

HEALTH MANAGEMENT ASSOCIATES

ONE MICHIGAN AVENUE BUILDING
120 NORTH WASHINGTON SQUARE
SUITE 705
LANSING, MICHIGAN 48933
TELEPHONE: (517) 482.9236
FAX: (517) 482.0920

HEALTH MANAGEMENT ASSOCIATES
of Illinois
180 NORTH LA SALLE STREET
SUITE 2305
CHICAGO, ILLINOIS 60601
TELEPHONE: (312) 641.5007
FAX: (312) 641.6678

THE HUNTINGTON PLAZA
BUILDING
37 WEST BROAD STREET
SUITE 1150
COLUMBUS, OHIO 43215
TELEPHONE: (614) 224.2500
FAX: (614) 221.1437

8888 KEYSTONE CROSSING
SUITE 1300
INDIANAPOLIS, INDIANA 46240
TELEPHONE: (317) 575.4080
FAX: (317) 575.4180

2100 M STREET
SUITE 605
WASHINGTON, D.C. 20037
TELEPHONE: (202) 785.3669
FAX: (202) 833.8932

KLEMAN PLAZA
301 SOUTH BRONOUGH
SUITE 500
TALLAHASSEE, FLORIDA 32301
TELEPHONE: (850) 222.0310
FAX: (850) 222.0318

BANK OF AMERICA CENTER
515 CONGRESS AVENUE
SUITE 1760
AUSTIN, TEXAS 78701
TELEPHONE: (512) 473.2626
FAX: (512) 473.2642

*Adult Day Health Care Services:
Serving the Chronic Health Needs of
Frail Elderly Through Cost-Effective,
Non-Institutional Care*

*Tanya Alteras
Senior Consultant
Health Management Associates*

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Introduction

The proportion of the U.S. population that is elderly is growing rapidly. The U.S. Census estimates that by the year 2030, the number of individuals age 65 and older will double, totaling 70 million; it is estimated that 50 to 80 percent of these individuals will need some type of long-term care due to disability, functional limitations, cognitive impairments, and chronic health care conditions.¹ At the same time, health care costs are increasing, and the pool of skilled and licensed workers needed to care for these populations is shrinking.

While most individuals are familiar with the concept of nursing facilities and private home health workers, there is a segment of the long-term care system that is not as well known, and generally not well understood. Adult day services (ADS), which include the model known as adult day health care (ADHC), provide health and long-term care services to frail elderly and other adults with disabling conditions, enabling them to live in their homes and providing their heavily burdened family or informal caregivers some respite.²

This report will focus on adult day health care, which comprises comprehensive medical services for low-income, frail elders and disabled adults who need assistance in managing chronic health or cognitive conditions. As will be described in more detail later, services may include physical, occupational, and speech therapy; skilled nursing care; and individualized dietary and nutrition services. A key feature of ADHC is the multi-disciplinary team that has emerged as the preferred model for serving the chronically ill geriatric population. ADHC targets patients who need considerable help with the activities of daily living and face a cluster of health care challenges; yet, at this point in their lives, they do not require 24-hour care in an inpatient facility. ADHC is an important but little-known and sometimes misunderstood component of long-term care, allowing individuals to remain in home and community-based settings, delaying entry into nursing and other institutional facilities,³ and providing high-quality, low-cost care. This frequently meets family preferences and holds down costs.

Eight states cover ADHC through their Medicaid state plans; this report will focus on the following six: California, Maryland, New Jersey, New York, Texas, and Washington.⁴ Background information on ADHC, including services provided, financing and organizational structures, research on its effectiveness in achieving positive health outcomes and delays in institutionalization, all stems from a thorough review of the available literature. The data used to develop a framework for a cost benefit analysis was collected through assistance from the state adult day services associations and state Medicaid agencies from the study states. It is important to note that because information on the purely social model and the health/medical model are

¹ “Adult Day Services: A Key Community Service for Older Adults,” Research Triangle International, for the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation, 2006.

² ADS programs also serve younger adults, such as those with HIV/AIDS, mental retardation and other developmental disabilities, and those with acquired brain injuries, but the majority of participants are elderly.

³ Gaugler, et al., 2007; Smith, G.E., et al., 2001; Chan et al., 2003.

