

**An Assessment of Long-Term
Care Service and Support Needs
and Utilization in the TriHealth
SeniorLink Region**

**Shahla Mehdizadeh
Anthony Bardo**

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Anthony Bardo**

**Scripps Gerontology Center
Miami University**

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BACKGROUND

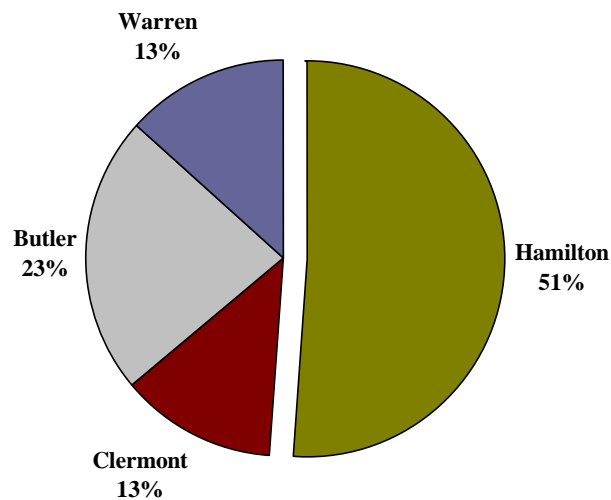
Since 1993, the Scripps Gerontology Center at Miami University has been tracking long-term care needs and utilization in Ohio and issuing biennial reports summarizing the findings. A report titled *Providing Long-Term Services and Supports to an Aging Ohio: Progress and Challenges* is the most recent publication in this series. Each report presents the size of the state population in need of long-term care services and supports; a description of the different programs and settings that supply the care; and the characteristics of the consumers receiving care.

In this report, we will produce much of the same information for the area that the TriHealth SeniorLink PACE site operates. The two Programs of All-Inclusive Care for the Elderly (PACE) in Ohio are located in two of the largest metropolitan areas of the state, with unique population and economic characteristics that warrant separate studies. In the following sections of this report we will provide information concerning a number of components of the region's long-term care system. First, we will present information regarding the current and projected older population, and the population with severe disability in the TriHealth SeniorLink region. Second, we will describe: a) the characteristics and utilization patterns of residential long-term providers of services and supports; and b) the community-based programs. Third, we'll present the characteristics of the consumers in both facility-based and home- and community-based settings. Finally, we will present the characteristics of the consumers that were enrolled in the TriHealth SeniorLink and Concordia Care PACE programs.

Although TriHealth SeniorLink accepts applicants from Hamilton County, and only certain zip codes from Butler, Clermont, and Warren counties, most of the regional data

presented encompasses the entirety of these counties. More than half of the population in the four county area reside in Hamilton County, as shown in Figure 1.

Figure 1
SeniorLink Population Distribution by County, 2009



In total in 2009, the four county areas have over 1.5 million in population. As Table 1 shows, the region is expected to experience a 5.8% increase in population from 1.58 million to 1.68 million in the next 11 years. The number of people with severe disability in all age groups is expected to increase by more than 10% from 39,000 to just over 43,000. The disability rates used in this study are taken from an earlier report by Scripps Gerontology Center (Mehdizadeh, 2008) and applied to the projected population of this area. Severe disability is defined as a level of disability in which the individual meets Medicaid-eligibility criteria for: nursing home care in an intermediate care facility (ICF); or care in a facility designed for individuals with intellectual or developmental disabilities (ICF/MR).

Table 1
TriHealth SeniorLink Region's Projected
Population with Severe Disability by Type

Year	Total Population	Physical and/or Cognitive	Intellectual and/or Developmental	Severe Mental Illness	Total Population with Severe Disability
2009	1,584,594	22,421	5,031	11,552	39,004
2010	1,593,000	22,965	5,066	11,533	39,564
2020	1,677,040	25,188	5,247	12,637	43,072

Source: Based on disability rates from Mehdizadeh, S. (2008). *Disability in Ohio: Current and future demand for services*. Oxford, OH: Scripps Gerontology Center, Miami University.

The more than proportional increase in the number of people with severe disability is due to the aging of the population. In general, disability rates increase with age. In the next 11 years, due to the aging of the baby boom population, there will be a noticeable increase in the population between ages 55-75 as shown in Figure 2.

Detailed tables showing projected population and the population with severe disability by age group for the total and each of the four counties in this study appear in tables A1-A5, pages 26-35.

The majority of people with a severe disability (57.5%) have what we defined as physical and/or cognitive disability¹. The proportion of the population with physical and/or cognitive disability will increase slightly to 58.5% in the next 11 years as the population ages and more of the over 60 population find themselves with chronic impairments and inability to care for themselves (see Figure 3).

¹ A person who meets Intermediate Level of Care (ILOC) and there is no evidence of severe mental illness or intellectual and/or developmental disability, even if he or she has a diagnosis of dementia or Alzheimer's disease.

Figure 2
Projected Population Distribution of SeniorLink Region by Age
(in thousands of Persons)

