

Introduction

Recent evidence shows that the Cash and Counseling model of service delivery can have desirable financial impacts, such as reducing nursing home admissions¹. Such impact is particularly encouraging, given that the model has also been shown to improve health outcomes of participants and satisfaction related to care². On a smaller scale, the Pilot offered state policy makers an opportunity to explore financial implications for the Commonwealth of the current participants. This information will also help policy makers better anticipate MassHealth expenditures and budget utilization for current participants whose continuous enrollment is slated for at least the next three years.

To obtain this information, three primary questions will be addressed: 1) how did *overall* participant expenditures differ before and after Pilot enrollment, 2) how did utilization costs of *specific* services change after participant utilization of individual budgets, and 3) what were the estimated costs for support brokerage and fiscal intermediary service during the first year of Pilot administration? The scope and methodology to address these questions are described below.

Several caveats should be kept in mind throughout the analysis of this data. First, Medicare expenditure data is excluded from the analysis. State policy makers were interested in financial implications specifically for the Commonwealth, and the absence of Medicare data precludes a comprehensive public expenditure picture of the Pilot participants. Second, with funding to serve less than 20 individuals and considering its exploratory nature, the Pilot was not specifically designed to control MassHealth service costs and utilization. For example, MassHealth services were not cashed out, participants were not denied MassHealth services, and individual budgets supplemented MassHealth funding. Third, participants were requested to use MassHealth traditional services for which coverage and participant eligibility existed as a way to minimize the use of Pilot budgets for MassHealth-covered services. At times, participants did not know they were eligible for a MassHealth-covered item until their support broker informed them in the process of planning ways to use their budgets. Finally, in terms of estimated costs of support brokerage and fiscal intermediary service as a major administrative cost of the model, it is probable that the size of the Pilot made it unlikely for these entities to fully realize any benefits of economies of scale.

¹ The Effects of Cash and Counseling on Medicaid and Medicare Costs: Findings for Adults in Three States, Final Report, May 2005 by Stacy Dale and Randall Brown, p.ix.

² Specifically, treatment groups in all three states had lower rates of unmet need for help with personal care and contractures developing and worsening compared to control groups. Cash and Counseling Congressional Briefing, Kevin J. Mahoney, July 29, 2005.

Scope and Methodology

Question 1: To answer the first question of how *overall* participants' expenditures differed before and after the Pilot enrollment, we obtained three types of expenditure data before and during Pilot enrollment: 1) MassHealth service claims, 2) out of pocket expenditures reported in Real Choice assessments, 3) individual budget expenditures reported in Pilot monthly budget utilization statements, and 4) administration of the support brokerage and fiscal intermediary service.³

We obtained each participant's expenditure data from MassHealth service claims for the two years before Pilot enrollment as well as data for six months after each participant's enrollment in the Pilot. Pilot enrollment started at the beginning month of the participant's individual annual budget. Participants enrolled between February and October 2005. Therefore, MassHealth service claims data spanned between February and October 2003 and August 2005 and April 2006. We will refer to the period two years before Pilot enrollment as 2003-4, the period one year before the Pilot enrollment as 2004-5, and the Pilot enrollment as 2005-6.

We retrieved MassHealth service claims for acute, primary, and long-term supports. Service claims data retrieved included services rendered, dates of service, and number of service units. Acute and primary care medical services included prescription drugs, hospitalizations, emergency visits, and other medical outpatient/physician services as well as behavioral health inpatient, outpatient, and emergency services. Long-term supports included long-term supports on the Massachusetts State Plan and the home and community-based waivers. We also retrieved any expenditure data related to participants' enrollment in managed care, if they were enrolled at all.

To estimate MassHealth service expenditures during the two year periods before Pilot enrollment, we used the claims data. To estimate MassHealth service expenditures for the first year of their Pilot enrollment, we doubled the service expenditures from claims data for the first six months of each participant's enrollment in the Pilot. The method is subject to biases. The direction of the bias is unknown since participants may increase or decrease their service use after the six month period. Unless otherwise noted, all MassHealth expenditure data for the period 2005-6 are annual estimates based on six-month data. All 2003-4 and 2004-5 are inflation adjusted to 2005 dollars.

To determine personal expenditures of participants, we used the data reported in the Real Choice Pilot Functional Assessment. Specifically, the Assessment's question on "Do you pay out of pocket for any of the following services" was used. We used participants' initial assessment (conducted at enrollment) to estimate pre-Pilot annual out-of-pocket expenditures for each of the two years

³ We were in the process of retrieving expenditure data for solely state-funded services but did not have complete data at the time of this writing.

prior to enrollment (at their initial assessment, participants had not yet received their individual budget). We used data in the second assessments⁴, which occurred six months after the first, for post-Pilot personal expenditure estimates.

To determine individual budget expenditures of participants, we used participants' budget utilization statements as reported by the fiscal intermediary. It is important to note that only 12 of the 14 participants used their Pilot budgets during the first 12 months of their enrollment. Two individuals started to use their budgets in the second budget cycle. Of the 12 participants who used their Pilot budgets in the 2005-6 period, one participant passed away six months after enrollment into the Pilot. We applied the same approach to his post-enrollment data, i.e., doubling the first six months expenditure data to estimate the 12 month data. We undoubtedly overestimated this individual's budget expenditure because hospice/24-hour care was provided.

Although expenditure data for state-funded supports is not presented, participants reported in their Real Choice Pilot assessments receiving various supports from state agencies that included the Department of Mental Health, Department of Mental Retardation, Massachusetts Rehabilitation Commission, Massachusetts Commission for the Blind, and the Executive Office of Elder Affairs.

