Scripps Gerontology Center

Scripps Gerontology Center Publications

Miami University *Year* 2007

PASSPORT cost neutrality

Shahla Mehdizadeh
mehdizk@muohio.edu

PASSPORT
Cost Neutrality

How Do the Total Medicaid and Other Public Costs of Maintaining a PASSPORT Consumer in the Community Compare to That of a Nursing Facility Resident?

Shahla Mehdizadeh, PhD

SCRIPPS GERONTOLOGY CENTER

Miami University

Oxford, OH 45056

May 31, 2007

TABLE OF CONTENTS

ACKNOWLEDGMENTS

A study of this magnitude could not be done just by the author. I received assistance in many ways; from the PASSPORT Administrative Agencies care managers by collecting information about housing assistance for a sample of consumers; from the Council on Aging PAA staff, particularly Jane Oakley, by educating me on how to use and understand the CRIS-E system; from Brooke Trisel, and Lisa Walsh from ODJFS by assisting me in receiving Medicaid billing data from the Medicaid Decision Support System, and helping me to understand and use the data correctly; and from ODA staff by helping me understand the Ohio Administrative Code. I am also grateful to Janet Cesner from Ohio Department of Development for assisting me with acquiring Heat Energy Assistance Program data for PASSPORT consumers. I am indebted to all for their patient, and continuous support and assistance. Thanks also to Arlene Nichol, Lisa Grant, and Jerrolyn Butterfield at the Scripps Gerontology Center for their help with report preparation, and Lauren Thieman for data entry. Valerie Wellin created all the charts and provided expert editorial assistance on this report. I also received guidance and suggestions from the entire PASSPORT evaluation team; I appreciate their vigilance and their kindness.

INTRODUCTION

Comparing the costs of nursing home and in-home services has been the topic of extensive research for the past three decades (Kemper, Applebaum, & Harrigan, 1987; Applebaum & Davis, 2000). Lessons learned from both examining and achieving cost-neutrality highlight two important considerations. First, to study cost-neutrality between two populations in need of services the research needs to include an array of cost areas (e.g., health care services, food, housing, care management, etc.) and second, the populations being examined need to be comparable. In a study in 2000, Scripps researchers compared the health and long-term care utilization of PASSPORT consumers and nursing home residents over a two-year period. The study found that although PASSPORT consumers had lower total health and long-term care expenditures and lower total Medicaid costs, they had higher total Medicare expenditures. That study did not look at the additional community costs such as food stamps and subsidized housing (Mehdizadeh, Applebaum, Warshaw, & Straker, 2000). In this study, we examine the following two questions:

1. **ARE THE TOTAL MEDICAID COSTS FOR PASSPORT CONSUMERS LESS THAN TOTAL MEDICAID COSTS FOR NURSING FACILITY RESIDENTS AGE 60 AND OVER?**

To respond to this question, we studied Medicaid expenditure patterns of active PASSPORT consumers for one year (October 1, 2004 to September 30, 2005) by requesting and reviewing Medicaid Administrative Claims data from the Medicaid Decision Support System (DSS) from Ohio Department of Job and Family Services (ODJFS), Office of Health Plans, and PASSPORT Information Management System (PIMS) data from Ohio Department of Aging.

Selecting comparable nursing home and PASSPORT populations to study is somewhat challenging, because today individuals stay in nursing homes for a short period of time irrespective of who pays for the nursing home care. A recent study by Scripps Gerontology Center found that 57% of all those admitted to a nursing home for the first time no longer reside there after three months. In fact, a considerable number of admissions have a length of stay of 20 days or shorter (Mehdizadeh, Nelson, & Applebaum, 2006). Nursing homes are increasingly becoming transitional care facilities that accommodate individuals with acute care needs right after hospitalization. In order to study the total Medicaid expenditures for both populations the clientele should be comparable; the nursing home residents chosen for the study should be in need of extended nursing home care. For this study we selected those nursing home residents age 60 and older who had been in a nursing home continuously during the study period (October 1, 2004-September 30, 2005), and for whom Medicaid was the sole payer except after short periods of hospitalization. Likewise, the PASSPORT consumers selected for the Medicaid cost comparison are those who had received PASSPORT services for at least one year at the end of the study period (October 1, 2004-September 30, 2005).

Methodology

Nursing homes and the PASSPORT program serve two populations that although have some overlapping characteristics, are different in certain ways. While considering comparability of the two populations selected for cost comparison we identified other issues to keep in mind: 1) we should include as many members of each group, as possible, that are age 60 and older and have received Medicaid reimbursed long-term care services for at least one year; 2) in order to take advantage of the additional information in the new PASSPORT Management Information System software (PIMS), installed at all PASSPORT Administrative Agencies (PAAs) by

October 1, 2004, the time frame for the study should be from October 1, 2004 to September 30, 2005; 3) we should make use of what we learned from previous studies at Scripps regarding the extent of disability among nursing home residents compared to the PASSPORT population (Applebaum, Mehdizadeh, & Straker, 2000; Applebaum & Mehdizadeh, 2001; Mehdizadeh & Applebaum, 2003; Mehdizadeh & Applebaum, 2005; Mehdizadeh et al., 2007).

Therefore, we took steps to assure that any cost analysis between the two populations is based on groups of similar impairments. Ideally, we would have calculated and used the Case-Mix score, a measure based on the individual's resource utilization and care needs that takes into account the elements from the Resident (consumer) Assessment Instrument. However, there were two reasons that calculating a comparable Case-Mix score for the two populations were not feasible. First, the assessment tools used in the two settings, although similar and have many of the same items, are not identical. PASSPORT consumers are not assessed using the Minimum Data Set (MDS) Resident Assessment Instrument, as nursing home residents are, rather the PASSPORT Administrative Agencies use a comprehensive assessment tool that assesses both the consumer, his/her caregiver's capacity to provide care, and the environment that the consumer lives in. Second, even though both tools have similar goals — to examine the consumer's capabilities to care for him/herself and to determine how much assistance the consumer needs — the process and philosophy behind completing the assessments is not the same. Nursing homes have the residents in their facility, and have the opportunity to observe them over time. Therefore, they have a good understanding of the residents' condition. In addition, nursing homes are reimbursed based on a formula that takes into account the average frailty level of the residents that they care for. It is to the facilities' advantage to make sure that each assessment is complete and every field is answered. Facilities with a certain percentage of

incomplete assessments are reimbursed based on the lowest average state Case-Mix score. In contrast to nursing facilities, PASSPORT assessors see the consumer once initially and thereafter annually, although case managers do remain in touch with the consumer, her caregiver, and providers by phone in between assessments. Case managers also reflect any changes in the consumers' condition or care needs in modified assessments and care plans. At an assessment the PAA assessors' first priority is to determine whether the consumer meets intermediate level of care, and if so, based on the consumer's condition and the informal caregiver's availability, they also determine what kind of care the consumer needs. We learned from examining the assessment data in PIMS and from a focus group with PAA directors or their designees that often the assessment is completed gradually over a period of time, after follow-up conversations with the consumers, the caregiver, the physician, and the providers.

Because of these differences, we will use the elements from MDS (for nursing home residents) and the PASSPORT assessment tool (for PASSPORT consumers) that are used in determining whether the consumer met intermediate level of care. We will also use other items used in calculating Case-Mix score, if they are present in both assessments and if they are systematically completed, even though they may be measured differently.

Finally, because PASSPORT includes care management time, which is not reflected in the Medicaid claims, we will include the cost of care management per consumer in our total per-person, per-year Medicaid cost calculations. Prior to enactment of Medicare Part D, prescription medication expenditures were one the major health care expenses that older people were faced with. By accident, the time frame of this study is such that it is just before CMS had required Medicaid clients to sign up for Medicare Part D. Thus, we will have Medicaid data to show how the medication expenditures were different between the two populations.

We started with the 26,079 PASSPORT consumers selected for the Level of Care (LOC) eligibility study and excluded 12,780 because they had received PASSPORT services for less than one year. Another three consumers were excluded because they received their health care from a Medicaid managed care plan prior to enrolling in PASSPORT and for a period of time there was no itemized listing of their expenditures. Finally, 1,119 additional consumers were excluded, because even though their enrollment dates showed they had been a consumer for one year, their PASSPORT expenditures were so low that was doubtful whether they actually received services for an entire year. Therefore, at the risk of artificially increasing the average annual PASSPORT expenditures, any PASSPORT consumer with annual expenditures less than $3,650 (approximately less than one hour of care a day) were excluded from the analysis. Consequently, there are 12,177 PASSPORT consumers in the cost comparison analysis.

Similarly, we selected every nursing home resident age 60 or older, who had an annual or quarterly MDS assessment in the calendar quarter ending with September 30, 2005, and who had Medicaid shown as their payer. The selected residents were then tracked in the previous three quarters to assure they were in a nursing home and Medicaid was paying for their care. A total of 6,424 residents were selected based on MDS, however, when these individuals were matched with the DSS Medicaid eligibility file, only 6,164 were shown as Medicaid eligible. Additionally, another 135 were excluded from further study because their one-year nursing home expenditures were below the lowest Medicaid reimbursement rate ($60 per day x 365= $21,900); we assumed these individuals had not received care paid by Medicaid the entire year. Therefore, the nursing home study group is made up of 6,029 residents.