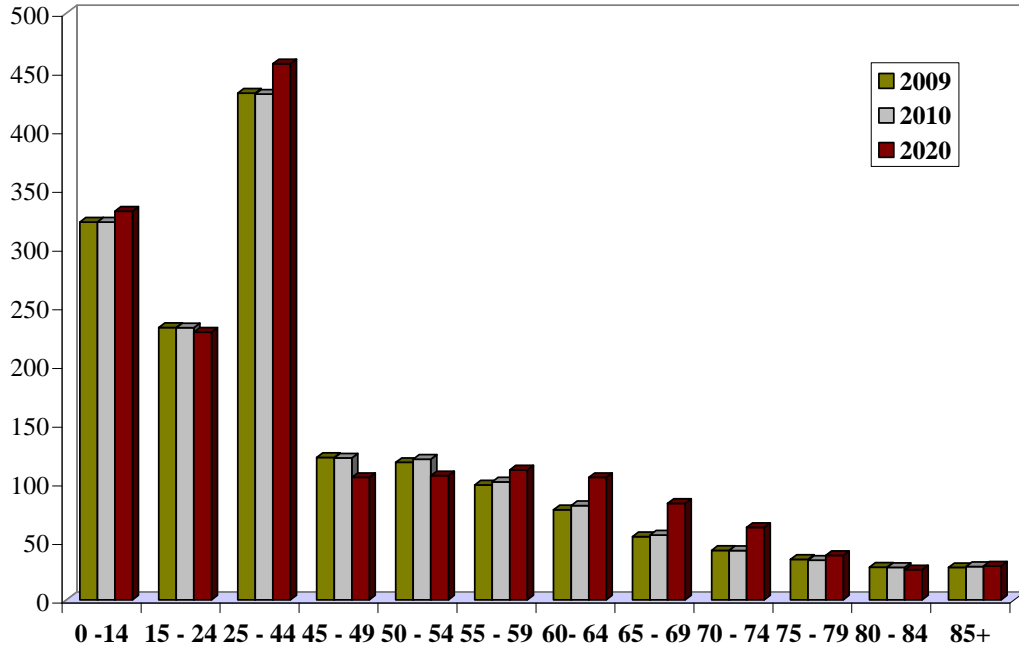
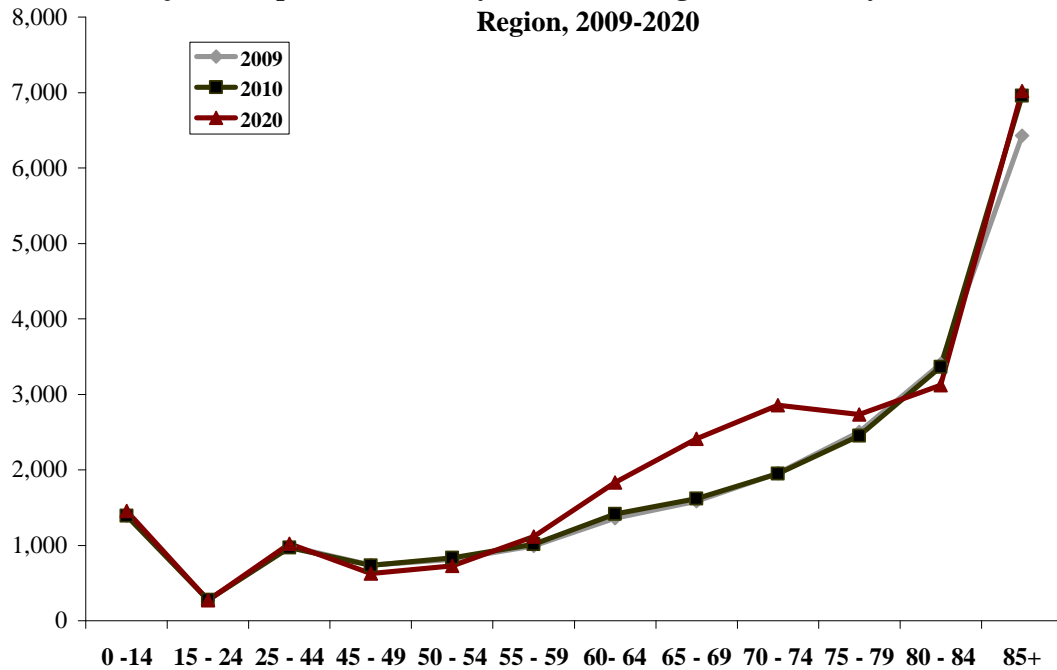


Figure 3
Projected Population with Physical and/or Cognitive Disability in SeniorLink
Region, 2009-2020



LONG-TERM CARE SERVICES AND SUPPORTS

Individuals experiencing severe disability rely on a range of settings for assistance in the TriHealth SeniorLink region.

RESIDENTIAL SETTINGS – There are a range of residential care settings, from nursing homes (which provide 24-hour skilled or intermediate level of nursing care) to adult foster care (which provide lesser levels of personal care, protection, and supervision.) There were 123 nursing homes with 12,111 beds in the SeniorLink region in 2007. The number of nursing home beds per 1000 persons age 65 and older in this area is over 65, considerably higher than the state average of 60. The majority of beds were certified for Medicare, Medicaid or both. The additional beds in relation to population are reflected in the lower total occupancy rate (86.7% vs. 87.7% state average), as well as Medicaid (55.4% vs. 56.9%) and Medicare occupancies (9.6% vs. 12.1%) as shown in Table 2. The average daily nursing home census for the four county areas was 10,511 in 2007. On average, 60% of the residents relied on Medicaid for assistance with nursing home payment, and only 18% of payments were from sources other than Medicaid or Medicare.

The region also had 66 Residential Care Facilities (RCF) with a total of 4620 units, with almost 6000 licensed beds. Residential care facilities serve individuals who require assistance with personal care services, but do not require skilled nursing services for more than 120 days a year. Private pay is the primary source of payment for these facilities. The residential care facility bed occupancy in the region was 67% comparable to the state rate of 66% (see Table 3). However, often more than one licensed bed is placed in a unit; therefore, bed occupancy does not reflect the true nature of the facility occupancy.

Table 2
TriHealth SeniorLink and Ohio Nursing Facility
Admissions, Discharges, and Occupancy Rate

Adjusted Nursing Facility Beds^a	SeniorLink Region	Ohio
Total beds	12,111	92,443
Medicaid certified	11,698	90,559
Medicare certified	11,784	91,659
Number of Admissions		
Total	24,337	200,954
Medicaid resident	3,329	25,182
Medicare resident	14,055	126,528
Number of Discharges		
Total	24,000	199,831
Medicaid resident	4,553	37,695
Medicare resident	11,965	109,628
Occupancy Rate (Percent)		
Total	86.7	87.7
Medicaid resident ^b	55.4	56.9
Medicare resident ^c	9.6	12.1

^aTotal 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 adjusted to account for facilities that did not respond to the survey in each year.

^bMedicaid certified beds occupied by residents with Medicaid as source of payment.

^cMedicare certified beds occupied by residents with Medicare as source of payment.

Source: Annual Survey of Long-Term Care Facilities. Biennial Survey of Long-Term Care Facilities, 2008.

There are other residential care settings, such as adult foster homes and adult care facilities in this area, but since most often these providers serve residents with moderate disability and receive payment out-of-pocket, detailed information on their capacity and utilization are not available.

