# Scripps Gerontology Center Scripps Gerontology Center Publications

Miami University

Year 2000

# Ohio's long-term care system: trends and issues

Robert Applebaum\* Shahla Mehdizadeh<sup>†</sup>

Jane Straker<sup>‡</sup>

<sup>\*</sup>Miami University, commons@lib.muohio.edu

 $<sup>^\</sup>dagger \mbox{Miami University, commons@lib.muohio.edu}$ 

 $<sup>^{\</sup>ddagger}$ Miami University, commons@lib.muohio.edu

This paper is posted at Scholarly Commons at Miami University.

# OHIO'S LONG-TERM CARE SYSTEM: TRENDS AND ISSUES

Robert Applebaum Shahla Mehdizadeh Jane Karnes Straker

Scripps Gerontology Center Miami University January, 2000

### Acknowledgments

A number of people provided valuable assistance with this project. Sonia Liou, our research assistant at the Scripps Gerontology Center, spent countless hours comparing PAR data from different PAAs for system compatibility and tracking changes in nursing home names and locations. Betty Williamson prepared numerous versions of tables and the report and Roland Hornbostel at the Ohio Department of Aging provided valuable support and advice during the course of the study. We also appreciate his valuable comments on an earlier version of this report.

#### Scripps Gerontology Center Research Project Findings Miami University, Oxford, OH

## Ohio's Long-Term Care System: Trends and Issues Robert Applebaum, Shahla Mehdizadeh, Jane Karnes Straker

In both Ohio and the nation, long-term care has become a major component of the budget. In order to increase long-term care choices and slow the growth of expenditures, a number of changes to the long-term care system were implemented in 1993. These changes included a nursing home moratorium, pre-admission review for long-term care consumers, and an expansion of the PASSPORT program. Based on data gathered from nursing homes, the Ohio Department of Health, and the Ohio Department of Aging, this study examines changes in utilization of community-based and institutional long-term care since 1993.

#### **Key Findings:**

- The rate of utilization for home-based services has increased since 1993, while the proportion of persons 65 and over utilizing nursing home care has declined.
- Many nursing home stays are short term.
- Overall occupancy rates in Ohio nursing homes have declined since 1992. Nursing homes were 91.9% occupied in 1992, compared to 87.7% in 1997. About 1 in 5 nursing homes have occupancy rates below 80%.
- Nursing home Medicaid occupancy has declined from 67.4% in 1992 to 61.8% in 1997.
- Medicare occupancy has increased from 9.9% in 1992 to 20.9% in 1997.
- Nursing home residents show increased levels of impairment since 1993. Higher proportions of Medicaid residents are cognitively impaired or incontinent, and the average number of impairments in activities of daily living has increased from 4 to 4.4.
- Higher proportions of nursing home residents are under age 65, married, and non-white. These changes are reflective of increased short-term post-acute stays in nursing homes.
- The number of residential care facility beds has almost doubled between 1995 and 1997, primarily due to the growth in assisted living.
- PASSPORT clients show increased levels of impairment between 1993 and 1994, and relatively constant levels of impairment since then. However, the proportion impaired in bathing has increased from 85% of the clients in 1993 to 97% in 1998.

#### **Policy Implications:**

- The 1993 expansion of home care and the development of pre-admission review were designed to alter the way that long-term care was provided in the state. Evidence reported here suggests that Ohio is beginning to shift previous utilization patterns. Home care is increasingly being used as an alternative to institutional care for some older people. On the other hand, increased use of nursing homes as an alternative to hospitalization is shifting acute care costs to the chronic care arena.
- Public funding of assisted living/residential care, further expansion of the home care system, and integration strategies for acute and long-term care are important areas for future policy and system development.

#### **Conclusions:**

The relatively flat growth in the older population for the next 10-15 years provides a window of opportunity to create a rational long-term care system. This study provides evidence that policy change can effect system change. Challenges must be faced now to ensure that the long-term care system can meet the needs of the increased older population after 2015.

This research was funded under a contract with the Ohio Department of Aging to the Scripps Gerontology Center, Miami University, Oxford, OH. Reprints available from the Scripps Gerontology Center, (513) 529-2914; fax (513) 529-1476; http://www.cas.muohio.edu/~scripps/

#### **Background**

In recent years Ohio, along with the nation as a whole, has experienced an unprecedented demographic revolution. As a result of major public health, environmental, and medical advances, life expectancy has increased dramatically. With about one and one-half million individuals over 65, Ohio ranks seventh nationally in the number of older people. The population of older people over age 85 has grown to approximately 150,000, with over 50,000 Ohioans age 90 or above. Although such increases are positive, one negative side effect is an increase in the number of people living longer with chronic conditions. Because advancing age increases the likelihood of disability, the projected growth of Ohio's 85 and over population has important implications for future long-term care spending and policy making.

In both Ohio and the nation, long-term care has become a major component of the budget, with national public expenditures totaling over \$85 billion in 1998. Medicaid, the federal/state program that is the primary funder of long-term care, has increased from \$14 billion in 1982 to \$59 billion in 1998. Ohio's cost increases mirror national trends, with Medicaid expenditures on nursing facilities rising from \$651 million in 1985 to \$1.78 billion in 1998 and home care expenditures increasing from \$20 million in 1985 to approximately \$300 million in 1998 (Applebaum, 1997; Burwell, 1999).

Ohio has traditionally relied heavily on institutional long-term care. For example, in 1992 Ohio had 628 nursing home beds per 1,000 persons 85 and above, compared to a national average of 527 beds per 1,000. During the 1980's institutional care grew rapidly, with the number of nursing home days of care increasing by 47%. Only 10 other states had higher growth during this time period (Kane, Kane, & Ladd, 1998).

These increases in public institutional expenditures and a rising older population have resulted in a series of legislative efforts designed to alter the delivery and financing of long-term care in the state. Through a continuous expansion of Ohio's participation in the Medicaid home and community-based care waiver, efforts are being made to shift some of the long-term care provided from an institutional to an in-home care setting. For example, expenditures on Ohio's home and community-based care Medicaid waiver program (PASSPORT) have increased from \$5 million in 1987 to \$103 million in 1995 to \$189 million in 1999 (Applebaum, Mehdizadeh, Straker, Pepe, 1995; ODA, 1999). Ohio's PASSPORT program served approximately 15,000 older people with disabilities in 1995 and about 23,000 older people in 1999.

Accompanying the home care expansion are state efforts to control public expenditures on nursing homes. In 1993 the state enacted a Medicaid moratorium that prevents the construction of a new bed if it increases the Medicaid bed supply within the state. The state also passed a requirement that beginning in 1993 all applicants to Ohio Medicaid certified nursing homes receive a pre-admission review before entry, and Medicaid recipients that do not meet the eligibility criteria are not admitted (Applebaum et al., 1995). To help control expenditures the state also altered its method of nursing home reimbursement, shifting to a prospective system of payment. In combination these efforts were designed to both control and shift Medicaid long-term care expenditures in the state.

How have these changes affected the provision of long-term care in Ohio? Has, for example, the expansion of in-home care affected nursing home occupancy rates? Have the type of residents in nursing facilities changed? To address these key policy questions we have examined long-term care utilization patterns in Ohio. Through an examination of such key areas as PASSPORT home

care use, nursing home occupancy, admission, and discharge rates, the characteristics of nursing home and home care clients, population rates of long-term care utilization, and use of residential care facilities, this work will examine the provision of long-term care in Ohio. Data for this report will cover the years 1992-1997.