⁴ Massachusetts and New Hampshire also cover ADHC through their Medicaid state plan.

often combined in the literature as well as in other resources, there are significant data limitations involved in analyzing the costs and benefits of the health/medical model on its own. The data in this report, however, pertains strictly to ADHC, and not the social adult day care model.

Policymakers, providers, insurers, and individuals need a better understanding of the important role ADHC plays today – and the significant role it may play in the future as the need for long-term care services grows – in order for it to become a more valued resource. The goal of this report is to provide that understanding as well as to build a business case for the value that ADHC offers. **At present, the eight Medicaid state plan states are at risk of losing ADHC as a Medicaid optional benefit, due to an unanticipated change in policy by the Centers for Medicare and Medicaid Services (CMS).** Given the major role that Medicaid plays in the funding of these services, removing ADHC as an optional benefit and requiring states to provide it only under a 1915(c) waiver would potentially lead to complex changes in reimbursement and funding structures that could destabilize the programs and significantly reduce access to needed care for beneficiaries in these states. This could also have the unintended adverse consequence of leading to an increase in high-cost institutional care. Thus, educating the public on the benefits of ADHC has never been more important.

Background

Adult Day Health Care is a subset of Adult Day Services. There are three different models of ADS.⁵

- **The Social Model:** Provides assistance with some activities of daily living (ADLs) and therapeutic services designed to help participants with physical and mental functioning;
- **The Health/Medical Model:** Provides – in addition to the above – skilled nursing and rehabilitation services, including occupational and physical therapies, speech and language therapy, and other health and medication services. It should be noted that the Health/Medical Model is partially funded by Medicaid because it provides these health services.
- **The Specialized Model:** Provides services targeting specific populations such as individuals with HIV/AIDS, acquired brain injuries, mental illness, or multiple sclerosis. Some states, such as California, run specialized programs that only serve dementia and Alzheimer’s patients, as well as some that serve exclusively patients with developmental disabilities.

This study focuses on the health/medical model, referred to here as Adult Day Health Care (ADHC). ADHC services may include therapeutic activities, personal assistance, meals, social services, health-related services, medication management, transportation, personal care services, caregiver support groups, and rehabilitation therapy.⁶ Some states also require that ADHC centers offer referral to and assistance in using other community and medical resources. Medical examinations and a physician referral are required for admission to ADHC services.⁷

⁵ ASPE, 2006

⁶ Pandya, S., “Home and Community-Based Care: Adult Day Services Fact Sheet,” AARP, February, 2004.

⁷ North Carolina Division of Aging and Adult Services, www.dhhs.state.nc.us/aging/adhsvc.htm

Table 1: ADHC Health Related Services in 6 States

State	CA	MD	NJ	NY	TX	WA
Number of Centers	340	130	103	175	426	52
MD Referral	Yes	Yes	Yes	Yes	Yes	Yes
Assessment ^a	MDT	MDT	MDT	MDT	Yes / State	Yes
Prior-Authorization	Yes	Yes	Yes	No	Yes	Yes
Plan of Care	Yes	Yes	Yes	Yes	Yes	Yes
Utilization Review	Yes	Yes	Yes	Yes	No	Yes
Full Reassessment	180 days	MD order	Annually	180 days	Annually	90 days
Population 65+ ^b	3,892,500	643,500	1,062,200	2,485,400	2,311,800	697,900
ADHC Participants	34,500	8,300	10,000	12,800	18,800	4,400
ADHC Utilization ^c	.86%	1.29%	.85%	.45%	.78 %	.63%
Required Services within bundled rate:						
P = Provide A = Arrange O =Optional						
Nursing	P	P	P	P	P	P
Physical Therapy	P	O	A	P	A	P
Occupational Therapy	P	O	A	P	A	P
Speech Therapy	P	O	A	P	A	P
Personal Care	P	P	P	P	P	P
Dietary Services	P	P	P	P	P	P
Meals	P	P	P	P	P	P
Social Work	P	P	P	P	A	P
Activities	P	P	P	P	P	P
Transportation	P	P	P	P	P	P
Medication Mgmt	P	P	P	P	P	A
Dental	A	A	A	A	A	A
Notes:						
^a Assessment is done by a multidisciplinary team (MDT), which includes at minimum a nurse, a therapist, the participant, and the ADHC program director. Additional members may also be involved depending on the providing facility.						
^b Census Bureau, March 2005 and 2006 Current Population Survey, Annual Social and Economic Supplement						
^c ADHC utilization is the population 65+divided by the number of individuals participating in an ADHC program.						

