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Money Follows the Person:
State Approaches to Calculating
Cost Effectiveness

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MONEY FOLLOWS THE PERSON: STATE APPROACHES TO CALCULATING COST EFFECTIVENESS

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Summary

The national movement to help people who need long term supports and services live in their homes and communities is gaining momentum, state by state. Two unifying themes are emerging as ways to communicate the mission and vision for this movement. The first is “**balancing**” a state’s long term care expenditures in a more equitable way between institutional and community care options.¹ The second is “**money follows the person**” (MFP), a more recent construct that has multiple interpretations. Some MFP references overlap with the “balancing” goal of developing an overall strategy for appropriating funds in a flexible way to support individuals’ choices of settings. Other MFP references emphasize where the money comes from or emphasize where the person comes from.²

A broad interpretation of the MFP financing perspective encompasses “global budget” models that pool appropriations for multiple long term care programs, and allow funds appropriated for institutional care to be used for community services.³ The Deficit Reduction Act of 2005 advances the MFP person perspective of supporting individuals who move from an institution to a community.⁴ The Centers for Medicare & Medicaid Services (CMS) implemented the Deficit Reduction Act with the announcement of the Money Follows the Persons Rebalancing Demonstration grants to fund money follows the person initiatives.⁵

The MFP person perspective is most similar to the nursing home transition strategies that some states have implemented for decades, and other states have piloted in the last five years.⁶ Nursing home transition projects identify persons within nursing homes who might prefer to live in the community rather than a nursing home. This intervention is distinct from “diversion” projects that seek to maintain persons in their communities and divert them from being admitted to a nursing home.

¹ One of the first statewide comparisons of the degree of balance in a state program was conducted by Ladd (1999).

² Mollica, R., Reinhard, S., & Farnham, J. (2006).

³ Hendrickson, L. & Reinhard, S. (2004)

⁴ See P.L.109-171, S. 1932, which became law February 8, 2006.

⁵ For a copy of the RFP for the grant announcement and questions and answers about it see http://www.cms.hhs.gov/NewFreedomInitiative/02_WhatsNew.asp

⁶ Mollica, R. (2005)

To implement nursing home transition or MFP programs, state policymakers and their stakeholders develop various ways to project costs and savings so they can submit their proposed budgets to their legislatures for approval. This Rutgers/NASHP *Discussion Paper* summarizes selected approaches for analyzing the cost effectiveness of nursing home transition/MFP projects. It identifies questions that should be asked about the cost effectiveness of nursing home transition projects, discusses each question, identifies available national and state data pertinent to the question, and shows how states have answered these questions.

The focus of this paper is on nursing home transition rather than transitions from other institutions such as developmental centers and Intermediate Care Facilities for the Mentally Retarded (ICFs\MR). We address questions that state budget officers often raise about cost effectiveness, identify data that projects should collect, and review existing data from nursing home transition projects. Data reported on in this report are based on conversations with state staff members and agency workers in ten states.⁷

Major Points

- Every state program reviewed reports it is cost effective and there is no uniform way that the programs demonstrate cost effectiveness.
- Alaska and Texas are examples of states that use the difference between nursing facility and home and community care costs to show cost effectiveness.
- Wisconsin and Connecticut use the length of time that persons have been in nursing homes to help ensure cost effectiveness.
- Washington's chronology provides an example of a multi-year history of cumulative actions taken to increase home and community care for its residents.
- Wisconsin uses a thorough model for analyzing costs and savings of its nursing home transition program.
- Questions that should be asked about the cost effectiveness of nursing home transition projects include:
 - Would the persons have left the nursing home anyway?
 - Can the state exercise control over who would leave anyway without setting a minimum length of stay?
 - Does the state collect length of stay data?

⁷ States were selected to obtain a diversity in size and experience with nursing home transition programs. The States selected were: Alaska, Connecticut, Indiana, Maryland, Massachusetts, Michigan, New Jersey, Texas, Washington, and Wisconsin.

- Can you measure cost effectiveness using nursing home occupancy rates?
 - Is the program cost effective if the length of stay of persons is unknown?
 - How are savings defined?
 - What costs are included?
 - How are savings calculated?
 - What about savings due to shorter stays?
 - Where are the persons going? What about backfill?
- States that collect the following data elements at an individual level are better able to answer these questions than states that do not collect these needed data:
 - how long each person transitioned has been in the nursing home,
 - the average length of stay for all nursing home residents, the cost of the nursing home care,
 - all transition costs associated with the person,
 - medical condition, and the physical and social capabilities of the person
 - location after discharge, and
 - all subsequent state costs for the 12-month period after transition.

Background

Oregon and Washington have had transition programs for many years, but called them by other names, such as “relocation” services. Other states, such as Colorado and New Jersey, initiated statewide programs in the 1990s. However, the widespread use of transition activities was stimulated by federal policy. To spur more formal programs to move people out of institutional nursing home settings, the Centers for Medicare & Medicaid Services (CMS) and the Department of Health and Human Service’s (DHHS) Assistant Secretary of Planning and Evaluation funded Nursing Home Transition Demonstration Program Grants to 12 states from 1998 to 2000. In federal fiscal years 2001 and 2002, CMS awarded 33 Nursing Facility Transition (NFT) grants to state agencies and ten grants to independent living centers.

This federal policy continues and has been substantially expanded. In the Deficit Reduction Act of 2005, Congress authorized \$1.75 billion over five years for states to provide 12 months of long term care services in a community setting to individuals who now receive Medicaid services in nursing homes. This additional funding comes with an enhanced match if the states work with persons who have been in nursing homes for six months or longer.⁸

Neither the Code of Federal Regulations nor CMS policy requires that nursing home transition projects be cost effective. There is no required federal reporting form to report cost effectiveness for nursing home transition projects as there is, for example, with the required CMS 372 form and the cost effectiveness test for 1915(c) home and community based waivers. Thus there is no national data base collected in a uniform manner and researchers and state staff members rely on self-reported program data to compare programs.

One point of view is that helping persons leave an institution to move to a less restrictive, more integrated setting is a positive social good and should be state policy regardless of cost differences between institutional and community settings.⁹ State budget staffs, however, often take the point of view that state money is finite and any new projects must show that they are both cost effective and are good social policy.

Given the widespread use of nursing home transition projects and federal policy encouraging their expanded use in the future, what questions are state budget staff members asking about these projects, and what data need to be collected to answer these questions?

⁸ See P.L.109-171, S. 1932, which became law February 8, 2006, Section 6071 (e)(5) for the match rate information.

⁹For a summary of reasons why state Medicaid staff sponsor transition projects See Kasper (2006).

Questions asked about the Cost Effectiveness of Nursing Home Transition Programs

Would the Persons Have Left the Nursing Home Anyway?

State budget officers frequently ask this question. Some states and researchers worry about wasting time and resources counseling those who would leave the institution on their own. Other states, such as New Jersey and Washington, believe that offering counseling to people early in their nursing home stay is a crucial strategy to manage the “front door” to institutions.¹⁰ These states consider counseling to be part of an active “case management” service for people in nursing homes. They monitor the aggregate Medicaid nursing home census to determine the effectiveness of this broad counseling strategy. The continuing reductions in the Medicaid nursing home census have thus far justified this strategy.