Table 3
Characteristics of the SeniorLink Region
Residential Care Facilities and Ohio, 2007

	SeniorLink	Ohio
Number of Facilities	66	556
Total Licensed RCF beds	5,584	38,131
Total Number of Units	4,620	29,956
Bed Occupancy (Percent)	67.0	66.1

Source: Biennial Survey of Residential Care Facilities, 2008.

COMMUNITY SETTING – Most people with severe disability in Ohio reside in the community and receive services and supports from family and friends. A recent study by the Scripps Gerontology Center found that, in Ohio, almost 40% of individuals with a severe disability receive care either from informal caregivers or pay out-of-pocket to purchase home-care services (Mehdizadeh, 2008). Another 26% also remain in the community and receive home- and community-based services through one of the many Medicaid-waiver programs, or one of the county tax-levy programs. Each of the four counties in the SeniorLink region has a senior service levy program that funds in-home services for people age 60 and older. These programs are important in assisting people with a moderate level of income – those who do not meet Medicaid financial eligibility – and/or disability. In total 18,650 people with some disability received home- and community-based services funded by the property tax levy programs. However, severe disability in these programs are defined as two or more ADL or IADL impairments, which could be a lower level of impairment than Medicaid nursing home level of care. As Table 4 shows, on average, more than 70% of the beneficiaries in these locally funded programs are women, over 65% lived alone, and over 70% had an income at or below 200% of federal poverty level (\$20,420) in 2007.

In addition to property tax levy programs, which serve the largest number of people with disability in southwestern Ohio, there are a series of Medicaid-waiver programs that provide services and supports to people who meet both financial and functional Medicaid eligibility criteria.

Table 4
Characteristics of the Consumers in Elderly Services Tax
Levy Programs in the TriHealth SeniorLink Region, 2007

County	Number of Consumers with Severe Disability	Percent Female (Percentages)	Percent Lives Alone (Percentages)	Annual Income at or Below 200% FPL (Percentages)
Hamilton	7,187	73	65	77
Butler	3,102	71	58	76
Warren	1,804	70	56	70
Clermont*	4,515	71	61	72

*Clermont County identifies number of unduplicated consumers by type of services they receive rather than by level of disability.

Source: Council on Aging of Southwestern Ohio, 2009.

The largest of these programs is PASSPORT, which serves individuals age 60 and older. In total, during fiscal year 2008, the PASSPORT program served 2329 individuals in the Southwestern Ohio Council on Aging region. There are three other programs that are designed for low-income people with severe disability:

- Residential State Supplement (RSS), designed for individuals 18 years or older who have little or no functional disability but require supervision. The program provides a monetary supplement to pay for accommodations in residential settings such as adult

- Assisted Living Medicaid Waiver Program, designed for individuals 21 years or older who meet nursing home level of care and the waiver's financial eligibility criteria. Since the program was designed to divert individuals from nursing home stay the eligible consumers must already be nursing home residents, a waiver consumer, or have already resided in a residential care facility for six months. When the program is fully implemented there will be 1800 consumers in this program statewide.
- Transition Aging Carve-Out, a program designed to transition consumers from the Ohio Home Care Program once they reach age 60. Ohio Home Care is for people under age 60 who meet a nursing home level of care. In 2007, there were about 1300 consumers in this program.

The Program of All-Inclusive Care for the Elderly (PACE) provides services to a population of frail older adults with severe disability and follows a managed care model, with the goal of delivering needed services in the appropriate setting. These services include an integration of long-term and acute care, such as primary medical care, mental health services, physical and occupational therapies, medical transportation, adult day center, meals, home health and respite care. Most of these services are provided at either a PACE center or in personal residences.

Potential PACE participants must meet the program's eligibility requirements. Consumers who apply for PACE participation must be at least 55 years old, live in the Cincinnati area; be a Medicare beneficiary, or meet Medicaid financial-eligibility requirements; meet a nursing home level of care; be able to live safely in the community; and be willing to receive all

of their care from PACE. For most people, the PACE program services are funded through two capitation rates – negotiated agreed upon monthly rate – from Medicare and Medicaid programs. A small number of participants are only Medicare or Medicaid eligible, in which case the participant pays the PACE center an amount equivalent to the capitation rate of the program that she/he is not a beneficiary of (i.e. Medicare beneficiaries who are not Medicaid eligible need to pay Medicaid capitation rate in addition to Medicare Part B & D premiums).

CHARACTERISTICS OF THE CONSUMERS RECEIVING LONG-TERM SERVICES AND SUPPORTS

In this section we present the characteristics of those using long-term care settings. Some settings or programs are collecting detailed individual-level data as a requirement for continuous program eligibility, others are not. In the following section, the residents' or consumers' characteristics in nursing homes, PASSPORT, and PACE programs are based on individual-level data. For residential care facilities we use aggregate data at facility level provided by facilities. The senior services tax levy programs' data are aggregated at the county level, therefore limited analysis was possible at this level of aggregation.

NURSING HOME – For characteristics of residents we rely on the Minimum Data Set (MDS) for the period of April to June 2008. Because nursing homes are experiencing a considerable resident turnover, data presented is for all residents who spent some time in a nursing home during the three-month period. For purposes of comparison with other publicly funded programs, only the characteristics of the residents with Medicaid as payer are presented here. There were almost 7000 individuals from the TriHealth SeniorLink region who stayed for a period of time in a nursing home, and Medicaid paid for part or all of their care. The average age of these residents was 75.6, while almost 18% were under age 60 and not eligible for PASSPORT or any of the

senior levy programs. In comparison to overall residents in the state, somewhat fewer Medicaid residents of nursing homes in this area were female (67.1% vs. 69.7% state overall), and a much higher proportion were black or other minorities, reflecting the demographics of the area (see Table 5). In examining residents' physical functioning, as measured by their ability to perform certain activities of daily living, we learned that the TriHealth SeniorLink area nursing home residents are slightly less impaired, reflected in average number of ADL impairments (4.3 out of 6 vs. 4.4 for state overall). The average Case Mix score was 1.8 versus 1.9 for state, the TriHealth residents were slightly more impaired cognitively (64.2% vs. 63.2% state overall, see Table 6). A higher proportion of area residents show no ADL impairments in this region than the state overall average (8.5% vs. 7.6% state overall). In an earlier study, we found that most of the individuals with no ADL impairments have severe mental illness (Mehdizadeh, et al., 2005).