## **Long-Term Care Use in Ohio**

In 1998, Ohio had an estimated 450,000 older people that experienced a chronic disability, with 160,000 of these individuals classified as severely disabled and meeting the criteria for nursing home eligibility (Mehdizadeh, Kunkel, and Applebaum, 1996). Although the provision of long-term care has traditionally been thought of as care in the nursing home, there are a number of settings in which long-term care is now provided. Older people with chronic disability receive care in their own home or the homes of a friend or relative, in congregate care housing, in continuing care retirement communities, in assisted living and other residential care facilities, and in adult care homes. The vast majority of long-term care continues to be provided by family, friends, and neighbors. A Scripps study in Ohio estimated that 170,000 older people with chronic disability received informal care (Mehdizadeh & Atchley, 1992).

Tables 1 - 3 present an overview of the long-term care network of agencies that provide services to older people experiencing a chronic disability: home health agencies, area agencies on aging, and residential care facilities. Despite the long-term care label, in some instances these organizations are delivering short-term care that lasts less than six months. One of the trends of the last decade had been the blurring of the distinction between long-term care and short-term services. For example, in a recent review of nursing home entrants in Ohio, we found that after 3 months over

half of those admitted had been discharged and after 6 months over 62% had been discharged. Similarly, some home health care agencies emphasize short-term rehabilitative services, while others provide assistance for those with chronic disabilities. The area agencies primarily serve a population of chronically disabled older people, but they have also begun to serve clients with short-term needs.

As shown in Table 1, Ohio has over 1,000 home health agencies. The majority (82%) are certified by Medicare, either directly or as satellite agencies (Straker & Applebaum, 1999). The satellite agencies have different names and staff, but operate and are reviewed under an umbrella Medicare certification agreement. The remaining agencies do not require licensure under Ohio law, although the majority of these non-licensed agencies (80%) are reviewed in some fashion, as a result of affiliations or contracts. We estimate that 40 providers (4%), who serve exclusively private pay clients, operate with no review from any private or public entity. There are no systematic data on clients served by these private agencies.

Data from the 1997 annual survey of certified home health agencies indicate that about one-half of the Medicare/Medicaid agencies are proprietary in nature. About one-quarter of home

Table 1
Home Health Agencies in Ohio
1997/1998

<b>Home Health Agencies in Ohio</b>	Number of Agencies
Medicare/Medicaid Certified	475
Satellite Agencies	367
Non-certified or Unlicensed	190
Total	1,032

### **Distribution of Medicare/**

Medicaid Agencies (n=475)	Percent of Agencies
Proprietary Home Care	49.5
Hospital Based	23.4
SNF BASED	4.0
Private non-profit	11.2
Public/county	7.0
VNA	4.9
Total	100.0

Distribution of Non-certified Agencies (n=190)	Percent of Agencies
Affiliated with Hospital, Nursing Home, or Certified Agency	31
Received Public Funds and Some Regulatory Oversight	49
All Private Pay	20
Total	100

health providers are hospital based, a little less than 5% are nursing facility based, and the remainder are community based. Less than 5% of home health agencies are part of the traditional visiting nurses association network (ODH, 1998).

Data on the home health agencies that operate with Medicare certification show that in 1997, about 10% of Ohioans between the ages of 65-84 and almost one-quarter of those over age 85 were visited by nurses, home health aides, or other home health workers (ODH, 1999). Ohio's Medicare reimbursement rate for home health care per visit (\$60) is quite comparable to the federal average

(\$62), although the average number of visits annually (52) is well below the national average of 74 (Bectel and Tucker, 1998; Lamphere, Brangan, Bee, and Semansky, 1998).

Ohio has 12 area agencies on aging plus a contracted agency that perform a pre-admission review function for all applicants to Medicaid long-term care facilities and for in-home services funded under the Medicaid Home and Community-Based Care Waiver program (PASSPORT). The area agencies on aging (see Table 2) use nurse/social work case managers to link an array of in-home services to the 23,000 chronically disabled older people that met the economic and functional eligibility criteria for the program in 1999. The area agencies arrange, monitor, and fund these services through their case management and fiscal units, but all direct services are provided by an array of community agencies.

In addition to formal and informal in-home services, Ohio has a range of facilities that deliver long-term care to the many different people who experience chronic disabilities. This group includes people across the age spectrum that experience physical limitations, dementia or cognitive impairment, mental illness, and developmental disabilities. Although we recognize that long-term care is a critical problem across the life span, this report will focus on services directed toward individuals age 60 and above, as this group accounts for the largest proportion of long-term care expenditures. Table 3 presents the key long-term care facility providers: nursing homes and residential care facilities (which includes rest homes and assisted living facilities).

Table 2
Distribution of Aged Population and PASSPORT Enrollees
by Area Agencies on Aging
1998

Area Agency on Aging	Location	Number of Active PASSPORT Enrollees by Site	Percentage of PASSPORT Enrollees by Site	Percent of Total 65+ Population	Estimated Total 65+ Population
					(1995)
1	Cincinnati	2,297	10.7	12.7	181,674
2	Dayton	1,116	5.2	8.1	112,580
3	Lima	601	2.8	3.3	49,079
4	Toledo	1,674	7.8	8.0	120,338
5	Mansfield	1,052	4.9	5.0	69,652
6	Columbus	1,846	8.6	10.4	147,342
7	Rio Grande	1,997	9.3	4.4	58,448
8	Marietta	644	3.0	2.4	33,210
9	Cambridge	1,674	7.8	4.7	73,560
10A	Cleveland	4,725	22.0	19.6	305,470
10B	Akron	2,125	9.9	11.0	157,728
11	Youngstown	1,138	5.3	7.3	114,412
CSS*	Sidney	<u>580</u>	<u>2.7</u>	<u>3.2</u>	41,634
Total	All Sites	21,469	100	100	1,465,124

Source: PASSPORT MIS system; Mehdizadeh et al.

<sup>\*</sup>Catholic Social Services serves part of the Dayton Region and is the only private agency involved with the administration of PASSPORT services.

Table 3
Long-Term Care Facilities in Ohio, 1997

	RCF	Comb NH/RCF	Nursing Homes	County Homes	Hosp. Based Long-Term Care Unit
Number of Facilities <sup>a</sup>	139	190	743	44	73
<b>Licensed Nursing Home Beds</b> 12/31/97 (Total 97,551) <sup>b</sup>		18,305	72,164	4,019	2,993
Licensed RCF Beds		16,505	72,104	4,017	2,773
12/31/97 (Total 19,427)	8,642	10,761		24	
Mean Number of Beds	0,042	10,701		24	
Nursing Home		96	93	97	43
RCF	62	57	73	—	<del></del>
Location (percent)	02	37			
Urban	69.1	80.7	70.3	39.1	73.3
Rural	30.9	19.3	29.8	60.9	26.7
Ownership (percent) <sup>c</sup>	30.7	17.5	27.0	00.9	20.7
For Profit	77.8	N/A	79.3	0.0	2.5
Not for Profit	20.9	14/11	20.3	4.1	87.5
Government	0.0		0.2	93.9	10.0
Average Daily Charge (dollars) <sup>d</sup>	0.0		٠.ــ	,,,,	10.0
Medicaid	_	112	106	105	144
Medicare		224	226	247	285
NH Private Pay (self)	_	121	113	89	228
NH Private Pay (insurance)	_	204	221	245	272
RCF Private Pay	60	71		53	
Nursing Home Resident Payment		, -			
Source as of 10/14/97 (percent)					
Medicaid		51.9	67.8	57.6	46.2
Medicare		7.6	8.0	3.8	36.5
Private (self and insurance)	91.8	39.1	21.5	25.0	16.5
Number of Residents as of 10/14/97					
Nursing Home (Total 86,630)		16,755	65,575	3,791	509
Res. Care (Total 11,448)	4,905	6,505		38	

**Source:** Annual Survey of Long-Term Care Facilities, Ohio Department of Health, 1997; Licensed LTC Facilities, Ohio, Department of Health, 1999; OSCAR data, 1997, HCFA.