For those states that do raise the question of whether or not the nursing home resident would have left without the added cost of a transition counselor, the absence of a control group raises this possibility. Classic evaluation theory in the social sciences requires the use of control or quasi experimental control groups to control for causality.¹¹ National and state specific data show a large percentage of persons are admitted to nursing homes for short-term rehabilitation services subsequent to a hospital stay.

Nationally, the 1999 National Nursing Home Survey found that 68% of persons admitted to a nursing home left within 90 days; another 8% left within 90 to 120 days.¹² These percentages vary by state. For example, a 2001 study of California nursing homes found that 80% are discharged within 60 days and another 7% within 90 to 120 days.¹³ These percentages may also vary over time. Because these percentages vary by state and may vary over time within the same state, it is useful to collect state-specific data when starting an analysis of a state’s transition program. The collection of these data permits the comparison of length of stay of persons transitioned versus the state’s experience with all nursing home residents.

An initial question to ask is whether the state unit operating the transition program has an eligibility policy stating who the program will work with and does the policy contain length-of-stay guidelines. States control for the fact that persons will leave within the first six months by having an eligibility policy that sets either retrospective or prospective length-of-stay requirements for working with nursing home residents. For example, Connecticut staff report that their policy requires that only persons who are eligible for transition assistance are those that are prospectively expected to spend an extended period of time in a nursing facility.¹⁴

Another example is Wisconsin’s policy which has clear guidelines but allows for documented exceptions. Eligibility is based on the need for at least one-year of long term care

¹⁰ Reinhard, S. & Petlick, N. (2005). For a discussion of Washington see Mollica, R. (2005).

¹¹ Campbell D. & Stanley J. (1963).

¹² Center for Disease Control and Prevention (2002). Table 50 p. 57. See also, Kasper (2005), p. 2.

¹³ California Healthcare Foundation. (2005) p. 5.

¹⁴ Personal interview with Connecticut staff member (2006, July)

services eliminating persons who are admitted to a nursing home for short term rehabilitation services. However, the policy allows counties to work with persons who have been in the nursing home for fewer than 100 days on an exception basis. As shown later in this report, about 20% of the persons worked with fall under this exception.¹⁵

The policy states that “Although the Department is not setting a strict length of nursing home stay requirement for persons who relocate, counties should carefully assess whether the person would be a long term nursing home resident if it were not for the relocation initiative. Therefore, for persons in the nursing home for fewer than 100 days, counties will need to document that the stay is expected to be long term based on the Community Options Program (COP) Guidelines (s. 404.A.1), the required assessment and functional screen. In addition, the person has a long term or irreversible illness or disability and without appropriate waiver funded services would be unable to leave the nursing home.”

Can the State Exercise Control Over Who Would Leave Anyway without Setting a Minimum Length of Stay?

Yes, although we have no examples of a policy like this from the states studied, it is possible to use risk factors to identify who is more likely to remain in a nursing home. For example, such risk factors might include: the availability of housing, caregiver and social supports, a person’s cognitive, mobility, and incontinency characteristics, and the existence of an ongoing medical condition. In the authors’ experience, a combination of these risk factors would have a high probability of predicting who is likely to remain in a nursing facility.

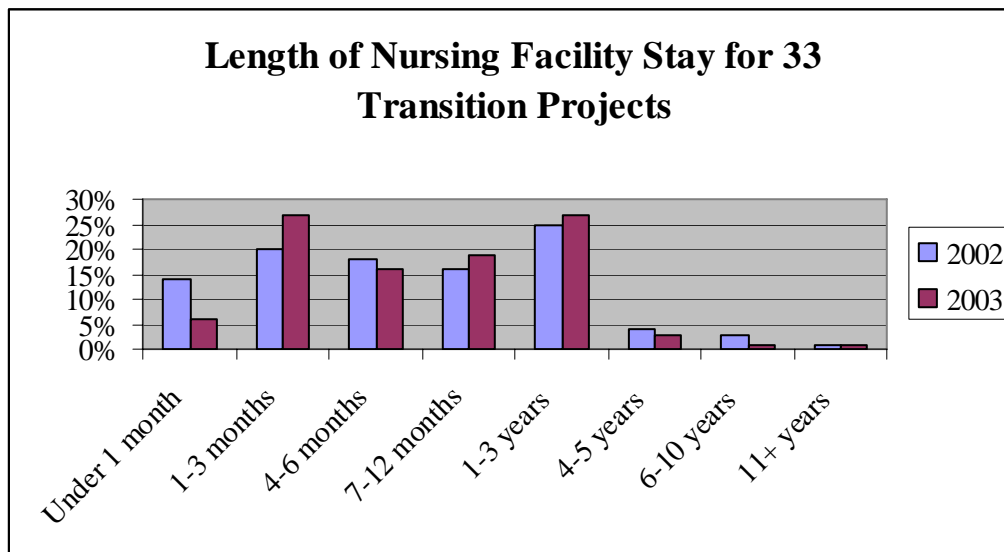
Does the State Collect Length of Stay Data?

Some states collect length of stay data. There is both an overall summary of the 33 CMS grantees as well as other self-reported data from individual states. A review of the 33 nursing home transition grantees funded by CMS showed variation in the average length of stay in nursing homes that transitioned persons had (see Table 1).¹⁶ For example, of those projects that could supply the data, in 2003, approximately half the persons worked with had been in the nursing home for six months or less.

¹⁵ This policy can be found at http://dhfs.wisconsin.gov/dsl_info/NumberedMemos/DDES/CY_2005/NMemo2005-17.htm

¹⁶ Gillespie, J. (2005).

Table 1: National Length of Stay Data for 33 CMS Transition Grantees



Source: Rutgers Center for State Health Policy

Connecticut staff report that six months is a minimum length of time, and the average person transitioned was in the nursing home for about two years.¹⁷ The Connecticut model focuses on residents with a longer length of stay. The state has 4-5 staff based at Independent Living Councils (ILCs) who have worked with about 25-30 persons a year over the four-year project.

Texas data show that of the 4,769 persons transitioned under Texas' Riders 28 and 37 by March 2005, data on length of stay was available for 4,504 persons. Of these 4,504 persons, about 1,464, or 32%, had been in the nursing home 90 days or less and 1,266 or 28% had been in between 90 and 120 days.¹⁸

The Deficit Reduction Act of 2005 offers states an enhanced match rate for persons who were in the nursing home for at least six months prior to their transition to the community. The use of six months creates a de facto standard and state budget staffs may come to use a six-month expectation in reviewing cost effectiveness.¹⁹

Can You Measure Cost Effectiveness Using Nursing Home Occupancy Rates?

