Policy Does Matter:

Continued Progress in Providing Long-Term Services and Supports for Ohio's Older Population

SHAHLA MEHDIZADEH, MATT NELSON,
ROBERT APPLEBAUM, JANE K. STRAKER

SCRIPPS GERONTOLOGY CENTER
An Ohio Center of Excellence

MIAMI UNIVERSITY

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Shahla Mehdizadeh
Matt Nelson
Robert Applebaum
Jane K. Straker

Scripps Gerontology Center

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

Demographics

- Ohio has the 6th largest population age 65 and over in the nation.
- Between 2015 and 2030 Ohio's overall population growth will be flat with an increase of under 2%.
- Between 2015 and 2030 the population age 65 and older will increase by 40%; the population 80 and older will increase by 46%.
- By 2030 Ohio's older population with severe disability will increase by 43%.

Costs

- Long-term services in the U.S. cost approximately $242 billion annually.
- In 2016, the median cost of a nursing home in Ohio was $87,600, assisted living was $43,200, and full-time homemaker care was $44,600 per year.
- Less than 5% of Ohioans age 40 and older have private long-term care insurance.
- In 2015, the Medicaid program spent $158 billion nationally on long-term services, accounting for 30% of all Medicaid expenditures.
- In 2015, Ohio spent $7.2 billion on long-term services, which was 35% of total Medicaid expenditures.
- Medicaid represents more than 26% of total state general revenue expenditures.

Long-Term Services Use

- Between 1995 and 2015 Ohio dramatically changed how it delivered long-term services to older people, with its state rank on home care to nursing home balancing dropping from 47th to 22nd.
- In 1993, more than 90% of elders on Medicaid received long-term services in nursing facilities; today more than half of these individuals receive services in the community.
- Medicaid recipients in the community out-numbered those served in Ohio nursing homes for the first time in 2015.
- Ohio served 6,200 fewer people in nursing homes paid for by Medicaid in 2015 than it did in 1997. This despite more than 100,000 more state residents age 85 and older.
- Ohio's home- and community-based services options, PASSPORT and the Assisted Living Waiver Program funded through the Medicaid waiver and the MyCare Demonstration, now serve approximately 41,000 older individuals each day, making it the second largest waiver in the nation.

Changes in Long-Term Services Utilization

- The supply of nursing home beds in the state has remained relatively constant over the past two decades, but the number of beds in service did drop by about 1,300 between 2013 and 2015.
- Nursing home admissions increased from 71,000 in 1992 to more than 211,000 in 2015.
- The number of short-term Medicare admissions increased substantially, rising from 30,000 in 1992 to more than 147,000 in 2015.
- The majority of nursing admissions are now for short-term stays; only 16% of all new admissions reside in the facility after three months.
- The proportion of individuals supported by Medicaid who are under age 65 has nearly tripled in the last two decades to approximately one in four individuals served.
- Occupancy rates in Ohio nursing homes were up slightly in 2015, primarily because there are fewer beds in service, but the actual daily census dropped between 2013 and 2015.
- The number of residential care facilities, including those classified as assisted living, has increased from 265 in 1995 to 655 in 2015.
- Study findings show that despite a large increase in expenditures on home- and community-based services, the overall utilization rate for the older population for long-term services has remained constant. The state has successfully shifted how it spends funds, with the increases keeping pace with population growth but with no utilization rate increase.

STUDY RECOMMENDATIONS

Ohio has made substantial progress in its efforts to provide long-term services and supports to a growing population of older people with severe disability. The changes that have occurred over the last two decades were considered unthinkable 20 years ago. In 1993, 90% of older people with severe disability receiving long-term services through Medicaid did so in an institutional setting. By 2015, more than half of them received services in a community-based setting, typically in their own home, with family members or in an assisted living residence. The state has improved its balance by expanding home- and community-based services and reducing the number of older people using nursing home care. Between 1997 and 2015, the average daily census of older nursing home residents supported by Medicaid decreased by 7,520 (16%). In the same time period, the number of Ohioans age 85 and older increased by more than 100,000. Between 2013 and 2015 the proportion of older people on Medicaid in nursing homes dropped by 5.7%.

Despite this progress, challenges remain. Between 2015 and 2030 Ohio's population over age 65 and age 80 will increase by 40%, and 46% respectively. Thirty-five percent of the state's Medicaid budget is allocated to long-term services; adding costs to a program that already accounts for more than one-quarter of the state's general revenue budget is a serious concern. In response to these and other challenges we offer the following recommendations:

- Ohio needs to continue to evolve in developing an overall strategy to prepare for the unprecedented increase in the older population. Today more than half of all older people in Ohio with severe disability use long-term services funded through the Medicaid program. If the disability rate remains constant between now and 2040, the economic challenges to the state could be overwhelming. Today, 90% of older people living in the community do not use Medicaid, but two-thirds of nursing home residents rely on the program. Moderate and middle income elders typically do not turn to Medicaid until they require nursing home care or their disability becomes so severe that they need substantial assistance. As the older population increases, the state must consider how to reduce the proportion of older people that will need Medicaid assistance. One way to do this is to expand activities to prevent or delay disability, however many federal funding sources, such as Medicare and Medicaid, provide almost no support for such initiatives.

- Ohio can embrace technology and environmental adaptation to help older people with disability to remain independent in the community. Computer processing power has increased and the future will include robotics, with substantial potential impact in the key areas of transportation and personal care. Ohio already has established sectors of high technology; applying this innovation to elder issues is a potentially vital area of economic and social development that would not only fuel the state economy, but could also assist the state in providing assistance to a growing population.

- Even with technology, long-term services, regardless of setting, will remain a labor intensive and personal set of services. Ohio should continue efforts to better train and support the direct-care workforce. Our survey of nursing homes found an average retention rate of 66% of state trained nursing assistants; in some facilities those rates are below 20%, meaning that a large number of direct-care workers stay less than one year on the job. Wages and benefits, staffing patterns, organizational structure, market conditions, and a host of other factors have been shown to impact workforce quality and rates of turnover. However, our data show that even in similar labor markets, variation in retention rates are significant, suggesting that technical assistance and administrative and policy changes can have a considerable impact in this area.

- Nearly one in four Ohio nursing home residents are under the age of 60. About 45% of this group stays three months or less, indicating that Medicaid has become a short-term rehabilitation funding source for younger participants. However, three in ten of the under-60 age group are nursing home residents for one year or more. This age group generally has lower overall rates of physical disability which has raised questions about the appropriateness of the nursing home setting for these individuals. As Ohio has expanded home- and community-based service options it has also made considerable effort to make sure individuals of all ages reside in the appropriate settings. A recent evaluation of the Money Follows the Person program found that Ohio had the largest number of transitions in the nation in 2015 and 43% of those leaving the facilities were individuals with mental illness (Irvin et al., 2017). A comprehensive study of what contributes to length-of-stay for this age group is warranted.

- This dramatic increase in short-term nursing home stays has major implications for program policies and procedures. For example, in 1993 Ohio implemented an extensive pre-admission screen and resident review requirement for individuals being admitted to Ohio's skilled nursing facilities. At that time there was concern that individuals were entering nursing homes inappropriately, without understanding possible home- and community-based service options. In 1993, when pre-admission screening was initially implemented, about 60% of those admitted continued to reside in the facility after three months, compared to 16% in 2014. This means that Ohio is spending a considerable amount of resources doing a pre-admission review for individuals who will stay only a short period of time. Although the current approach needs to be modified there are individuals being admitted to skilled nursing facilities who could benefit from either the pre-admission screen or the resident review used to identify mental health needs of those being admitted, suggesting that a modified or delayed review is necessary in some circumstances.

The last two decades have demonstrated that state policy does matter. Ohio has gone from ranking 47th to 22nd in the nation for balancing long-term services between institutional and home- and community-based settings. At the same time, the expansion of home- and community-based services did not increase the overall utilization rate for Medicaid long-term services. Despite this major progress, the path forward will be even more difficult than the road already travelled.

BACKGROUND

Ohio has 2.6 million people over the age of 60 and more than 1.85 million individuals over the age of 65, which translates into the 6th largest older population in the nation. In addition to having a large number of older people, Ohio also has a high proportion of older citizens (15%) ranking 14th on that national indicator (Reinhard, et al., 2017). Projections indicate that by 2030, almost 22% of the state's population will be age 65 and older; this will earn Ohio a proportional ranking of 8th highest nationally. An even greater challenge is that the number of individuals age 85 and older will grow from 260,000 to 675,000 (a 160% increase) by 2050. Ohio's population of older adults (age 60 and over) with physical and cognitive impairments resulting in severe disability and the group of older adults most in need of long-term services was 169,000 in 2016. That group alone is projected to surpass 235,000 (a 39% increase) by 2030, while Ohio's overall population growth will be 2%. These demographic changes, both short- and long-term, are unprecedented in the history of our state and nation. While we celebrate the progress associated with a long-lived society, such accomplishments also present new and growing challenges for the state.

One of the critical issues faced by Ohio and other states is the growing cost of long-term services and supports. With total national long-term services spending over $242 billion, these expenditures represent a continuing challenge for both individuals and government (Harris-Kojetin, et al., 2016). The 2016 Genworth national long-term care analysis reported that the median cost of a private nursing home in Ohio was $87,600 annually; assisted living was $43,200; and a full-time homemaker service was $44,600 per year. Only a small proportion of Americans have long-term care insurance, thus such expenditures represent out-of-pocket contributions for most. Recent data showed that 4.6% of Ohioans age 40 and older had private long-term care insurance, just below the national average of 5% (Reinhard, et al., 2017). Because of the very high costs of long-term care, and the small proportion of individuals with private long-term care insurance, many Americans, particularly those that require nursing home care, eventually need assistance from the public Medicaid program. Medicaid spent $158 billion nationally on long-term services in FY 2015 (both state and federal share). Ohio accounted for about $7.2 billion of that total. Medicaid expenditures represent a significant share of Ohio's budget with FY 17 state-only Medicaid expenditures accounting for about 26.5% of total state expenditures. Thirty-five percent of Ohio's Medicaid expenditures were allocated to long-term services, compared to 30% for the nation overall (Eiken, Sredl, Burwell, and Woodward, 2017). When these high expenditures are coupled with state population projections it is clear why Ohio has been actively involved in system reform and why this area will continue to present challenges over the next 25 years.

THIS REPORT

In 1993, the Ohio Legislature and the Ohio Department of Aging (ODA) recognized that providing long-term services to a growing population of older individuals presented current and

future financial and delivery system issues for the state. With a desire to have future decisions based on empirical information, the state embarked on an extensive data collection effort to track the use of long-term services and supports by older Ohioans with severe disability. This study, now completing its 24th year, is designed to provide Ohio policy makers, providers, and consumers with the information needed to make good decisions to ensure that Ohio has an efficient and effective long-term services system.

It is unusual for a state to be able to look two decades into the future to anticipate and respond to a potential problem. In fact, in their report, States' Use of Cost-Benefit Analysis: Improving Results for Taxpayers, PEW Charitable Trust-MacArthur Foundation used Ohio's work in this area as an example of how a state can use data to make good decisions. This report described Ohio's response to the changing demographics over the past two decades and identifies issues for the future. State policy makers, providers, consumer groups, and researchers have all recognized these trends, and dramatic changes have been made in Ohio. Despite this substantial progress, the path ahead will be even more difficult than the trail of change that Ohio has already travelled.

POPULATION GROWTH AND DISABILITY

The aging of the baby boomers has received considerable attention in the past decade. In combination with a low fertility rate and outmigration of the working age population Ohio is aging, as is the nation overall (See Table 1). Between 2015 and 2030, Ohio's overall population growth is estimated to be below 2%. However, as a result of population aging over this same time period, the population age 60 and over will grow by 30%; the population age 65 and older will increase by 40%; the 80 and over group will grow by 46%. If our current rates of disability continue, the number of older Ohioans with severe physical and/or cognitive disability will increase by 43%. Additionally, Ohio's overall population with severe disability will increase by 34%, from 195,000 today to almost 262,000 in 2030 (See Table 2). Ohio continues to have a sizeable number of individuals with developmental disabilities and severe mental illness needing long-term services. Although estimates indicate that the overall number comprising these categories will decrease slightly between now and 2030, state policy makers will need to continue to address the challenges associated with long-term service provision across the disability spectrum. However, it is the aging of the population that will result in the largest potential increase in demand for long-term services.