Question 2: To answer the question of how utilization costs of *specific* services change after participant utilization of individual budgets, we identified MassHealth services that could be "cashed out" and/or be theoretically substituted by services purchased with the Pilot budgets. Because the Pilot allowed participants to use their budgets to transition from facility-based settings to community-based settings, for workers for ADL/IADL support, for equipment, for home/vehicle modifications, for community integration, and for transportation, among others, MassHealth services determined to be parallel to Pilot allowable purchases were: a) facility-based services (nursing facility and rest home), b) community-based worker-related services (adult foster care, personal care, child, family, and individual support, home care and personal care training, and home health services), c) transportation, and d) durable medical equipment. We then compared utilization expenditures and levels of these MassHealth services before and after the Pilot enrollment.

Question 3: To estimate operational costs of administering the Pilot, we obtained both the subcontractors' award (funding set aside for service) and the subcontractor's estimated cost of providing the service at the end of the first year of implementation. How the award amount and subcontractors' estimated costs were determined will be discussed later.

⁴ Given that participants enrolled at different times, re-assessments or second assessments also occurred at different times.

Overview of Services by Financing Source

MassHealth (State Plan and waiver), state programs, and participants' personal resources each financed a different set of supports for the Pilot participants during the three-year period in review. MassHealth financed participants' primary care, acute care (medical and psychiatric) and long-term supports in facilities and in the community. MassHealth State Plan services accessed by participants included high-cost supports such as hospitalizations, nursing facility, adult foster care, psychiatric services, as well as home health services, and personal care. Given that eight participants reported also having Medicare, medical expenditures financed by MassHealth shown here are likely to be only part of the total medical expenditure for these participants during the three-year period. Two participants were elder waiver participants during the 2004-5 period⁵.

State programs supplemented MassHealth for long-term supports. Although information on state-funded expenditures was incomplete and is not reported at the time of this writing, state program funding appears to have provided case management or similar support, as all participants had a case manager or skills trainer provided through their affiliation with a state agency at the time of Pilot enrollment.

Lastly, Pilot budgets financed various long-term supports similar to MassHealth supports as well as supports not available from MassHealth. Utilization costs of MassHealth and Pilot services will be discussed in details further below. See Table 10 for an overview of the types of services financed by MassHealth, state programs, Pilot individual budgets, and participants' private resources.

⁵ Home and community-based waiver services accessed were home delivered meals, environmental modifications, and personal care.

Table 10: Types of Services Accessed by Pilot Participants by Financing Source

	MassHealth		State Programs	Pilot Budgets	Out of Pocket
	State Plan	Waiver			
Long-Term Supports					
Facility-based long-term support	X				
Home health nursing/therapy/aide	X		X	X	
Transportation	X		X	X	X
Durable medical equipment	X		X	X	X
Community-based worker for ADL/IADL ⁶	X	X	X	X	
Home delivered meals		X			
Environment accessibility		X		X	
Case management*	X		X	X	
Nursing facility/home transition-related expenses				X	
Medical Services					
Prescription drugs (Pharmacy)	X				X
Primary care-related services	X				
Psychiatry emergency/visit	X				
Hospitalizations-related services	X				
Housing					
					X

* Case management as provided by the Department of Mental Health.

Source: CHPR Analysis of MassHealth service, participants' assessments, and Pilot budget utilization statements.

MassHealth Expenditures Before and After Pilot Enrollment

Overall, the total annual expenditures for medical and long-term supports paid by MassHealth, participant resources, and Pilot budgets declined gradually between 2003 and 2006. During the 2003-2004 period (two years before participants' Pilot enrollment), MassHealth and estimated out-of-pocket expenses totaled approximately \$493,193⁷. In the next year period, total expenditures by these same two financing sources fell by about six percent to \$472,862. In the 12 months after each participant's Pilot enrollment, total estimated expenditures from MassHealth, out of pocket financing, and Pilot administrative and budget expenditures was approximately \$438,406—about eight percent less than the 2003-2004 total and 11 percent less than the 2004-2005 total⁸. When

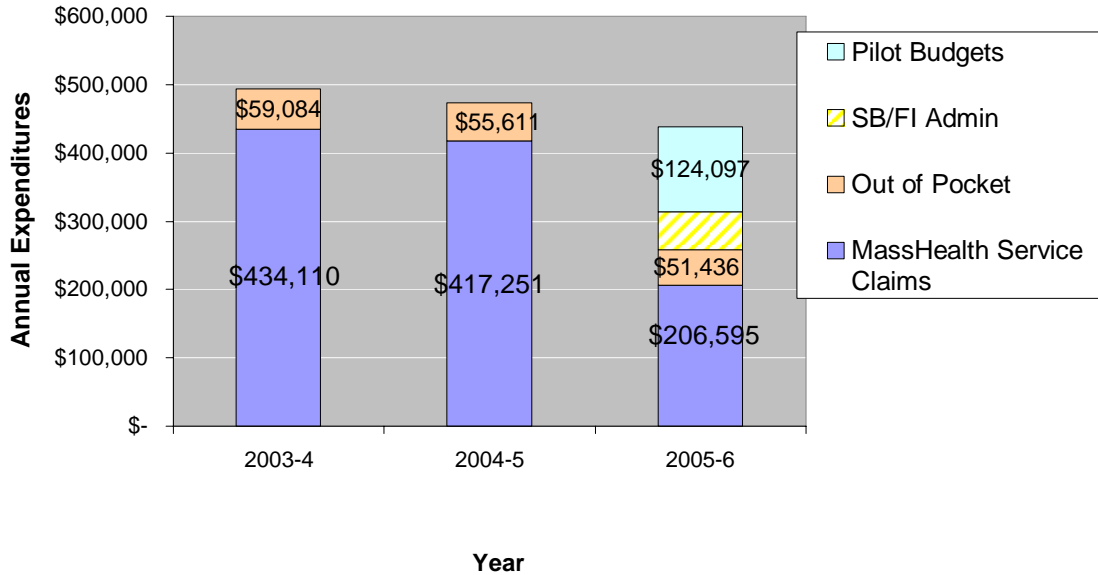
⁶ Adult family support, child, family and individual support, adult foster care, personal care service and training, and home care training services.