Health Services may comprise physical therapy, occupational therapy, speech and language pathology, psychiatry and psychology, podiatry, and vision care; nursing services may include evaluation, treatment, health education, monitoring and coordination of services, personal care, emergency care, and nursing rehabilitation. In New York State ADHC may also include the provision of ancillary services, such as lab, EKGs and X-rays, and specialty clinics.⁸ The realm of services is broad and targets the varied needs of a diverse population with complex physical, cognitive, and mental conditions. **The multi-disciplinary nature of the ADHC environment allows for a level of flexibility in care-giving, and tailoring of services, that are not necessarily available in other long-term care settings.** Regular attendance in ADHC, and the continuing ability of multi-disciplinary team members to provide consultation to other disciplines or increase services when needed, creates a safety net for ADHC participants. As a result, the team can be quickly gathered closer around patients when their condition changes or worsens. Services covered by the six study states are described in Table 1.

Transportation, or coordination of transportation, is a required service for all six study states. Lack of transportation, or barriers related to its high cost, have been identified as one of the major impediments to the use of ADHC.⁹ Therefore, by including transportation in the “service bundle,” these providers ensure that participants who would benefit from ADHC do not have to forego it for lack of transportation.

It should be noted that the study states have a significant number of similarities when it comes to the services they must provide. This reflects the consistent view of this model of health care delivery by state regulators, and its importance in the web of services that make up the term “long-term care.” Despite the fact that ADHC is not a well-known component of long-term care, it has a rich and pioneering history, and deserves recognition as a substantive contributor to the development of knowledge and practice in the delivery of care to the chronically ill, cognitively impaired and fragile elderly.

Financing and Reimbursement

Medicaid makes up the majority of funding for ADHC in the six study states. **For example, in California 92 percent of the ADHC beneficiaries are Medicaid-eligible.** All states provide funding for some form of Adult Day Services through Medicaid, but not all states offer the health/medical model.¹⁰ There is no coordinated federal policy related to structure of and financing for adult day health care services, which has led to variability in funding, and subsequently to the programs and services themselves.

For Medicaid eligible participants, centers are required to accept the state’s Medicaid reimbursement as full payment. Participants who do not qualify for Medicaid may receive some coverage through long-term care insurance and/or the Veteran’s Affairs system. Participants may also pay privately, with out-of-pocket funds. Many states blend a number of state-only public and private funding sources to fill in the gap between the actual cost of providing care and

⁸ New York ADHC centers are affiliated with nursing homes, which allows for a broader range of health care services as described above. Adult Day Health Care Council 2006 Position Paper, www.nyahsa.org.

⁹ ASPE, 2006

¹⁰ ASPE, 2006. Note that states all provide ADS, not necessarily ADHC.

the amount of that cost that Medicaid covers. That gap exists because there are a number of non-therapeutic services provided by ADHC centers for which Medicaid does not reimburse. These additional funding sources – which include Title XX of the Social Security Act (Block Grants to States for Social Services), Title III of the Older Americans Act, individual states’ Alzheimer’s Associations, private grants, and fundraising – help pay for the cost of providing these non-Medicaid reimbursable services. Finally, while ADHC is not a covered service under Medicare, the Program for All-Inclusive Care for the Elderly (PACE) does include ADHC as the service “platform” for managing the complex care needs of their population.¹¹ PACE uses a “capitation” model, so that there is one fixed payment with the managed care or integrated provider system at risk for cost overruns. The cost of ADHC services is built into the capitation rate.

State reimbursement structures vary widely, with a number of rate methodology models currently in operation: facility-specific payment; class-rate system; case-mix system; fixed per diem or hourly rates; and needs-based reimbursement. The majority of states use an all-inclusive per-diem rate, which may vary depending on the facility. For example, one rate may apply to ADHC centers affiliated with hospitals, while a different rate applies to those that are free-standing. A comparison of ADHC Medicaid reimbursement rates to those assessed by nursing homes is provided in the *Cost Benefit* section of this report.