Generally, changes in an occupancy rate cannot be reliably used to gauge the effectiveness of a nursing home transition program unless considerable work is done to disentangle the multiple variables that impact occupancy rates. Occupancy rates are influenced

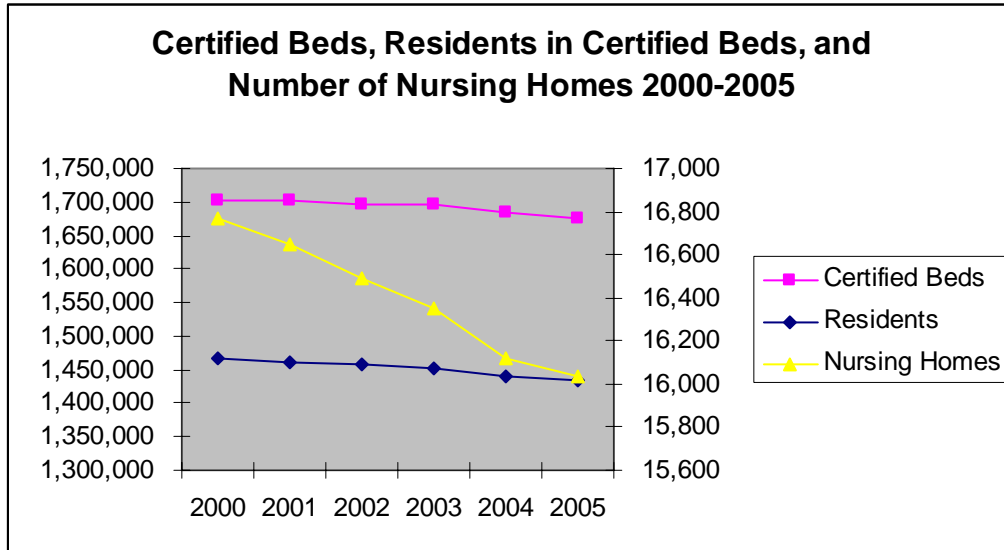
¹⁷ Conversation with Connecticut nursing home transition staff, July 2006.

¹⁸ Gold, M. (2006)

¹⁹ See P.L.109-171, S. 1932, which became law February 8, 2006, Section 6071 (b)(A)(i) for the six months eligibility standard.

by: how many nursing homes are closing or opening, the number of beds per home, the relative number of persons using subacute versus long term care beds, and population changes in older age cohorts. Table 2 shows that the number of certified nursing home beds, nursing home residents and number of nursing homes all declined from June 2000 to June 2005.

Table 2 Trends in Certified Nursing Beds Residents and Number of Nursing Homes 2000-2005



Source: Centers for Medicare and Medicaid Services, OSCAR Data

Table 3 shows that nationwide occupancy rates have declined slightly over this same period.²⁰

Table 3 National Data on Nursing Home Occupancy Rates

	Dec. 2001	Dec. 2002	Jun. 2003	Jun. 2004	Jun. 2005	Jun. 2006
United States	85.91%	85.58%	85.61%	85.60%	85.58%	85.40%

Source: American Health Care Association - Health Services Research and Evaluation

The full table with occupancy rates for all states is shown in Appendix A.

In a given state it can be difficult to say why an occupancy rate goes up or down without studying the rate of change in the variables that affect the rate. For example, a given state's occupancy rate could increase because homes are going out of business faster than utilization is declining. In this situation occupancy rates could be increasing even though the number of persons using nursing homes is declining. Changes in nursing home and home and community based care caseloads are easier to work with than occupancy rates because changes in the number of beds do not need to be taken into account.

²⁰ A discussion of nation-wide trends by consultants to the nursing home industry is contained in BDO Seidman (2006).

Is the Program Cost Effective if the Length of Stay of Persons is Unknown?

A nursing home transition project that does not collect data on the persons helped is open to the charge that the program is not cost effective because the persons would have left anyway. However, programs can still be judged to be cost effective without knowing how long persons were in the nursing home.

Even if the savings is not precisely known, it is possible to decide if a program is cost effective by identifying a breakeven point and seeing if the transition program saves more than the costs to operate the transition program. Alaska operates a low-cost program in a high-cost environment. The Alaska program does not collect the length-of-stay data to refute the charge that persons transitioned would have come out anyway, but given the caseload and the cost per person savings it is reasonable to assume substantial savings beyond its breakeven point.

The state of Washington highlights the importance of the political and financial context in which state programs operate. The Washington context is exemplified in greater detail later in this paper. Interviews with Washington staff members indicate that the state has not conducted a cost effectiveness study since 1995 when the legislature authorized a major expansion of the state's home and community based care. State staff supplied documents describing the state of Washington Department of Social and Health Services budget planning for the 1995-97 biennium.²¹

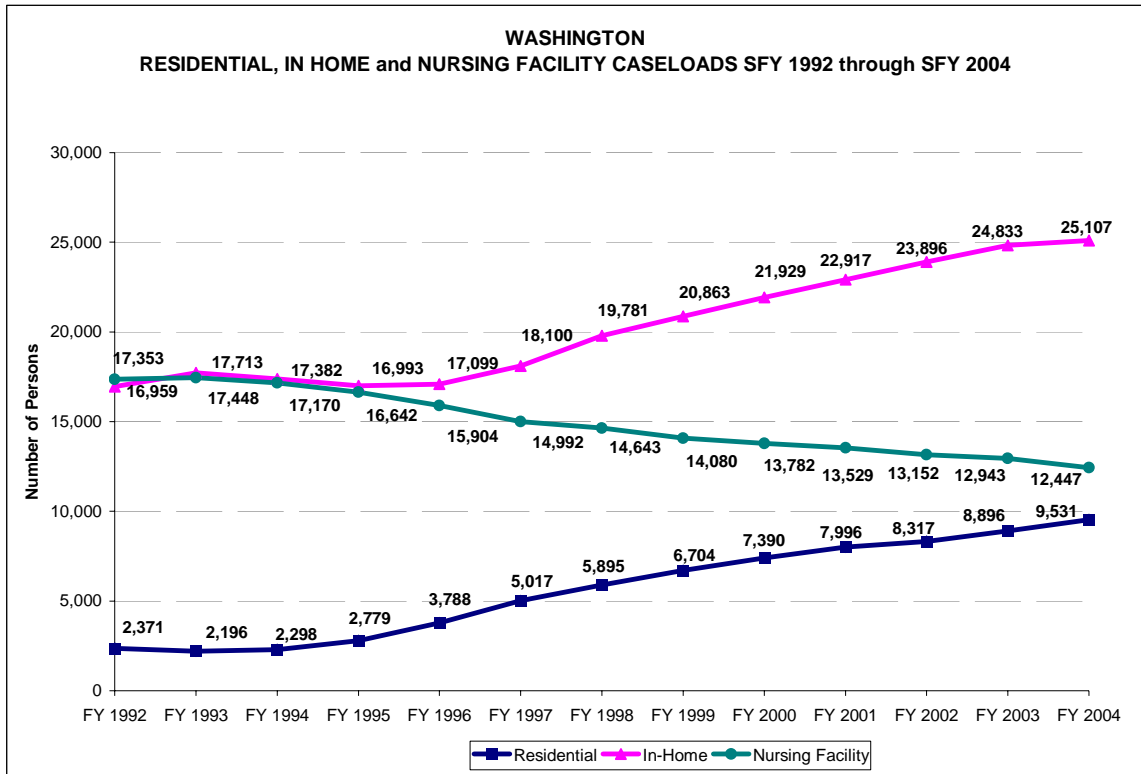
The 1995 expansion occurred in the context of a 1993 ballot measure which was approved by the voters and required significant state cuts. The Department proposed over \$60 million in annual cuts of which one third, or \$20 million, came from helping 2,000 persons leave nursing homes. The cost effectiveness of this single action was not questioned since it occurred in the context of widespread program reductions and took place as part of the broader menu of cuts.