Table 1. Ohio's Aging Population (2015 - 2030)

Age Group	Population 2015	Population 2030	Percent Change 2015 - 2030
All Ages	11.64 Million	11.76 Million	1.6
60 and over	2.6 Million	3.37 Million	30.0
65 and over	1.84 Million	2.58 Million	40.2
80 and over	482,518	704,362	46.0

Source: U.S. Census, Ohio-Population.org. Based on Mehdizadeh, S., Kunkel, S., and Nelson, I. (2014). Revised based on American Community Survey Population Estimates for Ohio for 2015.

Table 2. Ohio Population Projections Based on 2015 American Community Census Estimates (Total Population)

Year	Total Population Statewide	Population with Severe Disability	Total Population with Moderate Disability	Population with Income at or Below 300% Poverty
2015	11,575,977	189,711	133,384	100,934
2016	11,598,544	194,874	134,984	103,016
2020	11,688,813	215,524	141,815	111,346
2025	11,718,542	238,348	149,900	122,862
2030	11,701,547	261,820	156,549	134,595

Source: U.S. Census, Ohio-Population.org. Based on Mehdizadeh, S., Kunkel, S., and Nelson, I. (2014). Revised based on American Community Survey Population Estimates for Ohio for 2015.

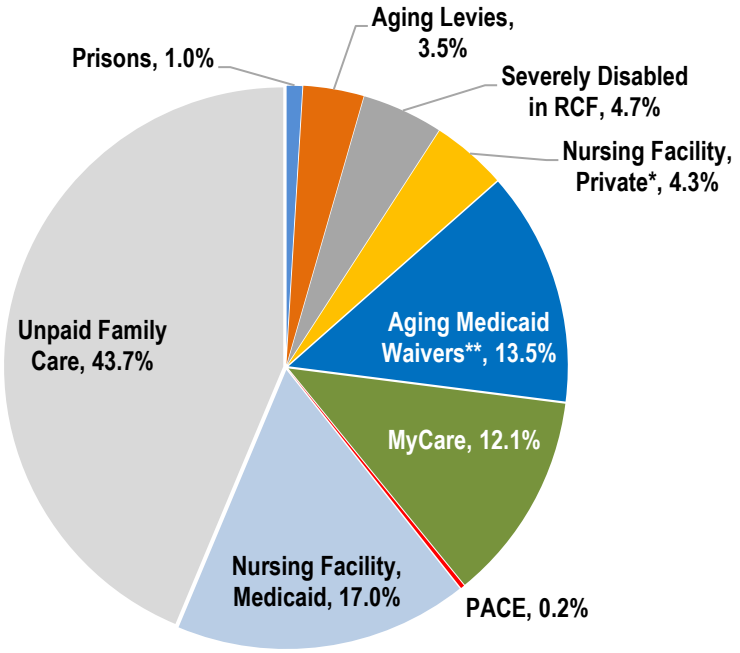
LONG-TERM SETTINGS IN OHIO

For many years, receiving long-term services was synonymous with nursing home care. However, in 2015 the 164,250 older Ohioans (age 60 and over) with severe disability received support in an array of settings. As shown in Figure 1, about one in five older individuals (21.4%) with severe disability were long-stay residents (100 days or longer) in skilled nursing facilities. The majority of these individuals (80%) were supported by Medicaid. Additionally, 5% of older individuals with severe disability (7,700) pay privately to reside in residential care facilities, most often assisted living residences. An expanded Assisted Living Medicaid Waiver Program served about 3,750 individuals daily in 2013 and 5,500 by 2015. These individuals are included in the aging waiver and MyCare data in Figure 1. Even when we are focusing on older people with severe disability, we find that seven in ten reside in the community, either in their own homes or with relatives or friends. More than 41,000 Ohioans, or about one-quarter of older people with severe disability living in the community, receive long-term services through Ohio's Medicaid home- and community-based services (HCBS) waiver programs or MyCare. The MyCare Program, designed to integrate long-term services with acute care for individuals eligible for both Medicare and Medicaid, began in May 2014 in the major urban areas of the state and participants in that program

use HCBS services as part of the integrated services received. Since individuals enrolled in MyCare remain in the demonstration even after nursing home placement, we estimate that 1,100 MyCare enrollees have transitioned from the community to become long-stay nursing home residents.

An additional 5,750 Ohioans with severe disability in the community receive assistance through aging services levies available across the state (3.5%). Finally, many individuals are able to remain at home with the support of family and friends or by purchasing services through the private sector (44%). These data reinforce the importance of family and the local community in the provision of long-term services to Ohio's older population with severe disability.

Figure 1. Proportion of Ohio's Population Age 60 and Older with Severe Disability by Care Setting, 2015 (N = 164,250)[1]



[1] Figure includes older individuals who experience a severe disability for 100 days or longer.
* Nursing facility residents paying privately or by their health care provider staying 100 or more days are considered needing long-term services and support and are included here.
** Nursing facility residents with Medicaid as payer are included only if they stayed 100 or more days; Nursing facility residents with Medicare as payer are considered short stay and are not included.

Source: Biennial Survey of Long-Term Care Facilities, 2015. MDS 3.0 calendar year 2015. PASSPORT Information Management System (PIMS), 2014 - 2015. Ohio's PACE sites. Cleveland Plain Dealer, spike in geriatric inmate population costs Ohio millions. Retrieved on 7/6/2016 from: http://www.cleveland.com/metro/index.ssf/2016/07/spike_in_geriatric_inmate_popu.html. Human Rights Watch, 2012. Old Behind Bars: The Aging Prison Population in the United States. Retrieved on 4/6/2017 from: http://www.cleveland.com/metro/index.ssf/2016/07/spike_in_geriatric_inmate_popu.html. Medicaid Eligibility File, 2015. '*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf. Mehdizadeh, S. Kunkel, S. and Nelson, I. (2014). *Projections of Ohio's Population with Disability by County, 2010-2030.* Scripps Gerontology Center, Miami University, Oxford, OH. www.ohio-population.org. Payne, M. Applebaum, R., Straker, J. (2012). Locally funded Services for Older Population: *A Description of Senior Services Property Tax Levies in Ohio.* Oxford, OH: Scripps Gerontology Center, Miami University. United States Census Bureau. 2016. 2015 ACS 1-year PUMS. Bureau's American Community Survey Office. Web. 1 November 2016 <https://www.census.gov/programs-surveys/acs/data/pums.html>

OHIO'S COMMUNITY SERVICE SYSTEM

As noted, seven in ten older people with severe disability reside in the community. As we have reported in the past, families and privately purchased services provide assistance to four in ten older Ohioans with severe disability. These findings are consistent with national estimates indicating the tremendous amount of long-term services and supports provided to older people by family and friends, with an estimated value of $470 billion annually. Informal care provided to older people in Ohio is estimated to be $16.5 billion annually (Reinhard, Feinberg, Choula, and Houser, 2015). For those Ohioans needing more assistance in their homes than can be provided by family and friends there are two major public sector sources of support for in-home services; county property tax levies and Medicaid waiver programs.

COUNTY LEVY PROGRAMS

In the mid 1970's, a local advocate in Clermont County expressed concern that the growing older population in her community did not have the necessary services available. After meeting with county officials, she approached the Ohio Legislature with an idea to use property tax levies to support senior services. Following a legislative law change, she returned to Clermont County and championed a successful levy campaign. Today, 74 of Ohio's 88 counties have aging services levies and last year they generated about $165 million. The revenue for Ohio's county levy programs is larger than the combined total funds generated by all of the other 12 states with levy programs. The county levies vary in size and scope with some generating more than $30 million annually and others $50,000 or less (Payne, Applebaum, and Straker, 2012). The levy programs typically target older people with moderate disability, but we estimate that 5,750 elders with severe disability are served by these programs. There is an assumption that by serving older people with moderate disability these levy programs may be helping Ohio in its efforts to assist older individuals with disability to remain in the community. Recent studies have shown that states with a higher level of funds allocated to supportive services, such as home-delivered meals, have a lower proportion of low care residents in nursing homes (Thomas and Mor, 2013).

WAIVER PROGRAMS

Ohio currently has two Medicaid waiver programs that serve older people with severe disability (PASSPORT, Assisted Living), a state plan program (PACE), and an Integrated Care Demonstration (MyCare) that manages acute and long-term services in conjunction with the waiver programs. PASSPORT and the Assisted Living Waiver Program are jointly administered at the state level by the Department of Medicaid, the single state Medicaid agency, and the Department of Aging, which is responsible for program operations. PACE operates in one site (Cleveland) and is directly managed by the Department of Aging and serves about 400 individuals (360 age 60 and older). MyCare is operated by five independent health plans, and managed by the Ohio Department of Medicaid. PASSPORT and the Assisted Living Waiver Program are operated on a regional level by Ohio's 12 area agencies on aging and one private, non-profit human service

organization. These administrative agencies use care managers to link an array of in-home services to the 41,000 older people participating in these programs every day. About half of these individuals are in the original HCBS waiver programs and the remainder are enrolled in the MyCare demonstration. Regardless of the program, each of the regional administrative agencies determines participant functional eligibility, works with consumers to assess their needs, develops and arranges for services, and monitors the services delivered. The PASSPORT program serves individuals residing in the community and uses care managers to coordinate a package of home-based services. The Assisted Living Waiver Program serves residents in an approved residential care facility and personal care and meal services are provided within the residence. Between May and July 2014 about 60% of Ohioans who were eligible for Medicaid and Medicare became part of the MyCare demonstration. MyCare is designed to integrate long-term services with acute care and these individuals, while continuing to receive home- and community-based services, are no longer technically in the traditional waiver programs. Under the MyCare demonstration the goal is for the area agencies on aging in participating regions to ensure the continuation of home- and community-based services (HCBS), which are combined with acute care to form an integrated package of services. The demonstration is currently being studied by a national evaluation contractor and results should help the state with future strategy in this area.

A profile of state Medicaid HCBS program utilization is provided in Table 3. We present data for Ohio overall, and for the 12 regions of the state. In 11 of the regions the area agencies on aging administer the PASSPORT and assisted living programs. In the Dayton region, this responsibility is shared between the area agency on aging and Catholic Social Services. In 2015, Ohio had 164,250 older people with severe disability and just over half of these individuals had incomes below 300% of poverty. On any given day Ohio waiver programs for older people served more than 41,000 individuals, or about 48% of low income elders with severe disability. In general the urban areas of the state (Cleveland, Dayton, Columbus, Akron, and Cincinnati) report the largest number of program participants. The one exception to this pattern is the Rio Grande region serving more than 4,000 participants. Rio Grande has about 4% of the older population with severe disability and incomes below 300% of poverty, but accounts for 10% of the states total caseload. This translates into a penetration rate of 100% for Rio Grande, compared to the state average of 48%.

Table 3. Profile of Ohio's Older Population: Poverty, Disability, and Utilization Rates by Region, 2015

Area Agency on Aging (AAA)	Location	Estimated Total 60+ Population[1]	Estimated Population 60+ with Severe Physical and/or Cognitive Disability[2]	Estimated Population 60+ with Severe Physical and/or Cognitive Disability with Income at or Below 300% of Poverty	Number of HCBS Consumers (PASSPORT, Assisted Living Waiver, Community MyCare, Aging Carve-Out & PACE)[3]	Proportion of Total HCBS Consumers Statewide	Proportion of HCBS Consumers Served with Income at or Below 300% of Poverty
1	Cincinnati	333,520	20,646	9,766	3,497	8.5	35.8
2	Dayton	195,376	12,755	6,281	5,388	13.1	85.8
3	Lima	83,252	5,521	2,908	908	2.2	31.2
4	Toledo	207,361	13,178	6,939	2,659	6.5	38.3
5	Mansfield	123,808	7,938	4,447	1,963	4.8	44.1
6	Columbus	342,502	20,056	8,936	4,895	11.9	54.8
7	Rio Grande	101,398	6,086	3,741	4,085	9.9	109.2
8	Marietta	62,069	3,652	2,261	869	2.1	38.4
9	Cambridge	119,312	7,653	4,733	1,652	4.0	34.9
10A	Cleveland	489,278	32,487	16,743	6,950	16.9	41.5
10B	Akron	281,262	18,097	9,306	5,137	12.5	55.2
11	Youngstown	169,897	11,255	6,419	2,198	5.3	34.2
CSS[4]	Sidney	79,145	4,933	2,730	980	2.4	35.9
	Total	2,588,180	164,257	85,210	41,480	100.0	48.3

***** Average monthly number of individuals enrolled in PASSPORT, Assisted Living Waiver Program, PACE program' Aging Carve-Out waiver and MyCare in 2015.