An all-inclusive per-diem rate, while less complex to administer than a needs-based or case-mix rate, is cause for concern among some policymakers. A recent study conducted by Rutgers University cited concerns among industry representatives that the flat per-diem rate did not take into account the level and intensity of services provided to more frail, higher-needs participants.¹² As the six study states grapple with the increasing cost of providing adult day health care, issues related to reimbursement and rate setting take on new complications. If the states included in this report are no longer able to retain their ADHC services through the Medicaid state plan, there may be a stronger push at the state level to institute needs-based reimbursement to ensure that ADHC providers are covering the costs of caring for their more high-needs participants.

The implications for what these changes will mean to the industry and to participants is unknown. In states where ADHC is covered under a 1915c waiver, the state may implement enrollment caps and limit services – in order to ensure that the service itself adheres to budget neutrality guidelines – to only certain geographic locations, both of which could limit crucial access to those who need care. Waiting lists are not uncommon for waiver services. Furthermore, 1915(c) waivers must be renewed on a regular basis (initial waiver period is three years, with subsequent five-year renewals), creating high administrative overhead cost and putting the state Medicaid agency in the vulnerable position of having to regularly re-justify waiver services.

Demographics

The typical ADHC participant is a low-income frail elderly female who does not require 24-hour institutional care, but does need skilled health services and care coordination related to managing her health, cognitive and/or mental conditions. The majority of participants are age 65 or older,

¹¹ Lucas, et al., 2001. Note that PACE receives both Medicare and Medicaid funding

¹² Ibid.

with the average among the six study states falling between the ages of 75 and 85. Further, the literature describes the “typical” ADHC participant as “elderly, disabled, and averaging 75 years of age.”¹³ Recent studies indicate that ADHC participants are more likely to be cognitively impaired, experiencing various forms of dementia (such as Alzheimer’s disease) and require significant supervision.¹⁴ Other conditions common to the ADHC population include mental retardation/developmental disability, chronic mental illness, or physical conditions related to stroke, heart disease, hypertension or diabetes.¹⁵ These diseases are among the top causes of disability, making ADHC an important tool in preventing further complications and co-morbidities among individuals with those conditions. Most ADHC participants need assistance with between one and three activities of daily living (ADLs); the number of ADLs with which patients need assistance is widely believed to be future predictors of nursing home entry. A 2007 study found that having three or more ADL dependences was one of the strongest predictors of nursing home admission.¹⁶ At the same time, research on the behavioral and psychological predictors of nursing home placement among individuals receiving community-based care found that interventions aimed at improving or maintaining physical or cognitive functioning may have a significant impact on delaying nursing home placement.¹⁷

Most ADHC participants live with either a spouse or some other relative. Many, however, live alone and rely on formal or informal caregivers. Subsequently, a third component of ADHC – in addition to providing physical and mental health care to a population that does not require 24-hour care – is the provision of respite to these caregivers, who are now considered the backbone of the nation’s long-term care system. Over 7 million Americans provide 120 million hours of care to 4.2 million elderly persons, with an economic value between \$45 and 96 billion per year.¹⁸

That ADHC programs care for a very high-needs population with diverse conditions spanning both mental and physical spheres at a significantly lower cost than nursing facilities is not debatable (see further discussion of costs later in this report, and Table 3. There is anecdotal evidence among the ADHC community that ADHC delays or prevents placement in more costly institutional settings by providing a range of integrated services that help people remain in their communities and by supporting informal caregivers.¹⁹

¹³ NADSA, 1998; Reifler et al., 1995; Weaver et al., 1996; Weissert, et al., 1990

¹⁴ Dabelko and Balaswamy, 2000; Teresi et al., 1998

¹⁵ Reifler et al., 1995; Weissert et al., 1990

¹⁶ Gaugler, et al., 2007

¹⁷ Chan, D.C., et al., 2003

¹⁸ ASPE, 2006

¹⁹ ASPE, 2006

Table 2: ADHC Participants and Nursing Home Residents (Age 65 and Older)

State	ADHC^a	Nursing Home^b
	# Enrolled^c	# Enrolled^c
California	34,500	100,300
Maryland	8,300	24,200
New Jersey	10,000	42,100
New York	12,800	109,500
Texas	18,800	84,100
Washington	4,400	19,100

Sources:

^a ADHC organizations, 2006

^b Kaiser Family Foundation, State Health Facts, 2005

^c Rounded to closest 100

In addition to the age 65 and older population, ADHC providers also care for non-elderly patients. In California, 21 percent of the ADHC population is under the age of 65. In Texas, that number is even higher, with 41 percent of ADHC participants between the ages of 18 and 64.