We divided the two study populations by their degree of care needs and their extent of frailty based on: 1) the number of ADL impairments (from two to six ADL impairments); 2)

whether they had been diagnosed with dementia, Alzheimer's disease, or cognitive impairment; 3) whether they were incontinent in addition to needing assistance with ADL tasks; and 4) whether any combination of the above three criteria existed. Each population was broken down into 21 groups with different impairment levels. The distribution of each study population by level of impairment is presented in Tables 1 and 2.

First, we learned that 281 (4.6%) residents had fewer than 2 ADL impairments and had neither cognitive impairment nor dementia. It is not clear why these individuals are in a nursing home, we suspect, based on our previous studies, that they have chronic mental health conditions. There is a proportionally smaller group, 322 (2.6%) in the PASSPORT population, which met nursing home eligibility criteria by having one ADL impairment and needing assistance with the administration of medication. As Table 1 shows, more than 70% of residents have four or more ADL impairments plus cognitive impairment or incontinence, almost 50% had cognitive impairment, incontinence, and five or more ADL impairments. Compared to the nursing home residents, the majority of PASSPORT consumers are at the lower end of the impairment continuum. Just a little less than 70% had two or three ADL impairments alone or in addition to cognitive impairment or incontinence, and 53% had just two or three ADL impairments. Nevertheless, both settings have about 30% of their population with similar ADL and/or cognitive impairment and incontinence.

As stated earlier, there are measurement differences between the two assessment instruments. Cognitive impairment for nursing home residents is defined as being moderately or severely impaired in daily decision making, or having dementia or Alzheimer's disease. For PASSPORT consumers, the need for supervision, or the presence of dementia or Alzheimer's disease constitutes cognitive impairment. We suspect the assessor's approach in completing the

Table 1
Distribution of Nursing Home Residents
Study Group by Level of Impairment

		Incontinence	Cognitive Impairment	Incontinence and Cognitive Impairment
	(Percentages)*	**(Percentages)***	**(Percentages)***	**(Percentages)***
Less than 2 ADL	4.7	-	-	-
Cognitive Impairment	-	-	8.1	-
2 ADL	0.3	1.4	2.6	0.5
3 ADL	1.3	0.4	3.6	1.2
4 ADL	1.0	0.6	2.7	3.6
5 ADL	3.6	5.2	5.6	22.2
6 ADL	0.4	2.8	0.9	27.5

*Percentage of total study population, 6029.

Source: MDS July-September 2005.

Table 2
Distribution of PASSPORT Consumers
Study Group by Level of Impairment

		Incontinence	Cognitive Impairment	Incontinence and Cognitive Impairment
	(Percentages)*	**(Percentages)***	**(Percentages)***	**(Percentages)***
Less than 2 ADL	2.6	-	-	-
Cognitive Impairment	-	-	1.0	-
2 ADL	26.6	4.2	2.3	0.3
3 ADL	26.9	5.5	2.8	0.6
4 ADL	10.3	2.7	2.0	0.7
5 ADL	4.2	1.3	1.6	0.6
6 ADL	1.5	0.7	1.1	0.5

*Percentage of total study population, 12,177.

Source: PASSPORT Information System, October 2005.

assessment is reflected in the low rate of cognitive impairment and incontinence among PASSPORT consumers.

Findings

At the first glance, without any consideration to the degree of frailty of the two populations, the Medicaid program spends on average $55,751 for medical and day-to-day care of a person residing in a nursing home compared to $23,702 for a PASSPORT consumer. As Table 3 shows, the most expensive category among the Medicaid expenditures for nursing home residents is nursing home services, accounting for 86.5 percent of their total Medicaid expenditures. For PASSPORT consumers the cost of home and community-based services plus case management accounts for 56% of their total Medicaid expenditures. The next highest category of service is medication, which at over $5,000 a year, is comparable for both groups. PASSPORT consumers are believed to use hospital and emergency rooms more frequently than nursing home residents do. This choice of health care is reflected in the three Medicaid expenditure categories: inpatient, outpatient hospital and physician services. All are considerably higher for PASSPORT consumers.

Since we are looking at long-stay PASSPORT consumers and comparing that information with nursing home residents in the pursuit of cost neutrality analysis, we are presenting the characteristics of the two populations here again. The age distribution shows that 63.7% of the nursing home long-stay residents in this study are age 80 or older, compared to almost an equal proportion of the PASSPORT consumers (62.7%) who are under age 80 (Table 4). On average, nursing home residents are more than 5 years older than PASSPORT consumers. PASSPORT consumers are more likely to be female (80% versus 76%), more likely to be non-white (26.5% versus 16.2%) and more likely to be married (18.6% versus 14.0%) than nursing

Table 3
Medicaid Expenditures for PASSPORT Consumers and Nursing Home Residents, Per-Person, Per-Year
October 2004-September 30, 2005

Outcome Variables	Nursing Home (dollars)	PASSPORT (dollars)
Inpatient Hospital	289	1,065
Outpatient Hospital	157	511
Nursing Home	48,244	552
Home Health	-	856
Physician	284	692
Medical Equipment	438	670
Hospice	343	397
Home and Community-Based Services	N/A	12,179
HCBS Care Management Expenditures	N/A	1,194
Prescription Medication	5,398	5,071
Other	599	515
Overall Health and Long-Term Care Medicaid Expenditures	55,751	23,702

Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services.

home residents. As shown in Tables 1 and 2, on average the nursing home population is more impaired than PASSPORT consumers in activities of daily living, with 4.4 ADL impairments on average versus 3.0, and a higher proportion are incontinent (65.5% versus 17.6%) and are more often cognitively impaired (70.7% versus 13.5%), as shown in Table 5.

Next, we will examine Medicaid expenditures for each population by the populations' level of impairments. Average annual Medicaid expenditures for each population by category of

Table 4
Comparison of the Demographic Characteristics of
Ohio's 60+ Medicaid Nursing Home Residents and PASSPORT Population[*]
September 30, 2005

	Medicaid Nursing Home Residents (Percentages)[*a]	PASSPORT Consumers (Percentages)[*a]
Age		
60-64	5.1	8.7
65-69	7.7	16.2
70-74	9.4	17.5
75-79	14.2	20.3
80-84	20.2	17.8
85-89	21.5	11.5
90-94	14.4	6.0
95+	7.5	2.0
Average Age	82.4	77.1
Gender		
Female	76.1	80.4
Race		
White	83.8	73.5
Marital Status		
Never Married	15.1	6.4
Widowed/Divorced/Separated	70.9	75.0
Married	14.0	18.6
Population	6,029	12,177

[*]Both populations had received Medicaid reimbursed long-term care services for at least a year.

[a]Percent of valid responses.
Source: MDS 2.0 July-September 2005.
PASSPORT Information Management System October 2005.

Table 5
Comparison of the Functional Characteristics of Ohio's
60+ Medicaid Nursing Home Residents and PASSPORT Population*
September 30, 2005

	Nursing Home Residents (Percentages)*a	PASSPORT Consumers (Percentages)*a
Needs Assistance in Activities of Daily Living (ADL) [1]		
Bathing	92.9	97.1
Dressing	83.4	64.4
Transferring	70.9	77.2
Toileting	77.1	19.0
Eating	32.4	9.4
Grooming	83.5	34.4
Number of ADL Impairments[2]		
0	5.0	0.4
1	7.8	2.6
2	4.8	33.5
3	6.5	36.1
4	75.9	27.4
Average Number of ADL Impairments	4.4	3.0
Incontinence [3]	65.5	17.6
Cognitively Impaired [4]	70.7	13.5
Average Case-Mix Score	1.8	N/A
Population	6,029	12,177

*Both populations had received Medicaid reimbursed long-term care services for at least one year.