Source: [1] United States Census Bureau. 2016. 2015 ACS 1-year PUMS. Bureau's American Community Survey Office. Web. 1 November 2016 https://www.census.gov/programs-surveys/acs/data/pums.html

[2] Mehdizadeh, S. Kunkel, S. and Nelson, I. (2014). *Projections of Ohio's Population with Disability by County, 2010-2030.* Scripps Gerontology Center, Miami University, Oxford, OH. www.ohio-population.org

[3] Health Policy Institute of Ohio. 2015. '*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf

[4] Catholic Social Services is also a PASSPORT provider in the Dayton region.

A number of factors can explain the regional variation. First, our disability estimates are based on statewide rates, and other research indicates there are actual differences across regions (Ge, 2000). Second, the community economic profile, particularly the presence or absence of county levy programs, could have a substantial impact on utilization rates. For example, the five counties in the Cincinnati region generate more than $46 million in levy revenue, while the 10 counties in of the Rio Grande region generate about $2 million. Outreach strategies, organizational and management approaches, and program innovation do vary by site as well. Overall, the waiver programs serve almost half of the older people with severe disability and low income, indicating that the aging waiver programs have a large presence in the state.

RESIDENTIAL CARE

For about three in ten older Ohioans with severe disability, skilled nursing facilities or residential care facilities (which encompass assisted living residences) are their long-term residential setting. In this section we provide an overview of these two sectors of the long-term care delivery system.

NURSING HOMES

At the close of 2015, there were 958 skilled nursing facilities in the state containing 92,157 licensed beds (see Table 4). This represents a decrease of about 1,300 licensed beds since 2013. National data in 2014 reported the average state bed supply, in the U.S. was 36/1,000 individuals 65 and older. Ohio's 2015 rate of 47/1,000 gives the state a ranking of 14th highest number of beds in the nation (Centers for Medicare and Medicaid Services, 2015). With the increase in Ohio's aging population and little change in bed supply the state is projected to drop to 42 beds per 1,000 age 65 plus by 2020. This will still place Ohio above the current national average in bed supply.

More than 95% of Ohio's nursing home beds are either free-standing or part of a continuing care retirement community. Twenty skilled nursing facilities (2.1%) are located in hospitals, continuing a drop in hospital-based units. For example, in 2000, there were 59 hospital-based skilled nursing home units, and in 2005 there were 50. Fifteen skilled facilities (1.9%) are county homes, down from 30 in 2000. Ohio nursing homes average 95 beds per facility and three in four are located in urban areas of the state. One in five (19%) Ohio nursing homes are not-for profit.

Table 4. Ohio's Nursing Facility Characteristics, 2015

	All Nursing Facilities	County Homes	Hospital Based Long-Term Care Unit
Number of Facilities (as of 12/31/2015)	958	15	20
Licensed/certified nursing facility beds 12/31/15	92,157	1,628	998
Average number of beds available daily	91,503	1,756	1,017
Average number of licensed beds	95	103	50
Location (percent)			
Urban	76.2	46.7	80
Rural	23.8	53.3	20
Ownership (percent)			
Proprietary	79.7	—	36.4
Not for profit	18.1	—	54.6
Government	2.3	100.0	9.0

RESIDENTIAL CARE/ASSISTED LIVING FACILITIES

Residential care facilities provide personal care to 17 or more individuals and generally have a limit of 120 days of skilled nursing care per person in a year. In 2015, there were 655 residences containing 50,431 beds and 35,979 units; up from 10,711 beds in 1995 (See Table 5). The increase in the number of residential care facility beds is driven by growth in the number of assisted living facilities. Because Ohio does not have a licensing definition of assisted living, we have applied the criteria that a facility must meet to participate in the Assisted Living Medicaid Waiver Program to systematically identify assisted living facilities. Requirements include such elements as a private bedroom and bathroom, locking door, 24-hour staffing, and the availability of a registered nurse. Based on our statewide survey, we estimate that 582 facilities (89%) appear to meet the state definition of assisted living. Currently, 362 facilities of the 582 who meet the assisted living waiver definition (62%) participate in the Ohio Assisted Living Waiver Program, with an average daily census of almost 5,500 individuals (including those who are now part of MyCare).

Residential care facilities report an average of 77 beds and 55 units per residence. Most of the units, while licensed for two occupants typically have one resident, making unit occupancy the more important indicator when analyzing the industry supply and use patterns. Four in five (79%) are located in urban areas, and three in ten (28%) are part of a continuing care retirement community. A variety of room configurations operate under the residential care licensure category, ranging from double occupancy with no private bathroom, to two-bedroom units with kitchen and sitting areas. As a result, the average monthly charge varies considerably, ranging from $685 to $8,995 depending on the type of unit. The overall average statewide rate for a private unit was $4,044 per month for a non-memory care unit. Monthly charges in facilities that meet the assisted living definition were slightly higher than the generic residential care facility ($4,056 vs. $3,921).

Table 5. Ohio's Residential Care Facility Characteristics, 2015

	All RCFs	RCF Only	Assisted Living*
Number of Facilities	655	73	582
Total licensed RCF beds	50,431	4,229	46,202
Total number of units	35,979	3,312	32,667
Average number of beds	77	58	79
Average number of units	55	45	56
Average Monthly Rate (Private Non Memory)			
Location (Percent)	$4,044	$3,921	$4,056
Urban	78.8	79.5	78.8
Rural	21.2	20.6	21.2
Ownership (percent)			
Proprietary	71.6	80.0	70.5
Not for profit	28.4	20.0	29.5

*Defined as meeting the criteria required to participate in Ohio's Assisted Living Waiver Program.
Source: Biennial Survey of Residential Care Facilities, 2015.

TRENDS IN LONG-TERM SERVICES USE IN OHIO

In this section we present data tracking long-term service use in Ohio from 1992 to 2015. Because long-term services are provided in a range of settings through a wide variety of funders, our examination of service use relies on a number of different sources. Information describing the nursing home and residential care industries come from the Biennial Survey of Long-Term Care Facilities conducted by Scripps Gerontology Center in 2016 and covering calendar year 2015. Response rates were high, with 95% of skilled nursing facilities and 90% of residential care facilities completing the online survey. The survey includes basic information about facilities and residents; such as actual beds in service, number of admissions, and rate structure; information from administrators such as industry challenges and special modules that focus on industry issues, such as emergency preparedness and employee safety. We supplement the nursing home survey data with the Medicaid Cost Report, which is completed by each Medicaid certified facility and compiled and provided to us by the Ohio Department of Medicaid. A federal nursing home tracking system-Certification and Survey Provider Enhanced Reports (CASPER) compiled by the Centers for Medicare and Medicaid Services (CMS) also provides industry-level data. To track characteristics of nursing facility residents the study relies on the Nursing Home Minimum Data Set (MDS 3.0) completed by facilities upon resident admission and at least quarterly during a

resident's stay. Resident characteristics come from the second quarter of 2016 (April through June). Data on PASSPORT and assisted living participants come from the PASSPORT Information Management System (PIMS) operated by the Ohio Department of Aging and cover fiscal year 2016.

NURSING FACILITY USE

The changes experienced in the nursing home industry over the last two decades are truly dramatic. The supply of beds available has remained relatively stable, going from 91,530 in 1992, to 91,503 in 2015, but all other aspects of the industry are different (See Table 6). For example, in 1992, Ohio nursing homes recorded 71,000 admissions, but by 2015 that number had grown to 211,340 (200% increase). In 1992, 30,000 of those entering a nursing home were Medicare admissions; by 1999 that number had grown to 79,000, and in 2015 that number was 146,760. For many individuals the nursing home has become a place for short-term rehabilitation care after an acute hospital event. Much of this change has been driven by the Medicare prospective payment shift, which incentivized hospitals to reduce the average length-of-stay for individuals. There was a small decline in overall admissions between 2013 and 2015, and we believe this reflects recent federal efforts to reduce Medicare spending in nursing homes.

Long-term occupancy rates for Ohio nursing homes have dropped from 92% in 1992 to 85% in 2015. Between 2013 and 2015 Ohio recorded a slight increase in occupancy rates, from 83.9% to 84.7%. However, the overall average daily census was actually down slightly, dropping from 77,900 to 77,550 (See Figure 2). Both the Medicaid and private pay average daily census were lower, but Medicare daily use increased.

Ohio had 1,280 fewer beds in service in 2015 than 2013 and that impacts the occupancy rate calculations. Reflecting the change in allocation of public resources, Ohio nursing homes served 6,200 fewer individuals supported by Medicaid each day in 2015 than they did in 1997. This despite the fact that during this time period Ohio increased its population 85 and older, a group most likely to need long-term services, by about 100,000 individuals.

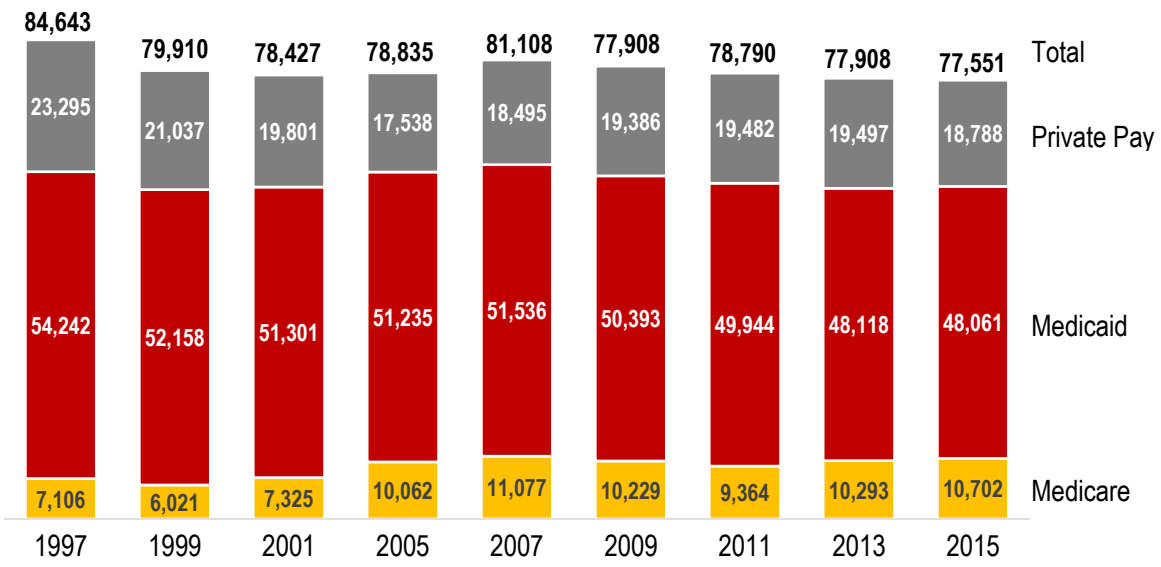
Table 6. Ohio Nursing Facility Admissions, Discharges, and Occupancy Rates, 1992 - 2015

	1992	1999	2001	2005	2009	2011	2013	2015
Adjusted Nursing Facility Beds[a]								
Total beds	91,531	95,701	94,231	91,274	93,209	94,710	92,787	91,503
Medicaid certified	80,211	93,077	87,634	87,090	90,876	90,724	89,063	88,479
Medicare certified	37,389	47,534	62,088	86,701	91,928	91,650	90,730	89,555
Number of Admissions								
Total	70,879	149,838	149,905	190,150	197,233	207,148	218,992	211,338
Medicaid resident	17,968	28,150	24,442	34,432	27,040	31,212	36,859	35,182
Medicare resident	30,359	78,856	90,693	116,810	109,315	148,426	144,959	146,756
Occupancy Rate (Percent)								
Total	91.9	83.5	83.2	86.4	84.7	83.2	83.9	84.7
Medicaid resident	67.4	55.4	58.5	58.8	55.4	54.9	54.3	54.3

[a]Total beds include private, Medicaid, and Medicare certified beds. Because some beds are dually certified for Medicaid and Medicare, the individual categories cannot be summed. The total beds, Medicaid, and Medicare certified beds are based on the Scripps Biennial Survey, the Medicaid Cost Report, and CASPER.

Source: Annual Survey of Long-Term Care Facilities. Ohio Department of Health 1992, Annual and Biennial Survey of Long-Term Care Facilities, Ohio Department of Aging and Scripps Gerontology Center, 1999 - 2015, Ohio Medicaid Cost Report, 2016, Certification and Survey Provider Enhanced Reporting System, 2016.