Since 1995 the program and political culture has not challenged the cost effectiveness of transition activities. State staff and policy makers believe that per diem nursing home costs are higher than per diem home and community care costs and the nursing home caseload has declined each year. The question of cost effectiveness does not arise given the continued decline in nursing home caseloads.

Table 4 shows historical caseloads in Washington's nursing homes and community alternatives.

²¹ Soliz J. (1994)

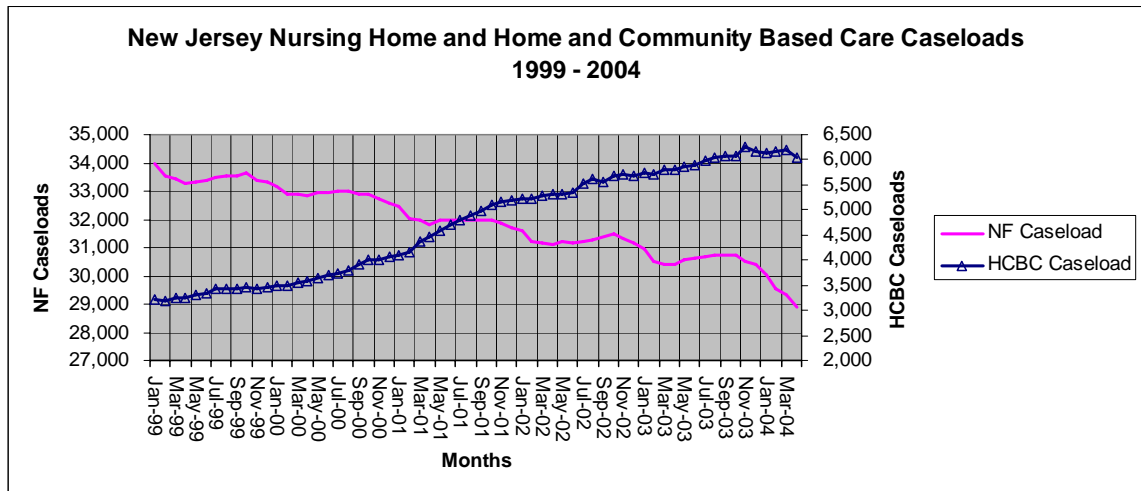
Table 4: State of Washington Nursing Home and Community Caseloads From SFY 1972 through SFY 2006.



Source: Washington Aging and Disability Services Administration

Similar data is available for New Jersey. Table 5 contains a graph showing the steady decrease in New Jersey’s nursing home population coincident with the rise in its elderly and physically disabled home and community based programs. The nursing home transition program operating during this time was considered to be cost effective because it accelerated a decline in the nursing home caseload of persons from 34,000 to 29,000. The table does not show waiver caseload changes in the mentally retarded/ developmentally disabled (MR/DD) waiver operated by the Department of Human Services.

Table 5: New Jersey Nursing Facility and Home and Community Caseloads SFY 1999 – 2004



Source: Data provided by the New Jersey Department of Health and Senior Services

Wisconsin keeps track of how long persons were in the nursing home before transitioning. Wisconsin also collects data on the ages of the persons, the programs they go to after the nursing home and the monthly savings generated by the transition activities. Table 6 shows the majority of persons transitioned in Wisconsin were in the nursing home more than 100 days and (79+128), or 207, of the 312 persons transitioned to the CIP II waiver²² were in the nursing home more than six months.

Table 6: Wisconsin Transition Program: Number of Persons and their Length of Time in Nursing Home Prior to Relocation SFY 2006

Program	≤ 100 Days	101 - 179 Days	6 m - 1 yr	> 1yr	Total
CIP II - CRI	41	64	79	128	312
Family Care	47	33	26	38	144
Pace / Partnership	4	4	5	31	44
Total	92	101	110	197	500

Source: State of Wisconsin Department of Health and Family Services

A parallel way of asking length-of-stay questions is to ask how the impairment levels of persons who have been transitioned compare with the impairment levels of all persons in nursing

²² The CIP II waiver is the Community Integration Program and it serves elderly and physically disabled persons. Effective January 1, 2006, Wisconsin counties may use their CIP II funding as an allocation and not be limited to serving the same number of persons as CIP II slots allocated. Counties may serve as many people as possible within their CIP II allocation. In addition, a county is not be required to receive a formal per diem rate variance from the Department as long as the combined average per diem, including administration, does not exceed the CIP II per diem (currently \$41.86).

homes. The question is intended to find out if only persons with fewer impairments are being helped by the transition program. Some states have collected data on the impairment characteristics of persons helped by their transition program and persons in nursing homes generally in order to focus resources on those who seem more likely to move successfully. For example, Michigan's evaluation, discussed below looked at the residents' answers to the questions on the Minimum Data Set (MDS) and the residents' Resource Utilization Group (RUG)²³ scores and found the distribution of RUGS scores of the persons being transitioned was similar to the distribution of all nursing home residents.²⁴

In addition to length of stay, transition projects should be collecting data on the impairments of the persons being transitioned. Impairment data describes the persons being transitioned and provides a valuable descriptive context to show program efforts and accomplishments.

Three Questions about the Calculation of Cost Effectiveness

Cost effectiveness implies a comparison of costs versus savings? Logically, there are three sets of questions. How are savings defined? How are costs defined? How are cost and savings compared?

1. How are savings defined?

The first issue is savings to whom and for what? Most analyses look at savings to the Medicaid program. Staff members in two states, Massachusetts and Texas, have considered using net state costs – Medicaid, SSI state supplemental payment and state housing subsidies

There is a parallel issue at the federal level in looking at the cost effectiveness of transition programs. There are other federal costs besides Medicaid that need to be considered. For example, the General Accountability Office (GAO) has factored in the increased federal Supplemental Security Income (SSI) payments for individuals receiving the community standard, \$603 a month in 2006 when it considers how cost effectiveness should be calculated.²⁵ The GAO found it necessary to do this because the federal savings are less than the state savings since a Medicaid eligible person in the community may receive benefits from additional federal programs (SSI, food stamps, and housing subsidies) than they receive in a nursing home. Transitioning very low income Medicaid beneficiaries to the community shifts costs from states to the federal government.

²³ MDS refers to the Minimum Data Set, a questionnaire that nursing homes are required fill out on their residents at defined time periods during their stay in the nursing home. For a fuller description of the MDS see Reinhard S. & Hendrickson L. (2006). The acronym RUGS refers to resource utilization groups, a Medicare payment category in which nursing home residents are placed for purposes of determining what amount Medicare will pay for each resident's care.

²⁴ Youngs D. & Clifford C. (2005).