RESIDENTIAL CARE FACILITY – Information on the characteristics of individuals who use residential care facilities represents summary estimates provided by facilities. To obtain resident characteristics, facilities were asked to estimate how many of their residents had a functional impairment. As Table 7 shows, a lower proportion of the residents of residential care facilities in the TriHealth SeniorLink region were impaired in activities of daily living but a higher proportion needed assistance with medication administration and skilled nursing care, had behavioral problems and were cognitively impaired.

PASSPORT – Although PASSPORT is one of the largest aging/disabled home- and community-based Medicaid waiver programs nationally, and in the state of Ohio, this is not the case in the TriHealth SeniorLink region. The combined senior tax-levy programs serve more consumers than PASSPORT. The data for this report came from PASSPORT Management Information

Table 5
Demographic Characteristics of the Medicaid Residents of
Certified Nursing Facilities in the SeniorLink
Region and Ohio, 2008

	SeniorLink Region (Percentages)	Ohio (Percentages)
Age		
45 and under	3.6	3.1
46-59	14.1	11.6
60-64	6.2	5.6
65-69	7.9	6.9
70-74	7.9	8.3
75-79	12.4	11.8
80-84	16.7	17.1
85-89	16.0	18.1
90-94	10.2	12.0
95+	5.0	5.5
Average Age	75.6	77.1
Gender		
Female	67.1	69.7
Race		
White	75.3	83.0
Black	23.8	15.9
Other	2.9	1.1
Marital Status		
Never married	22.3	20.0
Widowed/Divorced/Separated	63.1	64.9
Married	14.6	15.1
Population Size*	6,905	54,045

*Data presented here reflect the characteristics of residents during the period of April – June 2008.
Source: MDS 2.0 April – June 2008.

Table 6
Functional Characteristics of the Medicaid Residents of Certified
Nursing Facilities in the SeniorLink Region and Ohio: 2008

	SeniorLink Region (Percentages)	Medicaid (Percentages)
Needs Assistance in Activities of Daily Living (ADL)¹		
Bathing	80.9	81.4
Dressing	83.1	84.5
Mobility	75.0	77.8
Toileting	78.4	80.2
Eating	31.8	34.6
Grooming	82.6	84.4
0	8.5	7.6
1	5.7	5.4
2	4.2	3.9
3	5.3	4.8
4 or more	76.3	78.3
Average Number of ADL Impairments²	4.3	4.4
Incontinence³	63.6	64.1
Cognitive Impairment⁴	64.2	63.4
Average Case Mix Score	1.8	1.9
Population Size*	6,905	54,045

*Number of people who spent some time in a nursing home between April 1, 2008 and June 30, 2008 and Medicaid paid for their care.

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 2.0 April – June 2008.

Table 7
Comparison of the Functional Characteristics of
SeniorLink Region and Ohio Residential Care Facilities Residents

	SeniorLink Region (Percentages)*	Ohio (Percentages)*
Needs Assistance in Activities of Daily Living (ADL)		
Bathing	61.9	63.8
Dressing	38.5	47.1
Transferring	18.1	21.3
Toileting	25.4	30.9
Eating	7.7	8.4
Walking	18.0	20.2
Uses Mobility Device	59.6	61.1
With Two or More Activities	39.5	37.4
Medication Administration	78.8	73.6
Received Skilled Nursing Care	36.1	34.8
Behavior Problems	14.4	13.2
Cognitive Impairment	33.7	25.9

*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, 2008.

System (PIMS), which tracks each enrollee from initial assessment until disenrollment. Tables 8 and 9 present the characteristics of the PASSPORT consumers who received services for part or all of 2008 fiscal year. The average age of PASSPORT consumers in this area was 76.6; about 80% were female; and nearly 40% were black. Fewer than one in five are married and about four out of five live in their own homes. PASSPORT consumers in this region are nearly identical in their demographic characteristics to the state's PASSPORT population, except for the race composition, which reflects the demographics of its urban Cincinnati location.

Table 8
Demographic Characteristics of PASSPORT Consumers
in the SeniorLink Region and Ohio, 2008

	SeniorLink	Ohio
	(Percentages) ^a	(Percentages) ^a
Age		
60-64	10.5	9.8
65-69	15.1	16.5
70-74	17.7	18.1
75-79	17.8	17.6
80-84	17.9	17.4
85-89	13.1	12.8
90-94	5.4	5.7
95+	2.5	2.1
Average Age	76.6	76.5
Gender		
Female	79.8	78.2
Race		
White	58.7	71.3
Black	37.8	25.1
Other	3.5	3.6
Marital Status		
Never Married	8.7	7.7
Widowed	46.0	46.1
Divorced/Separated	27.2	26.6
Married	18.1	19.6
Current Living Arrangement^b		
Own home/apartment	79.3	80.0
Relative or friend	17.7	16.3
Group home/congregate housing for elderly	0.0	0.1
Nursing facility	2.3	2.7
Other	0.7	0.9
Number of Consumers Served*	2,329	26,165

For explanations of “a” and “b”, please see table endnotes, page 24.

Source: PASSPORT Information Management System (PIMS).

Table 9
Functional Characteristics of PASSPORT Consumers
in the SeniorLink Region and Ohio, 2008

	SeniorLink	Ohio
	(Percentages) ^a	(Percentages) ^a
Percentages with Impairment/Needing Hands-On Assistance in Activities of Daily Living (ADL)^c		
Bathing	94.0	96.3
Dressing	50.1	60.4
Mobility ^d	92.9	81.6
Toileting	21.2	20.1
Eating	4.2	5.5
Grooming ^e	30.1	32.0
Number of ADL Impairments[*]		
0	0.9	0.8
1	4.5	3.5
2	37.0	35.5
3	31.3	33.8
4 or more	26.3	26.4
Average Number of ADL Impairments[*]	2.9	3.0
Percentage with Impairment in Instrumental Activities of Daily Living (IADL)		
Community access ^f	95.1	87.9
Environment management ^g	99.4	99.8
Shopping	98.3	97.1
Meal preparation	90.1	88.1
Laundry	97.1	95.9
Medication Administration	46.8	40.6
Number of IADL Impairments^{**}		
0	0.0	0.0
1	0.1	0.1
2	0.5	0.5
3	1.7	4.2
4 or more	97.7	95.2
Average Number of IADL Impairments^{**}	5.3	5.1
Supervision Needed^h		
24 hour	9.9	8.8
Partial time	14.5	11.0
Number of Consumers Served	2,329	26,165

*From list above. **From list above (including Medication Administration).
For explanations of “a” through “h” please see table endnotes, page 24.
Source: PASSPORT Information Management System (PIMS).