Figure 2. Average Daily Nursing Facilities Census, 1997 - 2015



Source: Biennial Survey of Long-Term Care Facilities, 1997 – 2015.

The changes in the use patterns of skilled nursing facilities are dramatic. To get a better understanding of length-of-stay, we followed two cohorts of nursing home residents admitted for the first time 10 years apart for a three-year time period (See Table 7). The first group was admitted in 2001 and many of those admitted stayed only a short period of time. For the 2001 cohort, 43% of all of those admitted were still residents after three months. After six months, fewer than one-third of all of those admitted remained residents. In our 2001 study we reported these findings and discussed how the system was changing. Our recent data for the period 2011 to 2014 show even greater change, with 16% of those admitted remaining as residents after three months. After six months, 12% of all admissions remained in the facility. What was once thought of as "Last Home for the Aged" (a popular book in the 1970's) is now short-term care for most admissions. While there are many individuals who continue to use nursing homes for extended stays, use patterns have changed significantly over the last two decades.

Table 7. Newly Admitted Nursing Facility Residents and Changes in Their Stay Pattern over a Three Year Period (2001 - 2004 and 2011 - 2014) (All Age Groups) Time Period (Percentage Remaining)

	Admissions	0-3 Months	At 6 Months	At 9 Months	At 12 Months	At 24 Months	At 36 Months
2001 - 2004	15,250	43.1	32.5	20.7	16.1	9.0	5.7
2011 - 2014	23,475	16.3	12.4	11.1	10.4	8.8	8.2

Source: MDS 3.0 (2011 - 2014) and MDS 2.0 (2001 - 2004).

These findings indicate that the skilled nursing facility of today has become a mixed use provider, delivering both acute and long-term services. There are three major implications of this shift. First, it means that many residents will leave the facility after a brief rehabilitation visit to return to the community. Ensuring that the needed planning occurs so that an individual is able to continue recovery at home requires coordination between the nursing home, the in-home services network and the family or other informal supports. A review of the MDS Section Q item which asks residents at admission about returning to the community found three in five respondents indicated a desire to return home. It is essential that a good system be established so that a short-term resident, who could go home, does not become a long-term resident. This creates considerable communication challenges between nursing home, hospital, and community, and requires a new skill set for all parties in the network.

A second prominent challenge resulting from this shift is the focus on the transition from hospital to nursing home. A major concern now being voiced is that Medicare patients transitioning from hospital to nursing home or community have a very high rate of hospital re-admissions—more than 20% nationally. CMS reimbursement changes are beginning to penalize hospitals for high re-admissions and there is now considerable attention being paid to this issue.

The high volume of short-term residents means that regulatory and quality strategies may need to be altered. For example, the measures used to assess quality, whether it be resident satisfaction or clinical outcomes, may need to be modified. The overall survey approach may also need to be reconsidered. A one-time annual survey with a four to five person team may no longer be the most efficient strategy to monitor quality in this rapidly shifting system.

Finally, the increase in volume suggests that the nursing home pre-admission assessment process, put into place more than 20 years ago to prevent inappropriate long-stay admissions, needs to be modified to reflect these utilization changes. For example, delaying an assessment for those admitted with certain conditions could be warranted.

NURSING FACILITY RESIDENT CHARACTERISTICS

Understanding who uses Ohio's nursing homes and how much the care costs is important for both individuals and state policy-makers. Individuals age 80 and above, the population most often thought of as using nursing homes in the United States, made up about two-thirds of those living in nursing homes in 1996, but accounted for about half of residents in 2016. Nursing homes today have a growing proportion of individuals under age 65. In the final quarter of 2016, 12% of residents were below age 60; almost one in five were under age 65, and three in ten were under age 70 (See table 8). The Medicaid population has even a higher proportion of individuals in the younger age groups. One in six Medicaid residents are under age 60; more than one-quarter are under age 65 and 35% are under age 70. As shown in Table 9 in 1996, 6.4% of residents were under age 60 compared to today's 12% and the under 65 group has increased from 9% to 19.1% during the same time period. The trend appears to have leveled off as there were minimal

differences between 2012, 2014 and 2016 (See Table 9). The shift in resident ages is associated with other changes in resident characteristics. The proportion of female nursing home residents is now 63.5%, down from almost three in four in 1996. While the majority of residents are not married, the proportion of married residents has increased from 16% in 1996 to 24% in 2016.

These demographic changes are indicative of the shift to short-term use by many nursing home residents. When nursing homes were primarily venues for a long-term services population, we saw an industry that was 75% to 80% female and widowed. As nursing home use becomes an extended hospital stay for many, the profile is becoming more consistent with acute care use patterns for older people. Again, it will be important to make sure the policies, insurance coverage, and support systems shift to acknowledge these changes.

Table 8. Demographic Characteristics of Ohio Certified Nursing Facility Residents by Source of Payment, April - June 2016

	All (Percentages)	Medicaid (Percentages)	Medicare (Percentages)
Age			
45 and under	2.1	2.9	1.2
46-59	9.9	13.6	6.5
60-64	7.1	8.9	4.6
65-69	9.6	10.1	12.3
70-74	9.9	9.6	12.6
75-79	12.3	11.4	15.5
80-84	14.5	12.8	16.1
85-89	16.7	14.3	17.3
90-94	12.4	11.1	10.4
95+	5.4	5.3	3.5
Average Age	77.2	75.2	77.8
Gender			
Female	63.8	65.7	59.6
Race			
White	85.3	81.0	89.4
Black	13.7	17.7	9.9
Other	1.0	1.3	0.7
Marital Status			
Never Married	17.9	23.9	11.1
Widowed/Divorced/Separated	57.9	60.4	53.4
Married	24.2	15.7	35.5
Resident Population Size*	100,881	59,655	23,297

*Data presented here reflect the characteristics of all residents, and those with Medicare and Medicaid (April - June 2016) as source of payment.

Source: MDS 3.0 April - June 2016.

Table 9. Demographic Characteristics of Ohio's Certified Nursing Facility Residents Over Time, 1996, 2006 - 2016

	1996 (Percentages)	2006 (Percentages)	2012 (Percentages)	2014 (Percentages)	2016 (Percentages)
Age					
45 and under	2.6	2.7	2.3	2.1	2.1
46–59	3.8	9.1	10.4	10.4	9.9
60–64	2.6	4.5	6.4	6.5	7.1
65–69	4.4	5.9	7.9	8.3	9.6
70–74	8.1	8.1	9.5	9.7	9.9
75–79	13.1	13.2	12.0	12.1	12.3
80–84	18.7	19.2	16.4	15.3	14.5
85–89	21.2	19.4	18.2	17.6	16.7
90+	25.5	17.9	16.9	18.0	17.9
Average Age	80.7	78.4	77.3	77.5	77.2
Gender					
Female	73.5	68.5	65.5	65.1	63.8
Race					
White	88.3	86.3	86.0	85.5	85.3
Marital Status					
Never married	13.8	15.1	16.1	16.7	17.9
Widowed/Divorced/ Separated	70.7	63.7	58.7	59.9	57.9
Married	15.5	21.2	25.2	23.4	24.2
Population	80,417♦	92,297♦	107,737*	101,279*	100,881*

♦Residents present at the end of the quarter specified above.

*Data presented here reflect the characteristics of all residents that spent some time in a nursing facility during the quarter specified above.

Source: MDS Plus April - June 1996. MDS 2.0 April - June 2006, 2010. MDS 3.0 April - June 2012 - 2016.

In addition to examining the demographic characteristics, we also review the disability patterns for nursing home residents over time. The primary approach used to measure disability rates for residents is through an assessment of functional ability based on a measure of activities of daily living (ADL). These tasks of daily living include such areas as the ability of the resident to bathe, dress, and transfer from bed to chair. In general, to be eligible to receive nursing home care as reimbursed by Medicaid, an individual needs to have limitations requiring hands-on assistance in at least two activities of daily living or cognitive impairment such that they are unable to make day-to-day decisions. This is referred to as meeting nursing home level of care. Dementia limitations are factored into the assessment. On average, today's nursing home residents are quite

impaired, averaging between four and five activity of daily living limitations (See Tables 10, 11). This level of disability has been consistent over the past decade. However, we have seen an increase in the very disabled population with individuals with four or more impairments going from 76% to 82% during the 20 year time period. We have also seen an increase in resident incontinence, going from 60% to more than 70%. Finally, about 11% of residents record none or one activity limitation and for Medicaid residents the proportion is 13.7%. While increases in the proportion with cognitive difficulty could explain how individuals with limited functional disability are residing in nursing homes, it is important to better understand this finding.

Table 10. Functional Characteristics of Ohio Certified Nursing Facility Residents by Source of Payment, April - June 2016

	All (Percentages)	Medicaid (Percentages)	Medicare (Percentages)
Needs Assistance in Activities of Daily Living (ADL)[1]			
Bathing	86.8	86.2	83.6
Dressing	85.5	82.6	86.7
Mobility	84.7	80.1	90.2
Toileting	84.2	80.4	87.3
Eating	24.3	26.8	17.0
Grooming	82.0	80.9	79.3
Number of ADL Impairments[2]			
0	6.1	8.0	4.2
1	4.7	5.7	4.2
2	3.3	3.7	3.6
3	4.1	4.1	5.2
4 or more	81.8	78.5	82.8
Average Number of ADL Impairments	4.5	4.3	4.4
Incontinence[3]	70.7	74.2	57.1
Cognitive Impairment[4]	41.0	48.6	19.7
Resident Population Size	100,881	59,655	23,297

[1] "Needs assistance" includes limited assistance, extensive assistance, total dependence, activity occurred only once or twice, and activity did not occur.

[2] From list above.

[3]"Occasionally, frequently, or multiple daily episodes."

[4]"Moderately" or "severely" impaired.

Source: MDS 3.0 April - June 2016.

Table 11. Functional Characteristics of Ohio's Certified Nursing Facility Residents Over Time, 1996, 2006 - 2016

	1996 (Percentages)	2006 (Percentages)	2012 (Percentages)	2014 (Percentages)	2016 (Percentages)
Needs Assistance in Activities of Daily Living[1]					
Bathing	94.3	86.9	86.2	87.2	86.8
Dressing	84.5	85.9	86.7	87.1	85.5
Mobility/Transfer♠	69.9	80.6	85.8	85.1	84.7
Toileting	76.6	81.8	85.4	84.9	84.2
Eating	38.7	29.5	26.8	26.8	24.3
Grooming	83.9	84.0	82.6	84.0	82.0
Number of ADL Impairments[2]					
0	4.7	6.9	5.7	5.6	6.1
1	6.9	4.9	4.0	4.0	4.7
2	4.7	3.7	3.6	3.2	3.3
3	7.3	4.7	4.1	4.0	4.1
4 and More	76.4	79.8	82.6	83.2	81.8
Average Number of ADL Impairments	4.5	4.5	4.5	4.6	4.5
Incontinence[3]	60.7	55.8	64.1	68.3	70.7
Population*	80,417♦	92,297♦	107,737*	101,279*	100,881*

♦Residents present at the end of the quarter specified above.
*Data presented here reflect the characteristics of all residents that spent some time in a nursing facility during the quarter specified above.
♠In 1996 the ADL transferring, one of the components of mobility is reported.
[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."
Source: MDS Plus April - June 1996. MDS 2.0 April - June 2006, 2010. MDS 3.0 April - June 2012 - 2016.

Because of the continuing increase in the Medicaid residents under age 60 we examine this group in comparison to the age 60 and older Medicaid resident population. It should be noted that the majority of the under 60 group (82%) are between the ages of 45 and 59. However, the demographic profile of the under 60 group looks markedly different than the over 60 group of residents (see Table 12). For example, fewer than half of the younger group (47%) is female, compared to 70% of the over 60 group. One-quarter of the under 60 group is black compared to 16% for the older group. Finally, more than half of the under 60 group (56%) have never been married, compared to 18% for the older group.

The disability rates for the residents under age 60 are also quite different, averaging almost one less activity impairment than the older group (see Table 13). More importantly, 28% of the under 60 group record zero or one activity impairment, compared to 11% for the over 60 group. Many residents in the under 60 group are very impaired, with six in ten individuals having four or more activity limitations, compared to 82% for the over 60 group, but the high proportion of the lower impaired group warrants further study.