Note: County homes were not required to respond so these categories do not represent the total facilities.

<sup>&</sup>lt;sup>a</sup> OSCAR data were used to define facilities as hospital-based for the total number of beds and facilities by type.

<sup>&</sup>lt;sup>b</sup> Total includes 70 mental health nursing beds that are not include in any of the facility categories.

<sup>&</sup>lt;sup>c</sup> Ownership type was taken from ODH Licensing files, as of Sept. 99.

<sup>&</sup>lt;sup>d</sup> Two facilities reporting rates > \$1000 were excluded.

Generating a count of the number of nursing facility beds is not quite as straightforward as one might assume. Because of remodeling, closures, and the addition and removal of beds for various business reasons the count of beds is subject to some variation. Data from the Department of Health Survey of Long-Term Care Facilities completed in 1997 identified 1,081 long-term care facilities in the state, containing some 97,551 licensed nursing home beds. Adding in the facilities that failed to respond to the ODH survey we estimate that there were 99,302 beds in Ohio in 1997. The state also licenses 19,427 residential care beds. The majority of nursing home beds (74%) are located in 743 facilities licensed as nursing homes. About one in five of the beds (19%) are located in facilities that have both nursing home and residential care beds. A small (3%) proportion of beds are located in 73 hospitals around the state. Just over 4% of nursing home beds are located in 44 county operated facilities.

The residential care facility licensure category includes traditional rest homes and the newly developing assisted living facilities. Current licensure definitions do not differentiate between the two types of facilities. Although assisted living has become a common term in the long-term care industry, Ohio legal language does not define this long-term care setting. More than half of the residential care beds are located in facilities that also contain nursing home beds, with the remaining 45% of the beds in freestanding facilities. Ohio has experienced a considerable expansion in residential care beds, increasing from 10,711 to 19,427 (81%) between 1995 and 1997. The vast majority of the increase in residential care beds has occurred through the growth of the assisted living service option.

Ohio also licenses group facilities that provide personal care to three or more unrelated individuals. Adult care homes are classified into two categories, those serving less than six, and

those serving between six and sixteen individuals. Beginning in 1991 the legislature required these homes to be licensed and in 1995 there were 645 homes with 5,179 beds. A survey of these homes in 1990 found that about three-quarters of the homes had seven or fewer residents (Applebaum & Ritchey, 1991).

The state also licenses beds for mentally retarded individuals, most of whom are under the age of 60. In the vast majority of instances (86%) these beds are located in Homes for the Mentally Retarded (189 homes). Just less than 10% of these beds are located in traditional nursing homes and 5% are located in hospitals.

#### **Nursing Homes in Ohio**

Because the major focus of this report is to examine changes in nursing home utilization, we begin with a profile of the nursing home industry in Ohio in 1997. As noted earlier there are three major types of facilities that house licensed nursing home beds; nursing homes, county homes, and hospital based long-term care units. The key characteristics of these facilities are presented in Table 3. The typical nursing facility in Ohio averages just under 100 beds, with hospital long-term care units being the smallest, averaging 43 beds in size. The majority of nursing facilities are proprietary, with over three-fourths of the nursing homes in this category. Hospital-based units, however, are primarily not-for profit (85%).

Nursing facility charges do vary by payment source and type of facility. The average Medicaid payment in 1997 was about \$110 per day, with a low of \$105 for the county homes and a high of \$144 for the hospital based facilities. Medicare, used for skilled care following a hospitalization, paid on average about \$230 per day, ranging from about \$225 for traditional nursing

homes and combined facilities to \$285 for the hospital based facilities. Private charges at \$115 per day were slightly higher than the Medicaid rates, and again vary by facility type. The rates charged to private insurance carriers are comparable to the Medicare charges, with most of the coverage targeted to the short-term resident.

Medicaid remains a large source of funds for nursing facilities. More than six of ten nursing home residents are funded by the Medicaid program. About one-half of the nursing home residents in combined nursing home/residential care facilities receive Medicaid assistance. Medicare has been increasing as a source of funds for nursing facilities. Over 8% of nursing home residents now use Medicare as a payment source, doubling in the past four years. As expected, Medicare is particularly important for the hospital based facilities, accounting for almost 40% of residents' funding.

### **Evidence of Changes in Nursing Home Utilization**

The expansion of in-home care has been accompanied by an expectation that it would have an impact on nursing home utilization. To assess possible changes in this area, we examine a series of questions concerning nursing home and home care utilization and costs. To address these issues we rely on a range of state data sources including: the Ohio Department of Health Long-Term Care Facility Survey (1992-1997); the Ohio Department of Human Services Nursing Facility Minimum Data Set-Plus (1993-1998); and The Ohio Department of Aging Pre-Admission Review and PASSPORT Management Information System (1994-1998).

## Nursing Facility Admissions, Discharges, and Occupancy Changes

This section addresses the question: What effect does the expansion of home and community based services and the implementation of nursing home pre-admission review have on nursing facility use? To examine this question we use data from Ohio on the Department of Health survey sent annually to licensed nursing facilities. Admissions and discharge information from 1992-1997 are included in our analysis. We chose this time period because a major expansion of home care under PASSPORT and the implementation of pre-admission review occurred in 1993.

To calculate nursing facility occupancy rates it was necessary to identify the number of nursing home beds and to track resident bed days, admissions, and discharges. As shown in Table 4, the total number of adjusted nursing facility beds increased by over 7,750 during the six year time period studied, rising from 91,531 to 99,302. This increase in beds occurred despite a moratorium on bed construction that has been in place in Ohio since 1993. It appears that most of these beds had been in development and had been approved prior to the moratorium. After adjusting the number of beds for temporary changes, such as construction closings, we identified the number of potential bed days in each of the survey years. We next examined the actual days used and then calculated the occupancy rate for Ohio nursing facilities (see Figure 1).

Table 4
Ohio Nursing Facility Admissions, Discharges, and Occupancy Rates: 1992-1997

	1992	1993	1994	1995	1996	1997
Adjusted Nursing Facility Beds <sup>a</sup>						
Total beds	91,531	93,204	94,471	96,579	97,129	99,302
Medicaid certified	80,211	82,207	84,893	82,143	85,289	88,679
Medicare certified	37,389	36,140	38,318	34,280	33,577	34,157
Number of Admissions						
Total	70,879	82,800	87,909	102,723	120,015	129,778
Medicaid certified	17,968	17,542	17,307	18,323	18,136	19,063
Medicare certified	30,359	41,733	49,038	60,572	77,107	80,006
Number of Discharges						
Total	68,195	79,977	84,980	100,309	115,934	126,385
Medicaid certified	23,568	25,466	25,219	26,275	27,018	27,450
Medicare certified	20,443	28,810	35,540	47,294	61,169	66,594
Occupancy Rate (Percent) <sup>b</sup> , <sup>c</sup>						
Total	91.9	90.7	90.3	89.8	87.4	87.7
Medicaid certified	67.4	67.0	66.2	66.6	65.3	61.8
Medicare certified	9.9	12.4	13.6	17.3	20.4	20.9

<sup>&</sup>lt;sup>a</sup> Total beds include private, Medicaid and Medicare certified beds. Because over 30,000 beds are dually certified for Medicaid and Medicare, the individual categories cannot be summed. The total beds' Medicaid and Medicare certified beds are adjusted to account for facilities that did not respond to the survey in each year.