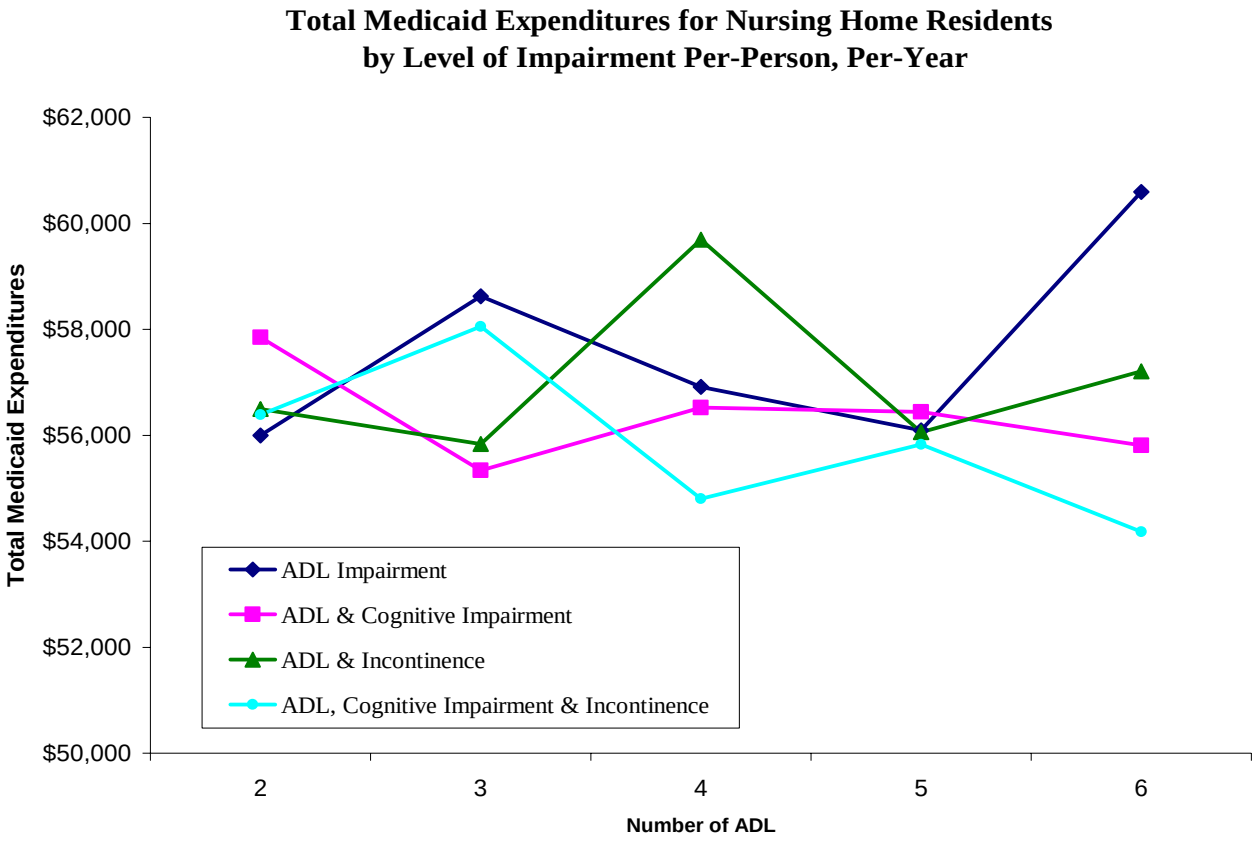
[a]Percent of valid responses.
[1] "Needs assistance" includes limited assistance, extensive assistance, total dependence, and activity did not occur.
[2] From list above.
[3]"Occasionally", "frequently", or "multiple daily episodes" for nursing home residents and conditions pointing to incontinence in PASSPORT consumers medical condition report.
[4]"Moderately" or "severely" impaired for nursing home residents and need for 24-hour supervision for PASSPORT consumers.

Source: MDS 2.0 July-September 2005.
PASSPORT Information Management System October 2005.

expenditures and by levels of impairment are shown in Figures 1 through 6. The lines in these figures represent the average expenditures for individuals with just ADL impairments, ADL in addition to cognitive impairments, ADL and incontinence, or ADL impairments and both cognitive impairment and incontinence. What is evident from Figure 1 is that there is no clear relationship between nursing home residents' total Medicaid expenditures and their levels of impairment. This occurrence is a by-product of the way the Medicaid program in Ohio reimburses nursing homes for the care that they provide. Although nursing home residents have individualized care plans, and receive care based on their needs, the nursing homes are reimbursed based on a formula that among other things (such as the location of the nursing facility to account for labor costs, and the cost of operation) takes into account the facility's average Case-Mix score, a measure (calculated for each resident and then averaged for the facility) that shows how much care a resident needs and the amount of resources that are used to provide that care. As a result, the total Medicaid expenditures for a nursing home resident are not tied to that individual's level of impairment.

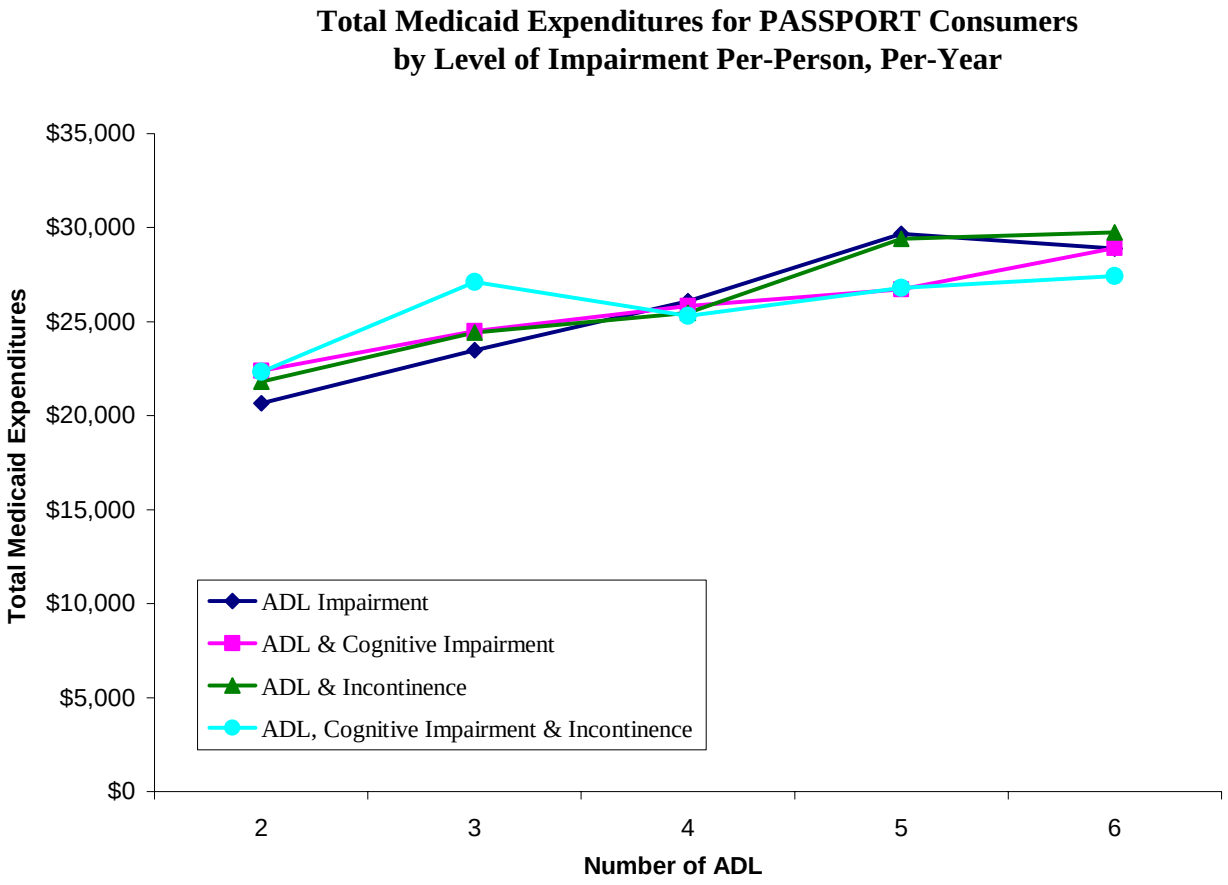
On the other hand, PASSPORT consumers have individualized service plans that cater to their needs, and the array of providers that care for PASSPORT consumers are reimbursed based on the services that they provide for each consumer. Therefore, we do see an association between PASSPORT consumers' total Medicaid expenditures and their levels of impairment. As Figure 2 presents, when the number of ADL impairments increases the total Medicaid expenditures also increases. Interestingly, for those who had two or three ADL impairments, the addition of cognitive impairment and/or incontinence increased the average total Medicaid expenditures, while for those who had a higher level of ADL impairment (four or five), cognitive impairment and/or incontinence lowered the average total Medicaid expenditures.