⁷ All expenditures are inflation adjusted to 2005 dollars using the Northeast urban consumer price index.

⁸ MassHealth expenditures for the eight dual eligibles totaled \$225,741 during 2003-4, \$191,835 during 2004-5, and \$89,438 during 2005-6, thus accounting for approximately 52 percent, 52 percent, and 43 percent respectively, of the annual total MassHealth expenditures for the respective years for all 14 participants.

MassHealth expenditures are disaggregated, the decline is even sharper—more than 50 percent. See Figure 8.

Figure 8: Total Expenditures by Type and Year (N=14)



Note: The MassHealth service claims estimate includes the doubling of expenditure of a) the individual who passed away six months after Pilot enrollment and b) the individual who was re-admitted in a nursing facility *after* the six-month mark, therefore not reflecting these nursing facility expenditures. In addition, Pilot budgets reflect budget use by 12 out of the 14 participants.

Source: CHPR Analysis of MassHealth claims data, participants’ assessments, and Pilot budget utilization statements.

While overall expenditures declined, some participants experienced delays in using their budgets and therefore budget utilization in the first year of the Pilot is lower than expected. Of the 14 participants, two participants did not use their budgets during the first 12 months of enrollment. One individual had recently left a nursing facility, had significant chronic medical needs, and experienced multiple hospitalizations during the early months of her enrollment (she is also one of the three participants with high hospitalization and nursing facility use described below). The other individual, a rest home resident, did not have the support from her informal network or her rest home staff to leave the rest home. Interestingly, MassHealth expenditures for these individuals still fell in the 2005-6 period compared to the previous two annual periods. As the Pilot heads into the next year, or as Independence Plus is implemented to enroll more participants, delay in budget utilization could be an issue encountered by some participants. Access to services could become an issue for these participants, since traditional benefits may have already been cashed out and should therefore be considered during program design.

While the decline in overall MassHealth expenditure levels was largely attributed to a decline in hospitalization and nursing facility costs—an encouraging change for MassHealth—the Pilot will face the challenge of *maintaining* this pattern of utilization in future years. One reason for this may be that the participants who were primarily responsible for much of the hospitalization and nursing facility expenditures have moderate to significant needs related to ADL/IADLs⁹ and have a mental illness along with other chronic physical conditions. These participants also had a prior history of hospitalizations. Because three participants transitioned to the community soon before or after their Pilot enrollment (two participants’ using their budgets to do so), MassHealth expenditures in the 2005-6 period fell compared to previous years (see Table 11). Additionally, one of the individuals who incurred high MassHealth hospitalization expenses prior to the Pilot enrollment became dually eligible and therefore her MassHealth hospitalization declined during the Pilot period. However, to maintain this lower level of MassHealth expenditures in the future, the Pilot will need to help these vulnerable participants to remain in the community.

Table 11: MassHealth Nursing Facility and Hospitalization Expenditures

Services	2003-4		2004-5		2005-6 (Pilot)	
	Total (# of users)	Average	Total (# of users)	Average	Total (# of users)	Average
Nursing facility	\$86,234 (3)	\$28,744	\$103,150 (2)	\$51,575	\$27,877 (3)	\$9,292
Hospitalization	\$105,177 (4)	\$26,294	\$12,702 (7)	\$1,814	\$1,824 (3)	\$608

Notes: Hospitalization excludes MassHealth psychiatric inpatient, which occurred only in the 2003-4 period, and totaled \$11,231; MassHealth crossover expenditures, and any hospitalization-related Medicare expenditures.

Compared to hospitalization and nursing facility use, medical outpatient and prescription drugs did not experience the consistent decline; they were still among the top four services in terms of expenditure level over the three year period. Medical outpatient use was fairly consistent over this period, with an annual average of approximately \$30,833 with about 13 users. Since Medicare also covers medical outpatient services, Medicaid expenditure for this service presents only part of the medical expenditure of the Pilot participants. Nevertheless, state agencies funding these participants could expect this type of level of use for medical outpatient in upcoming years. Prescription drugs, on the other hand, would probably be much harder to predict with the roll-out of Medicare Part D, which covers prescription drugs. Given that the annual expenditure on prescription drugs over the three annual periods was between \$46,591 and \$95,472, with about 13 users, MassHealth could experience much lower expenditure for prescription drugs for Pilot participants as prescription drug costs are shifted to Medicare.

⁹ As reported in their Real Choice Pilot functional assessments

Changes to Selected MassHealth Services After Pilot Enrollment

Of particular interest to state policy makers is how Pilot participants substituted supports purchased by their budgets for more costly traditional MassHealth services. In fact, Cash and Counseling evaluation suggests that enrollees substituted directly hired supports for more traditional supports, e.g., nursing facilities¹⁰. It should be noted that because two participants did not use their budgets during the first 12 months of their enrollment, their MassHealth expenditure data is excluded in the discussion below.