Table 12. Demographic Characteristics of Medicaid Residents in Ohio's Certified Nursing Facility Residents by Age Group, April - June 2016

	Under 60 Years (Percentages)	60 Years and Older (Percentages)
Age		
Less than 45	17.8	—
45–59	82.2	—
60–64	—	10.7
65–69	—	12.1
70–74	—	11.5
75–79	—	13.7
80–84	—	15.3
85–89	—	17.1
90–94	—	13.2
95+		6.4
Average Age	51.3	79.9
Gender		
Female	46.7	69.5
Race		
White	73.6	82.4
Black	25.0	16.3
Other	1.4	1.3
Marital Status		
Never married	55.5	17.7
Widowed/Divorced/Separated	32.5	65.8
Married	12.0	16.5
Total Residents*	9,857	49,798
Percent of Residents	16.5	83.5

*The data present the characteristics of the Medicaid residents that spent some time in a nursing facility between April and June 2016.

Source: MDS 3.0 April - June 2016.

Table 13. Functional Characteristics of Medicaid Residents in Ohio's Certified Nursing Facilities by Age Group, April - June 2016

	Under 60 Years (Percentages)	60 Years and Older (Percentages)
Needs Assistance in Activities of Daily Living (ADL)[1]		
Bathing	71.7	89.1
Dressing	67.4	85.6
Mobility	65.6	83.0
Toileting	65.2	83.4
Eating	21.2	28.0
Grooming	65.2	84.0
Number of ADL Impairments[2]		
0	19.1	5.7
1	8.5	5.2
2	5.0	3.4
3	5.5	3.8
4 or more	61.9	81.9
Average Number of ADL Impairments	3.7	4.5
Incontinence[3]	53.6	78.1
Cognitive Impairment[4]	21.4	54.0
Residents* **(Number)**	9,857	49,798

*The data present the characteristics of all residents that spent some time in a nursing facility between April and June 2016 by age.
[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."
[4]"Moderately" or "severely" impaired.
Source: MDS 3.0 April – June 2016.

In an effort to learn more about Medicaid residents we also examined length-of-stay for these individuals. As shown in Table 14, four in ten of the under 60 group have stays of 30 days or less. An additional 9% of the under 60 group are residents for less than three months. This proportion (48%) represents a big jump from 2014 when the rate was 37%. Comparing the under and over age 60 Medicaid groups we see a substantial difference. Almost half of the under 60 group stayed three months or less, compared to just over one-quarter of the over 60 Medicaid residents. The high rate of short-term stays by Medicaid residents indicates that the same short-term rehabilitation trends that we have seen for Medicare are also now occurring in the Medicaid program. At the same time, almost one in five Medicaid residents under age 60 stay two years or longer, compared to 28% for the older age group. This suggests that the under 60 group is quite diverse and administrative staff and policy makers should carefully examine the needs of this group of residents.

Table 14. Length-of-Stay for Medicaid Residents by Age in Ohio's Certified Nursing Facilities, April - June 2014, 2016

	Under Age 60		Over Age 60	
	2014 Percentage	2016 Percentage	2014 Percentage	2016 Percentage
30 days or less	27.5	39.2	12.9	20.5
31 to 60 days	5.1	5.0	4.1	4.0
61 to 90 days	4.4	3.8	3.5	3.1
91 to 180 days	12.7	10.2	11.0	10.6
181 to 365 days	14.7	11.9	16.2	15.2
One Year to Two Years	14.2	11.8	20.5	18.8
Two Years to Three Years	7.3	6.4	11.7	10.3
More than Three Years	14.1	11.8	20.1	17.5
Total Residents	8,427	9,857	45,147	49,798

Source: MDS 3.0 April - June 2014, 2016

NURSING FACILITY COSTS

In this section we present information about the costs of nursing home care in Ohio. As shown in Table 15 an array of payment sources exist for nursing home care. Medicaid is the largest source of funding and the average daily reimbursement rate in 2015 was $178. Medicare reimbursement varies depending on whether the resident is in the fee-for-service system or in a Medicare Advantage managed care plan. In 2015 the average Medicare fee-for-service rate was $436 and the Medicare managed care rate was $379. The Medicare rate includes the cost of medications and therapies, neither of which are included in the Medicaid or private pay rate. The average single occupancy private pay rate was $254 and the shared room rate was $227. The private insurance rate of $323 per day includes both health insurance rehabilitation coverage and private long-term care insurance. Finally, the Veterans daily rate was reported to be $277 per day.

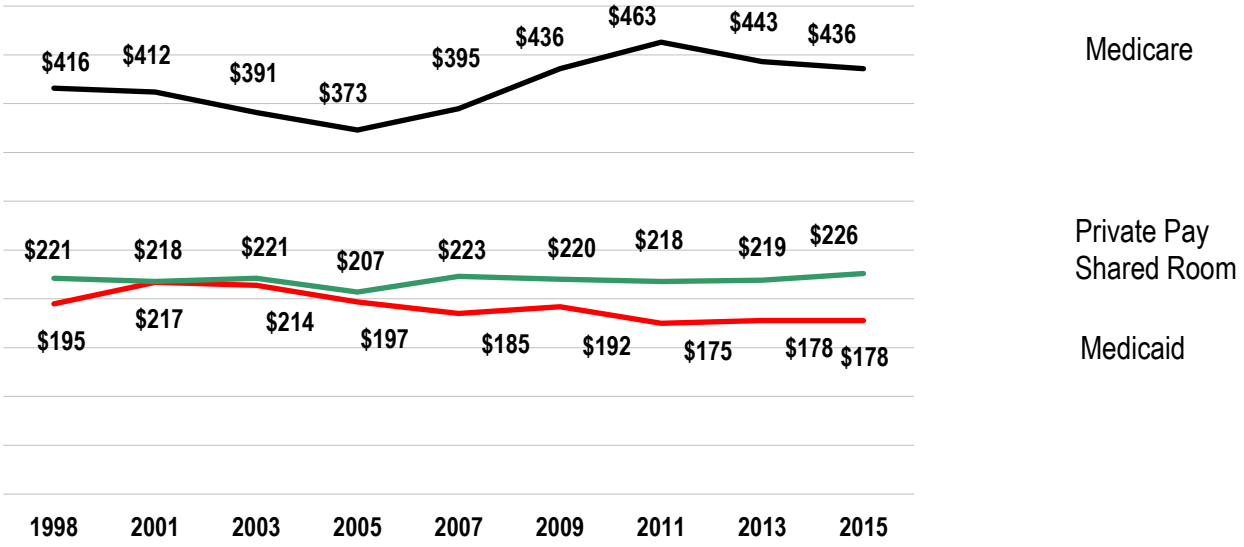
In Figure 3 we present the nursing home reimbursement rates and private pay changes for the time period 1998 to 2015. All of the yearly rates are presented in 2015 dollars. Results show that over this time period nursing home reimbursement rate changes have varied depending on funding source. The private pay shared room charge was $221 per day in 1998 (in 2015 dollars) and was $226 in 2015. The Medicare rate has shown a moderate increase above inflation, going from $416 in 1998 to $436 in 2015. The Medicaid program has actually seen a reduction in reimbursement rate when holding inflation constant. In 1998 the daily rate was $195 (2015 dollars); in 2001 the adjusted rate was $217 and the 2015 Medicaid daily rate was $178. Ohio's Medicaid reimbursement rate relative to other states has changed. In 2003, Ohio's rate was the sixth highest in the nation and in 2009, the last year of published national data, the Ohio rate had a ranking of 21.

Table 15. Ohio's Nursing Facility Daily Rates, 2015

	All Nursing Facilities	County Homes	Hospital Based Long-Term Care Unit
Number of Facilities	958	15	20
Average Daily Charge (dollars)			
Medicaid	179	165	177
Medicare	436	383	400
Medicare Advantage & EverCare	381	389	387
NF private pay (private room)	254	222	332
NF private pay (shared room)	227	207	284
Private insurance	328	341	524
Veterans	277	247	318

Source: Biennial Survey of Long-Term Care Facilities, 2015.

Figure 3. Average Nursing facility Per Diem by Source of Payment in 2015 Dollars, 1998-2015



Source: Annual Survey of Long-Term Care Facilities. Ohio Department of Health 1992, Annual and Biennial Survey of Long-Term Care Facilities, Ohio Department of Aging and Scripps Gerontology Center, 1999 - 2015, Ohio Medicaid Cost Report, 2016, Certification and Survey Provider Enhanced Reporting System, 2016. For inflation adjustment used December CPI from Bureau of Labor Statistics 'CPI Inflation Calculator' retrieved on 5/25/2017 from: https://data.bls.gov/cgi-bin/cpicalc.pl?

RESIDENTIAL CARE FACILITIES USE

The growth in licensed residential care facilities has been dramatic. From 1995 to 2015, the number of facilities increased from 265 to 655, and the number of beds increased from 10,700 beds in 1995, to 50,430 in 2015. Much of the growth has occurred as a result of the development of the assisted living industry. As noted earlier, we estimate that 582 facilities would meet the Medicaid waiver definition of an assisted living residence. As of May 2017, 362 of these facilities were participating in the Assisted Living Medicaid Waiver Program. A review of residential care facility use patterns finds an overall unit occupancy rate of 88.9%; up slightly from 2013 (see Table 16.) Occupancy rates in residential care facilities appear to have been bolstered as a result of the expansion of the Assisted Living Waiver Program, which by 2015 had grown to about 5,500 residents per day. For example, the assisted living unit occupancy rate in 2005 was 78%, in 2009 it was 81.0% and in 2015 it was 89.3%. The residential care facilities not participating in the waiver also saw an increase in occupancy rates, with a 2015 unit occupancy rate of 85.3% compared to 81% in 2009 and 77% in 2005. Data from the most recent Ohio resident satisfaction survey found that the average resident lived in their facility for about two and one-half years; a slight decrease from 2013.

Table 16. Occupancy and Length-of-Stay in Ohio's Residential Care Facilities, 2013 - 2015

	Overall (Percentages)		RCF Only (Percentages)		Assisted Living (Percentages)	
	2013	2015	2013	2015	2013	2015
Unit Occupancy	87.8	88.9	84.2	85.3	88.5	89.3
Bed Occupancy	67.3	70.6	70.8	72.1	66.5	70.4
Average Length-of-Stay (Days)	867	823	877	872	865	821

Source: Biennial Survey of Residential Care Facilities, 2013 – 2015. Resident Satisfaction Survey (Vital Research), 2015.

Information on the characteristics of individuals who use residential care facilities is presented in Table 17. Unlike our nursing home data, which are based on individual records, these findings represent summary estimates provided by the facilities. To generate these numbers, facilities were asked to report on the number of their residents with a functional impairment in areas such as bathing, dressing, and cognitive functioning. The proportion of residents in each facility was calculated and then averaged across all residences statewide. These findings indicate that RCF residents had an average age of 85, higher than individuals in the home care waiver or nursing home residents. More than four in ten residents had two or more ADL limitations and one in four received skilled nursing care. Reflecting changes in the industry, 29% had a cognitive impairment, an increase from 12% in the 2007 survey.

Table 17. Functional Characteristics of Ohio's Residential Care Facilities Residents, 2015

	Overall (Percentages)*	RCF Only (Percentages)*	Assisted Living (Percentages)*
Number of Facilities	655	73	582
Average Age	85	83	85
Needs Assistance in Activities of Daily Living (ADL)			
Bathing	70.0	71.8	69.8
Dressing	54.8	58.3	54.4
Transferring	27.1	28.5	27.0
Toileting	36.7	40.0	36.3
Eating	8.3	7.4	8.4
Medication	80.4	79.3	80.6
Walking	24.9	26.3	24.7
With two or more activities	41.1	40.1	41.2
Received Skilled Nursing Care	26.0	25.4	26.1
Behavior Problems	7.8	12.1	7.3
Cognitive Impairment	29.2	30.6	29.1

*Percentages are provided by facilities. The numbers are averaged for all facilities that provided a response to each question.
Source: Biennial Survey of Residential Care Facilities, 2015.

More detailed data are available for participants in the Assisted Living Medicaid Program (See Table 18). The profile of waiver participants has been relatively constant over the course of the program. The average age (around 80) and gender balance (about 80% female) has remained quite stable since 2008. Waiver participants continue to average between two and three activity of daily limitations (2.5) and over one-quarter require partial supervision. The demographic profile has shifted slightly over the years, but the 2016 characteristics are similar to the 2008 numbers. There has been an increase in participants needing 24-hour supervision between 2008 (11.5%) and 2016 (17.6%), while the 2016 percentage is actually down from 2012 (20.3%). Overall the profile of participants in the assisted living waiver has remained relatively constant, since the beginning with the exception of an increase in residents needing 24-hour supervision.