Figure 1



Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services

Figure 2

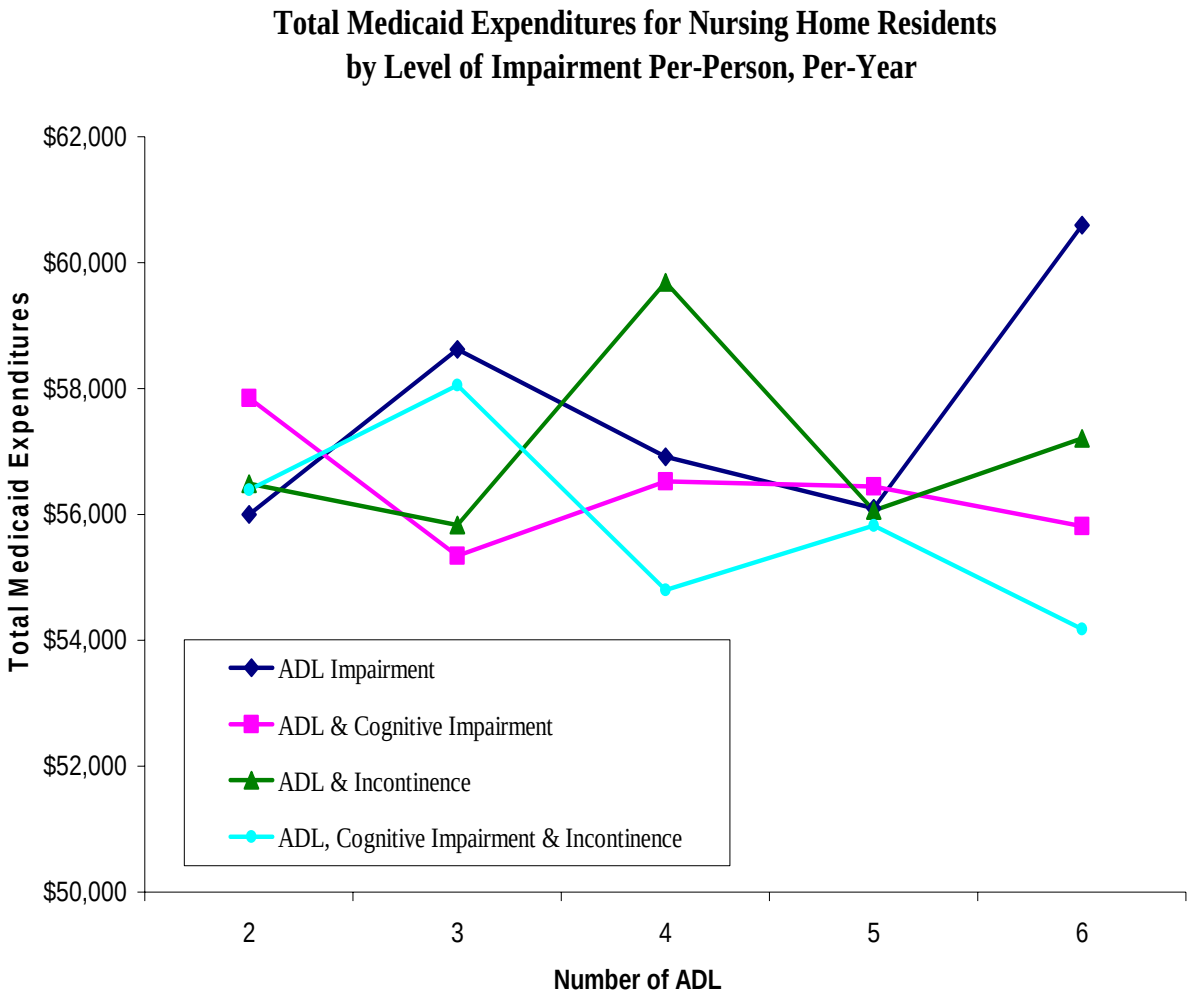


Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services

For both nursing home residents and PASSPORT consumers, the cost of their long-term care services (nursing home care or PASSPORT services) is the major component of their total Medicaid expenditures (86% for nursing home residents and 56% for PASSPORT consumers). Therefore, it is not surprising that Figures 3 and 4 show that the average Medicaid nursing home expenditures and the average PASSPORT expenditures have similar patterns to the total Medicaid expenditures for both groups with one exception. Figure 4 shows that as PASSPORT consumers' levels of impairment increases the cost of services increases as well. This pattern is observed as both the number of ADL impairments increases and as incontinence and cognitive impairments occur in addition to the ADL impairments.

Aside from long-term care service expenditures, one other type of expenditure, the cost of medications, stands out in both groups. On average, 9.7% of the total Medicaid expenditures for nursing home residents and 21.4% of the total Medicaid expenditures for PASSPORT consumers are spent on prescription medications. Figures 5 and 6 reflect medication expenditures by level of impairment. For nursing home residents medication expenditures increased as the number of ADL impairments increased, but residents with either incontinence or cognitive impairment or the combination of the two used less medication as the number of their ADL impairments increased. Rather surprisingly, for PASSPORT consumers, medication expenditures decreased as the number of ADL impairments increased. In addition, those with cognitive impairment on average used fewer prescribed medications. However, those with incontinence on average had a higher level of medication expenditures. Comparisons of all categories of Medicaid expenditures by level of impairment are presented in Tables A-1 to A-5 in Appendix A. One group that has not been discussed here are those nursing home residents