Community-based Worker Support for ADL/IADL

Overall, Pilot budgets allowed participants to receive paid ADL/IADL supports that that was likely unavailable prior to their enrollment. At the time of their enrollment in the Pilot, seven of the 14 participants reported receiving in-home or facility-based worker support for ADL/IADLs¹¹. Most participants had agency-based workers authorized by their local ASAP or independent living center, or for two participants, by their nursing facility. After enrollment in the Pilot (and after two participants transitioned back to the community), community-based worker support for ADL/IADL increased to 13 of the 14 participants. Eight participants added workers as new support using Pilot budgets and five participants who already had a worker replaced these workers with directly hired workers.

Compared to MassHealth-funded traditional agency-based workers, Pilot workers performed an expanded range of tasks. These tasks included transportation and errand/shopping as well as homemaking and personal care. This was expected since assistance such as transportation, errand/shopping assistance are not usually performed by traditional personal care/homemaking.

In addition to worker support for ADL/IADLs, participants also were receiving support in the form of case management. Although most case management expenditures were state-funded and therefore are not reflected in the MassHealth claims data, this was a common support for most participants. Six participants reported having a case manager or service coordinator, while five reported having a skills trainer. The level of involvement of case managers/service coordinators and skills trainers with assisting Pilot participants to self-direct their budgets varied for each participant, unless these supports also served as support brokers. The role of these case management/skills training supporters in this model should be examined further in the future to allow for *full* coordination of an individual's services. See Table 12.

¹⁰ Stacy Dale, Randall Brown, et al. Effects of Cash and Counseling on Personal Care Services and Medicaid Costs in Arkansas, p. 4.

¹¹ Participants' Real Choice Functional Assessments

Table 12: Entities Providing Non-MassHealth Support to Pilot Participants

Provider Entities	Number of Participants
Independent Living Centers	5
Local Mental Health Organization	2
Aging Service Access Points	2
Massachusetts Commission for the Blind	1
Department of Mental Health	1
Department of Mental Retardation	1

Overall, MassHealth-funded worker support either for ADL/IADL or for case management totaled approximately \$68,000 or less in the three years in review. During the Pilot enrollment year, approximately \$70,000 were spent on worker support described above. Because the Pilot did not cash out existing services, it is likely that Pilot supports supplemented MassHealth worker supports. Because the Pilot set out to serve individuals who could not qualify for the Personal Care Attendant program, the Pilot budgets allowed individuals to meet their unmet needs in ways existing traditional programs do not.

Table 13: Expenditures Related to Worker Support (N=12)

	2003-4 MassHealth	2004-5 MassHealth	2005-6 MassHealth	Pilot
Home health services*	\$4,819 (4)	\$3,001 (3)	\$32,521 (1)	
Personal care-related expenses	\$20,574 (5)	\$1,578 (4)		
Care paid under adult foster care	\$14,786 (1)	\$17,507 (1)	\$11,044	
Other individual supports	\$12,038	\$33,376	\$6,126 (1)	
<i>Subtotal</i>	<i>\$52,217</i>	<i>\$55,462</i>	<i>\$49,691</i>	
Transportation	\$17,370 (8)	\$67,808 (11)	\$57,287	
<i>Subtotal with Transportation</i>	<i>\$69,587</i>	<i>\$67,808</i>	<i>\$57,287</i>	<i>\$70,262 (13)</i>
TOTAL	\$67,698	\$67,808	\$127,549	

*Home health services denote home health aide, nursing, and therapy.

Durable Medical Equipment

Covered by both Medicare and Medicaid, durable medical equipment typically includes wheelchairs, hospital beds, and a host of other medical supplies. During the two year period before the Pilot, durable medical equipment was accessed by the majority of Pilot participants via MassHealth. Unlike some other MassHealth services that decreased substantially during Pilot enrollment, overall annual durable medical equipment expenditure increased each year of the study period (see Table 14 for overall annual expenditures). It is possible that by requiring

individuals to check with MassHealth before using their budget for equipment needs, the Pilot led to increased access for MassHealth-funded equipment. If this is the case, Pilot participants may not have been previously aware of their eligibility for durable medical equipment financed by MassHealth. A lack of awareness of such eligibility may be worthy of further examination. See Table 14 for MassHealth durable medical equipment expenditures.

Table 14: Participants' Durable Medical Equipment Expenditures from MassHealth and the Pilot (N=12)

	2003-4 MassHealth	2004-5 MassHealth	2005-6	
			MassHealth	Pilot
Total for 12 Participants Who Used the Budgets	\$9,504	\$11,129	\$ 12,872	\$12,293
			Total: \$25,165	
Number of Participants with durable medical equipment expenditures	6	8	9	9
Highest Amount Incurred by Participant*	\$4,289	\$9,235	\$6,680	
Lowest Amount Incurred by Participant	\$63	\$102	\$84	
Average Per Participant	\$1,584	\$1,391	\$1,430	\$1,366

*Expenditures for all three years are for the same participant

In addition to purchasing more traditional equipment, participants also used their budgets for non-traditional needs (air conditioners, computers), items that MassHealth did not cover. Since some equipment items, e.g., scooters, computers, will presumably not be purchased in the next few years, equipment expenditures in Pilot will likely decline in the first next years of the Pilot. Also, with the passage of the Massachusetts Health Care Reform on July 1, 2006, formerly non-covered items of dental care (including dentures) and medically necessary eyeglasses have become covered once again under MassHealth (see Table 15 for more details on equipment purchased using Pilot budgets.)