In examining the functional characteristics of the PASSPORT consumers in the TriHealth SeniorLink region (shown in Table 9), we learned that PASSPORT consumers are severely impaired, with an average ADL score of 2.9 and an average Instrumental Activities of Daily Living (IADL) score of 5.3. Comparing PASSPORT consumers in the SeniorLink region with the overall state population, there are a few noteworthy differences. First, although the SeniorLink population is slightly less disabled, with a lower overall ADL score (2.9 vs. 3.0 state overall), a considerably higher proportion was impaired in mobility (92.9% vs. 81.6%). A higher proportion of the SeniorLink population was impaired in every one of the IADL functions, which led to a higher overall IADL score (5.3 vs. 5.1). A higher proportion of SeniorLink PASSPORT population needed supervision both on a partial and 24-hour basis.

SENIOR SERVICES TAX LEVY PROGRAMS – Because data at the consumer level is collected in a variety of ways across all senior tax levy programs, our understanding of the participants characteristics and extent of impairments in activities of daily living or instrumental activities of daily living is very limited. Earlier work (Straker, Nelson, Applebaum, & Payne, 2008) recommended standardizing collection of assessment information.

PACE PROGRAM – PACE currently operates in 18 states, including Ohio. There are two PACE sites operating in Cuyahoga County and the greater Cincinnati area (serving Hamilton County and certain zip codes in Warren, Butler and Clermont counties), which provided care to 738 participants in 2008. PACE participants live in a wide range of settings, which include both community and institutional settings. Participants that require institutional care are not forced to exit the program, and have the option to continue to participate in PACE. As a result, nationally, 91.9% of participants usually live in their own homes or with family or friends, and the

remaining 8.1% usually live in some other setting, including institutional settings (Mukamel et al., 2007).

About two-thirds of all PACE participants in Ohio reside in the SeniorLink region. On average, the Ohio PACE participants are about 72.5 years old and more than three-quarters (78.5%) are female. Because the PACE sites in Ohio operate in two major urban areas, with high concentration of black and minority populations, about two-thirds of the population in the program is black (Mehdizadeh et al., 2009). Table 10 compares the demographic characteristics of the SeniorLink and Concordia Care PACE participants. One major difference is that, on average, the SeniorLink PACE participants are six years younger, and probably a lower proportion of PACE participants in SeniorLink region are composed of blacks and other minorities, but we don't have the race breakdown by site. When comparing the functional characteristics of the PACE participants in SeniorLink and Concordia Care, we found that a lower proportion of SeniorLink participants are impaired in every activity of daily living, except for mobility, leading to a lower overall average ADL score (2.3 vs. 3.0 for Concordia Care), see Table 11. The two regions' consumers are equally impaired on instrumental activities of daily living. A considerably higher proportion of SeniorLink consumers need assistance with medication administration, and less than 10% needed supervision (8.3%). The low proportion of consumers with need for supervision is reemphasized when we examined the behavioral and mental health assessment results of the PACE consumers; Table 12 summarizes these findings. There is very little reported evidence of disorientation, confusion and abuse – toward self or others. About one in six SeniorLink participants has short-term memory loss, one in eight has problems sleeping, and one in ten could not make decisions for themselves.

Table 10
Demographic Characteristics of the Two PACE Programs’
Participants in Ohio, 2008

	Concordia Care (Percentages) ^a	SeniorLink ¹ (Percentages) ^a
Age (Percent)		
<60	5.8	10.6
60-64	9.5	23.6
65-69	12.8	18.9
70-74	14.2	16.0
75-79	13.5	11.7
80-84	20.8	9.8
85-90	12.8	6.2
91-94	6.9	2.6
95+	3.6	0.6
Average Age	76.7	70.2
Gender (Percent)		
Female	77.9	78.8
Number of Consumers	281	472

NA: Not available

For explanations of “a” through “h” please see table endnotes, page 24.

Source: ¹Ohio has two PACE sites. Concordia Care in the Cincinnati area, and Concordia Care in the Cleveland area. Data is based on the initial and/or annual level of care assessment of the participants.

Table 11
Functional Characteristics of the Two PACE Programs’
Participants in Ohio, 2008

	Concordia Care	SeniorLink ¹
Percentage with Impairment/Needing Hands-On Assistance in Activities of Daily Living (ADL)^c (Percent)		
Bathing	93.2	53.4
Dressing	71.9	56.5
Mobility ^d	59.1	99.6
Toileting	40.9	14.0
Eating	10.3	0.8
Grooming	23.8	9.3
Number of ADL Impairments[*]		
0	4.3	0.2
1	11.8	30.9
2	23.3	27.0
3	24.7	27.4
4 or more	35.9	14.5
Average Number of ADL Impairments[*]	3.0	2.3
Percentage with Impairment in Instrumental Activities of Daily Living (IADL)		
Community access ^f	91.8	93.8
Environment management ^g	99.6	99.8
Shopping	96.1	98.5
Meal preparation	81.4	80.9
Laundry	93.6	85.3
Number of IADL Impairments^{**}		
0	0.0	0.0
1	0.4	0.2
2	0.0	0.0
3	3.6	0.9
4 or more	96.0	98.9
Average Number of IADL Impairments^{**}	5.5	5.5
Medication Administration	85.4	94.7
Supervision Needed	40.9	8.3
Number of Consumers	281	472

For explanations of “a” through “h” please see table endnotes, page 24.