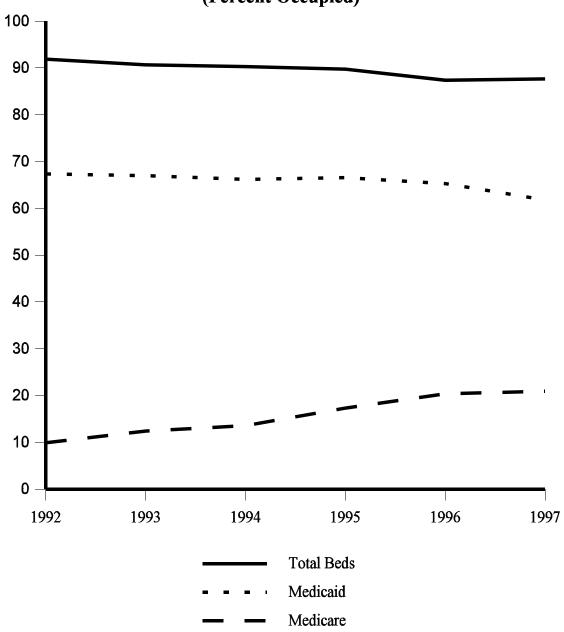
Source: Annual Survey of Long-Term Care Facilities. Ohio Department of Health 1992-1997.

<sup>&</sup>lt;sup>b</sup> The occupancy rate in the last 3 years is based on facilities that did not have ICF-MR certified beds. In facilities with ICF-MR beds all beds are dually licensed, therefore it is impossible to separate Medicaid-IMR residents from other residents.

<sup>&</sup>lt;sup>c</sup> Facilities with occupancy rate of 100.00 or higher excluded.

Figure 1

# Nursing Facility Occupancy 1992-1997 (Percent Occupied)



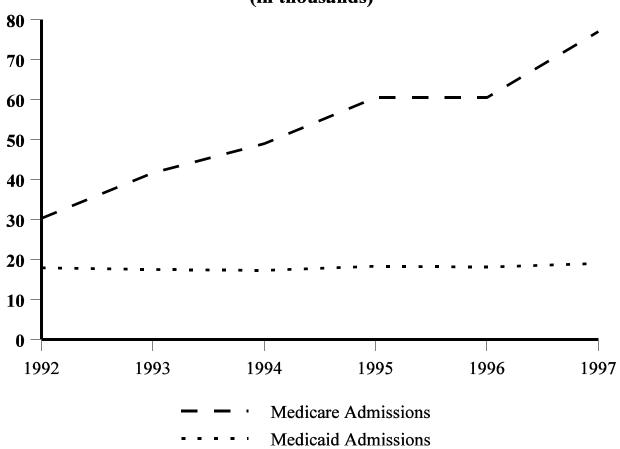
Data show that the occupancy rate of nursing facilities in Ohio has declined over the six year period. In 1992, nursing facilities in Ohio had a 91.9% occupancy rate; 90.7% in 1993, 90.3% in 1994, 89.8% in 1995, 87.4% in 1996, and 87.7% in 1997. The Medicaid occupancy rates show a consistent and more dramatic reduction, going from 67.4% in 1992, to 61.8% in 1997. The Medicare utilization rates actually increase, from 9.9% in 1992, to over 17.0% in 1995, to 20.9% in 1997. During this six year time period the number of severely disabled older people increased by 10,000, suggesting that changes in occupancy rates are the result of more than the increase in bed supply.

Data presented in Table 4 and Figure 2 also highlight some of the admission and discharge trends now occurring in the industry. Reflecting a reduction in the average length of stay, the number of admissions to Ohio's 99,000 beds increased from just under 71,000 in 1992, to over 102,000 in 1995, to about 130,000 in 1997. Almost all of this increase was attributable to Medicare, which recorded about 30,000 admissions in 1992, over 60,000 in 1995, and just over 80,000 admissions in 1997. Discharge rates showed comparable increases.

The reduction in both the overall and Medicaid occupancy rates appears to be consistent with the expansion of long-term care alternatives, and the growth in short-term or sub-acute nursing home care. The increase in Medicare use reflects a national trend in long-term facility efforts to increase reimbursement from that source. The hospital prospective payment system that has reduced the average hospital length of stay has provided the opportunity to increase Medicare's role in financing long-term care facilities. The Balanced Budget Act of 1997 (BBA), was designed to control Medicare nursing home expenditures in response to the considerable increases in use

Figure 2

# Number of Medicare and Medicaid Admissions 1992-1997 (in thousands)



and cost that have occurred over the past six years. To reduce Medicare increases, the BBA of 1997 cut back on the average daily reimbursement for facilities based on expenditures during a specified time period. Industry sources suggest that these cuts will result in some facilities withdrawing from the Medicare program and others curtailing the number of beds they allocate to such care. Analysts suggest that the number of Medicare admissions will level off or be reduced in 1999, when the act has its full effect. In response to these concerns Congress recently passed a Medicare relief plan that will provide an across the board payment hike to nursing homes. Whether the original act or these subsequent changes will have an effect on Medicaid occupancy rates in Ohio and other states will be an important policy question for the future.

The decline in occupancy rates in Ohio is consistent with national trends. Several national nursing home chains have experienced economic difficulties as a result of the reductions in occupancy rates and changes in Medicare reimbursement rates. To learn more about how occupancy rates vary across Ohio nursing homes we examined rates by type of facility. As shown in Table 5, Ohio's combined nursing home/residential care facilities, which include continuing

Table 5
Percentage of Facilities with 1997
Occupancy at or Below Selected Rates

	75 Percent	80 Percent	Overall Occupancy Rates
Nursing Home Occupancy a			(percent)
Comb. NH/RCF (n=183)	5.5	12.6	90.3
County Home (n=41)	10.8	24.3	87.3
Hospital Unit (n=14)	42.9	64.3	76.5
Nursing Home (n=791)	13.0	21.1	87.1
Overall (n=1,029)	11.8	20.0	87.6

<sup>&</sup>lt;sup>a</sup> Occupancy rates excluding facilities with ICF/MR beds and facilities reporting occupancy greater than 100.0%.

care retirement communities, recorded nursing facility occupancy rates of just over 90%, while hospital units, which specialize in short-term care, report a 77% occupancy rate. Eighty percent occupancy has long been a threshold for nursing facility solvency, so we examined those facilities below 80% and 75% occupancy rates. That almost two-thirds of the hospital based units were below 80% was somewhat expected given the Medicare admission and discharge data presented earlier. The fact that one in five nursing homes are operating at or below 80%, and a quarter of county based facilities, is an indicator that the national trends of economic viability are applicable to Ohio. With 13% of nursing homes and almost 11% of county homes operating below 75% occupancy, these data suggest that a segment of the Ohio industry is economically vulnerable.

Because of the growth in residential care facilities we also examined occupancy rates for this category of long-term care providers (see Table 6). Overall occupancy rates for the licensed residential care facilities are 62%. However, because of the large expansion experienced by the industry the rates are somewhat misleading. Those facilities opened in 1997 report a 32% occupancy rate, while those in business prior to 1997 report a rate of 68%. Precise counts of occupancy rates for residential care facilities are limited because of the current reporting system. In many instances residential care facilities license rooms for double occupancy, even though the vast majority of assisted living units are occupied by only one person. Based on a recent statewide survey (Utz, 1999) we estimate the percentage of occupied units to be between 75 and 80%. Although the expansion of assisted living provides more options for older Ohioans that experience a disability, these data indicate that the industry is experiencing some major challenges. Results from the previously mentioned survey of Ohio assisted living facilities also indicated that

Table 6
Occupancy Rates in Residential Care Facilities in Ohio
1997

Type of Residential Care Facility	Occupanc y Rate (percent)	Facilities Started Prior to 1997 (n=273)	Facilities New in 1997 (N=54)	Percent of Facilities at or Below 50% Occupancy	Percent of Facilities at or Below 75% Occupancy
All Facilities (n=327)	62.2	68.1	32.2	35.1	57.6
Combined Nursing Home and Residential Care (n=188)	64.6	67.2	37.4	30.3	52.5
Residential Care Facility (n=139)	58.9	69.8	30.0	41.7	59.0

**Source:** The annual survey of long-term care facilities in 1997.

majority of assisted living providers are targeting those individuals with incomes of \$25,000 a year or higher. Our analysis of Ohio's older population suggests that in some segments of the state the demographic patterns may not support the industry expansion.