Table 15: Unorthodox and More Traditional Pilot-Funded Equipment Purchases during the First Budget Cycle (N=12)

Equipment Purchases	Number of Participants	Annual Estimated Total	Reason(s) for Purchase
Computers and computer-related equipment/accessories	5	\$7,000	Education, communication
Air Conditioners	3	\$1,029	Air comfort, healthy living
TV for Visually Impaired	2	\$428	Education
Vacuum	1	\$48	IADL support
Washer and Dryer	1	\$600	IADL support
Bicycle	1	\$157	Mobility
Chair Lift	1	\$2,695	Mobility
Hospital Bed	2	\$3,787	Transfer in bed (Yes but individuals did not meet requirements for MassHealth coverage)
Mobility Assistive Devices	3	\$4,347	Mobility (individuals did not meet requirements for MassHealth coverage)
Dental Care	3	\$1,763	(MassHealth did not cover during the study period)
Dentures	2	3,757	(MassHealth did not cover during the study period)
Eyeglasses	2	\$2,542	Vision (MassHealth did not cover during the study period)
TOTAL		\$15,946	

Source: CHPR Analysis of Pilot budget monthly utilization statements

Profiles of Selected Participants' Expenditures

Similar to the Cash and Counseling states, this consumer-directed program served a diverse range of individuals with very different goals. In fact, the Real Choice Pilot enrolled elders and non-elders (frail and non-frail), individuals with few to more substantial functional limitations, and physical, mental health, and cognitive impairments. Some were living in the community while others were residing in an adult foster care arrangement, nursing facilities, and a rest home at the time of Pilot enrollment.

Individuals living in the community used their budgets to add supports to meet their ADL/IADLs needs and to increase quality of life. Individuals living in nursing facilities used their budgets to transition back to the community. To examine how Pilot budgets were utilized by different participants, we selected four participants and described in greater detail their service use and expenditures before and after Pilot enrollment. We selected these individuals because they are diverse in age, functional needs, and living setting. As the Pilot is expanded, the cost data of these participants can help policy makers understand how other individuals with similar characteristics may use their budgets to meet their individual needs.

See Table 16 for these four participants' characteristics and more detailed profiles of all Pilot participants in the "Profiles" section of this report.

Table 16: Selected Characteristics of Participants in Profiles

Individual	Age ¹²	Functional Status	Living Setting	Some Diagnosis
A	55	Full assistance with all ADL/IADLs	Adult foster care	Alzheimer's and Down's Syndrome
B	27	Some assistance with IADLs such as transportation, housework	Community	Spina bifida, mental illness (affective disorder)
C	60	Some assistance with IADLs	Formerly nursing home resident and current community resident	Mental illness (unspecified)
D	65	Substantial assistance in IADLs and some ADLs	Nursing home resident and former community resident	Mental illness (schizophrenia), diabetes

Individual A (Utilizing Adult Foster Care)

Individual A is in her 50s, has Down's Syndrome and Alzheimer's disease, and requires complete hands-on assistance with her ADLs and IADLs, and uses a wheelchair. She had been living in an adult foster care setting for some time prior to enrollment in the Pilot. In the same period, she received treatment for gastrointestinal disorders, aspiration pneumonitis, food/vomitus, and respiration disorders. No hospitalizations occurred during the 2003-4 period or during Pilot enrollment.

Her total MassHealth claims were approximately \$60,000 during 2003-2004. In each year, adult foster care, durable medical equipment, and medical or prescription drug needs constituted at least 80 percent of the total annual MassHealth expenditures. In addition, her adult foster care provider reported paying approximately \$13,000 out of pocket for medication, personal care, transportation, and respite care. We did not find any change in service mix as a result of Pilot enrollment (see Table 17).

¹² As of 2006

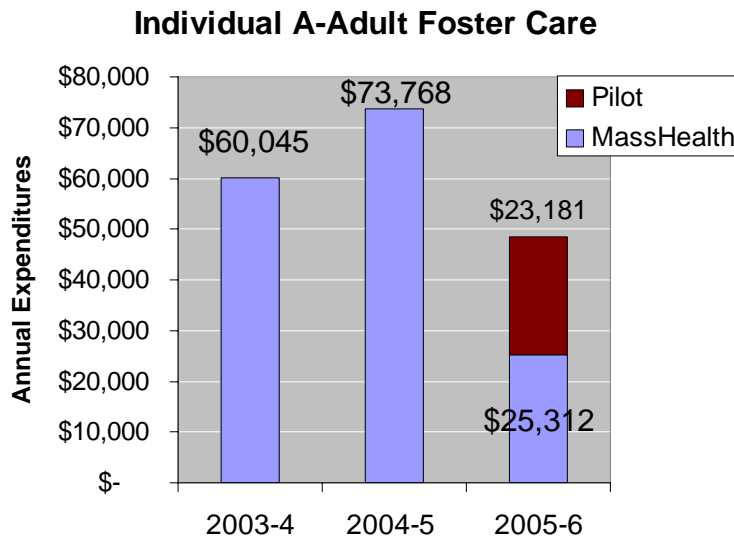
Table 17: Individual A—Key MassHealth and Pilot Budget Service Utilization in 2003—2006

Services	2003-4 MassHealth	2004-5 MassHealth	2005-6 MassHealth	Pilot
Adult Foster Care Support	\$49,053	\$48,818	\$16,112	\$18,668
Durable Medical Equipment	\$4,288	\$15,442	\$6,680	\$4,513
Medical Outpatient	\$2,623	\$2100	\$641	
Medical Inpatient	0	\$7989	0	
Prescription Drugs	\$724	\$1,060	\$1,704	
Total Annual Expenditures	\$60,044	\$73,768	\$25,313	\$23,181

Note: Adult foster care included personal care services, child family and individual support, adult family support, home care training, adult residential service, and case management.