Source:¹ Ohio has two PACE sites. Concordia Care in the Cincinnati area, and Concordia Care in the Cleveland area. Data is based on the initial and/or annual level of care assessments of the participants.

Table 12
Behavioral Characteristics of the Two PACE
Programs' Participants in Ohio, 2008

	SeniorLink (Percentages)	Concordia Care (Percentages)
Disoriented:		
Person	1.5	5.0
Place	3.2	23.1
Time	6.4	40.2
Confused	4.9	44.8
Withdrawn	2.5	14.6
Has Mood swings	3.2	17.4
Has fears, suspicions	1.9	11.4
Abusive		
To self	0.0	0.7
Verbally abusive or aggressive	1.1	7.1
Physically abusive or aggressive	0.2	2.8
Drug & alcohol abuse	2.3	5.0
Neglect self	2.5	18.1
Smoke carelessly	1.9	4.3
Wanders		
Mentally	0.8	16.0
Physically	0.8	13.5
Forgetfulness		
Short-term	16.3	76.2
Long-term	4.0	38.4
Agitated	2.1	17.4
Exhibit bizarre behavior	0.0	5.7
Has difficulty sleeping	12.9	28.5
Has difficulty concentrating	4.7	32
Cannot make own decisions	9.7	47.3

Source: Data presented here extracted from participants' initial and/or annual level of care assessment.

SUMMARY

Although the overall population of the TriHealth SeniorLink region is projected to increase by only 5.8%, the population age 60 and older will increase by 30% from 263,000 in 2009 to 340,000 in 2020. There will be a 17% increase in the number of people with severe disability age 60 and older (more than 4000 individuals), from nearly 24,900 in 2009 to 29,000 in 2020.

With more than 12,000 nursing home beds and 5500 residential care facility licensed beds in 2007, the region was oversupplied with facility-based care. In fact the region can lose up to 1000 nursing home beds and still will remain at the state average bed supply of 60 beds for every 1000 persons age 65 and older in the next 11 years. There is also an oversupply of residential care beds reflected in 67% occupancy rate. The area has a considerable and well developed range of home and-community-based service providers that provided care for more than 18,650 tax levy participants, 2300 PASSPORT consumers and a considerable number of individuals in MR waivers, and Ohio Home Care waiver in addition to the private pay consumers who paid-out-of-pocket for such services. Detailed information regarding these providers is not available since they are certified by specific programs that pay for their services and there is no overall longitudinal survey that assesses their capacity and utilization patterns.

The average daily nursing home census for the region in 2007 was 10,500 from which about 7000 were Medicaid recipients. A small number of individuals were cared for through the Assisted Living Waiver Program, RSS, and the Transition Aging-Carve-Out waiver. More than 16,500 people, defined as severely disabled, received home care services funded by the tax levy senior service programs; but it is not obvious what proportion of these clients would meet

nursing home level of care. The PASSPORT program assisted 2300 individuals and more people were cared for in Ohio Home Care waiver, RSS, and Assisted Living waiver.

The regions population that was cared for in nursing homes was on average about 76 years old, and two-thirds were female. Nearly a quarter were black and more than one in five were never married. In terms of impairments the region's nursing home residents were slightly less impaired than the state overall nursing home population. The residential care facilities in the region served a resident population that were slightly less disabled than state overall RCF residents in activities of daily living but a slightly higher proportion were needed assistance with medication administration, skilled nursing care, or had behavioral problems and were cognitively impaired. The PASSPORT consumers in the region much resembled the overall state PASSPORT consumers' profile, except that they were more likely to be black and female. In terms of their functional ability PASSPORT consumers in the region are much more likely to be mobility impaired which appears to be affecting their ability to function independently and perform their IADL, particularly those IADL that are mobility related. A higher proportion of PASSPORT consumers needed assistance with medication administration and supervision. The PACE program, only available in Hamilton county and parts of adjoining counties in southwestern Ohio and in Cuyahoga county in northern Ohio served about 740 individuals in 2007. About 64% of all PACE participants were served in TriHealth SeniorLink region. The average age of a typical PACE participant in this region was 70 years and the participants were more likely members of minority population and female. The PACE consumers in the region, on average, were about six years younger than Concordia Care participants. Almost all were mobility impaired and needed assistance with Medication administration, and about 8% needed supervision.

As the state of Ohio seeks ways to reduce Medicaid expenditures and the baby boomers look for a system of support and services that afford them more privacy, independence and choice it is likely that demand for home care programs and programs such as PACE will increase while the facility-based providers will either need to reduce their capacity or come up with new and innovative ways to serve the population in the community.

Table Endnotes

^a Percentages are adjusted to reflect only those consumers for whom information was available on each variable.

^b The current living arrangement reflects living arrangement at time of assessment.

^c Impairment includes all who could not perform the activity by themselves or could with mechanical aid only.

^d Needs hands-on assistance with at least one of the following three activities: “*bed mobility*”, “*transfer*” or “*locomotion*.”

^e Because of a rule change in 1994, the ability to perform grooming activity is measured differently, and it is not included in the comparison.

^f Needing hands-on assistance with using a “*telephone*”, using “*transportation*”, or handling “*legal or financial matters*” constitutes impairment in community access.

^g Needing hands on assistance with “*house cleaning*”, “*yard work*”, or “*heavy chores*” constitutes impairment in environmental management.

^h 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.

ⁱ “Moderately” or “severely” impaired in cognitive skills.