### **Medicaid Nursing Facility and PASSPORT Utilization Rates**

A review of Medicaid nursing facility and PASSPORT program utilization data provides additional information about changing long-term care use patterns. Table 7 presents the ratio of Medicaid nursing facility and PASSPORT users, as a proportion of the overall older population in Ohio. In 1993 individuals age 85 and above used nursing facilities at a rate of 168 residents per 1,000 older people. After declining in 1994 and 1995, when the rate had dropped to 153/1000, the rate climbed to 170/1000 in 1996, and then declined to a new low of 149/1000 in 1997. This rate of change indicates that a lower proportion of those age 85 and above relied on nursing homes compared to our base year 1993. The PASSPORT utilization rates increased during that same period for the 85 and older group, increasing from 7.3/1000 in 1993, to 17.6/1000 in 1995, to 26/1000 in 1997. This increase in PASSPORT utilization is one of the factors explaining the reduction in nursing home utilization. The two younger age categories showed a small increase in both nursing facility and PASSPORT program utilization rates. For example, those between the ages of 75-84 had a 29.5/1000 rate of nursing facility use in 1993 and a 32.5/1000 rate in 1995, and a 32.8/1000 rate in 1997. We believe that the small increase in utilization rates for the younger age groups reflect the increased use of shortterm stays discussed earlier. Overall these data support the findings that for some older people home care does indeed provide an alternative to nursing facility care.

Table 7
Medicaid Nursing Facility and PASSPORT Utilization Rates: 1993 through 1997 (per Thousand)

		1993			1994			1995	
		Utiliza	ation Rate		Utiliza	ation Rate		Utiliza	tion Rate
Age	Total Population	Nursing Facility <sup>a</sup>	PASSPORT	Total Population	Nursing Facility <sup>a</sup>	PASSPORT	Total Population	Nursing Facility <sup>a</sup>	PASSPORT
65-74	833,340	7.86	1.66	835,120	9.05	2.29	836,560	8.49	4.28
75-84	464,700	29.47	3.84	472,900	32.18	5.36	480,840	32.53	9.20
85+	143,700	168.14	7.29	145,600	161.70	10.42	147,724	152.65	17.6
Overall	1,441,940	30.81	2.93	1,453,620	31.91	4.10	1,465,124	34.89	8.03
		1996			1997				
		Utiliz	ation Rate		Utiliza	ation Rate			
Age	Total Population	Nursing Facility <sup>a</sup>	PASSPORT	Total Population	Nursing Facility <sup>a</sup>	PASSPORT			
65-74	822,136	8.07	6.10	807,712	8.93	6.96			
75-84	488,020	31.66	12.37	495,200	32.84	13.17			
85+	151,206	169.84	25.41	154,688	148.95	25.91			
Overall	1,461,362	32.69	10.17	1,457,600	31.91	11.08			

Overall 1,461,362 32.69 10.17 1,457,600 31.91 11.0

<sup>a</sup> Medicaid nursing facility population includes all residents who had Medicaid as part or all of their payment source.

**Sources:** MDS+ database, PASSPORT MIS, and Ohio's population projections by Ohio Data Users Center.

#### **Pre-Admission Review: Volume and Effects**

Beginning in October of 1993 Ohio required that all Medicaid applicants for long-term care services receive a pre-admission review. In 1995 private pay applicants entering a Medicaid Certified facility were also required to complete the process. As with the admissions data presented earlier the number of pre-admission reviews has steadily increased. (Because private facilities and select applicants are excluded from pre-admission review these data, although consistent, are slightly lower than the admission data reported earlier.) For example, in 1996 just over 97,680 pre-admission reviews were completed by the area agencies on aging under contract to the Ohio Department of Aging. By 1998 that number had increased to over 115,783 (see Table 8). In examining the volume of reviews we find that about half of the applicants come from the hospital, 30 percent are from the community, and the remainder (about one-fifth) already reside in nursing facilities. The referral setting is related to payment status with the vast majority of private pay applicants (80%) coming from the hospital, in comparison to about 15% of the Medicaid referrals. In 1998 forty-six percent of the Medicaid applicants were in the community, compared to 18% of the non-Medicaid applicants. Finally, about 40% of the Medicaid applicants were nursing facility residents requesting a change in payment status.

## **Characteristics of Nursing Home and PASSPORT Clients**

Another approach to examine the changing use patterns in long-term care is to study the characteristics of the individuals receiving care. Are the demographic and functional characteristics of nursing facility and home care clients changing? How do the characteristics compare across the

Table 8
Pre-Admission Reviews, by Location of Applicant and Payment Status:
1994 through 1998

# **Payment Status**

	Medicaid					Non-Medicaid				Total					
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
Community Referral															
Setting:															
Volume	23,168 <sup>a</sup>	17,266	18,095	25,465	25,964	7,973	8,167	8,137	10,978	11,026	31,141	25,433	26,232	36,443	36,990
Percentage	42.0	38.6	39.9	46.9	46.2	17.6	17.2	15.6	19.1	18.5	31.0	27.5	26.8	32.6	31.9
Hospital Referral Setting:															
Volume	9,180	7,739	7,412	7,554	8,743	37,431	39,212	43,429	45,514	47,699	46,611	46,951	50,841	53,068	56,442
Percentage	16.6	17.3	16.3	13.9	15.6	82.4	82.5	83.0	79.3	80.0	46.3	50.9	52.1	47.5	48.8
Nursing Facility															
Referral Setting:															
Volume	22,859	19,740	19,873	21,328	21,429	0	16	73	89	92	22,859	19,903	20,608	22,225	22,351
Percentage	41.4	44.1	43.8	39.2	38.2	0.0	3	5	7	2	22.7	21.6	21.1	19.9	19.3
-							0.3	1.4	1.6	1.5					
Total															
Volume	55,207	44,745	45,380	54,347	56,136	45,404					100,611	92,287	97,681	111,736	115,783
							47,542	52,301	57,389	59,647					

<sup>&</sup>lt;sup>a</sup> PASSPORT clients are required to complete a pre-admission review at reassessment. In 1994 reassessment was required every six months, subsequently it was changed to annually.

Source: PAR system, the Pre-admission Review Database.

two settings? In this section we will examine the characteristics of nursing facility residents and PASSPORT home care clients over time to assess any changes in these two groups.

Nursing Facility Characteristics--Data on Ohio nursing home residents come from the Nursing Facility Minimum Data Set-Plus, completed quarterly by Medicaid certified facilities. We present a profile of resident characteristics at four points in time; June 1993, December 1994, June 1996, and March 1998. The comparison across time indicates that while the characteristics of the nursing home population are relatively steady there are some changes (see Table 9). Demographic trends indicate that the nursing home population in 1998 in comparison to 1993, 1994, and 1996 has a higher proportion of individuals under age 65, a higher proportion of minorities, a higher proportion of individuals who were married, and a higher proportion of those living alone before entry into the nursing facility.

A summary of the entire nursing home population (not shown) in March 1998 shows an average resident age of 81, with one in ten being under age 65. Just over 12 percent are non-white, and 16% are married. Six out of ten (58.7%) are widowed, with over one-quarter (27.9%) living alone prior to their nursing home admission. Functionally, the total population is highly impaired with over three-quarters (77.2%) impaired in 4 or more activities of daily living. Over one third (35.5%) are impaired in all 6 of the core ADL activities. Cognitive impairment is prevalent; only 14.4% of residents are independent in decision-making. Nearly one-quarter (22%) exhibit severe cognitive impairment.