Individual A’s Pilot individual budget was \$21,000. The allocation of \$21,000 was based on the assumption that some personal care support was already being provided by the adult foster care service (individual A is nursing home eligible so an assumption was made that the individual would otherwise have potentially been eligible for up to \$36,000—the maximum allowable budget). Individual A used virtually all her individual budget for the first year. About 80 percent of her individual budget funded workers who provided personal care/respice care while the remainder of the funds purchased personal care supplies, home modification, and equipment.

Figure 9: Individual A—Adult Foster Care MassHealth and Pilot Expenditures



Individual B (Community Resident)

Individual B is in her 20s, has spina bifida and an unspecified affective disorder, moderate needs related to some IADLs, and uses a wheelchair. She has been living in the community during all of the three years reviewed with no known

history of long-term institutionalization. Her known primary diagnosis were spina bifida and an. She also experienced episodes of genitourinary symptoms and ill-defined conditions, and received rehabilitation care related to fitting and adjustment of prostheses. This individual had no inpatient costs during these three years.

During the period 2003-2004, Individual B's MassHealth expenditures totaled about \$10,000, with almost 75 percent supporting transportation and durable medical equipment, and the rest supporting medical and psychiatric outpatient services. She reported spending approximately \$2,400 per year for housing.

In addition, the Massachusetts Rehabilitation Commission also provided agency-based worker support for IADL support, which decreased after Pilot enrollment. See table 18 for her budget information. It is possible that this individual (and potentially others like her) was not originally accessing a large amount of MassHealth services prior to the Pilot but experienced increased access to services to MassHealth, partly because of the Pilot¹³

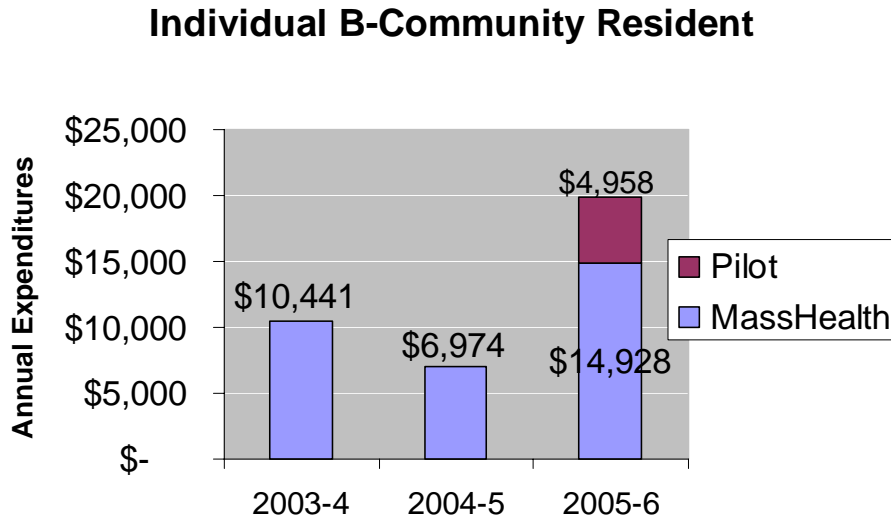
Table 18: Individual B—Key MassHealth and Pilot Budget Service Utilization in 2003—2006

Services	2003-4 MassHealth	2004-5 MassHealth	2005-6 MassHealth	Pilot
Transportation	\$5,132	\$4,002	\$3,730	\$586
Durable Medical Equipment	\$62	0	\$1,088	\$1,017
Personal Care	0	\$1,071	0	\$4,901
Psychiatry Visits	\$2,258	\$531	\$3,111	
Medical Outpatient	\$1,416	\$527	\$193	
Physician Services	\$329	\$714	\$6,093	
Total Annual Expenditures	\$10,441	\$6,974	\$14,934	\$6,672

Individual B's Pilot individual budget was \$11,520. Although she spent only about half of the budget during the first year, she primarily used her budget for workers, equipment, and agency-based transportation for community integration.

¹³ The Commonwealth's ability to "cash out" MassHealth services and to create restrictions to ensure budget neutrality through a waiver should address this increase in spending.

Figure 10: Individual B—Community Living MassHealth and Pilot Expenditures



Individual C (Former Nursing Facility Resident)

Individual C is 60 years old, has an unspecified mental health illness, has moderate ADL/IADL needs, and uses a wheel chair. She had been living in a nursing facility prior to the enrollment in the Pilot. Her primary diagnosis during the period reviewed is an unspecified affective disorder.

During 2003-2004, her total MassHealth expenditures were \$42,636, increasing to \$62,591 in the following year. For both years, the majority of her MassHealth expenditures went towards nursing facility services (see Table 19). This participant also has Medicare.