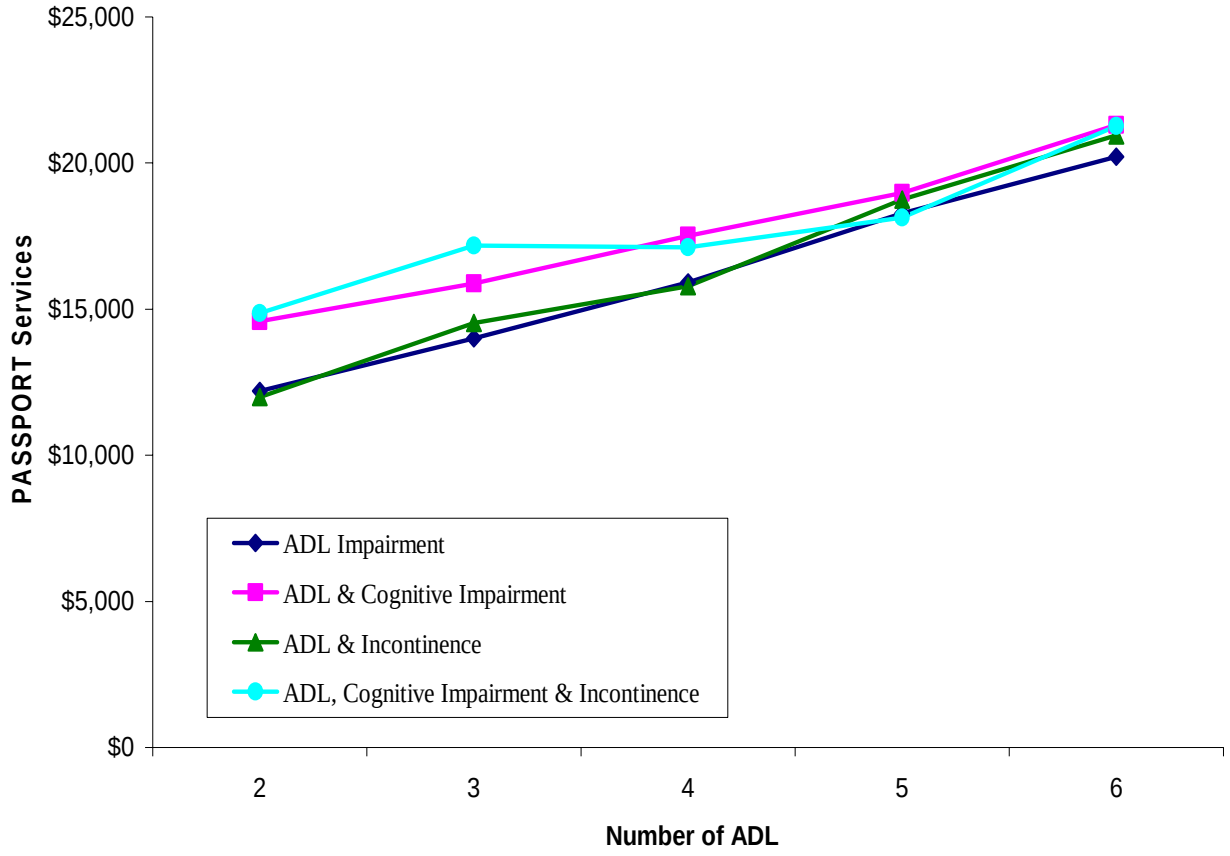
Figure 3



Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services

Figure 4

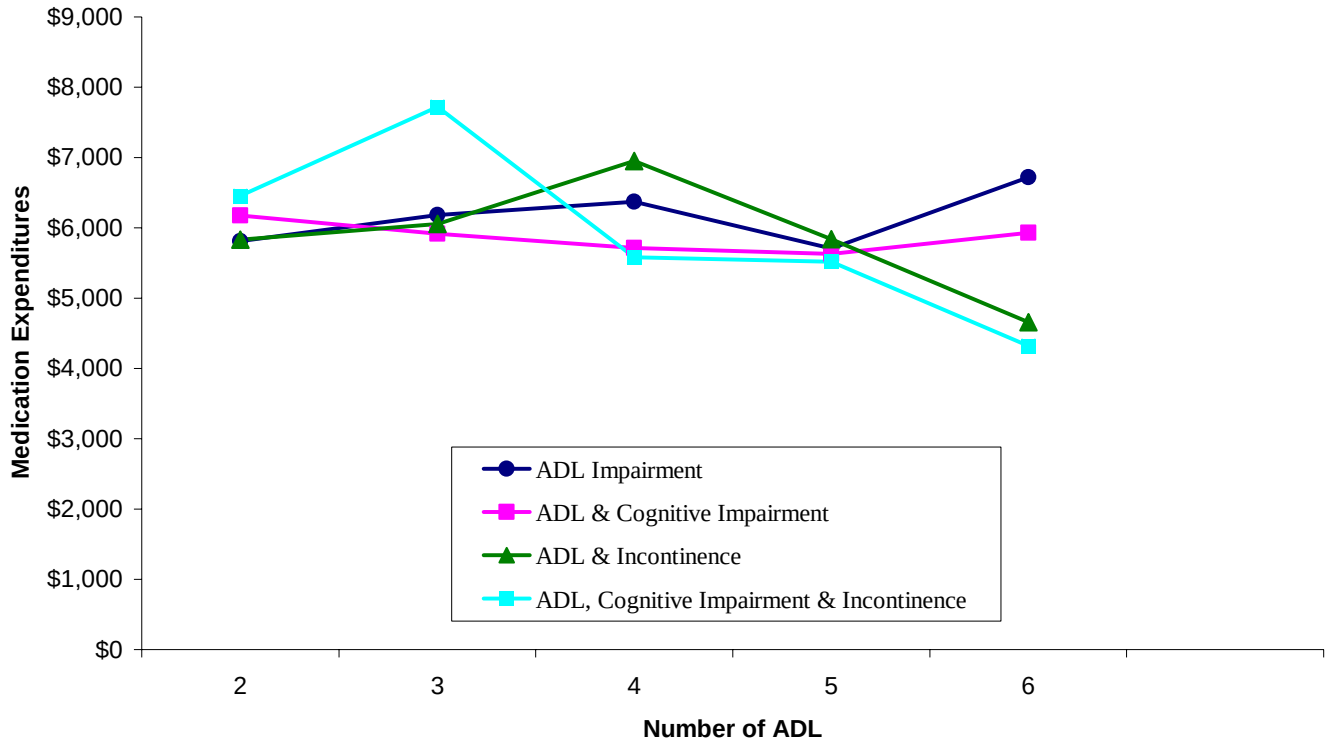
Medicaid PASSPORT Services Expenditures (excluding Case Management) for PASSPORT Consumers by Level of Impairment Per-Person, Per-Year



Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services

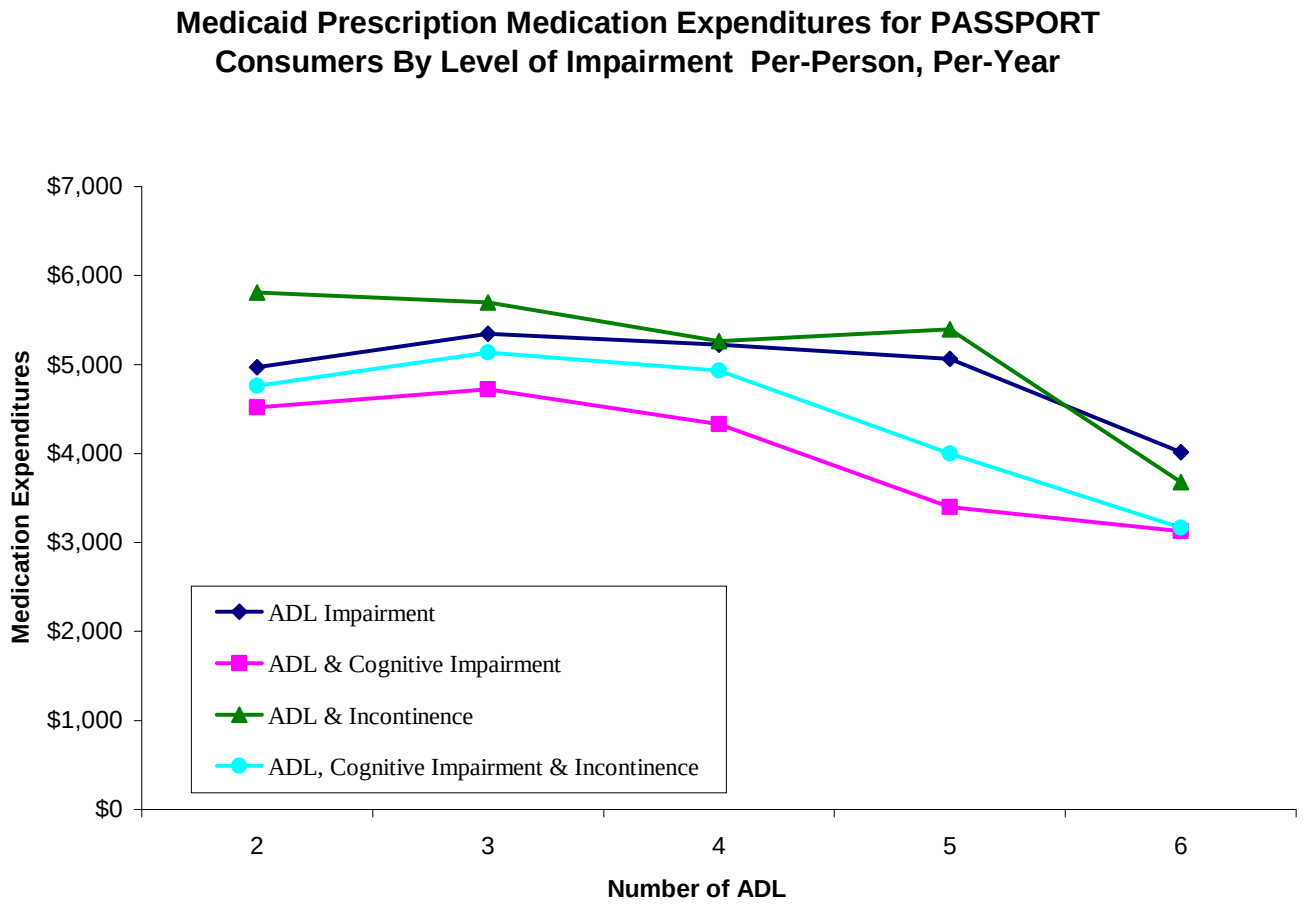
Figure 5

Medicaid Prescription Medication Expenditures for Nursing Home Residents by Level of Impairment Per-Person, Per-Year



Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services

Figure 6



Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services

with just dementia, Alzheimer's disease or cognitive impairment. For this group, the average annual total Medicaid expenditures were $57,021; the nursing home expenditures were $48,750 and the medication expenditures were $6,644. The comparable group in PASSPORT had an average annual total Medicaid expenditures of $23,683; the PASSPORT services expenditures were $13,430 and the medication expenditures were $4,583.

Discussion

On average, it is more than twice as expensive for Medicaid to care for a person in a nursing home as it is to care for a person in the community with PASSPORT services. Our efforts to compare the cost of care for individuals with similar levels of impairment in the two populations were not very fruitful because of the way the Medicaid program reimburses nursing homes. What is evident is that the nursing home population is considerably more impaired and requires additional care on daily basis. Tables 1 and 2 show, that although nursing homes and the PASSPORT program serve individuals with similar impairments, they also each serve two distinct populations at the two extreme ends of impairment. Nursing homes care for individuals age 80 and over who have less family support and higher levels of ADL impairments combined with cognitive impairments and incontinence. Conversely, individuals in the early stages of their long-term care career who are younger, have some family support, are less impaired in both the number of ADLs and cognitive impairments, and are less likely to be incontinent are served in PASSPORT. About 30% of nursing home residents are similar to PASSPORT consumers in terms of their impairment level, and almost an equal proportion of PASSPORT consumers are comparable to nursing home residents. The group of residents with four, five, or six ADL impairments without any cognitive impairment could be found in both settings. If the PASSPORT program expands, it may absorb more of the population with these similar

characteristics, leaving the nursing homes to care for residents with five or more ADL impairments.

Although, it is clearly evident that it is more costly to care for residents/consumers with higher levels of impairment, a true cost comparison by impairment level could not be made because of the way the Medicaid nursing home reimbursement is structured (See Table A1-A5 in Appendix A). Even though, on average, PASSPORT consumers' total Medicaid expenditures are lower than nursing home residents, they use more health care services, particularly in hospitals and emergency rooms, and of course they use home health services.

2. HOW DOES THE TOTAL PUBLIC COST OF MAINTAINING A PASSPORT CONSUMER IN THE COMMUNITY ON PASSPORT COMPARE WITH THE TOTAL PUBLIC COST OF CARING FOR A NURSING FACILITY RESIDENT?

In addition to total Medicaid costs, we examined the total public costs of maintaining a PASSPORT consumer in the community and a resident in a nursing home. Total public costs include all health care costs (Medicare and Medicaid as co-payer); long-term care costs, which encompasses home and community-based care services (HCBS) for PASSPORT consumers and custodial care in nursing homes, and public assistance to support PASSPORT consumers' community living, which could include subsidized housing, food stamps, Older American Act funded services, Supplemental Security Income, Home Energy Assistance, and services funded by local tax levy or other state or county funded programs. For nursing home residents the only public assistance that they may receive is a $40 a month allowance for those who receive Supplemental Security Income because of their age or a disability.

