Information*. Richmond, VA: Author.
- Virginia Partnership for Nursing. (n.d). *Nursing Facts*. Retrieved August 25, 2008 from <http://www.virginiapartnershipfornursing.org/>.
- Virginia Secretary of Health and Human Resources, Health Reform Commission (2007). *Home care and hospice in Virginia*. Retrieved August 25, 2008 from <http://www.hhr.virginia.gov/Initiatives/HealthReform/MeetingMats/LTC/HomeCare-Hospice.ppt#257.2>. Home Care Statistics.
- Vogeli, C., Shields, A.E., Lee, T.A., Gibson, T.B., Marder, W.D., Weiss, K. B., & Blumenthal, D. (2007). Multiple chronic conditions: Prevalence, health consequences, and implications for quality, care management, and costs, *Journal of General Internal Medicine*, 22(3), 391-395.
- Wagner E.H. (1998). Chronic disease management: What will it take to improve care for chronic illness, *Effective Clinical Practice*, 1, 2-4.
- Wright, B. (2005). *Direct Care Workers in Long-Term Care*. Retrieved from <http://www.aarp.org/research/longtermcare/>.

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