²⁵ General Accountability Office (1994)

2. What costs are included?

Most programs look at the difference between the nursing home costs of the person versus one time transition costs, the administrative costs of operating the programs, plus the cost of the community services, usually Medicaid waiver services.

One time transition costs need to be included. The review of the 33 CMS nursing home transition grantees found that the median cost per transition declined from \$1,750 in 2002 to \$1,336 in 2003.²⁶

Few states consider the interaction of nursing home reimbursement and transition. Most states have occupancy or overhead provisions in their nursing home reimbursement regulations that continue to reimburse costs even though nursing home occupancy levels are declining. Generally, as occupancy declines, the per diem rate for the remaining persons increases. This increase in the per diem continues until occupancy falls below certain percentages. These percentages vary from 70% to 90% depending on the state, but many states pay the full per diem when occupancy reaches 85% or higher. This reimbursement provision also has an impact on Medicaid savings that is not well understood or widely known but needs to be considered in a cost effectiveness analysis. Below we show a projection from a Wisconsin budget office which takes this into account.

3. How are savings calculated?

There is variability in how states calculate savings. The most common approach appears to be to obtain actual data on the person's nursing home costs and the person's subsequent home and community costs for the period of time such cost information is available. Then both costs are projected to a 12-months basis and the resulting difference is considered savings. Logic like this is used in the Alaska, Connecticut, and Michigan examples cited below. When applied to an actual calendar year this approach inflates the savings obtained for that year since a person will be in the nursing home for part of the year and in a community setting for part of a year. Moreover, this method of measuring savings cannot be tied back to actual changes in fiscal year expenditures since the savings are inflated to an assumed 12-month basis.

A more accurate way of tracking savings would be to track actual costs each fiscal year for each person transitioned. This longitudinal work is difficult and depends on the capabilities of the data systems available to program and budget office staffs. A comparison of average nursing home costs with average home and community care costs is not as accurate as tracking the specific costs of persons who are transitioned. Programs that report average differences in costs are open to the rebuttal that transitioned persons have lower than average nursing home costs and higher than average home and community costs.

In interviews, Texas staffs have made simple and consistent points about the calculation of savings. These points represent a picture of reported savings that do not rely on using

²⁶ Gillespie J. (2005)

spreadsheets and detailed costs. In reporting their cost effectiveness, the Texas staff say: only persons already in a nursing home are transitioned to home and community based services, the cost of the home and community based services for that person cannot exceed what the state would have paid for that person in the nursing home, so by definition each transition is cost effective and if you published a number purporting to show the savings for each person the state budget office might retain the “savings” rather than serve additional individuals.

What about Savings Due to Shorter Stays?

State staff interviewed did not mention any studies that looked at the savings due to shortening the length of stay in nursing homes and the literature on nursing home transition does not contain estimates of these potential savings. It is possible that a transition program may assist individuals who would eventually leave in less than six months. However, if the result is shorter stays for hundreds of Medicaid beneficiaries, then the effort could potentially save more than it costs and be cost effective even though every person who moved may have left within six months.

A significant fact driving state programs to work with persons shortly after they enter a nursing home is the difficulty of finding housing for persons who have been in a home for an extended period. As one state staff said, “Affordable housing isn’t available and available housing isn’t affordable”. State staffs have generally made the observation that the sooner a nursing home resident can be worked with the better. Budget analyses of these situations need to project the length of stay of persons and the savings due to shortening that length of stay.

Where Are the Persons Going? What about Backfill?

Two context factors affect the cost effectiveness of transition efforts. The first is the cost structure of available alternatives. Where people go when they are transitioned influences the cost effectiveness of the transition work. Some persons transitioned do not require further state assistance. In SFY 2005, New Jersey staff reported that approximately 40% of the persons it helped leave did not use further state services after they left.²⁷ For SFY 2006 New Jersey staffs report that 65% of persons discharged through the state’s Global Options program did not receive further state services.²⁸ A Michigan evaluation reported that 29% did not use further state services.²⁹ A conference call with Texas staff reported that a substantial proportion of people leave the nursing home to live in their own homes or with family.³⁰ Cost effectiveness is enhanced to the extent that states can support family caregivers or use non-state resources.

States such as Oregon and Washington, with large adult foster home programs that are less expensive than assistant living or other congregate housing, will be more cost effective because they have the housing capacity to serve more individuals. Conversely, states with small or non-existent foster home programs such as New Jersey will have more difficulty. States that

²⁷ Reinhard S. & Petlick N. (2005) p. 8.

²⁸ Perriello T. (2006).

²⁹ Youngs D. & Clifford C. (2005) p. 18 Table 11.

³⁰ Eaton, M. *et al* (2004, March)

use client employed providers may have less costly home care than states that use more expensive home health care agencies.

The second factor is the occupancy rate of the state's nursing homes. A question asked about transition efforts is what about "backfill"? This question stems from the concern that a bed vacated by someone who transitions will be filled by a new admission and Medicaid will pay to serve two people rather than one. However, occupancy rates in most states are low enough that beds are available.

What occupancy level is necessary before a backfill argument can be discounted? There is no accepted answer to this question. When interviewed, state staff in Texas said that backfill is not an issue there since the state's nursing facilities have an 80% occupancy rate and no backfilling would occur even if the State had a 95% rate. The table in Appendix A shows that in June 2006 one state had an occupancy rate greater than 95% and that nine had an occupancy rate between 90% and 95%.

CMS policy has addressed the "backfill issue" in its August 17, 2004 State Medicaid Director's letter.³¹ CMS said that it encourages states to reduce nursing facility beds, but does not require them to do so.

A Closer Look at Selected Programs

Wisconsin

As shown below, Wisconsin did a thorough and exemplary budget analysis and we discuss Wisconsin first because of the merit of how it projected its caseload and cost effectiveness.

Wisconsin began a new nursing home transition program in response to the Governor's April 7, 2005 announcement that the nursing home population would be reduced by about 25%, approximately 5,600 residents, over the eight year period from SFY 2006 through SFY 2013. The budget office of the Department of Health and Family Services prepared a projection of the savings by year from SFY 2006 through SFY 2013.

The data base the budget office used is a file of over 20,000 nursing home residents showing, among other variables, the Resource Utilization Group (RUG) score for each person and a scoring of the person's Activities of Daily Living (ADL). Persons were grouped based on their RUG and ADL scores. The number of days in a nursing home that persons with each RUG score and ADL combination generated was also tracked and estimates were made by group of how many nursing home days could be reduced. The analysis concluded that approximately 210,000 resident days could be saved in SFY 2006, and when divided by 365 days, 540 full time equivalent nursing home residents would leave the nursing homes.

³¹ Centers for Medicaid and Medicare Services (2004)

The analysis of cost and savings converted all variables to a cost per day impact and included:

- Projecting out reimbursement rates by RUG and ADL scores so group specific rates could be identified and then taking a weighted average of the per day cost of 210,000 days;
- Identifying the loss of the provider tax assessments as nursing home beds were closed; and
- Factoring in increases in state plan services used by persons in the community and additional state supplemental funding for personal needs.