APPENDIX A

Table A-1
Projections of the TriHealth SeniorLink Region
Population by Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2009	0-14	321,810	1,391	643	22
	15-24	232,078	277	705	150
	25-44	431,726	984	1,466	1,355
	45-49	121,320	738	540	1,045
	50-54	117,144	813	497	1,211
	55-59	97,922	991	336	953
	60-64	76,760	1,357	172	790
	65-69	53,902	1,583	145	874
	70-74	42,068	1,957	134	1,047
	75-79	34,500	2,500	155	1,130
	80-84	27,848	3,402	157	1,099
	85+	27,516	6,428	81	1,876
	Total	1,584,594	22,421	5,031	11,552
Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2010	0-14	321,840	1,389	642	23
	15-24	231,890	277	703	150
	25-44	430,880	969	1,,458	1,336
	45-49	120,890	730	540	1,038
	50-54	119,880	832	509	1,236
	55-59	100,460	1,015	345	978
	60-64	80,370	1,415	179	828
	65-69	55,120	1,619	150	891
	70-74	41,980	1,949	135	1,044
	75-79	33,800	2,449	152	1,109
	80-84	27,590	3,365	155	1,093
	85+	28,300	6,956	98	1,807
	Total	1,593,000	22,965	5,066	11,533

Table A-1 Continued
Projections of the TriHealth SeniorLink Region
Population by Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2020	0-14	331,180	1453	656	23
	15-24	228,120	273	693	148
	25-44	456,720	1020	1534	1398
	45-49	104,280	624	472	891
	50-54	105,770	727	447	1,073
	55-59	110,730	1,118	381	1,075
	60-64	104,260	1,832	232	1,074
	65-69	82,190	2,412	223	1,324
	70-74	61,650	2,855	197	1,534
	75-79	37,780	2,730	170	1,239
	80-84	25,640	3,123	144	1,019
	85+	28,720	7,021	98	1,839
	Total	1,677,040	25,188	5,247	12,637

Source: Author's calculations.

Types of disability in this report are the same as described in the report titled *Disability in Ohio: Current and Future Demand for Services*. In that report, types of disability are differentiated in the following ways:

For the purposes of this study, we divide disability into three categories: 1) physical and/or cognitive; 2) intellectual and/or developmental; and 3) severe mental illness. Severe disability is defined to match Ohio's Medicaid eligibility definitions. Thus, if a person meets Intermediate Level of Care (ILOC) and there is no evidence of severe mental illness or intellectual and/or developmental disability, even if he or she has a diagnosis of dementia or Alzheimer's disease, that individual is classified as having severe physical and/or cognitive disability. When the individual meets ILOC and the diagnosis of severe mental illness is present, the individual is classified as having severe disability due to mental illness; when the individual meets ILOC and the presence of intellectual or developmental disability is confirmed by diagnosis, then the individual is classified as having severe intellectual and/or developmental disability.

Table A-2
Projections of Butler County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2009	0-14	74,272	323	148	5
	15-24	59,534	71	181	38
	25-44	97,130	222	330	306
	45-49	27,448	167	122	236
	50-54	26,376	183	112	273
	55-59	22,312	226	77	217
	60-64	17,876	316	40	184
	65-69	12,434	365	33	202
	70-74	9,500	442	30	236
	75-79	7,474	542	34	245
	80-84	5,668	692	32	224
	85+	4,268	997	12	291
	Total	364,292	4,546	1,151	2,457
Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2010	0-14	74,620	323	148	5
	15-24	60,120	72	183	39
	25-44	96,830	219	326	301
	45-49	27,470	166	123	236
	50-54	27,040	188	115	279
	55-59	22,870	231	78	222
	60-64	18,830	332	42	194
	65-69	12,800	376	35	207
	70-74	9,580	445	31	238
	75-79	7,390	535	33	242
	80-84	5,700	695	32	226
	85+	4,390	1,079	15	280
	Total	367,640	4,661	1,161	2,469

Table A-2 Continued
Projections of Butler County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2020	0-14	81,520	360	162	6
	15-24	63,130	76	192	41
	25-44	105,740	237	356	327
	45-49	24,540	147	111	210
	50-54	24,550	169	104	249
	55-59	25,940	262	89	252
	60-64	24,350	428	54	251
	65-69	19,530	573	53	315
	70-74	14,990	694	48	373
	75-79	8,940	646	40	293
	80-84	5,780	704	32	230
	85+	4,860	1,188	17	311
	Total	403,870	5,484	1,258	2,858

Source: Author's calculations.

Types of disability in this report are the same as described in the report titled *Disability in Ohio: Current and Future Demand for Services*. In that report, types of disability are differentiated in the following ways:

For the purposes of this study, we divide disability into three categories: 1) physical and/or cognitive; 2) intellectual and/or developmental; and 3) severe mental illness. Severe disability is defined to match Ohio's Medicaid eligibility definitions. Thus, if a person meets Intermediate Level of Care (ILOC) and there is no evidence of severe mental illness or intellectual and/or developmental disability, even if he or she has a diagnosis of dementia or Alzheimer's disease, that individual is classified as having severe physical and/or cognitive disability. When the individual meets ILOC and the diagnosis of severe mental illness is present, the individual is classified as having severe disability due to mental illness; when the individual meets ILOC and the presence of intellectual or developmental disability is confirmed by diagnosis, then the individual is classified as having severe intellectual and/or developmental disability.

Table A-3
Projections of Clermont County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2009	0-14	43,310	186	87	3
	15-24	26,044	31	79	17
	25-44	55,734	129	187	179
	45-49	16,328	99	73	141
	50-54	15,394	107	65	159
	55-59	12,662	128	43	123
	60-64	10,130	179	23	104
	65-69	7016	206	19	114
	70-74	5100	237	16	127
	75-79	3704	268	17	121
	80-84	2644	323	15	104
	85+	2230	521	7	152
	Total	200,296	2,414	631	1,344
Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2010	0-14	43,600	187	87	3
	15-24	26,080	31	78	17
	25-44	55,910	128	187	177
	45-49	16,430	99	73	141
	50-54	15,890	110	67	164
	55-59	13,010	131	45	127
	60-64	10,640	187	24	110
	65-69	7,300	214	20	118
	70-74	5,240	243	17	130
	75-79	3,740	271	17	123
	80-84	2,680	327	15	106
	85+	2,300	565	8	147
	Total	202,820	2,493	638	1,363

Table A-3 Continued
Projections of Clermont County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2020	0-14	46,610	204	92	3
	15-24	27,910	34	85	18
	25-44	60,140	137	200	188
	45-49	15,010	90	68	128
	50-54	15,180	104	64	154
	55-59	15,680	158	54	152
	60-64	14,390	253	32	148
	65-69	10,970	322	30	177
	70-74	8,450	391	27	210
	75-79	5,140	371	23	169
	80-84	3,150	384	18	125
	85+	2,730	667	9	175
	Total	225,360	3,115	702	1,647

Source: Author's calculations.