Table 18. Demographic and Functional Characteristics of Enrollees in the Assisted Living Waiver Program, FY 2008 - 2016

Characteristics	2008	2010	2012	2014	2016
Age					
≤45	1.2	0.8	0.8	.9	1.4
46-59	7.4	6.5	6.4	7.4	7.9
60-64	5.7	5.1	6.1	6.7	7.2
65-69	5.3	5.4	6.5	7.8	7.7
70-74	8.2	7.7	7.6	8.9	8.1
75-79	12.1	11.4	11.4	11.7	11.6
80-84	17.7	17.0	16.4	15.6	15.2
85-89	23.0	22.4	20.5	20.1	20.7
90-94	12.5	16.3	16.8	13.3	16.1
95+	6.9	7.4	7.5	7.6	4.1
Average Age	**79.5**	**80.6**	**81.7**	**79.4**	**79.0**
Gender					
Female	79.1	80.1	80.4	78.4	78.5
Male	20.9	19.9	19.6	21.6	21.5
Race					
White	88.0	88.6	89.1	84.2	88.3
Black	9.8	9.0	9.6	12.1	8.9
Other	2.2	2.4	1.3	3.7	3.8
Marital Status					
Non-Married	93.1	92.4	91.9	90.8	91.4
Married	6.9	7.6	8.1	9.1	8.6
ADL Impairment					
Bathing	91.8	87.5	88.8	88.0	86.4
Dressing	48.5	49.8	51.6	50.3	49.6
Mobility	72.4	72.6	73.3	74.6	75.0
Toileting	25.2	20.2	23.2	21.9	19.7
Eating	3.9	4.9	4.6	4.0	2.7
Grooming	22.7	20.6	20.8	18.7	17.8
Average Number of ADL Impairments	**2.6**	**2.6**	**2.6**	**2.6**	**2.5**
IADL Impairment					
Community Access	96.4	96.0	97.9	97.7	97.6
Environmental Management	99.7	98.2	99.8	99.9	99.9
Shopping	97.9	97.4	97.1	97.2	97.5
Meal Preparation	98.3	97.1	98.1	97.5	98.6
Laundry	94.3	95.3	98.1	95.2	94.9
Medication Administration	83.2	80.8	95.7	88.1	87.8
Needs Supervision					
24-hour	11.5	13.9	20.3	18.1	17.6
Partial time	27.8	23.4	27.3	26.2	26.1
Consumers Served	**413**	**1,943**	**4,102**	**5,788**	**3,416***

***Source*:** PASSPORT Information Management System (PIMS), 2008 - 2016.

*2016 Sample does not include assisted living residents now in MyCare.

PASSPORT Use and Costs

Ohio's PASSPORT program began as a two site demonstration in 1984 designed to expand the home- and community-based services available to older people with severe disability. By 1992, the program had expanded across the state serving 4,215 older Ohioans with severe disability. With continued support from state lawmakers and a growing older population the program continued to expand. In 2006, there were 26,000 participants each day and by 2016 some 41,000 older people participated daily in one of the HCBS programs funded through Medicaid (PASSPORT, Assisted Living Waiver, or MyCare Ohio). The HCBS programs use a care manager to assess participant eligibility and need, develop a plan of services, and monitor the individual's condition, circumstances and the services received to make sure that participant needs are being met. In 2007, Ohio developed the Assisted Living Waiver Program as an expanded home- and community-based service and in 2014 the state began an integrated care service delivery demonstration called MyCare. The MyCare demonstration builds on the HCBS waiver programs by adding an array of acute care services designed to integrate the short-term and long-term services systems. MyCare participants with severe disability typically enter the program through the PASSPORT and Assisted Living Waiver Program and so our presentation of enrollment data combine PASSPORT, AL, and MyCare enrollees. We also separate out those who remain in PASSPORT and AL and those who transition to the MyCare demonstration.

PASSPORT and assisted living care managers work with program participants and family caregivers to develop the service plan. Services supported under the PASSPORT Medicaid waiver include personal care, adult day care, home-delivered meals, medical transportation, respite care, and medical equipment. As shown in Table 19, about three-quarters of PASSPORT program service dollars are allocated to personal care and an additional 5% to homemaker services. This is typical for home- and community-based waiver programs, since individuals to qualify must have severe functional impairments to qualify for the program. Regardless of setting, individuals with severe disability rely on support for the tasks of daily living such as bathing, dressing, and meal preparation. About 11% of funds are allocated to home-delivered meals, another core component of the home care system. Other expenditure categories are transportation (4.3%), adult day care (3%), and medical equipment and supplies (2.2%).

Table 19. PASSPORT Expenditures by Type of Service, 2008 - 2016

Type of Services	FY 2008 (Percentages)	FY 2010 (Percentages)	FY 2012 (Percentages)	FY 2014 (Percentages)	FY 2016 (Percentages)
Personal care	75.6	71.3	67.6	69.0	73.6
Home-delivered meals	11.2	14.8	15.8	12.0	10.9
Adult day services	3.5	2.6	2.5	3.7	2.3
Transportation	3.8	3.5	4.4	4.4	4.3
Home medical equipment and supplies	2.0	2.4	2.8	2.3	2.2
Homemaker services	1.0	1.3	2.5	5.6	5.0
Emergency response	1.9	3.4	3.3	1.8	0.1
Home modification	0.7	0.6	0.8	0.9	0.9
Other	0.3	0.1	0.3	0.3	0.6

Source: PASSPORT Information Management System (PIMS), 2008 - 2016.

The PASSPORT program continues to serve a higher proportion of women (74%) and a high proportion of individuals who are not married (79%). However, the profile of participants has changed in some important ways over the last two decades (See Table 20). Today the program serves many more individuals under age 70 (39.5%) than 10 years ago (27%), with the average age dropping by more than three years since 1996. The proportion of participants reporting to be never married has increased from 6% in 1996 to 14% today. Even the gender profile has shifted slightly, going from 77% women to 74% over the two decades. Perhaps reflecting the younger age of the group, today a higher proportion of PASSPORT participants live in their own home or apartment, rather than with family or friends (84% vs. 77%) compared to 1996.

Table 20. Demographic Characteristics of PASSPORT Consumers, FY 1996, 2006 - 2016

PERCENT	FY 1996	FY 2006	FY 2012	FY 2014	FY 2016
Age					
60-64	10.5	10.7	12.2	12.2	18.0
65-69	13.1	16.0	18.2	19.2	21.5
70-74	17.7	17.4	18.2	19.2	18.3
75-79	18.8	18.5	17.0	17.4	15.7
80-84	17.4	18.2	15.5	14.5	12.6
85-89	13.8	11.5	11.6	11.0	9.0
90-94	6.5	5.8	5.4	4.8	4.2
95+	2.2	1.9	1.9	1.7	0.7
Average Age	76.8	76.7	75.6	75.3	73.6
Gender					
Female	77.0	78.7	75.9	75.4	73.8
Race					
White	72.8	74.1	70.4	65.9	71.6
Black	25.9	23.8	25.6	26.7	19.1
Other	1.3	2.1	4.0	7.2	9.3
Marital Status					
Never Married	5.8	6.6	10.2	11.6	13.8
Widowed	56.7	49.4	41.0	37.6	33.8
Divorced/Separated	17.2	24.2	29.2	29.7	31.1
Married	20.3	19.8	19.5	19.8	21.3
Usual Living Arrangement					
Own home/ apartment	76.7	79.5	83.9	84.3	84.4
Relative or friend	21.5	17.9	15.3	14.8	15.2
Congregate housing for elderly/RCF	0.6	0.2	0.2	0.2	0.1
Nursing facility	0.9	1.3	0.3	0.7	0.2
Other	0.1	1.1	0.3	0.1	0.1
Number of Consumers Served	3,883	28,565	34,173	42,868	22,128

Source: PASSPORT Information Management System (PIMS).

The disability profile of PASSPORT participants has remained relatively constant; with participants reporting on average three activities of daily living impairments (See Table 21). Six in ten individuals have three or more ADL impairments. There has been some shifting within the specific ADL items, but we believe this to be the result of changes in assessment guidelines rather than actual shifts in disability rates. More than nine in ten (94%) report four or more instrumental activity limitations in such areas as shopping and meal preparation. One in five participants has a need for supervision. While the demographic profile has shifted slightly, the functional characteristics have remained constant over the past two decades.

PROGRAM DISENROLLMENT

About 20% of PASSPORT participants and 25% of assisted living waiver residents left the program during 2016. Given the frailty of the program participants, it is not surprising that the two major reasons for disenrollment from PASSPORT or the assisted living was that the participant died or was admitted to a skilled nursing home for more than 30 days (See Table 22). There were some differences by setting. Terminations due to death were higher for the PASSPORT program (37%) compared to the assisted living waiver (28%). The proportion of disenrollments to nursing homes was considerably higher for assisted living (52%) compared to PASSPORT (37%). The nursing home disenrollment rate for PASSPORT continues to drop reflecting efforts to help participants remain in the community as long as possible. In 2008, 38% of PASSPORT participants left the program for long-stay nursing home placement, in 2014 it was 30% and in 2016 the rate was 28%. It will be important to gain a better understanding of why the nursing home disenrollment rate is so much higher for assisted living waiver participants. In our survey of residential care facilities more than half of the respondents reported that the waiver reimbursement rate was a major barrier. This could result in providers being unable to serve the highest care residents, particularly those with dementia. The remaining reasons for disenrollment from both programs are similar and in the case of PASSPORT they have remained relatively stable over time. These results do not include participants in the MyCare demonstration.

Table 21. Functional Characteristics of PASSPORT Consumers, FY 1996, 2006 - 2016

	FY 1996 (Percentages)[a]	FY 2006 (Percentages)[a]	FY 2012 (Percentages)[a]	FY 2014 (Percentages)[a]	FY 2016 (Percentages)[a]
Percentages with Impairment/Needing Hands-On Assistance in Activities of Daily Living (ADL)[b]					
Bathing	96.1	96.0	95.6	94.7	95.8
Dressing	64.1	60.1	62.8	62.6	66.5
Mobility[c]	57.8	75.6	83.9	83.6	77.1
Toileting	30.1	21.1	21.8	21.3	21.3
Eating	8.0	10.9	5.5	4.3	4.2
Grooming	59.0	32.9	29.1	26.5	29.4
Number of ADL impairments*					
0	1.5	0.8	1.1	1.4	0.7
1	3.7	3.5	3.4	4.1	4.2
2	29.3	34.6	34.2	34.8	35.1
3	32.0	33.6	33.9	33.4	34.0
4 or more	33.5	27.5	27.4	26.2	26.0
Average Number of ADL Impairments	3.2	3.0	3.0	2.9	2.9
Percentage with Impairment in Instrumental Activities of Daily Living (IADL)					
Community access[e]	91.8	84.8	85.9	83.4	80.5
Environment management[f]	99.9	95.2	99.8	99.9	99.7
Shopping	97.5	97.4	96.6	96.2	96.3
Meal preparation	85.3	88.5	88.3	87.9	90.0
Laundry	95.6	95.7	96.0	95.6	95.7
Medication Administration	49.6	41.4	42.1	41.3	41.0
Number of IADL Impairments**					
0	0.0	3.9	0.1	.04	0.0
1	0.0	1.0	0.2	0.3	0.2
2	0.4	0.5	0.8	0.8	0.7
3	4.4	3.8	4.5	5.0	4.9
4 or more	95.2	90.8	94.5	94.7	94.3
Average Number of IADL Impairments**	5.2	4.9	5.1	5.1	5.0
Supervision Needed[g]					
24-hour	---	9.5	9.6	9.1	8.0
Partial time	---	9.1	11.2	11.9	13.3
Number of Consumers Served	3,883	28,565	34,173	42,868	22,128

[a] Percentages are adjusted to reflect only those consumers for whom information was available on each variable.
[b] Impairment includes all who could not perform the activity by themselves or could with mechanical aid only.
[c] Needs hands-on assistance with at least one of the following three activities: *bed mobility*, *transfer* or *"locomotion."*
[e] Needing hands-on assistance with using a *telephone*, using *transportation*, or handling *legal or financial matters* constitutes impairment in community access.
[f] Needing hands on assistance with *house cleaning*, *yard work*, or *heavy chores* constitutes impairment in environmental management.
[g] Between June 2001 and September 2004 the Ohio Department of Aging gradually changed to a new PASSPORT information management system designed to keep track of PASSPORT consumers' characteristics and service utilization. Not all the information presented in this report was electronically available prior to this change, therefore some analysis is limited to the PASSPORT sites that changed to the new system prior to July, 2003.
Source: PASSPORT Information Management System (PIMS).
* From the list above.