Costs and Benefits of ADHC

A survey of the six study states clearly shows that ADHC bundled services cost much less than nursing home care. For example, as shown in Table 3, the monthly reimbursement in California for nursing facilities is five times the corresponding reimbursement rate for bundled ADHC. The ADHC bundled rates and the nursing home rates reflect the Medicaid payment for these services in the study states. As is true for nursing homes, ADHC providers accept Medicaid reimbursement as full payment for Medicaid-eligible participants. In order to meet their costs, however, the centers must also cobble together funds from other sources, which may include state and local programs, Veterans Administration grants, the Social Services Block Grant, the Older Americans Act, and charitable contributions.²⁰

The services that make up the bundled rate for each state may include nursing, physical, occupational, and speech therapy; personal care; dietary and nutritional services; meals; social work; therapeutic activities, medication management, transportation. This cluster of services can be vital to helping people with chronic illnesses and disabilities improve and stabilize their medical, cognitive or mental conditions to maintain their independence and avert a downward slide that results in institutionalization. As reflected in Table 1 earlier, almost all of these services are provided directly – and under one roof – through the ADHC center; participants needing services that are not directly provided receive assistance with arranging for access to those services by ADHC staff.

²⁰ ASPE, 2006. This list of funding sources refers to both ADS and ADHC.

Table 3: Daily Rate and Monthly Reimbursement for ADHC versus Nursing Facilities in 6 States

State	ADHC Bundled Reimbursement ^a		Nursing Home Reimbursement	
	Daily	Monthly	Daily ^b	Monthly ^c
California	\$76	\$914	\$152	\$4562
Maryland	\$65	\$808	\$208	\$6240
New Jersey	\$79	\$992	\$255	\$7650
New York	\$142	\$1703	\$192	\$5760
Texas	\$26	\$520 ^d	\$83	\$2476
Washington	\$52	\$475	\$119	\$3575

Notes:

^a Monthly rate based on average monthly use of 12.5 days. Data provided by each state's Adult Day Health Service Organization.

^b The daily nursing home reimbursement rate is the monthly rate divided by 30 days

^c ADHC organizations; 2006

^d ADHC participants in Texas attend an average of 5 days per week, which accounts for a monthly rate that appears higher than the other states.

ADHC is an area of long-term care that has not been the subject of extensive research and analysis. Much of the literature results from surveys, documenting what the market looks like, the number of providers, and various categories of licensure and reimbursement models. More recently, however, there has been an interest in studying the effect that ADHC has on health outcomes, specifically its effectiveness at delaying early and/or inappropriate entry into more costly nursing institutions. In the absence of sufficient data from which to create a cost-benefit analysis model, the literature helps to provide a framework from which the costs and effectiveness of ADHC can be addressed.

A recent study commissioned by the U.S. Department of Health and Human Services' Office of the Assistant Secretary for Planning and Evaluation (ASPE) collected anecdotal evidence from providers and families which suggested ADS (not ADHC specifically, however) "enable informal caregivers to continue providing care in the home, thereby delaying or preventing institutionalization."²¹ The authors recommend further research to quantify the cost savings of these programs. While it did not delve into the cost-savings aspect, a study of nursing home placement for patients with dementia who are being treated in community-based settings found that the median time from dementia diagnosis to nursing home placement was 5.3 years.²² A number of additional studies currently under way are attempting to quantify the savings elicited through ADHC, albeit with very small sample sizes or examining very specific populations within the ADHC community. For example, a study now being conducted by the National Multiple Sclerosis Society is using a combination of case studies, cost analyses, and outcomes analyses to determine how adult day programs that specialize in assisting individuals who suffer from multiple sclerosis affect both costs of care and health outcomes.²³ Earlier research did find that ADHC participants had positive health outcomes compared to nursing home residents, as