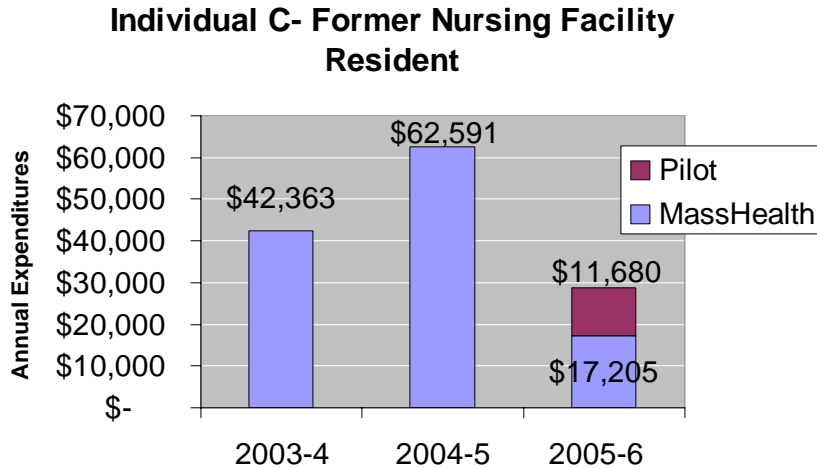
Table 19: Individual C—Key MassHealth and Pilot Budget Service Utilization in 2003—2006

Services	2003-4	2004-5	2005-6	Pilot
	MassHealth	MassHealth	MassHealth	
Transportation	\$2,654	\$4,453	\$1,779	\$5,110 (community integration)
Nursing Facility	\$31,886	\$49,754	\$9,677	\$2,947 (worker)
Prescription Drugs	\$4,370	\$6,727	\$4,890	
Durable medical equipment	0	0	0	\$3,567 (non-traditional equipment)
Total Annual Expenditures	\$42,363	\$62,591	\$17,205	\$11,680

Using part of her Pilot budget of \$21,520, this individual transitioned back to the community, living in her own apartment. By June 2006, this individual had used

41 percent of her budget, or about \$11,680, mostly on transition-related expenditures. Her estimated MassHealth expenditure for the 12 months of her Pilot enrollment was \$17,000.

Figure 11: Individual C—MassHealth and Pilot Expenditures



Individual D (Former Nursing Facility Resident)

Participant D is in his 60s, has diagnoses that include heart diseases, schizophrenia, and lower respiratory disease, and has substantial needs related to IADLs and more moderate needs for ADLs. He was living in the nursing facility for approximately one and a half years prior to the Pilot enrollment. This individual also has Medicare.

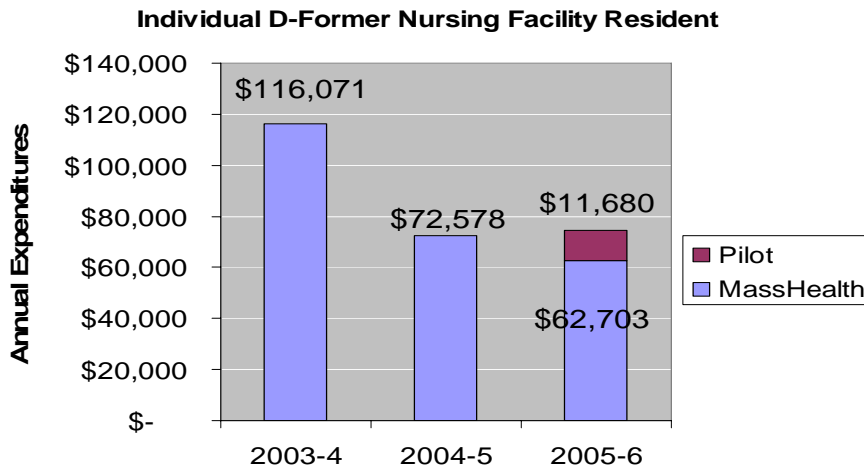
His MassHealth expenditures for 2003-4 were approximately \$101,800. For both years before Pilot enrollment, this individual also had most of MassHealth claims go towards hospitalizations and nursing facility services. During the 2003-2004 period, this individual was also eligible for elder waiver services and received home delivered meals and environmental accessibility services (totaling less than \$2,000). This participant also had Medicare (see Table 20 below for top MassHealth expenditures).

Table 20: Individual D—Key MassHealth and Pilot Budget Service Utilization in 2003—2006

Service	2003-4	2004-5	2005-6	
	MassHealth	MassHealth	MassHealth	Pilot
Hospitalization	\$35,308	0	\$1,824	
Nursing Facility	\$25,395	\$54,305	\$9,525	
Prescription Drugs	\$9,887	\$12,525	\$10,511	
Transportation	\$2,676	\$1,822	\$26,947	
Community-based support worker	\$18,600		\$29,734	\$3,660
Equipment		\$129	\$1,219	\$7,376
Total Annual Expenditures	\$101,816	\$72,578	\$62,703	\$11,680

This individual received \$35,000 for his Pilot budget. By the end of his first annual budget cycle 2006, he had spent 33 percent or \$11,680 of his budget. He was re-admitted to a nursing home in April 2006 with a plan to re-enter the community (see Figure 12).

Figure 12: Individual D—MassHealth and Pilot Expenditures



Administrative Costs of Model: Support Brokerage

The Real Choice Pilot was implemented through three subcontracts overseen by CHPR. Two contracts were for support brokerage and one was for fiscal intermediary support. Through a Request for Proposals process, two support brokerage agencies were identified to oversee the administration activities related to support brokerage: Elder Services of Worcester Area (ESWA) and Southeast Center for Independent Living (SCIL). Responsibilities of these two agencies included:

- Outreach
- Orientation
- Person-centered planning process
- Training for participants, community liaisons, and representatives
- Needs assessments
- Support in designing individual budgets and spending plans
- Method to monitor spending plans (in collaboration with fiscal intermediary subcontractor)
- Consumer-driven quality system

Each support brokerage agency was allocated \$25,000 for the first year of the Pilot. These funds were intended for payment of both start-up and ongoing implementation of the support brokerage role. This allocation did not include funding for direct services purchased with individual budgets. It is important to note that this allotment was made based on available funding rather than on a prospective estimate of the number of individuals each support brokerage

agency would be supporting or the intensity of support provided. SCIL did not continue to manage the support brokerage role for the southeast area due to a lack of internal resources unrelated to the Pilot. For the second year of the Pilot, ESWA reviewed administrative spending for the first year and proposed a budget for the second year of \$167 per participant per month. This led to an annual budget of \$15,028. Further review of implementation costs to better understand the cost of the support brokerage role is recommended upon the completion of ESWA's second year.