The analysis found that savings per day were approximately \$23.90 when all factors were considered. The state's reimbursement rate for each group was calculated and projected out by year to SFY 2013 and similar analyses were done for each year out to SFY 2013. Table 7 shows how the savings logic worked.

**Table 7: Wisconsin Estimate of Projected Nursing Home Transition using SNF/ICF
Nursing Home Rates SFY 2006 Projections**

	SFY 2006
Patient Days Relocated	
ISN	2,064
SNF	110,072
ICF-1	97,523
ICF-2	571
Total Relocations	210,230
Average Nursing Home Payment for Relocated Residents	\$89.02
Less Assessment Payback	(\$5.27)
Cost of other Medicaid State Plan Services	\$11.95
Nursing Home Net Payment Per Diem	\$95.70
Community Costs Per Diem	\$69.66
SSI State Supplement	\$2.14
Community Cost plus State Supplement	\$71.80
Difference between the Per Diems	\$23.90
Relocated Days	210,230
Savings	\$5,023,651

Source: State of Wisconsin Department of Health and Family Services

This thorough analysis takes into account other state costs and the impact on nursing home reimbursement rates. The results of program operations the first year show the actual results tracked projected savings; the projection of 540 persons was realistic since the transition program did in fact work with 550 to 600 persons in SFY 2006.³²

The Governor's budget authorized the Department to pay counties an enhanced rate for services provided to individuals relocated to the state's Community Integration Program II (CIP

³²The fiscal estimate and associated notes are shown on the Wisconsin's legislative web site at <http://www.legis.state.wi.us/lfb/2005-07budget/BudgetPapers/387.pdf>. The notes indicate that Wisconsin does an Intergovernmental Transfer Agreement (IGT) with nursing homes and that the amount of federal savings will decline as the number of resident nursing home days declines.

II) Medicaid waiver for elders and people with physical disabilities. The budget then encouraged the transitioning of persons. “Backfill” was an issue in the history of the Wisconsin waiver program and the state has attempted to control for backfill by de-licensing beds as persons are served on waiver programs.

Alaska

Alaska has one nursing home transition worker who also collects the statistics, prepares reports and answers questions about the program. The state’s 14 nursing homes had approximately 715 to 730 licensed beds between SFY 2001 and SFY 2005. In SFY 2004 there were substantial differences in occupancy with six nursing homes at 90% or better and three homes with occupancy rates in the 50% to 60% range.

The program does not keep data on the individual’s living arrangement prior to admission, how long they were in the home, or where they went when transitioned. Most of the persons are transitioned onto the Older Alaskans waiver. However, the program has a cumulative list of everyone transitioned, when they transitioned, the amount of any transition cost, their annual nursing home cost, and their community cost. Spreadsheets provided by the program show that as of June 2006 the program transitioned 130 people beginning SFY 2004 at a savings of \$11 million or \$85,700 per person. This savings estimate takes into account \$235,000 in one-time transition costs and four years of estimated administrative costs. The cost logic assume one full year of saving the difference between the person’s annual nursing home costs and their annual community costs.

Why do such substantial savings exist? A caseload of 40 persons a year is average based on the rule of thumb that an experienced transition worker can move 3-4 persons a month. So the savings are not due to the higher caseload of the worker. Rather, the savings occur from the high cost of nursing home services in Alaska. The average nursing home cost of the persons transitioned was \$134,000. In comparison the initial FFY2005 CMS 372 report shows the average cost per waiver recipient on the Older Alaskans Waiver was about \$19,000.

Alaska’s program does not collect data on the length of stay and may assist short stay individuals who would have moved without assistance. Is the Alaskan program cost effective if it does not have data on how long a person is in the nursing home? Yes, the breakeven point of the program can be calculated by dividing the administrative cost of the program, \$200,000 per year, by the average monthly nursing home cost of transitioned persons, $\$134,000/12$ or \$11,243, which shows that the break even point is when you can take 18 people out for one month sooner than they would have left anyway. The Alaska program works with 40 persons a year and it is reasonable to assume it has saved well above its breakeven point.

Is there backfill in Alaska? Homes with 90% or more occupancy have backfill; however, state staffs say the program is effective because it reduces demand for new nursing beds.

Connecticut

The cost effectiveness analysis is based on comparing all Medicaid costs the month before transition to all Medicaid costs the month after transition. The month after includes one-

time general fund moving assistance which averaged \$400 to \$600 per person. This cost effectiveness analysis was developed by the Medicaid budget office which was involved with the project since the beginning. Both the Department's Medicaid office and the state's budget office are on the steering committee that advises the nursing home transition program.

The state does not use averages or estimate the cost of transitioned persons rather it uses actual costs for the month before and after transition. The difference in the pre and post monthly costs are then multiplied by 12 to estimate the annual savings. The average annual savings for transitioned persons is \$35,000.

The analysis looks at savings to the Medicaid program. The Connecticut approach backs out hospitalization costs from costs and savings to avoid biasing the data upwards or downwards. The state is close to adding one-time transition expenses, \$400-\$600, as a waiver service as per CMS changes in the last 2-3 years.

State staff members say it is not likely that the people they are working with would have come out anyway. The state works with persons who have already been institutionalized at least six months and the average length of stay is two years. State staffs say none has a home any longer and every person needs housing assistance. Moreover, after six months links to the community are no longer as strong.

Michigan

Two published reports describe cost effectiveness information on Michigan's nursing home transition pilot.³³ Youngs and Clifford's work on 112 persons in the pilot, who were transitioned from nursing homes during the period December 1, 2003 to April 2005, compared state costs for nursing homes payments in the six months prior to transition and the six months after transition. Only six of the 112 persons had a full six months of actual costs so savings for the full six months are estimated.

The savings occurred in two main ways. First, of the 112 persons transitioned, 32 (29%) required no further state-supported services. Secondly, 56 (50%) participated in post transition state-supported programs at a cost of \$917 a month for waiver services compared to the average \$3,450 monthly cost of a nursing home. Michigan has not done any further cost effectiveness studies since this review.

Washington

Washington is close to a being a "poster child" for rebalancing since the proportion of nursing home expenditures to total long term care expenditures is about 35%.³⁴ This situation has

³³ Youngs, D. & Clifford, C. (2005). See also Reinhard S. & Farnham J. (2006)