²¹ ASPE, 2006

²² Smith, G.E., et al., 2001

²³ "Comprehensive Evaluation of Multiple Sclerosis Adult Day Programs," being conducted by RTI International for the National Multiple Sclerosis Society, to be published.

well as higher client satisfaction rates and lower mortality rates. Nursing facility placement may be inevitable for some individuals with progressive, debilitating illnesses like multiple sclerosis, but if ADHC can delay entry by several months or a year, the yield is a significant savings in cost.

Timely entry into ADHC is crucial not only to offering appropriate community-based services, but also to reducing health care expenditures and delaying and potentially averting entry into nursing home care. A 2000 report stated that “a growing body of evidence from research and practice shows that providing help at home to supplement and support families can delay or prevent the need for costly nursing care, but it must be provided soon enough to make a difference.”²⁴ Timely entry does not just benefit the participant. In 2003, researchers looking at community-based programs and their effect on caregivers found that early utilization of services is key to decreasing caregivers’ burden and depression.²⁵

Research on the utilization of ADHC found that the cost of providing services decreases as the number of clients served increases. Higher demand and attendance was also correlated with a greater range of services.²⁶ The issue, however, is reaching out to the population that could most benefit from ADHC, in order to create a higher demand to sustain the centers that are in operation today and potentially expand the reach of this type of program. As one report stated, “without greater public recognition of the role ADS can play in maintaining adults of all ages with disabilities in home and community settings, it is unlikely that ADS programs will see an increase in private pay participants.”²⁷ As federal and state policymakers continue to search for ways to decrease Medicaid spending, the need for participants with long-term care coverage or the resources to pay out-of-pocket will increase. As it stands now, there are not enough ADHC centers to satisfy the demand for adult day health care. A study funded by The Robert Wood Johnson Foundation in 2001 found that the number of adult day care centers then operating – 3,407 – was significantly less than the estimated 8,520 centers needed. The top three reasons identified by this study for the paucity of ADHC problems included inadequate funding, difficulty in recruiting and retaining staff, and the challenges of maintaining attendance due to the frail nature of the population served and difficulty in accessing resources for private pay individuals (e.g. those who do not qualify for Medicaid but cannot afford to pay the full cost of care).²⁸ The number of centers has continued to decrease in recent years, making this issue even more compelling today than it was five years ago when the survey was originally conducted.

Since participants with cognitive disorders, such as Alzheimer’s disease and dementia, make up a significant percentage of ADHC patients, a cost-benefit analysis must consider the projected increase in those conditions over the next several decades. A conservative estimate places the growth in Alzheimer’s patients at 44 percent between now and 2025. If one considers that the age 65 and older population will double, totaling 70 million by the year 2030, and the correlation between age and Alzheimer’s disease, the United States may actually be looking at a 70 percent

²⁴ Fox-Grage, et al., 2000

²⁵ Gaugler, et al., 2003

²⁶ Conrad et al., 1992

²⁷ ASPE, 2006

²⁸ The Robert Wood Johnson Foundation, 2002.

increase in Alzheimer's patients in less than three decades.²⁹ The future of long-term care may depend on how well the system absorbs huge increases in this medical condition, as well as others.

A recent study did find that Alzheimer's patients who attended ADHC programs were better equipped to engage in regular daily activities than a control group who did not participate in ADHC. Further, those who did enter a nursing home had a slower decline in cognitive reduction than their non-ADHC counterparts.³⁰ **While some people with these cognitive disorders will clearly require institutional care, these huge numbers of vulnerable people mean that even small reductions or delays in the need for such care – through models such as ADHC – can help us meet the challenges of an aging population. We will need both an adequate number of care-givers and effective core delivery models in the non-institutional setting to avoid an overload in institutional care and the subsequent exploding costs.**

Finally, a case can be made for the cost-effectiveness of ADHC as part of an integrated health care system for geriatric care. Providers that implement multidisciplinary models of care to meet the multiple and complex conditions associated with aging have found greater success in promoting positive health outcomes in a cost-effective manner. ADHC centers are formed around this multidisciplinary model, with nursing, physical, occupational and speech therapy, nutritional counseling, pharmaceutical management, and social work all existing under one roof. This model not only makes accessing necessary services easier for the patient, who likely has difficulty accessing transportation services, but also improves providers' abilities to make the best care decisions for those patients, by understanding what other therapies and services they are receiving.