Over time, residents receiving exclusive Medicaid funding have shown some important change (see Table 9). For example, just under 15% of Medicaid residents were under the age of

Table 9
Demographic Characteristics of Ohio Nursing Facility Residents by Payment Status: 1993-1998

	June	1993	Decemb	er 1994	June	1996	Marcl	h 1998
	Non- Medicaid <sup>a</sup> (Percentage) <sup>c</sup>	Medicaid <sup>b</sup> (Percentage)	Non- Medicaid <sup>a</sup> (Percentage)	Medicaid <sup>b</sup> (Percentage)	Non- Medicaid <sup>a</sup> (Percentage)	Medicaid (Percentage)	Non- Medicaid <sup>a</sup> (Percentage)	Medicaid (Percentage)
Age								_
45 and under	1.8	4.6	1.6	4.4	1.7	4.5	1.7	4.8
46-59	2.8	5.7	3.0	6.4	3.4	7.2	3.4	7.9
60-65	2.6	4.5	1.7	3.4	1.9	3.8	2.5	5.1
66-74	12.4	12.7	12.7	13.5	13.7	14.3	11.8	12.8
75-84	33.5	30.0	32.7	29.0	35.2	30.4	35.2	30.6
85-90	24.2	21.3	24.2	21.5	23.3	20.5	24.8	20.6
91+	22.7	21.2	24.1	21.8	20.8	19.3	20.6	18.3
Average Age	81.4	78.5	81.8	79.0	81.1	78.1	81.7	78.1
Gender								
Female	73.8	75.1	73.4	74.6	73.0	74.5	73.3	73.4
Race								
White	90.4	86.4	89.9	85.7	89.7	84.5	89.4	83.1
<b>Marital Status</b>								
Never married	12.3	16.5	13.1	16.6	12.2	16.9	12.0	17.3
Widowed/divorced/ separated	71.6	70.7	70.8	70.3	70.9	70.3	70.2	69.4
Married	16.1	12.8	16.1	13.1	16.9	12.8	17.8	13.3
<b>Previous Living</b>	10.1	12.0	10.1	13.1	10.5	12.0	17.0	13.5
Arrangement Lived alone								
No	57.9	60.7	<i>55</i> 0	50.0	54.2	57.5	52.2	567
Yes	37.9 26.2	60.7 22.1	55.8 28.0	58.9 23.0	54.2 28.8	57.5 24.4	53.3 29.6	56.7 24.9
In another facility	26.2 15.9	22.1 17.2	28.0 16.1	23.0 18.1	28.8 17.0	24.4 18.1	29.6 17.1	24.9 18.4
Population Population	55,922	24,750	54,252	27,162	53,893	27,171	54,295	26,976

<sup>&</sup>lt;sup>a</sup> Residents whose payment source for stay in nursing facility for part or all of the quarter ending in June 1993, December 1994, June 1996, and March 1998 was Medicare, CHAMPUS, VA, self-pay/private insurance, or other.

Source: MDS+ database for June 1993, December 1994, June 1996, and March 1998.

<sup>&</sup>lt;sup>b</sup> Residents whose entire payment source for the quarter ending in June 1993 or December 1994 or June 1996 or March 1998 was Medicaid. Because individuals spend down over the course of the quarter population numbers do not represent the total number of Medicaid clients served during the quarter.

<sup>&</sup>lt;sup>c</sup> Percentages are adjusted to reflect only those clients for whom information was available on each variable.

65 in 1993, compared to just under 18% in 1998. Just over 13% of the Medicaid residents were non-white in 1993, compared to just under 17% in 1998. A little over 16% of non-Medicaid residents were married in 1993, compared to almost 18% in 1998. And 26% of the non-Medicaid residents lived alone prior to admission in 1993, compared to almost 30% in 1998.

These differences over time reflect two types of changes occurring in the industry. The increases in younger, non-white, and married individuals are indicative of the increased post-acute care provided in nursing homes. Although data are not available on length of stay for each of these demographic groups, our experience suggests that these are the groups more likely to use short-term nursing home care. The increase in the proportion of residents that lived alone prior to admission is reflective of the increasing long-term care options available to older Ohioans. Those that enter nursing homes for longer stays are more likely to have received services at home prior to admission.

Impairment levels appear to have increased slightly as well. For example, in 1993, 7.1% of the Medicaid residents had no activity of daily living (ADL) impairment and in March 1998 that number had dropped to 5.9% (see Table 10). The average number of ADL impairments for Medicaid residents increased from 4.0 to 4.4. The proportion of residents with incontinence and cognitive impairments in both the Medicaid and non-Medicaid groups has also increased. For example, the proportion of those experiencing incontinence has increased for Medicaid residents from 46% in 1993 to 62% in 1998. Medicaid nursing home residents are also experiencing higher levels of cognitive impairment, increasing from 59% impaired in 1993 to 65% in 1998. In total these data suggest that the nursing home population is becoming increasingly disabled.

Table 10
Functional Characteristics of Residents of Ohio Nursing Facilities by Payment Status: 1993-1998.

	June	1993	Decemb	er 1994	June 1996		March 1998	
	Non-Medicaid <sup>a</sup> (Percentage) <sup>c</sup>	Medicaid <sup>b</sup> (Percentage)	Non-Medicaid (Percentage)	Medicaid (Percentage)	Non-Medicaid (Percentage)	Medicaid (Percentage)	Non-Medicaid (Percentage)	Medicaid (Percentage)
Percentage Needing								
Assistance in Activities of								
Daily Living (ADLs) <sup>d</sup>								
Bathing	93.2	92.0	94.2	93.7	94.7	93.5	95.0	92.9
Dressing	82.3	79.2	84.3	82.3	85.2	82.9	86.0	82.8
Transferring	68.2	64.3	69.8	66.7	71.4	66.9	72.3	67.1
Toileting	73.7	69.7	76.0	73.3	77.7	74.5	79.0	75.0
Eating	38.6	38.6	37.8	39.7	38.4	39.0	37.7	37.2
Grooming	81.8	80.7	83.5	83.0	84.1	83.4	84.4	83.1
Number of ADL								
Impairments								
0	5.8	7.1	4.9	5.4	4.4	5.4	4.0	5.9
1	7.9	8.7	7.0	7.9	6.6	7.5	6.3	7.1
2	5.0	5.9	4.7	5.1	4.5	5.1	4.5	5.0
3	9.2	9.4	7.6	8.0	7.1	7.8	6.6	7.6
4 or more	72.1	68.9	75.8	73.6	77.4	74.2	78.6	74.4
Average Number of ADL								
Impairments <sup>e</sup>	4.2	4.0	4.5	4.4	4.5	4.4	4.5	4.4
Incontinence	43.5	45.9	59.0	59.9	60.3	61.0	60.7	61.8
Cognitive Impairment								
Lacks cognitive skills for								
daily decision making <sup>f</sup>	58.7	59.3	61.3	62.1	63.0	63.9	63.8	65.9
Disoriented on name, date,								
or place	12.3	13.2	15.6	17.0	15.0	15.6	15.1	15.6
Wanders, is verbally or								
physically abusive	11.0	11.4	11.0	11.9	11.8	11.8	11.3	12.1
Population	55,922	24,750	54,252	27,162	53,893	27,171	54,295	26,976

<sup>&</sup>lt;sup>a</sup> Residents whose payment source for stay in nursing facility for part or all of the quarter ending in June 1993, December 1994, June 1996, and March 1998 was Medicare, CHAMPUS, self-pay/private insurance, or other.