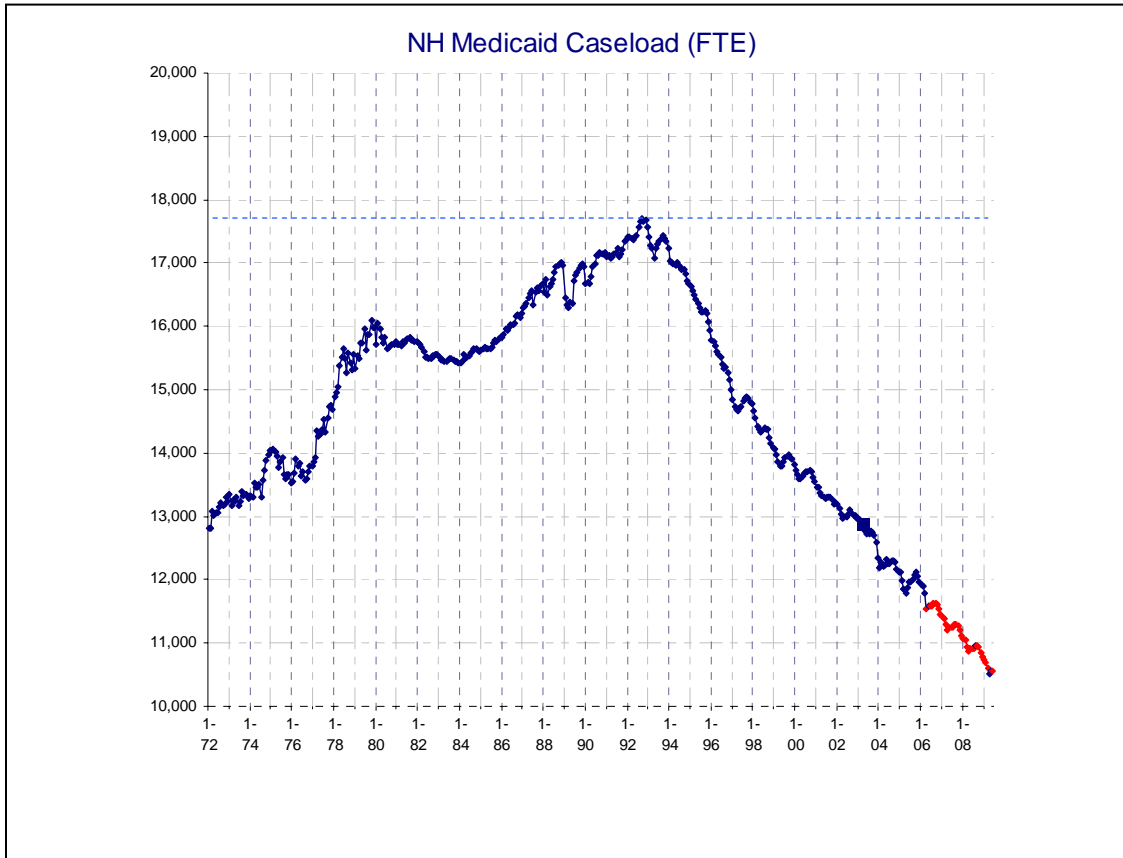
³⁴ Thomson-MEDSTAT CMS 64 data for FY 2005 shows that Washington reported spending \$583,432,004 on nursing homes and \$614,733,146, on elders and adults with disabilities. As a percentage, for elders and adults with disabilities, Washington spent 51.3% of its long term care spending on community services.

taken a generation of change to come about as the following list of milestones indicates and shows the importance of context in discussing nursing home transition activities

- In 1983 the Legislature approved the first Medicaid home and community based waiver, the Community Options Entry System (COPES) waiver.
- In 1984 the Department of Social and Health Services (DSHS) adopted a formal policy limiting growth of nursing home capacity and promoting
- In 1985 the State Council on Aging and legislative committees jointly sponsored public hearings on long term care. The result was a respite care program for unpaid family caregivers, and an expansion of home/community services and case management.
- In 1986 the programs for home and community services and for nursing home services were merged into one administration
- In 1989 the Legislature approved the Medicaid Personal Care Program introducing for the first time an entitlement to home/community services.
- In 1993 The Legislature approved relocation of 750 nursing home clients to home and community services
- In 1995 the Legislature passed additional legislation to reduce the nursing home caseload by creating home and community based alternatives. The 1995-97 long term care budget reduced nursing home caseload by 1,600 clients and the caseload began trending down.
- In 1998 boarding home licensing transferred from the Department of Health to DSHS.
- In 1999 the Legislature approved two 50-cent/hour increases for long term care workers.
- In 2000 the Family Caregiver Support Program and Adult Protective Services were improved.
- In 2001 enhanced in-home nursing services were authorized and adult foster provider qualifications were strengthened.
- In 2002 the Legislature rejected long term care eligibility and nursing home administrative cuts, and made marginal cuts in home/community care. The Governor vetoed 25-cent/hour home care wage increase and DSHS launched a Medicaid Health/LTC Integration Project.

The list of milestones above shows that successive generations of legislative and departmental leadership have wrestled with how to grow home and community based alternatives and the growth is a complex, multi-dimensional process of which the use of nursing facility case managers are one part. The result of this multi-year effort is shown in the next table. Table 8 is referred to as the “mountain table” by Washington staff and it shows the decline in nursing home caseloads since 1993.