In 2006, researchers concluded that even certain components of the multi-disciplinary model could have a significant impact on both participants and caregivers. A study of an adult day services program that added a care management intervention (ADS "Plus") found that the participants who received ADS Plus services reported less depression and improved confidence in managing behaviors in the short term. These results were sustained over the long term, during which time participants also had fewer nursing home placements, and caregiver well-being was reportedly enhanced.³¹

One study's findings indicated that when ADHC programs were part of an integrated network of services for the elderly, such as PACE, they were more effective at reducing nursing home stays.³² A study of ADHC centers in Alameda County, California, reported that ADHC services allowed participants who needed assistance with multiple ADLs to maintain functional ability over an 18-month time period. It also found that while cognitive impairment among this population remained the same over the study period, psychological and behavioral impairments improved, suggesting that involvement in an ADHC program had a positive effect on psychosocial conditions and behaviors.³³ Due to the course of the disease and lack of curative

²⁹ "Growth of Alzheimer's Disease Through 2025," Alzheimer's Association Fact Sheet, www.alz.org/documents/national/FSADState_Growth.pdf

³⁰ Institute on Aging Research Center, for the San Francisco Adult Day Services Network, not yet published

³¹ Gitlin, et al., 2006

³² Gaugler and Zarit, 2001

³³ California Association for Adult Day Services, 2001

medical treatments, cognitive impairment due to dementia is not subject to improvement. However, ADHC services, by improving patients' behaviors and moods, help to reduce caregiver stress which in turn reduces rate of further cognitive decline, as well as the likelihood that nursing home placement will be necessary.

Conclusion

ADHC is a proven method of achieving positive outcomes in a cost-effective manner for a frail elderly population with chronic health care needs that can be treated primarily in home and community-based settings. Projections regarding the acceleration in the growth of this population should spur policymakers, providers, and other stakeholders to become better informed about this model, and examine ways to support it and provide it with sustainable funding sources.

In both the short- and long-term, ADHC can save the Medicaid program significant resources by delaying or avoiding inappropriate entry into more costly institutional care, and at the same time, create an environment where individuals receive supports and therapies that make their transition to a nursing home (if and when it happens) less traumatic and less vulnerable to abrupt declines in mental and physical conditions.

While ADHC has been in existence for three decades, there is a lack of extensive quantitative research on its impact on other positive outcomes besides delaying nursing home entry, such as lowering emergency department utilization and hospital admissions. There are a number of areas in which research on ADHC would give policymakers valuable information on the myriad aspects of the potentially favorable impact of ADHC. In the meantime, studies of smaller samples, and anecdotal evidence, will tell the story of how ADHC is delivering effective interdisciplinary care to a population that can appropriately receive care in home- and community-based settings with positive health and functional status outcomes.

The significant increase in the potential ADHC-eligible population over the next several decades is not the only issue that stakeholders need to be aware of in terms of contemplating how to serve long-term care needs. An equally important issue involves the adequacy of the labor force that will be needed to care for this population. There are already well-documented labor shortages in the fields of nursing, occupational therapy, physical therapy and geriatric medicine. Long-term care – whether it be ADHC, nursing home, or home health – is a very human-resource, labor intensive care delivery system, and solving the problem of how to generate an adequate supply of labor will be an issue policymakers need to examine both now and in the future. Without investments in these critical occupations, long-term care will suffer from the difficult situation of too much demand relative to the available supply. ADHC, however, may potentially alleviate the workforce shortage, given its ability to delivery services that cover multiple disciplines in an efficient, congregant setting.

ADHC requires a commitment of secure and stable funding, to retain access to services for all who need them, and to ensure that the necessary staff can be funded to provide those services. The number of elderly, and the percentage of those elderly with dementia and Alzheimer's disease, will only continue to grow, as will the need for improvements in sustainable home-and-community-based long-term care services.

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