Table 22. Disenrollment Reasons for PASSPORT and Assisted Living Waiver Program Participants

Reasons (percent)	2012 PASSPORT	2014 PASSPORT	2016 PASSPORT	2016 AL Waiver
Died	45.5	38.3	36.7	27.5
Admitted to Nursing Facility for 30+ Days	34.0	30.4	28.3	51.8
Admitted to Hospice Care	0.2	0.1	0.1	0.0
Admitted to Hospital for 30+ Days	1.0	0.9	0.7	0.3
Did Not Meet Financial Eligibility	3.0	6.5	5.2	5.0
Could Not Agree on a Plan of Care	1.2	1.6	1.4	1.5
Did Not Meet Level-of-Care	1.5	1.7	0.6	-
No Longer Resides in Ohio	4.6	4.2	5.3	0.8
Other (including transfer to other waivers)	3.0	6.1	12.8	8.8
Voluntarily Withdrew from Program	6.0	9.9	8.9	4.3
Percent Disenrolled	23.5	19.6	19.9	25.1

Source: PASSPORT Information Management System (PIMS) 2012 - 2016.

LONG-TERM SERVICES AND SUPPORTS SYSTEM CHANGES

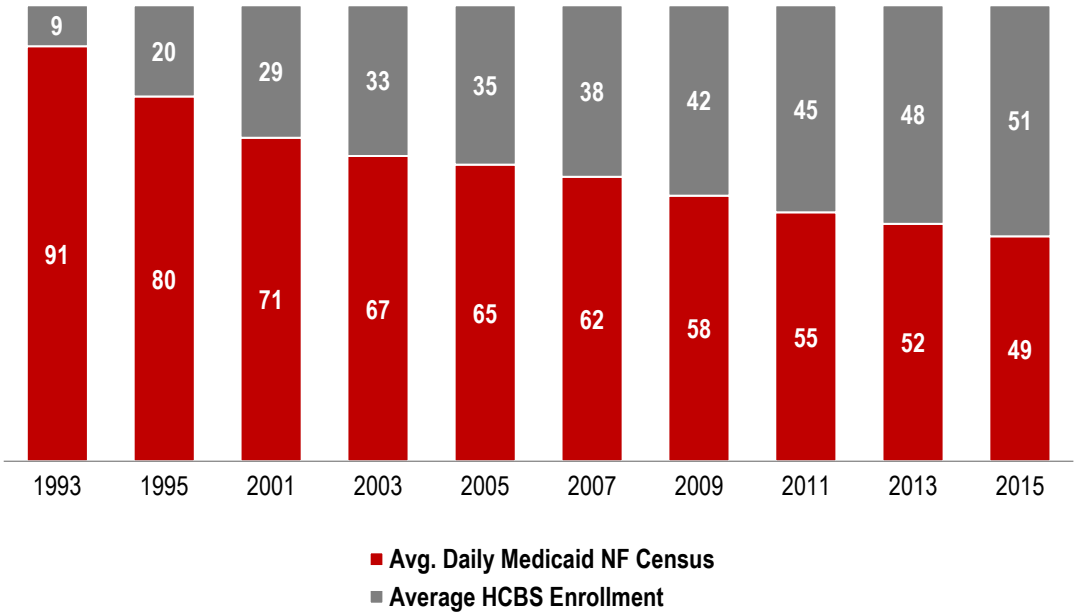
In this report we have presented data tracking the provision of long-term services in Ohio. In this section we address the impact that these changes have had on system balance.

SYSTEM BALANCE

In 1993, the initial year of this study, critics consistently identified Ohio as a state system that emphasized the nursing home care option over home- and community-based services. In fact, a report on system balance in the U.S. on data from 1997, ranked Ohio as the 47th least balanced state in the nation (AARP, 2000). Our report has described a substantial expansion of home- and community-based waiver services and a reduction in nursing home use by older people. In combination, these changes mean that Ohio has dramatically changed its long-term services profile and now ranks 22nd for the amount of Medicaid funds allocated to HCBS for older adults and people with physical disabilities (Eiken et al., 2017). As shown in Figure 4, in 1993 more than nine in ten older people receiving long-term services from Medicaid did so in a nursing home setting. By 2015, that ratio had changed so that for the first time ever, more than half of the older individuals receiving long-term services through Medicaid did so in the community (51 to 49

ratio). Ohio has continued its progress in this area and in fact data for the 2013 to 2015 time period reported that Ohio's overall HCBS spending increase (7.3% of total LTSS expenditures) was the second highest in the nation (Eiken et al., 2017).

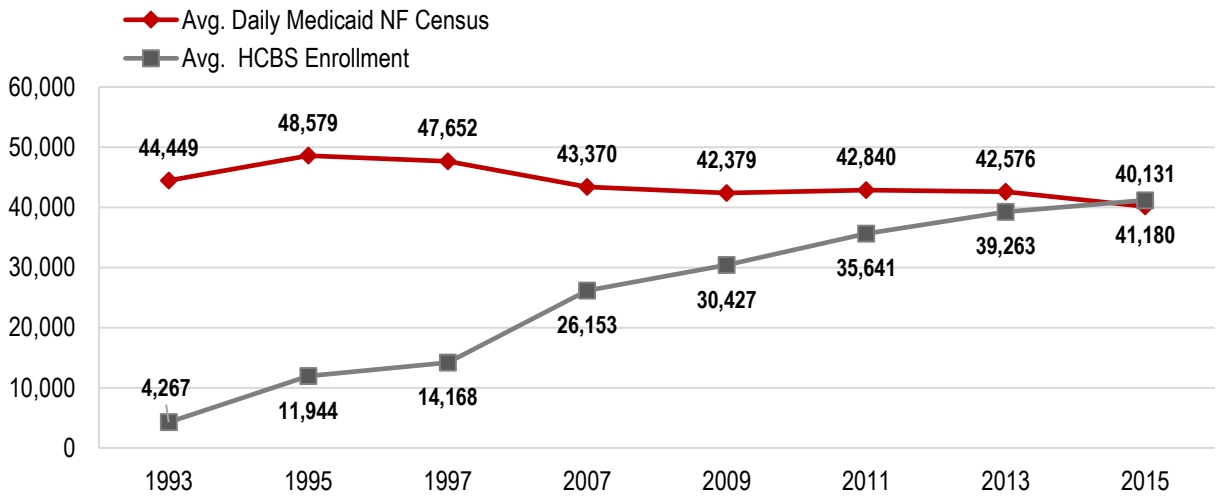
Figure 4. Distribution of Ohio's Long-Term Care Services and Supports Use by People Age 60 and Older, 1997-2015



***Source*:** Unpublished Medicaid Claims data, Ohio Department of Medicaid SFY 2005 - 2013. Health Policy Institute of Ohio. 2015.
'*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf.
PASSPORT Information Management System (PIMS) 1993 - 2015.

The strategy that the state used to change was one that recognized the rapidly growing older population and the need to provide a better range of home- and community-based options. The hope of policy makers was that the expansion of options would reduce the rate of nursing home use by older people. Figure 5 illustrates the shift in service settings of Ohio's Medicaid long-term services participants age 60 and older. In 1993, the Medicaid long-term services system served just under 49,000 individuals age 60 and older, with 44,450 (91%) of those persons in the nursing home setting. In 2015, reflecting the large increase in the sheer number of older people, the system served 81,300 older individuals, with 41,180 in the community. The increase in the older population during this time period has been dramatic. For example, in 1995, Ohio had 157,200 individuals age 85 and older and by 2015 that number has grown to over 260,000 (65% increase). Yet between 1997 and 2015 the number of older people on Medicaid in Ohio nursing homes has been reduced by an average of 7,400 individuals each day from 1997.

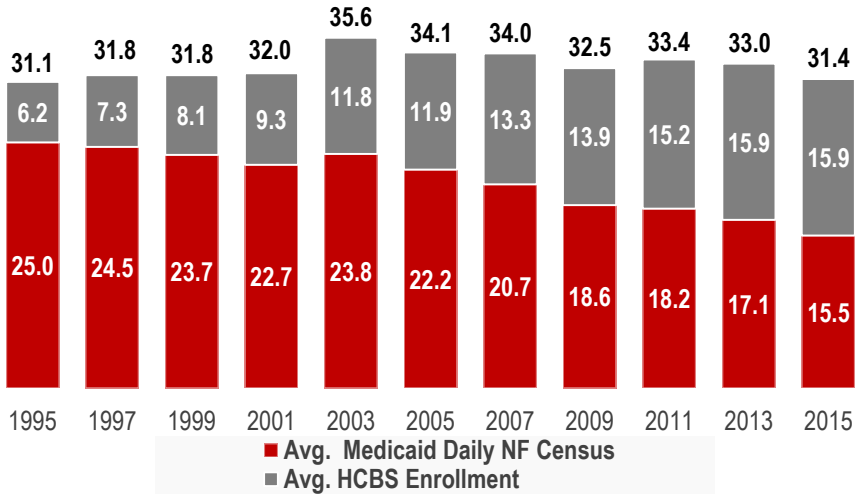
Figure 5. Medicaid Long-Term Services and Supports for Individuals Age 60 and Older, 1997 - 2015



***Source*:** Unpublished Medicaid Claims data, Ohio Department of Medicaid SFY 2005 - 2013. Health Policy Institute of Ohio. 2015. '*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf. PASSPORT Information Management System (PIMS) 1993 - 2015.

Figure 6 displays the growth in the number of individuals using long-term services in the context of overall population growth. One of the questions that policy makers asked at the outset of home- and community-based services expansion was, will this growth create demand such that the number of Medicaid participants increases at a faster rate than the overall aging population? To address this question we examine the utilization rates of long-term services as a rate of the number of Ohioans age 60 and older residing in the state. In 1995, the Medicaid long-term services utilization rate was 31.1/1,000 people age 60 and older. In 2015, the rate of 31.5/1,000 was equivalent to the 1995 number. Reflecting the change in balancing, the ratio had changed considerably, with the nursing home use rate dropping from 25/1,000 in 1995 to 15.5/1,000 in 2015. These data indicate that the state strategy did not increase the utilization rate above the growth expected as a result of an increased aging population, but it did change the configuration of services.

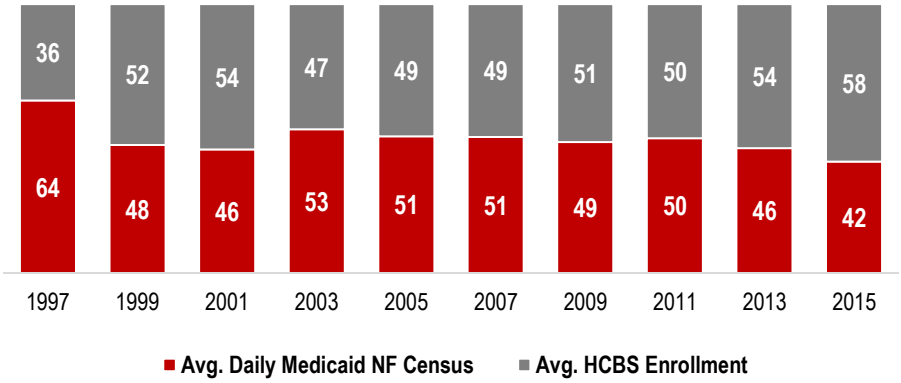
Figure 6. Number of People Age 60 and Older on Medicaid Residing in Nursing Facility or Enrolled in HCS (including MyCare) per 1,000 Persons in Population, 1995 - 2015



Source: Annual and Biennial Survey of Long-Term Care Facilities, 1995-2015. Health Policy Institute of Ohio. 2015. '*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf. Mehdizadeh, S. Kunkel, S. and Nelson, I. (2014). Projections of Ohio's Population with Disability by County, 2010-2030. Scripps Gerontology Center, Miami University, Oxford, OH. www.ohio-population.org. PASSPORT Information Management System (PIMS) 1993-2015. United States Census Bureau. 2016. 2015 ACS 1-year PUMS. Bureau's American Community Survey Office. Retrieved on 11/1/2016 from: https://www.census.gov/programs-surveys/acs/data/pums.html. Unpublished Medicaid Claims data, Ohio Department of Medicaid SFY 2005-2013.