Types of disability in this report are the same as described in the report titled *Disability in Ohio: Current and Future Demand for Services*. In that report, types of disability are differentiated in the following ways:

For the purposes of this study, we divide disability into three categories: 1) physical and/or cognitive; 2) intellectual and/or developmental; and 3) severe mental illness. Severe disability is defined to match Ohio's Medicaid eligibility definitions. Thus, if a person meets Intermediate Level of Care (ILOC) and there is no evidence of severe mental illness or intellectual and/or developmental disability, even if he or she has a diagnosis of dementia or Alzheimer's disease, that individual is classified as having severe physical and/or cognitive disability. When the individual meets ILOC and the diagnosis of severe mental illness is present, the individual is classified as having severe disability due to mental illness; when the individual meets ILOC and the presence of intellectual or developmental disability is confirmed by diagnosis, then the individual is classified as having severe intellectual and/or developmental disability.

Table A-4
Projections of Hamilton County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2009	0-14	157,318	685	312	11
	15-24	121,010	144	368	79
	25-44	214,854	481	738	661
	45-49	60,316	367	268	520
	50-54	60,204	418	256	622
	55-59	51,486	521	177	501
	60-64	39,838	704	89	410
	65-69	28,318	832	76	459
	70-74	22,580	1,051	72	562
	75-79	19,650	1,424	88	644
	80-84	16,850	2,059	95	665
	85+	18,746	4,379	55	1,278
	Total	811,170	13,065	2,594	6,412
Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2010	0-14	155,420	678	308	11
	15-24	119,680	142	363	78
	25-44	212,620	467	730	645
	45-49	59,290	358	265	509
	50-54	60,960	423	259	628
	55-59	52,700	533	181	513
	60-64	41,460	730	92	427
	65-69	28,700	843	78	464
	70-74	22,120	1,027	71	551
	75-79	18,930	1,372	85	621
	80-84	16,430	2,004	92	651
	85+	19,230	4,727	67	1,228
	Total	807,540	13,304	2,591	6,326

Table A-4 Continued
Projections of Hamilton County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2020	0-14	144,060	634	284	10
	15-24	101,970	121	310	67
	25-44	210,550	459	713	628
	45-49	44,220	264	200	378
	50-54	46,680	321	197	474
	55-59	51,690	522	178	502
	60-64	50,690	890	113	522
	65-69	41,310	1,212	112	665
	70-74	30,200	1,399	96	752
	75-79	18,790	1,358	85	616
	80-84	13,220	1,610	74	525
	85+	18,150	4,437	62	1,162
	Total	771,530	13,227	2,424	6,301

Source: Author's calculations.

Types of disability in this report are the same as described in the report titled *Disability in Ohio: Current and Future Demand for Services*. In that report, types of disability are differentiated in the following ways:

For the purposes of this study, we divide disability into three categories: 1) physical and/or cognitive; 2) intellectual and/or developmental; and 3) severe mental illness. Severe disability is defined to match Ohio's Medicaid eligibility definitions. Thus, if a person meets Intermediate Level of Care (ILOC) and there is no evidence of severe mental illness or intellectual and/or developmental disability, even if he or she has a diagnosis of dementia or Alzheimer's disease, that individual is classified as having severe physical and/or cognitive disability. When the individual meets ILOC and the diagnosis of severe mental illness is present, the individual is classified as having severe disability due to mental illness; when the individual meets ILOC and the presence of intellectual or developmental disability is confirmed by diagnosis, then the individual is classified as having severe intellectual and/or developmental disability.

Table A-5
Projections of Warren County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2009	0-14	46,910	197	96	3
	15-24	25,490	31	77	16
	25-44	64,008	152	211	209
	45-49	17,228	105	77	148
	50-54	15,170	105	64	157
	55-59	11,462	116	39	112
	60-64	8,916	158	20	92
	65-69	6,134	180	17	99
	70-74	4,888	227	16	122
	75-79	3,672	266	16	120
	80-84	2,686	328	15	106
	85+	2,272	531	7	155
	Total	208,836	2,396	655	1,339
Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2010	0-14	48,200	201	99	4
	15-24	26,010	32	79	16
	25-44	65,520	155	215	213
	45-49	17,700	107	79	152
	50-54	15,990	111	68	165
	55-59	11,880	120	41	116
	60-64	9,440	166	21	97
	65-69	6,320	186	17	102
	70-74	5,040	234	16	125
	75-79	3,740	271	17	123
	80-84	2,780	339	16	110
	85+	2,380	585	8	152
	Total	215,000	2,507	676	1,375

Table A-5 Continued
Projections of Warren County's Population by
Age Group and by Type of Disability

Year	Age Group	Population	Physical and/or Cognitive Disability	Intellectual and/or Developmental Disability	Severe Mental Illness
2020	0-14	58,990	255	118	4
	15-24	35,110	42	106	22
	25-44	80,290	187	265	255
	45-49	20,510	123	93	175
	50-54	19,360	133	82	196
	55-59	17,420	176	60	169
	60-64	14,830	261	33	153
	65-69	10,380	305	28	167
	70-74	8,010	371	26	199
	75-79	4,910	355	22	161
	80-84	3,490	425	20	139
	85+	2,980	729	10	191
	Total	276,280	2,362	863	1,831

Source: Author's calculations.

Types of disability in this report are the same as described in the report titled *Disability in Ohio: Current and Future Demand for Services*. In that report, types of disability are differentiated in the following ways:

For the purposes of this study, we divide disability into three categories: 1) physical and/or cognitive; 2) intellectual and/or developmental; and 3) severe mental illness. Severe disability is defined to match Ohio's Medicaid eligibility definitions. Thus, if a person meets Intermediate Level of Care (ILOC) and there is no evidence of severe mental illness or intellectual and/or developmental disability, even if he or she has a diagnosis of dementia or Alzheimer's disease, that individual is classified as having severe physical and/or cognitive disability. When the individual meets ILOC and the diagnosis of severe mental illness is present, the individual is classified as having severe disability due to mental illness; when the individual meets ILOC and the presence of intellectual or developmental disability is confirmed by diagnosis, then the individual is classified as having severe intellectual and/or developmental disability.

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