Source: MDS+ database for June 1993, December 1994, June 1996, and March 1998.

<sup>&</sup>lt;sup>b</sup> Residents whose entire payment source for the quarter ending in June 1993, December 1994, June 1996, and March 1998 was Medicaid. Because individuals spend down over the course of the quarter sample numbers do not represent the total number of Medicaid clients served during the quarter.

<sup>&</sup>lt;sup>c</sup> Percentages are adjusted to reflect only those clients for whom information was available on each variable.

<sup>&</sup>lt;sup>d</sup> "Needs assistance" includes limited assistance, extensive assistance, total dependence, and "activity did not occur."

<sup>&</sup>lt;sup>e</sup> From the list above.

f "Moderately" or "severely" impaired in cognitive skills.

PASSPORT Client Characteristics—To assess program changes in home care we present data on the characteristics of PASSPORT clients for the four time periods described above. Information comes from the Ohio Department of Aging PASSPORT management information system. A review of characteristics suggests that the population is relatively steady on the key demographic indicators. Although there are some small differences, there does not seem to be any consistent changes in demographic characteristics overall (see Table 11). A review of the functional changes indicates an initial shift to a more disabled population from 1993 to 1994, and then a constant rate of disability over the past four years. In June 1993, 10.8% of the PASSPORT sample had no ADL impairment, compared to about one percent in subsequent years (see Table 12). The proportion of those impaired in bathing increased from 85% in 1993 to about 97% in 1996 and 1998. Only eating shows a differing disability trend, which we attribute to a measurement change in the assessment form in 1994. These patterns appear to coincide with Ohio's changes in the nursing home level of care definition, which increased the level of disability needed for nursing home eligibility.

Comparing New Long-Term Care Recipients--In this section we examine new admissions to Ohio nursing facilities and PASSPORT. In comparing these data to previously presented characteristics on the nursing home population we see an increase in those under age 65. Forty percent of the new Medicaid admissions are under age 65, compared to 18% of the Medicaid resident population. This shift to younger admissions may be yet another indicator of the trend to short, rehabilitation stays that are becoming more common in nursing facilities.

Table 11

Demographic Characteristics of PASSPORT Clients: 1993-1998

	Pre-June 1993 (Percentage) <sup>a</sup>	December 1994 (Percentage) <sup>a</sup>	June 1996 (Percentage) <sup>a</sup>	March 1998 (Percentage) <sup>a</sup>
Age				
60-65	9.6	10.1	10.9	10.7
66-74	27.9	26.9	27.9	28.9
75-84	39.4	39.2	37.5	37.0
85-90	15.6	16.4	16.3	15.9
91+	7.5	7.4	7.4	7.4
Average Age	75.2	77.7	77.3	77.3
Gender				
Female	82.4	80.4	80.8	80.0
Race				
White	70.3	72.1	70.9	72.5
Marital Status				
Never married	5.0	5.0	5.5	5.5
Widowed/divorced/separated	74.4	74.0	76.2	76.5
Married	20.6	21.0	18.3	18.0
<b>Current Living Arrangement</b>				
Own home/apartment	77.1	79.5	74.3	77.3
Relative or friend	18.0	18.2	20.8	21.4
Congregate housing/elderly	4.9	1.1	0.8	0.5
Group home	0.1	0.0	0.1	0.2
Nursing facility	0.0	0.3	2.9	0.5
Other	0.0	0.9	1.1	0.1
Population	4,552	9,611	11,777	21,469

<sup>&</sup>lt;sup>a</sup>Percentages are adjusted to reflect only those clients for whom information was available on each variable. *Source:* PASSPORT MIS database.

Table 12
Functional Characteristics of PASSPORT Clients: 1993-1998

	Pre-June 1993 (Percentage) <sup>a</sup>	December 1994 (Percentage) <sup>a</sup>	June 1996 (Percentage) <sup>a</sup>	March 1998 (Percentage) <sup>a</sup>
Percentage with				
Impairment/Needing Hands-On				
Assistance, Activities of Daily				
Living (ADLs) <sup>b</sup>				
Bathing	85.0	97.6	97.3	96.5
Dressing	58.6	71.1	70.1	66.4
Transferring	31.8	37.3	46.8	60.1
Toileting	27. 3	34.0	30.7	28.3
Eating	25.9	10.7	9.8	8.9
Number of ADL Impairments				
0	10.8	0.7	0.9	1.1
1	10.2	2.9	2.6	3.3
2	18.9	33.2	31.5	35.2
3	22.7	29.7	32.7	30.1
4 or more	37.4	33.5	32.3	30.3
Average Number of ADL				
Impairments <sup>c</sup>	3.0	3.2	3.2	3.1
Percentage with Impairment in Instrumental Activities of Daily Living (IADLs)				
Phoning	27.5	31.9	29.4	27.6
Transportation	94.4	85.6	86.5	85.3
Shopping	97.2	98.0	97.8	97.7
Meal preparation	84.9	87.8	87.3	87.0
Housecleaning or laundry	97.8	98.6	98.4	98.5
Heavy chores	97.0	99.8	99.7	99.7
Legal and financial	78.3	76.3	74.5	74.1
Medication administration	52.8	37.2	44.5	49.8
Number of IADL Impairments				
0	0.4	0.0	0.0	0.0
1	0.0	0.0	0.0	0.0
2	0.6	0.5	0.2	0.2
3	2.2	2.6	2.5	2.8
4 or more	96.8	96.9	97.3	97.0
Average Number of IADL				
Impairments	6.3	6.2	6.2	6.2
Population	498*	9,611	11,777	21,469

<sup>\*</sup>ADL and IADL information for June 1993 was not available in PASSPORT MIS. This information was entered by Scripps from a sample of client records. All other data represent all clients enrolled in PASSPORT.

Source: PASSPORT MIS database.

<sup>&</sup>lt;sup>a</sup> Percentages are adjusted to reflect only those clients for whom information was available on each variable.

<sup>&</sup>lt;sup>b</sup> Impairment includes all who could not perform by themselves or could perform with mechanical aid only.

<sup>&</sup>lt;sup>c</sup> From list above.

All clients presented in Table 13 are over age 60 and entered either PASSPORT or a nursing facility during the first quarter of 1998. Because PASSPORT restricts eligibility to those age 60 our comparisons include only those new nursing home residents who are age 60 and above as well. New PASSPORT clients are more likely to be female, are younger, and are more likely to be non-white.

A comparison of the functional characteristics of the two groups indicates that, on average, new nursing facility residents are more disabled. Interestingly, the PASSPORT sample has a lower proportion of individuals with no ADL impairments (.9%) compared to nursing facilities (9.0%) but a higher proportion of Medicaid nursing home admissions have 3 or more ADL impairments (75% versus 53%) (see Table 14). Nursing homes have a higher proportion of new admissions with cognitive impairment and these individuals may not experience ADL limitations. Over two-thirds of the nursing home group has four or more ADL impairments, compared to about one-quarter for the PASSPORT sample. Thus, while there is considerable overlap between the two populations, on average the nursing facility population is more disabled than the home care clientele. This suggests that while home care is able to provide alternative care for a proportion of nursing facility residents, it is not likely to serve as a substitution for all types of disabled individuals.

## **Summary and Conclusion**

The expansion of in-home care and the development of nursing home pre-admission review were implemented to alter the way that long-term care was provided in the state. Evidence reported here indicates that Ohio has shifted long-term care utilization patterns. Both the overall

Table 13
Demographic Characteristics of New Medicaid Long-Term Care Recipients,
Entering Between January - March, 1998

	PASSPORT (Percentage)	Nursing Facility Medicaid Residents (Percentage)
Age		
60-65	13.3	14.4
66-74	29.5	20.0
75-84	35.6	35.4
85-90	15.2	18.6
91+	6.4	11.6
Average Age	76.5	78.7
Gender		
Female	78.5	69.1
Race		
White	73.0	79.1
Marital Status		
Never married	5.3	11.7
Widowed/divorced/separated	74.9	69.6
Married	19.8	18.7
Population	1,723	1,184

Source: PASSPORT MIS Database, MDS+ Database.