As was stated when we proposed this study, we are not examining health care costs paid by Medicare. That data is only available from the Centers for Medicare and Medicaid Services

(CMS), and given the timeline of this study we could not obtain that data. In our past experiences, when we requested Medicare claims data from CMS, we were granted access to the data after 12 to 18 months of negotiations. However, we are able to make an observation about utilization of services paid by Medicare based on Medicaid expenditures. Since Medicaid was more often the co-payer for Medicare-reimbursed services such as inpatient and outpatient hospital and physician visits, and PASSPORT consumers, on average, use these services more frequently, it is reasonable to assume that PASSPORT consumers' Medicare expenditures are higher than those for nursing home residents on Medicaid.

Methodology

Our goal, initially, was to examine the public costs for all the 12,177 PASSPORT consumers and 6,029 nursing home residents that we studied in the previous section. However, access to consumers' information requires individual's consent. Each individual, upon becoming Medicaid eligible, signs a statement permitting her assessment and her Medicaid utilization information to be used for research and evaluation purposes, but this permission does not extend to accessing other information outside her Medicaid application. Therefore, ODJFS could not provide us with information regarding who is receiving SSI or food stamps and at what cost each month. Rather, since this is a state mandated evaluation, with permission from ODA, the agency overseeing this evaluation project, we recorded that information, one person at the time, from the Medicaid eligibility determination data stored in an automated client eligibility, enrollment, and case management system known as CRIS-E (Client Registry Information System – Enhanced). Because the data gathering process had become unexpectedly very lengthy, we limited the number of individuals for whom we were collecting this additional information to PASSPORT consumers only, since the only public assistance, aside from Medicaid, that some nursing home

residents receive is a monthly allowance of $40 from SSI (Ohio Administrative Code 5101:1-39-24).

The County offices of the Department of Job and Family Services collect and verify the necessary information for determining Medicaid, SSI, and food stamp eligibility. Limitations inherent in the CRIS-E system caused us to find an alternative to creating a database directly from it. We had to obtain clearance to access the CRIS-E system and look up each consumer individually. With consultation from ODA, to limit the study group, we selected a stratified random sample of 1,044 PASSPORT consumers based on the regional case load of the 13 PAAs in proportion to the state's total PASSPORT case load. For reasons that will be elaborated later all consumers in this sample are renters rather than homeowners. For these consumers we established whether each consumer was an SSI and/or food stamps recipient, and if so, how much was the monthly amount of each.

Supplemental Security Income (SSI) — is a federal program which provides monthly benefits to individuals who are disabled, blind, or age 65 and have limited income and resources. To qualify, one must be a U.S. citizen, and reside in U.S. and have no other considerable income. The amount of benefit is adjusted monthly based on the amount and sources of other income one might be earning or receiving. Nationally, close to 60 percent (57.4%) of those receiving SSI are between the ages of 18-64 and a little more than one quarter (27.6%) are age 65 and older. The national average monthly SSI amount for the 18-64 age group was $483 and for the 65 and older age group the average was $385 in January 2006 (SSI Home Page, 2006 Edition).We learned that 33.1% of the 1,044 PASSPORT consumers in the sample were receiving SSI; the average monthly benefit for those receiving SSI was $329. Extending this average monthly benefit to the entire cost study sample, the average monthly SSI was $109 ($1,308 per-year).

Food Stamps — is a federal program administered through the county offices of the Department of Job and Family Services; it is intended to prevent hunger. The amount of monthly food stamps that one receives is based on his/her total income and total expenditures. For the PASSPORT population the types of income considered is Social Security Income, SSI, pension, alimony, and any wages if one is working. Among expenditures are non-reimbursable medical costs over $35, and all costs associated with housing and utilities. For families with an older and/or disabled person, or families who are receiving SSI to receive food stamps, they must first meet the net monthly income ceiling test, which is $817 for a single person and $1,100 for a couple. The federal government has determined that a household should spend about one third of its net income on food. The cost of a thrifty food plan that meets the National Academy of Sciences' dietary recommendation for one person is estimated to be $155 a month and for a couple to be $284. If one third of an individual's net income (all incomes minus all expenses listed above) is less than the value of the thrifty food plan, a food stamp card for the difference will be issued to that person for that month (Ohio Association of Second Harvest Food Banks, 2007; Food and Nutrition Services, USDA, 2007). Among the 1,044 PASSPORT consumers, 42% were receiving food stamps. The average monthly food stamp allowance for these consumers was $49. The per-person, per-month amount extended to the entire sample was $20.60 ($247 per-year).

Housing Assistance — Individuals can receive one of two forms of federal housing assistance: housing voucher or rental subsidy. Eligibility for a housing voucher is based on an individual's (or family's) gross income and family size. To be eligible, the applicant's income may not exceed 50% of the county's median income; in fact 75% of the vouchers are reserved

for those with an income of 30% or below the median income of the county or the metropolitan area (U.S. Department of Housing and Urban Development, 2007).

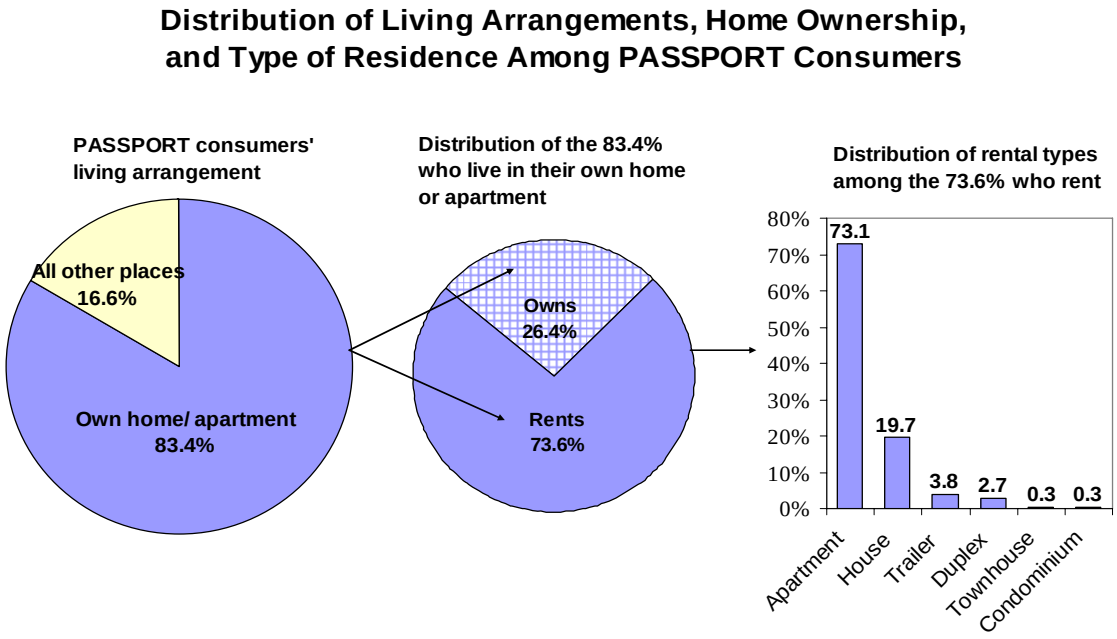
The other form of housing assistance is rental subsidy; older people with income between 50 to 80% of the county or metropolitan area's median income (Ohio State Bar Association, 2007) are entitled to this benefit. The amount of the monthly rental assistance is usually equal to the gross rent minus 30% of the consumer's monthly adjusted income.

Before presenting information regarding housing assistance that PASSPORT consumers received, it is appropriate to describe the living arrangement of PASSPORT consumers (all 26,079).

Not all PASSPORT consumers lived on their own; in fact, almost 17% lived with a family member or friend or lived in another type of housing arrangement. But more than four out of every five PASSPORT consumers lived on their own as Figure 7 shows. From those who lived on their own about one quarter (26.4) owned their housing unit, the rest were renting, which amounts to 61% of the total PASSPORT population. Apartments were the most common type of rental housing (73.1%) among PASSPORT consumers.

Originally, we intended to determine who among the PASSPORT consumer renters were receiving housing assistance. We had hoped that Ohio's Metropolitan Housing Authorities could provide that information to us. However, we learned that there are 75 different housing authorities in Ohio that function independently. Our first inquiry with 15 metropolitan housing authorities revealed two important factors. First, the housing authorities did not know who among their renters were PASSPORT consumers. Second, they were not willing to attempt to match the PASSPORT consumers' identifying information with their renters' database. This required us to rethink the process of collecting information regarding housing assistance. In our

Figure 7



Source: PASSPORT consumers with an active service plan during October 1, 2004 to September 30, 2005. PASSPORT Information Management System (PIMS).

inquiries to ODJFS and ODA we learned that although both agencies collect information about whether the consumers is renting and receiving rental assistance, these data were not complete and were not verified for accuracy, therefore, neither one of those two sources were ideal alternatives. Even though in the original design of this study there was no plan to contact PASSPORT consumers directly, we were left with no other option. For this purpose, we selected a random sample of 1,044 PASSPORT consumers who were identified as renters (thus, the sample for all other non-Medicaid public assistance is limited to renters) and were due for reassessment between May and July 2006. The sampling took into account the timing of the reassessment so the case managers could ask the few questions regarding rent and rental assistance during their reassessment without major impact on the consumers. The sample was

proportionally distributed across the state based on each PAA's caseload in relation to the entire PASSPORT population.