Options of Cerebral Palsy of Massachusetts replaced SCIL for the second year as the support brokerage agency for the southeast area of Massachusetts. Although Options did not have cost data related to the first year to review, Options estimated \$250 per participant per month for their first year for a total budget of \$25,500. It is important to note that this allocation included start-up and transition costs such as the time and resources required to quickly train Options' personnel on the model, to train old and new community liaisons, to travel to locations outside of Options' typical service area, and to ensure all Pilot participants were well trained and aware of the transition. Based on these assumptions, costs for year two for Options should be lower. Further review of implementation costs to better understand the cost of the support brokerage role is recommended upon the completion of Option's first year.

Estimating the support brokerage administrative costs is challenging when this model is to be implemented on a larger scale. First, the Pilot did not start on time due to a delay in confirmation of sustainability funds (leading to an unexpected reallocation of resources and roles during the first year of implementation). Although the Pilot was supposed to be started in January 2005, many participants did not actually begin to receive services until spring of 2005. This meant that outreach and orientation timelines were shorter than planned to ensure grant funds were used by the end of the Real Choice grant period. Second, although some costs associated with implementation will not be necessary for larger scale implementation (such as the design of forms), there are additional start-up activities that will still be required. Such activities may include a refinement of the consumer guidebook, the development of a community liaison training curriculum, and more streamlined fiscal processes.

Administrative Costs of Model: Fiscal Intermediary

Through the Request for Proposals process, Stavros Center for Independent Living was appointed as the fiscal intermediary for the Pilot. The fiscal intermediary role served all of the Pilot participants. Responsibilities included:

- Ensuring compliance with federal and state tax requirements
- Payment of unemployment taxes and workers' compensation
- Provision of monthly utilization statements to consumers, community liaisons, and representatives (if they exist)

- Provision of paychecks and conducting other paycheck and employer requirements
- Provision of reporting documents, such as monthly statements, timesheets, directions, etc., to consumers in an accessible format that is easy to understand
- Provision of a method to monitor spending plans in collaboration with the consumer-directed support subcontractor(s)
- Payment for direct services as outlined in approved spending plans
- Provision of a system for administering funds on an emergency basis for change in life situations or health status.

Stavros was allocated \$40,000 for the first year of the Pilot to provide administrative fiscal intermediary services to all of the Pilot participants. This allocation included costs related to start-up and ongoing implementation for the first year. In addition to this \$40,000, Stavros also held the \$276,000 in direct services that would be spent in accordance with participants' spending plans. Based on year one spending for administration only, Stavros agreed to a second year payment of \$3.44 per day per person, resulting in a year two budget of \$16,278. (Stavros is currently reimbursed \$1.72 per day for fiscal intermediary service for each consumer for the Personal Care Attendant program). The additional costs reflect the added staff to be involved in handling the various non-routine expenditures related to the flexible individual budgets. The rate is probably also higher because the small client population does not allow Stavros to take advantage of economies of scale.

It is a challenge to estimate the future cost of fiscal intermediary services related to this model based on current costs. In the current implementation, the fiscal intermediary representative has at times taken on a role similar to a community liaison for participants who sought support from fiscal intermediary staff—support that is more appropriate for their community liaison. This added role of the fiscal intermediary was time intensive and therefore added to the cost of the model. In addition, Stavros has also devoted a significant amount of time to designing and re-designing forms, as best practices have emerged, as well as to communicating on the phone with ESWA, Options, community liaisons, and participants to seek and provide clarification on purchases and policies. With time and strengthening of the model, such resource intensive roles should decrease. However, it is essential to review the administrative costs of this fiscal intermediary model in the upcoming years to determine an appropriate rate for larger scale implementation.

Administrative Costs of Model: Pilot Oversight

In addition to the three subcontractors, staff resources from CHPR were allocated to the oversight of the Pilot subcontractors. This role included meeting with the Pilot leads on a monthly basis, clarifying methods, and providing technical assistance. Future administrative oversight provided by CHPR is estimated at 25 percent of a full time Project Director and 25 percent of a full time

Project Associate for a total of \$27,739 per year or \$36,238 per year including fringe benefits.

Conclusions

New programs or service delivery models often have the burden of demonstrating their cost-effectiveness (while achieving desirable participant outcomes). Because the Pilot has been implemented for a little more than one year, the level of cost-effectiveness is difficult to ascertain. Nevertheless, the review of their MassHealth expenditures over the three year period suggests that the use of individual budgets substantially affected the overall MassHealth expenditures by financing community-based and individualized supports and thereby reducing use of facility-based and traditional agency supports.

However, some participants may take longer—and require more intense support brokerage in the process—before this result can be achieved. This variation presented an opportunity for the Pilot to assist participants who were at various stages of readiness to take full advantage of the budget to enhance participant outcomes. Even when individuals were not able to be fully successful in their goals of returning to or remaining in the community, the Pilot served as a reminder that supporting individual participants in their process to self-direct can be a valuable participant outcome in and of itself. This early phase of the Pilot did experience overall cost savings, but it also demonstrated that there were other benefits that may be even more important than reducing costs.