Table 14
Functional Characteristics of New Medicaid Long-Term Care Recipients,
Entering Between January - March, 1998

	PASSPORT (Percentage) <sup>a</sup>	Nursing Facilities Medicaid Residents (Percentage) <sup>a</sup>
Percentage with Impairment/Needing Hands-On Assistance, Activities of Daily Living (ADLs)		
Bathing	95.3	88.6
Dressing	60.9	76.2
Transferring	64.2	59.0
Toileting	28.5	67.3
Eating	7.2	28.1
Grooming	36.6	75.3
Number of ADL Impairments		
0	0.9	9.0
1	5.0	10.0
2	41.0	5.7
3	25.8	9.0
4 or more	27.3	66.3
Average Number of ADL Impairments <sup>b</sup>	2.9	3.9
Average Number of IADL Impairments <sup>b</sup>	6.1	N/A
Population	1,723	1,184

<sup>&</sup>lt;sup>a</sup> Percentages are adjusted to reflect only those clients for whom information was available on each variable.

Source: PASSPORT MIS Database, MDS+ Database.

<sup>&</sup>lt;sup>b</sup> From list above.

and Medicaid occupancy rates of nursing facilities have dropped over the past six years. The Medicaid nursing home utilization rate for those age 85 and above has decreased. Nursing facility residents and PASSPORT home care clients have become increasingly more disabled over the six year time period.

These data present a mixed picture for state policy makers. On one hand there is a consistent trend indicating that home care is being used as an alternative to institutional care for some categories of clients. Such a result has the potential to provide consumers with more choice about care, and will better prepare the state to respond to the projected increase in the size of the very old age group, those 85 and above. On the other hand, the increase in the under 60 population and the increase in short-term use of nursing homes, suggests an attempt to shift further acute care costs to the chronic care arena. Whether such a transfer continues and what effect this may have on future state budgets, requires additional investigation. We are particularly concerned by the attempt of the federal government to curtail the growth of Medicare and the implications of these changes for the state Medicaid program. As state health policy evolves in the current environment it will be essential for policy makers to examine health and long-term care reform in unison, rather than as two separate issues.

Given this scenario it is clear that state policy makers face some difficult choices. We have identified three areas where significant policy decisions will be required: assisted living, expansion and structure of the home care system, and the integration of acute and long-term care services. **Assisted living**—As discussed in the body of this report, Ohio practically doubled the number of assisted living beds between 1995 and 1997. Although we believe the expansion of assisted living is one of the factors effecting nursing home use, the industry is itself at somewhat of a crossroads.

With the vast majority of assisted living being designed for older people with incomes of \$25,000 a year or higher, the industry has experienced spirited competition for this segment of the market. With established facilities experiencing occupancy pressures, it is clear that the industry needs to take stock of its rapid expansion.

However, there are low income Ohioans that might choose the assisted living option, rather than the nursing home, should that choice be available. Would such a use of state Medicaid funds reduce nursing home use further, or would such an approach simply add costs to the Medicaid system? We believe that if targeted correctly, using Medicaid funds for assisted living could further reduce future reliance on nursing facilities for chronically disabled older people. Such an expansion should be linked to the nursing home pre-admission process that is currently in place, should be implemented on a pilot basis, and should be evaluated on its cost-effectiveness.

Expansion and structure of home care system--As noted in this report, Ohio has expanded its home care service network dramatically. The state wide expansion has occurred through the growth of PASSPORT now serving some 23,000 older people. Home care expansion has also occurred through county initiatives. These levies in some areas of the state (Columbus, Cincinnati, Toledo, Delaware) generate funds to serve thousands of older Ohioans. For example, the Hamilton and Franklin county programs serve about 9,000 clients. Although such initiatives expand the home care opportunities in their localities, such programs do result in inequities across the state, not unlike many of the issues that arise surrounding the financing of education.

What should the state's role be in the development of these local initiatives? While always a potential source of conflict, one option would be to create incentives for local counties to develop such programs and to create some type of uniform system around the state. We would expect that

such a system would be far less standardized than those used in education, but could include some standards across participating counties.

Integration of acute and long-term care.—As highlighted in the report Medicare has become an increasingly important funding source in long-term care, both for home health and nursing facilities. Recent federal initiatives are clearly designed to reduce Medicare resources allocated to long-term care. Such an approach has two fundamental problems. First, it will shift costs back to the Medicaid program, placing more pressure on the states. Second, it continues the fragmentation and lack of coordination between the acute and long-term care systems. Many chronically disabled older people also experience substantial acute care needs, and this system perpetuates an expensive and highly inefficient system to consumers, funders, and providers.

Although the state has begun to study potential integration efforts through such efforts as the PACE project (Program of All Inclusive CARE for the Elderly), initiatives in this area are limited. Opportunities exist to provide innovative strategies for dually eligible older people (both Medicare and Medicaid); for incentive or assistance programs for purchasers of long-term care insurance, and for consumers to increasingly make their own decisions about where and how their care should be provided. Efforts by states like Ohio will be critical if we are to move forward in this area. The future challenges faced by Ohio to create a working system of long-term care are daunting. The good news is that there now is a window of opportunity to create a practical system, as the older population will remain stable over the next 10 - 15 years. Now is the time for state policy makers to recognize these future challenges and help ensure the adequacy of the system.

#### REFERENCES

- Applebaum, R. (1997). The Emergence of Community-Based Long-Term Care. *Public Policy and Aging Report*, 8(2): 3-5.
- Applebaum, R., Mehdizadeh, S., Straker, J., and Pepe, C. (1995). *Evaluating Long-Term Care Initiatives in Ohio*. Oxford, OH: Scripps Gerontology Center, Miami University.
- Applebaum, R. and Ritchey, L. (1992). *Adult Care Homes in Ohio*. Oxford, OH: Scripps Gerontology Center, Miami University.
- Bectel, P. and Tucker, N. (1998). *Across the States: Profiles of Long-Term Care Systems (3<sup>rd</sup> ed.)*. Washington, DC: Public Policy Institute, American Association of Retired Persons.
- Burwell, B. (1999). Medicaid Long-Term Care Expenditures. Lexington, MA: Systemetrics.
- Lamphere, J., Brangan, N., Bee, S., and Semansky, R. (1998). *Reforming the Health Care System: State Profiles 1998.* Washington, DC: Public Policy Institute, AARP.
- Mehdizadeh, S. and Atchley, R. (1992). *The Economics of Long-Term Care in Ohio*. Oxford, OH: Scripps Gerontology Center, Miami University.
- Mehdizadeh, S., Kunkel, S., and Applebaum, R. (1996). *Projections of Ohio's Older Disabled Population*. Oxford, OH: Scripps Gerontology Center.
- Ohio Department of Aging. (1999). [www.state.oh.us/age/ODAhistory.htm].
- Ohio Department of Health. (1999). *Home Health Care in Ohio*. Columbus, OH: Ohio Department of Health. [www.odh.state.oh.us/data-f.htm].
- Ohio Department of Health. (1998). *Ohio Certified Home Health Agencies Annual Registration Report 1997*. Columbus, OH: Ohio Department of Health. [www.odh.state.oh.us/data-f.htm]
- Straker, J. and Applebaum, R. (1999). A Survey of Non-Certified and Non-Licensed Home Health Agencies in Ohio. Oxford, OH: Scripps Gerontology Center, Miami University.