**Table 8 Nursing Home Caseload Trends
SFY 1972 – SFY 2006**

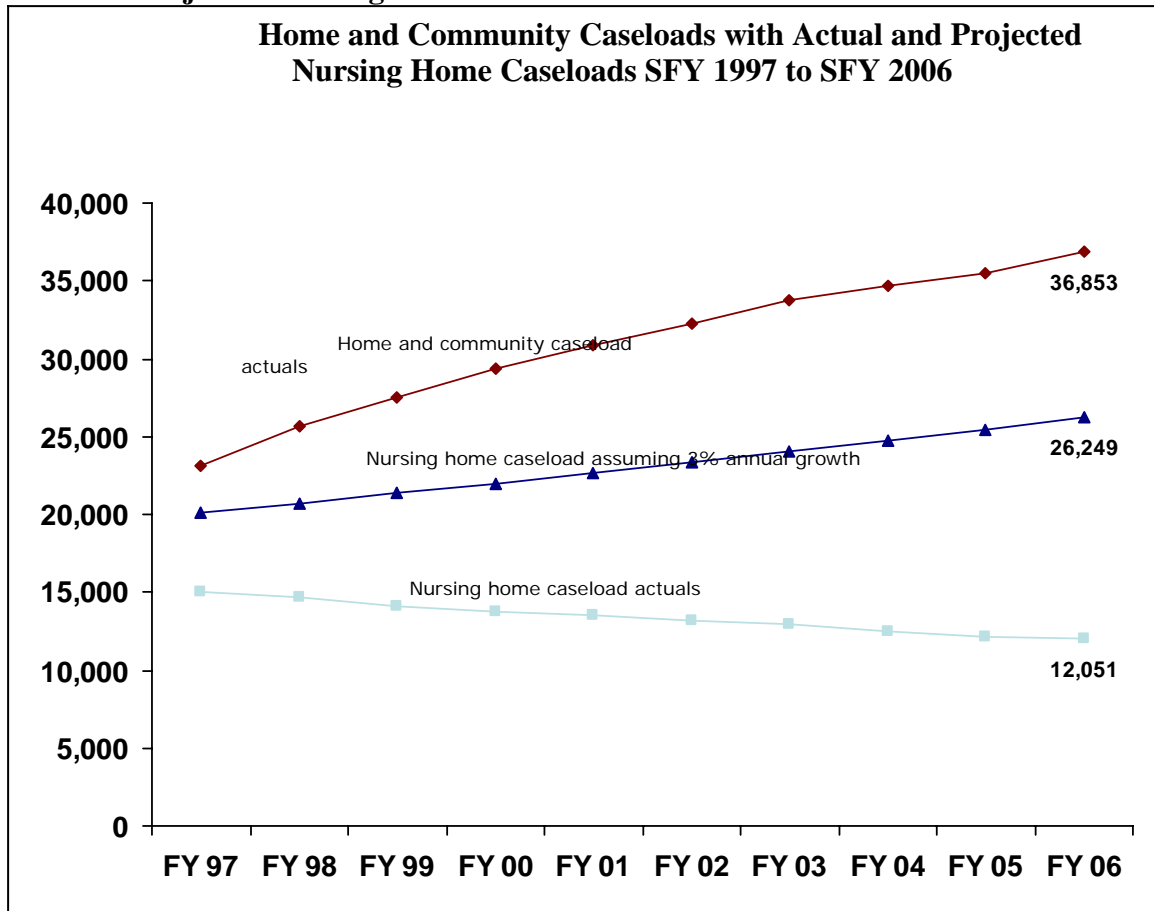


Source: State of Washington Department of Social and Health Services

The next table shows a cost effectiveness argument used by Washington staff. In classic evaluation theory a control group is required to control for threats to external and internal validity.³⁵ The graph below presumes the existence of a control group and shows what might have happened to Washington’s nursing home caseload if there had been no home and community based programs. The projected increases in the nursing home caseload are based on a 3% caseload growth assumption. The projected caseload can be multiplied by actual nursing home cost per case for these years to obtain an estimate of what the cost of a nursing home program would have been absent alternatives.

³⁵ Campbell D. & Stanley, J. (1963)

Table 9: Comparison of Home and Community Caseloads with Actual and Projected Nursing Home Caseloads SFY 1997 to SFY 2006



Source: State of Washington Department of Social and Health Services

Conclusions

A review of nursing home transition programs in selected states found no common methodology for collecting data and calculating the fiscal impact. Informants in each state indicated that the program was cost effective and produced savings to the state. Several issues continue to challenge state policy makers – who should transition staff work with? How do you determine whether someone would leave the facility without assistance? How do you measure success? Will transition programs reduce occupancy rates? How will the program affect supply and demand for nursing home care?

Information about transition programs may be used differently by budget officials, policy makers and program managers. Each has a different perspective and may expect to review different types of information. Some elements may be needed to monitor cost effectiveness and the overall trends of nursing home spending. Other data elements are needed to help program

managers identify beneficiaries with the greatest interest and potential to move successfully and to identify barriers to transition. The results suggest that states might consider the outcomes they expect to achieve and develop indicators and sources of data to measure the impact at the beginning of their initiative. Programs that have several years experience may benefit from a review of their data to create program improvements and lay the basis for sound future expansions.

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Appendix A

Nursing Home Occupancy Rates by State December 2001 – June 2006

Table A-1 Nursing Home Occupancy Rates by State

	Dec. 2001	Dec. 2002	Jun. 2003	Jun. 2004	Jun. 2005	Jun. 2006
US	85.91%	85.58%	85.61%	85.60%	85.58%	85.40%
AK	85.75%	86.65%	84.72%	81.17%	86.21%	89.20%
AL	92.05%	91.05%	90.19%	88.81%	88.44%	89.00%
AR	76.59%	73.53%	72.83%	73.45%	73.48%	72.40%
AZ	83.29%	82.88%	82.81%	81.93%	80.11%	78.20%
CA	85.81%	84.70%	85.12%	85.73%	85.71%	86.30%
CO	85.80%	81.46%	81.69%	81.62%	82.99%	83.40%
CT	93.68%	93.44%	93.26%	93.02%	91.87%	92.60%
DC	93.23%	90.52%	91.07%	91.42%	91.14%	92.30%
DE	92.44%	92.12%	92.79%	88.71%	89.64%	89.10%
FL	85.13%	86.87%	87.25%	88.56%	88.98%	89.20%
GA	91.47%	91.39%	90.98%	90.34%	89.57%	89.90%
HI	92.70%	95.14%	95.82%	94.64%	93.75%	94.20%
IA	83.79%	84.61%	84.67%	82.64%	82.66%	81.50%
ID	72.53%	75.54%	76.04%	75.17%	76.18%	74.90%
IL	82.08%	81.06%	81.43%	80.24%	81.02%	79.20%
IN	76.98%	78.65%	80.85%	83.45%	84.10%	82.50%
KS	87.05%	86.33%	86.62%	84.70%	85.64%	85.00%
KY	91.81%	90.76%	91.49%	88.49%	88.75%	90.10%
LA	79.80%	78.59%	77.88%	76.66%	75.48%	76.20%
MA	91.13%	90.84%	91.23%	90.99%	89.56%	90.30%
MD	85.91%	87.13%	86.62%	86.31%	85.86%	86.40%
ME	89.81%	92.44%	91.92%	93.05%	90.93%	90.40%
MI	87.31%	87.99%	87.23%	87.55%	88.44%	88.20%
MN	93.64%	93.01%	92.41%	92.58%	92.32%	91.90%
MO	76.31%	75.17%	74.34%	75.69%	74.54%	74.80%
MS	89.95%	88.26%	87.71%	87.55%	88.26%	88.60%
MT	78.53%	77.62%	77.70%	76.40%	75.07%	72.70%
NC	90.84%	88.58%	88.64%	89.39%	88.73%	88.50%
ND	92.74%	94.11%	93.52%	93.42%	92.46%	91.10%
NE	87.34%	86.88%	89.34%	85.74%	84.26%	84.30%
NH	91.69%	91.61%	91.16%	92.25%	90.76%	90.50%
NJ	88.32%	87.50%	87.61%	87.96%	87.85%	88.10%
NM	90.18%	86.76%	83.98%	85.46%	87.78%	88.40%
NV	79.94%	82.00%	82.09%	84.57%	82.36%	83.20%
NY	94.04%	93.03%	92.89%	92.78%	92.90%	92.90%
OH	86.86%	86.15%	86.22%	86.26%	87.68%	88.00%
OK	70.60%	70.29%	68.91%	66.71%	66.79%	67.10%
OR	74.26%	72.28%	69.08%	66.48%	66.79%	64.60%
PA	87.76%	88.42%	90.02%	90.48%	90.37%	90.70%
RI	89.74%	90.64%	90.86%	92.48%	93.25%	92.60%
SC	92.78%	93.49%	92.26%	92.30%	92.49%	92.70%
SD	91.51%	92.15%	92.53%	93.03%	93.37%	97.80%
TN	90.10%	90.63%	89.67%	88.64%	88.59%	88.20%
TX	77.57%	77.63%	77.28%	77.43%	77.30%	75.50%
UT	73.85%	74.01%	77.62%	71.68%	68.93%	69.90%
VA	90.33%	90.90%	90.44%	90.44%	89.74%	90.70%
VT	90.92%	90.40%	91.17%	92.92%	92.81%	90.10%
WA	87.20%	83.79%	83.59%	86.18%	86.71%	86.00%
WI	84.18%	84.82%	85.17%	87.90%	88.59%	90.90%
WV	90.85%	91.23%	92.64%	90.19%	89.03%	90.20%
WY	82.50%	82.26%	82.23%	80.79%	81.35%	80.80%

Source: American Health Care Association - Health Services Research and Evaluation

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