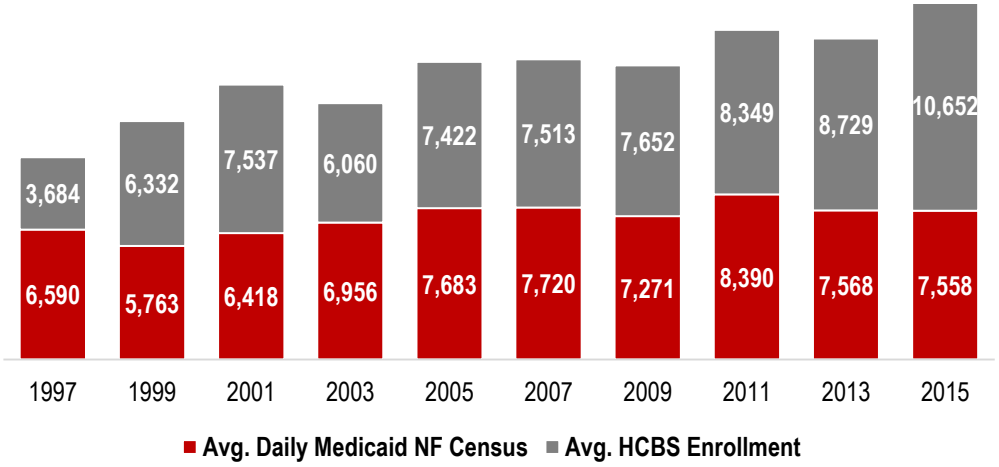
A longitudinal presentation of home care and nursing home use for Ohioans under age 60 is also examined in this work (See Figure 7). Long-term services use by individuals with severe disability under the age of 60 has shifted from 64% Medicaid LTSS participants residing in institutional settings in 1997, to 42% in 2015. The data displayed in Figure 8 indicate that more than 10,652 individuals received home- and community-based Medicaid services in 2015, compared to just 7,558 in the institutional setting.

Figure 7. Percent Distribution of Ohio's Long-Term Care Services and Supports Utilization by People Under 60, 1997 - 2015



Source: Annual and Biennial Survey of Long-Term Care Facilities, 1997 - 2015. Health Policy Institute of Ohio. 2015. '*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf. Mehdizadeh, S. Kunkel, S. and Nelson, I. (2014*). Projections of Ohio's Population with Disability by County, 2010 - 2030.* Scripps Gerontology Center, Miami University, Oxford, OH. www.ohio-population.org. PASSPORT Information Management System (PIMS) 1993 - 2015. United States Census Bureau. 2016. 2015 ACS 1-year PUMS. Bureau's American Community Survey Office. Retrieved on 11/1/2016 from: https://www.census.gov/programs-surveys/acs/data/pums.html. Unpublished Medicaid Claims data, Ohio Department of Medicaid SFY 2005-2013.

Figure 8. Average Number of People Under Age 60 Receiving LTSS, Paid by Medicaid, 1997 - 2015



Source: Annual and Biennial Survey of Long-Term Care Facilities, 1997 - 2015. Health Policy Institute of Ohio. 2015. '*Ohio Medicaid Basics 2015*' Retrieved on 7/21/2015 from: http://www.asiaohio.org/wp-content/uploads/2011/07/MedicaidBasics_2015_Final.pdf. Mehdizadeh, S. Kunkel, S. and Nelson, I. (2014). *Projections of Ohio's Population with Disability by County, 2010 - 2030.* Scripps Gerontology Center, Miami University, Oxford, OH. www.ohio-population.org. PASSPORT Information Management System (PIMS) 1993 - 2015. United States Census Bureau. 2016. 2015 ACS 1-year PUMS. Bureau's American Community Survey Office. Retrieved on 11/1/2016 from: https://www.census.gov/programs-surveys/acs/data/pums.html. Unpublished Medicaid Claims data, Ohio Department of Medicaid SFY 2005-2013.

RECOMMENDATIONS

Ohio has made substantial progress in its efforts to provide long-term services and supports to a growing population of older people with severe disability. The changes that have occurred over the last two decades were considered unthinkable 20 years ago. In 1993, 90% of older people with severe disability receiving long-term services through Medicaid did so in an institutional setting. By 2015, more than half of them received services in a community-based setting, most typically their own home or with a family member. The state has improved its balance by expanding home- and community-based services and reducing the number of older people using nursing home care. Between 1997 and 2015, the average daily census of older nursing home residents supported by Medicaid decreased by 7,520 (16%). In the same time period, the number of Ohioans age 85 and older increased by more than 100,000. Between 2013 and 2015 the proportion of older people on Medicaid dropped by 5.7%.

Despite this progress, challenges remain. Between 2015 and 2030 Ohio's population over age 65 and age 80 will increase by 40% and 46%, respectively. Thirty-five percent of the state's Medicaid budget is allocated to long-term services; adding costs to a program that already accounts for more than one-quarter of the state's general revenue budget is a serious concern. In response to these and other challenges we offer the following recommendations:

- Ohio needs to continue to evolve in developing an overall strategy to prepare for the unprecedented increase in the older population. Today more than half of all older people in Ohio with severe disability use long-term services funded through the Medicaid program. If the disability rate remains constant between now and 2040, the economic challenges to the state could be overwhelming. Today, 90% of older people living in the community do not use Medicaid, but two-thirds of nursing home residents rely on the program. Moderate and middle income elders typically do not turn to Medicaid until they require nursing home care or their disability becomes so severe that they need substantial assistance. As the older population increases, the state must consider how to reduce the proportion of older people that will need Medicaid assistance. One way is to expand activities to prevent or delay disability, however many federal funding sources, such as Medicare and Medicaid, provide almost no support for such initiatives. The Ohio Department of Aging is now supporting several evidence-based practice programs, such as A Matter of Balance and Chronic Disease Self-Management. However, the amount of resources as a state and nation allocated to preventative care compared to curative measures is almost imperceptible. However, if the disability rate remains constant between now and 2040, the economic challenges to the state will be overwhelming.

- A second mechanism to explore involves efforts to help individuals and their families to receive the support needed to delay or prevent the transition to Medicaid. Several recent

studies have identified the importance of supportive services, such as home-delivered meals, homemaker assistance, and transportation for groceries and medical appointments on the use of nursing homes by individuals with low care needs. The recent AARP Long-Term Services and Supports Score Card reported that 11.2% of Ohio's nursing home residents are considered to be low care, giving Ohio a ranking of 25th. The best state in the nation had a rate of 4.1%. Ohio has one of the strongest network of area agencies in the nation and while the supportive services available through the federal Older Americans Act are inadequate, it will be critical to continue to provide the resources for these agencies to target supportive services to those with moderate levels of disability and moderate income levels. Ohio is also fortunate to have a number of counties with tax levies that provide support for county organizations or the area agencies on aging to provide these services and the state should explore how to assist counties in using these resources to help individuals maintain social and financial independence. Our research on the levy programs indicates that counties have an incentive to shift higher care need participants to Medicaid and a system that works with these organizations to continue serving higher need individuals would be an important step forward.

- Ohio can embrace technology and environmental adaptation to help older people with disability to remain independent in the community. Computer processing power has increased and the true age of robotics will soon be here, with substantial potential impact in the key areas of transportation and personal care. Ohio already has established sectors of high technology; applying this innovation to elder issues is a potentially vital area of economic and social development that would not only fuel the state economy, but could also assist the state in providing assistance to a growing population. Other environmental adaptations to assist older people with disability to remain or return to the community have also been shown to be critical in maximizing independence. Some are small fixes, such as well-placed grab bars, others more complicated, such as mechanisms to help lift and transfer individuals with severe disability. Often times, caregivers report that it is these types of supports that allow them to continue to assist family members or friends.

- Even with technology, long-term services, regardless of setting, will remain a labor intensive and personal set of services. Ohio should continue efforts to better train and support the direct-care workforce. Our survey of nursing homes found an average retention rate of 66% of state trained nursing assistants; in some facilities those rates are below 20%, meaning that a large number of direct-care workers stay less than one year on the job. Wages and benefits, staffing patterns, organizational structure, market conditions, and a host of other factors have been shown to impact workforce quality and rates of turnover. However, our data show that even in similar labor markets, variation in retention rates are significant, suggesting that technical assistance and administrative and policy changes can have a considerable impact in this area. Statewide best practices initiatives, such as the one

being explored by the Ohio Department of Aging with the nursing home industry, are the kinds of efforts that need to be expanded across the long-term delivery system. In some instances, some of these innovative training approaches might prove useful for family and other informal caregivers.

- Nearly one in four Ohio nursing home residents are under the age of 60. About 45% of this group stays three months or less, suggesting that Medicaid has become a short-term rehabilitation funding source for younger participants. However, three in ten of the under-60 age group are nursing home residents for one year or more. This age group generally has lower overall rates of disability which has raised questions about the appropriateness of the nursing home setting for these individuals. As Ohio has expanded home- and community-based service options it has also made considerable effort to make sure individuals of all age reside in the appropriate settings. A recent evaluation of the Money Follows the Person program found that Ohio had the largest number of transitions in the nation in 2015 and 43% of those leaving the facilities were individuals with mental illness (Irvin et al., 2017). A comprehensive study of what contributes to length-of-stay for this age group is warranted.

- In the past two years Ohio has reduced the number of nursing home beds in the state and the number of individuals with severe disability who reside in a nursing home setting. For example, in 2011, 29% of older people with severe disability resided in Ohio nursing homes and in 2015 that proportion had dropped to 24%. However, as a state we still have, on a per capita basis, a higher supply of beds than most states and a higher proportion of older people that utilize institutional settings. For example, 14.4% of women age 85 and older reside in nursing homes in Ohio and the national average is 11.6%. The rate of women age 85 and older for Oregon is 3.8%. Creating an array of community supports for individual and families has allowed states to lower the use of nursing homes and Ohio needs to examine best practices used across the nation.

- As noted, the system of long-term services in Ohio has become considerably fluid in nature. The once held assumption that individuals progressed in linear fashion through the continuum of long-term services—from a community home to assisted living to nursing facility—is no longer the typical case. Individuals go from setting to setting in very different orders and under different circumstances. In order to track participant outcomes, it would be useful to have a common core of measures across long-term services settings. In order to ensure that the system is as cost-effective as possible, it is critical that common approaches to assessing level of need, use of services, and outcomes of service are developed and implemented. Right now it is difficult to compare the effectiveness of programs because different data are collected to characterize the population and different outcomes are used to assess program performance. Even when common measures are used

they are not collected in a standardized manner, making comparison across and sometimes within programs difficult. The demographic challenges of the future mean that our long-term services system will need to be as efficient and effective as possible. A better system of monitoring and measurement will be a key element of Ohio's improvement strategy.

- This dramatic increase in short-term nursing home stays has major implications for program policies and procedures. For example, in 1993 Ohio implemented an extensive pre-admission screen and resident review requirement for individuals being admitted to Ohio's skilled nursing facilities. At that time there was a concern that individuals were entering nursing homes inappropriately, without understanding possible home- and community-based service options. In 1993, when pre-admission screening was initially implemented, about 60% of those admitted continued to reside in the facility after three months, compared to 16%, 20 years later. This means that Ohio is spending a considerable amount of resources doing a pre-admission review for individuals who will stay only a short period of time. The challenge is that there are still individuals being admitted to skilled nursing facilities who could benefit from either the pre-admission screen or the resident review used to identify mental health needs of those being admitted. The program and policy question is how to do this as efficiently and effectively as possible. Additional work is required to determine how best to target and implement the pre-admission screen and resident review in a changed long-term services system.

- The large number of short-term residents also has financing, regulatory, and quality implications. The Ohio Department of Aging is already exploring changes to the resident and family satisfaction surveys based on these circumstances. But what other aspects of nursing home practice and policy are impacted by these changes? Should these changes alter regulatory strategies? Does Ohio need two types of inspection surveys, one focusing on short-term care and one focusing on long-stay residents? Another question involves the reimbursement approach. Medicaid has long been seen as the long-term public funding mechanism for nursing homes, while Medicare was the short-term rehabilitation funder of services. One surprising finding was that many Medicaid admissions are also for short-stays, with 72% of these individuals discharged within three months. Should there be a differing reimbursement rate for short- and long-term individuals using Medicaid? These changes suggest that a review of financing and regulatory policies are necessary.

In summary, Ohio has made considerable strides over the past two decades in changing the system of long-term services and supports. Once known for being a state where nursing home care was the primary option for older adults, Ohio is now serving more older people through the Medicaid home- and community-based service system than in nursing homes supported by Medicaid. Despite the progress, many challenges remain. But this report highlights the fact that state policy changes do indeed matter.

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