Of the consumers who we sought information about their rent, 23.8% did not respond or were not reachable for a variety of reasons. Most notably, 21.3% had died; 36.4% had disenrolled or withdrew; 6% moved to a nursing home; and 9.8% simply declined to answer our inquiry. From the remaining 76.2% who responded, more than one half (55.8%) were receiving housing assistance, although only 46% of them knew the actual amount of assistance. On the other hand almost all (95%) of those who were receiving assistance knew how much ***they*** were paying toward their rent and the remaining 5% mentioned that they pay 30% of their income as rent. Since we had information about rental assistance from less than one half of those who were receiving such assistance we felt compelled to search for additional sources of information. This time we contacted the Metropolitan Housing Authorities and asked about fair market rental value for a one-bedroom apartment in each of the 88 Ohio counties. The combination of the fair market rental value and the amount the consumers reported as their contribution toward rent gave us an approximation for the housing subsidy. On average, the monthly rent for a one-bedroom apartment in Ohio was $518, and the consumers, on average, contributed $218 toward that rent. The average monthly rental subsidy for consumers in the PASSPORT program who received such assistance was $300. Taking into account those who owned their home and those who lived with a friend or family member in addition to those who did not receive any assistance, only about one third of the PASSPORT consumers (34.25%) received housing assistance. Extending this average monthly rental subsidy to the entire cost study sample, the per-person, per-month amount was about $103 ($1,234 per-year).

Home Energy Assistance Program (HEAP) — HEAP and E-HEAP are federally funded programs designed to assist low-income individuals or families with their regular winter heating expenditures or in emergency situations in the case of unusually cold winters or hot summers. Families with income at or below 175% of the federal poverty income threshold are eligible to receive this assistance whether they own their residence or rent. The program is administered by the office of Community Programs at the Ohio Department of Development.

The HEAP application contains identifying information that could be matched with the information in the PIMS database. A list of PASSPORT consumers during the study period (all 26,079) were given to Ohio Department of Development and were asked to identify which ones received HEAP or E-HEAP assistance during the study period. To have information for the same individuals for all non-Medicaid public assistance we only utilized the HEAP and E-HEAP data for the 1,044 consumers in this analysis. Only 7.6% of 1,044 PASSPORT consumers received HEAP or E-HEAP assistance. The average combined HEAP and E-HEAP level of assistance was $12.50 a month ($149 a year). Extending the HEAP dollars to the entire cost study sample, the per-person, per-month amount was less than a dollar a month ($11.30 a year).

Older American Act Funded Services — Older Americans Act (OAA) programs were designed to assist older people to remain independent and at home. OAA provides grants to Area Agencies on Aging to identify needs in their community. Some of the services provided to older people residing in the community, whether they are homebound or not, include nutritional programs, transportation, activities promoting health and disease prevention, and in-home services for people with disability. The eligibility determination, although not very specific, concentrates on helping individuals with the greatest social and economic needs and on low-income minorities. The National Caregiver Family Act is a more recent addition to OAA to

support those who provide care for an older family member. Often, the local community has to provide a matching fund; in Ohio the matching rate ranged from 15% to 30%. In counties with a property tax levy to support older people in the community some of the tax levy funds were used as match; other places did local fund raising.

To determine what proportion of the PASSPORT consumers are receiving services paid for by OAA we surveyed all 13 PASSPORT Administrative Agencies. Through our interviews we learned that except in special circumstances the Ohio's policy is to reserve these services for those individuals that do not meet Medicaid eligibility. In few cases did PASSPORT consumers receive OAA services (from 1 to 3% of the entire PASSPORT caseload). Only special circumstances allowed this to occur, such as the consumer had received meals on wheels and was happy with that provider and wished to continue after enrolling in PASSPORT, or the consumer arranged for transportation directly without their case manager's knowledge. In some PAAs PASSPORT consumers' families receive literature and printed material generated with the National Family Caregivers' Act fund. The PAAs were not able to provide cost estimates for OAA services because these services were not under their jurisdiction, they were not involved in the pricing of them, and they generally considered the value of the OAA Services that a few PASSPORT consumers received as negligible.

While we were inquiring about OAA funded services we learned about home repair, funded through a program called Housing Trust from the Ohio Department of Development. The Housing Trust dollars are not distributed among counties consistently. In some counties the Area Agencies on Aging in the region used funds to repair or make modifications to the houses of low income elderly people. In other counties other agencies handled the funds and they were not able to identify who among the beneficiaries were PASSPORT consumers. Generally, there is limited

funding available and the funds are reserved for those who do not receive care through PASSPORT. We estimate that less than 2% of PASSPORT consumers received housing repair or modification assistance from the Ohio Department of Development housing trust fund. When assistance was given its value ranged from $850 to $5,000 per-person. Consumers in most cases need to be homeowners to receive this assistance. The eligibility for this assistance was based on income, and in most cases this was a one time only service or it was provided once every three or five years. Extending the housing repair assistance to the entire cost study sample, the per-person, per-month amount was $2.50 ($30 a year).

A few PASSPORT consumers received reduced-rate public transportation (i.e., rides from certain local or county level programs). The number of clients and the amount of assistance was negligible.

Adding up all non-Medicaid public assistance that PASSPORT consumers received, and averaging it over all PASSPORT consumers rather than just those who received a particular form of assistance, we found that, on average, PASSPORT consumers received $2,830 a year, per-person, in non-Medicaid public assistance, compared to $480 a year, per-person, for nursing home residents who received SSI. We did not determine what proportion of nursing home residents were receiving SSI.

Limitations

Based on the findings in this study, on average the total public cost (excluding Medicare) of caring for a person with disability in nursing home is more than twice the cost of caring for such a person in the community, however, several issues limited our efforts. We had hoped to compare the Medicaid cost of care for a person in a nursing home and a person in PASSPORT based on their degree of frailty and their care needs. But that was not possible because of the way

Medicaid reimbursement rates are set in Ohio. Given that about 30% of the PASSPORT consumers and nursing home residents have very similar characteristics it would have been very useful to provide a cost comparison between these two particular groups.

Although by inference we were able to make an observation about the utilization of Medicare reimbursed services by nursing home residents and PASSPORT consumers, it would have been much more helpful if we had access to Medicare billing data since we could have calculated the dollar amount of per-person, per-year Medicare expenditures for each of these two populations.

Because of the PASSPORT assessors and case managers' priorities when completing assessments, many of the PIMS fields (screens) regarding need for supervision and detail on the consumers' health conditions were left blank, we had no choice but to treat the blank fields as an absence of the condition. As a result, the PASSPORT consumers are represented with a lower impairment level than they actually have. Review of the assessment notes for a limited number of consumers, for another part of this evaluation, revealed that sometimes the assessors only complete the fields necessary for determining level of care and skip others, at least initially. An effort to complete the entire assessment would reflect the true extent of the PASSPORT consumers' impairments. We suspect, based on assessment notes, that there is a larger overlap between the nursing home residents and PASSPORT consumers' level of impairment than the 30% that we observed.

For extracting other public information we were faced with challenges. There was not a single source that had all the information, therefore we had to identify which source had what we needed and negotiate with different agencies or organizations for these data; the CRIS-E system which identifies and determines the amount of SSI and food stamps that each consumer is

eligible for is not user friendly. If there was a single system with all the information on each Medicaid client we would have been able to make a non-Medicaid public expenditures determination for the entire PASSPORT and nursing home population.

When we learned that we would not be able to get information on housing assistance from the Metropolitan Housing Authorities, we selected a sample of renters to survey regarding the housing subsidy. As the evaluation progressed we learned that we would not be able to have SSI and food stamp information for all the PASSPORT consumers. In order to have complete information for at least one sample of consumers we continued to use the renters' sample. Since home ownership is highly desired in American society, presumably those who are renting in their later years never had adequate income to save for a down payment and/or mortgage payments. This may have been a limitation to our study and may have caused an over estimation of the non-Medicaid public costs of maintaining a person in the community, given that the sample was probably selected from the lowest income segment of a low income population.

Recommendations

For extracting information about other public assistance that PASSPORT consumers received we were faced with two challenges: a) there was not a single source that had all the information, therefore we had to identify each source and negotiate with different agencies or organizations for the information; b) the CRIS-E system, which identifies and determines the Medicaid client's financial eligibility, is not a user friendly system, and some of the work in determining eligibility was done behind the scenes on paper, which was inaccessible. Since older people with impairments are a vulnerable population with many limitations it would be to the consumers' advantage to have a single system that keeps track of all the programs and services in which they are enrolled. This would reduce the need for repeated efforts by consumers to

complete yet another application for a program. An integrated data system would also allow program staff as well as researchers to examine a variety of questions about the program including the complete cost of caring for a person with disability in the community.

REFERENCES

Applebaum, R., and Davis, S. (2000). Long-term care-off to the races: But does anyone know where the finish line is located. Review Essay. *The Gerontologist, 40(3)*:377-9.

Applebaum, R., and Mehdizadeh, S. (2001). *Long-term care in Ohio: A longitudinal perspective.* Oxford, OH: Scripps Gerontology Center, Miami University.

Applebaum, R., Mehdizadeh, S., & Straker, J. (2000). *Ohio's long-term care system: Trends and issues*. Oxford, OH: Scripps Gerontology Center, Miami University.

Food and Nutrition Services, USDA (2007). Retrieved March 20, 2007 from *http://www.foodstamps-step1.usda.gov*

Kemper, P., Applebaum, R., & Harrigan, M. (1987). Community care demonstrations: What have we learned? *Health Care Financing Review, 8(4)*: 87-100.

Mehdizadeh, S., and Applebaum, R. (2003). *A ten-year retrospective look at Ohio's long-term care system.* Oxford, OH: Scripps Gerontology Center, Miami University.

Mehdizadeh, S., and Applebaum, R. (2005). *An overview of Ohio's in-home service program for older people (PASSPORT).* Oxford, OH: Scripps Gerontology Center, Miami University.

Mehdizadeh, S., Nelson, I., & Applebaum, R. (2006). *Nursing home use in Ohio: Who stays, who pays?* Brief Report. Oxford, OH: Scripps Gerontology Center, Miami University.

Mehdizadeh, S., Applebaum, R., Nelson, I., Straker, J., & Baker, H. (2007). *The changing face of long-term care: Ohio's experience 1993-2005*. Oxford, OH: Scripps Gerontology Center, Miami University.

Mehdizadeh, S., Applebaum, R., Warshaw, G., & Straker, J. (2000). *Health and long-term care use patterns for Ohio's dual eligible population experiencing chronic disability*. Oxford, OH: Scripps Gerontology Center, Miami University.

Ohio Administrative Code 5101:1-39-24 (2007). Retrieved March 13, 2007 from http://onlinedocs.andersonpublishing.com/oh/lpExt.dll?f=templates&fn=main-h.htm

Ohio Association of Second Harvest Food Banks (2007). Retrieved March 29, 2007 from http://www.oashf.org/2006%20FS%20Tool%20Kit/food%20stamp%20tool%20kit%202006.pdf

Ohio State Bar Association (2007). Retrieved March 29, 2007 *http://www.ohiobar.org/pub/lycu/index.asp?articleid=367*

Supplemental Security Income (2006). Retrieved March 20, 2007 from *http://www.ssa.gov/notices/supplemental-security-income/text-understanding-ssi.htm*

U.S. Department of Housing and Urban Development (2007). Retrieved March 29, 2007 from *http://www.hud.gov/offices/pih/programs/hcv/about/fact_sheet.cfm#10*

APPENDIX A

Table A-1
Nursing Home and PASSPORT Medicaid Expenditure Comparison
By Level of Impairment in Activities of Daily Living and Other Conditions
Per-Person, Per-Year
October 1, 2004-September 30, 2005

Expenditures	2 ADL		2 ADL and Incontinence		2 ADL and Cognitive Impairment		2 ADL, Cognitive Impairment, and Incontinence	
	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT
Total	**$55,997**	**$20,660**	**$56,490**	**$21,803**	**57,852**	**$22,384**	**$56,387**	**$22,336**
Nursing Facilities Reimbursement	48,437	346	49,594	478	49,994	852	48,658	58
PASSPORT Services	-	9,917	-	9,715	-	12,300	-	12,586
PASSPORT Case Management	-	1,194	-	1,194	-	1,194	-	1,194
Medication	5,812	4,972	5,832	5,808	6,174	4,515	6,454	4,762
Hospital	651	1,635	248	1,592	734	945	549	728
Physicians and Supplies	1,098	2,596	818	3,016	948	2,578	724	3,008
No. of Residents/ Consumers in group	83	3,235	20	505	157	278	30	34

Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services.

Table A-2
Nursing Home and PASSPORT Medicaid Expenditure Comparison
By Level of Impairment in Activities of Daily Living and Other Conditions
Per-Person, Per-Year
October 1, 2004-September 30, 2005

Expenditures	3 ADL		3 ADL and Incontinence		3 ADL and Cognitive Impairment		3 ADL, Cognitive Impairment, and Incontinence	
	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT
Total	**$58,626**	**$23,477**	**$55,833**	**$24,425**	**$55,340**	**$24,494**	**$58,056**	**$27,110**
Nursing Facility Reimbursement	49,039	459	48,108	440	48,095	773	48,995	1,132
PASSPORT Services	-	11,720	-	12,241	-	13,595	-	14,899
PASSPORT Case Management	-	1,194	-	1,194	-	1,194	-	1,194
Medication	6,184	5,343	6,057	5,700	5,915	4,724	7,720	5,136
Hospital	1,105	1,840	556	1,374	453	1,630	253	1,026
Physicians and Supplies	2,298	2,921	1,112	3,476	876	2,578	1,088	3,723
No. of Residents/ Consumers in group	76	3,280	23	671	219	341	73	72

Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services.

Table A-3
Nursing Home and PASSPORT Medicaid Expenditure Comparison
By Level of Impairment in Activities of Daily Living and Other Conditions
Per-Person, Per-Year
October 1, 2004-September 30, 2005

Expenditures	4 ADL		4 ADL and Incontinence		4 ADL and Cognitive Impairment		4 ADL, Cognitive Impairment, and Incontinence	
	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT
Total	**$56,917**	**$26,092**	**$59,691**	**$25,459**	**$56,522**	**$25,843**	**$54,803**	**$25,321**
Nursing Facility Reimbursement	47,039	647	50,921	710	49,095	812	47,998	745
PASSPORT Services	-	13,638	-	13,499	-	15,240	-	14,830
PASSPORT Case Management	-	1,194	-	1,194	-	1,194	-	1,194
Medication	6,371	5,225	6,950	5,262	5,710	4,331	5,577	4,931
Hospital	1,251	2,168	549	1,663	576	1,695	336	925
Physicians and Supplies	2,254	3,220	1,270	3,131	1,141	2,571	893	2,696
No. of Residents/ Consumers in group	62	1,252	33	331	162	248	216	90

Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services.

Table A-4
Nursing Home and PASSPORT Medicaid Expenditure Comparison
By Level of Impairment in Activities of Daily Living and Other Conditions
Per-Person, Per-Year
October 1, 2004-September 30, 2005

Expenditures	5 ADL		5 ADL and Incontinence		5 ADL and Cognitive Impairment		5 ADL, Cognitive Impairment, and Incontinence	
	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT
Total	**$56,097**	**$29,674**	**$56,061**	**$29,410**	**$56,443**	**$26,720**	**$55,822**	**$26,792**
Nursing Facility Reimbursement	47,833	1,106	47,432	1,003	48,523	1,544	48,446	1,567
PASSPORT Services	-	16,000	-	16,471	-	16,694	-	15,852
PASSPORT Care Management	-	1,194	-	1,194	-	1,194	-	1,194
Medication	5,706	5,065	5,839	5,396	5,629	3,398	5,518	3,997
Hospital	606	2,415	922	1,604	810	1,359	423	1,153
Physicians and Supplies	1,951	3,894	1,868	3,742	1,481	2,531	1,436	3,029
No. of Residents/ Consumers in group	219	508	311	158	337	194	1,337	72

Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services.

Table A-5
Nursing Home and PASSPORT Medicaid Expenditure Comparison
By Level of Impairment in Activities of Daily Living and Other Conditions
Per-Person, Per-Year
October 1, 2004-September 30, 2005

Expenditures	6 ADL		6 ADL and Incontinence		6 ADL and Cognitive Impairment		6 ADL, Cognitive Impairment, and Incontinence	
	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT	Nursing Home	PASSPORT
Total	**$60,595**	**$28,882**	**$57,205**	**$29,754**	**$55,810**	**$28,915**	**$54,181**	**$27,431**
Nursing Facility Reimbursement	52,241	630	49,207	384	47,157	816	47,477	256
PASSPORT Services	-	17,935	-	18,667	-	19,016	-	18,987
PASSPORT Care Management	-	1,194	-	1,194	-	1,194	-	1,194
Medication	6,723	4,016	4,656	3,678	5,928	3,128	4,321	3,165
Hospital	267	1,210	691	1,335	633	1,890	398	727
Physicians and Supplies	1,364	3,897	2,651	4,496	2,092	2,871	1,985	3,102
No. of Residents/ Consumers in group	25	186	167	81	56	130	1,655	66

Source: Medicaid Administrative Claims Data, Decision Support System, Office of Health Plans, Ohio Department of Jobs and Family Services.