2018

2018 Community-Based Care: Resident and Community Characteristics Report on Assisted Living, Residential Care, Memory Care

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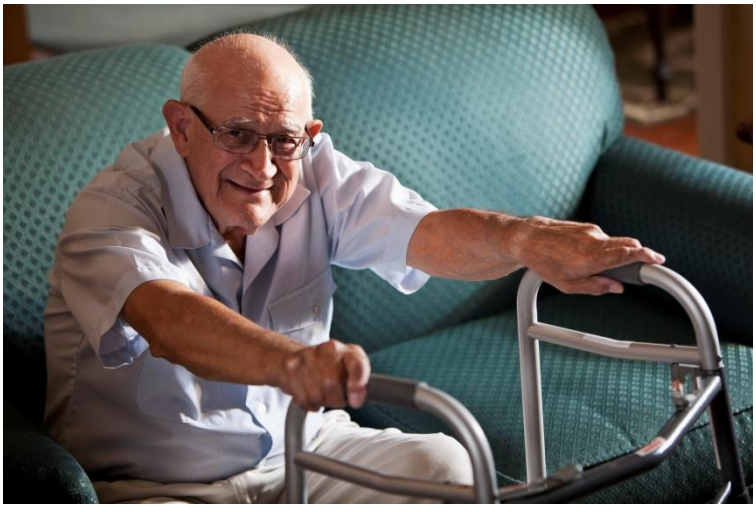
A study completed by The Institute on Aging at Portland State University
In partnership with Oregon Department of Human Services



Oregon CBC Report, 2018

2018 Resident and Community Characteristics Report

A study completed by the Institute on Aging at Portland State University in partnership with Oregon Department of Human Services

About the Institute on Aging at Portland State University (IOA/PSU)

IOA/PSU strives to enhance understanding of aging and facilitates opportunities for elders, families, and communities to thrive.

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About Oregon Department of Human Services

DHS is Oregon's principal agency for helping Oregonians achieve wellbeing and independence through opportunities that protect, empower, respect choice and preserve dignity, especially for those who are least able to help themselves.

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EXECUTIVE SUMMARY

This report is the fourth in a series prepared by the Institute on Aging to describe Oregon's assisted living, residential care and memory care service sectors which are referred to by Oregon Department of Human Services as community-based care (CBC) settings. These settings may also be referred to as Home and Community Based Services (HCBS).

Community-based care settings provide a variety of services, including daily meals, housekeeping and laundry, assistance with personal care needs, medication administration, evaluation, coordination, and monitoring of health conditions, communication with residents' health care providers, and social and recreational activities. As the population of Oregonians aged 65 and older is estimated to increase from 16 percent in 2015 to almost 20 percent in 2030, and nearly 23 percent in 2050 (U.S. Census Bureau, 2017), CBC settings will continue to be an important source of long-term services and supports.

Oregon has been a nationally recognized leader in the development and provision of Home and Community Based Services. It was the first state in the country, over three decades ago, to receive a Medicaid waiver that provided more cost effective alternative settings compared to nursing homes. The *AARP Long-term Services and Supports State Scorecard* ranks states' LTSS systems, including affordability and access, choice of setting and provider, quality of life and quality of care, caregiver support, and transitions between settings (AARP, 2017). Oregon has ranked in the top 10 across all three editions of the Scorecard, and in 2017 was ranked fourth in the nation.

The objectives of the report include:

Objective 1	Objective 3
Describe ALF, RCF, and MC setting characteristics, including staffing types and levels, policies, and monthly charges and fees	Compare current results with prior PSU CBC reports and national studies of similar setting types
Objective 2	**Objective 4**
Describe residents' health and social characteristics for the report period	Compare setting types for differences that might affect access, quality, or costs

Information for this report was collected using a questionnaire mailed to all CBC settings in Oregon.

The study findings provide information that state agency staff, legislators, community-based care providers, and consumers might use to guide policy, reimbursement, quality initiatives, and decisions. In addition to describing what we learned about Oregon AL, RC, and MC communities, we compare these findings to national surveys conducted by the National Center for Health Statistics and to relevant published literature. Due to variation in regulations across the United States (U.S.), the national surveys combine residential and assisted living settings and use the term residential care to describe both.

Survey Sample

The results are based on questionnaires mailed to the 524 licensed AL, RC, and MC communities licensed as of December 2017 in Oregon. Of these, 186 communities had a MC endorsement. Most MCs are stand-alone buildings with no other licensed community type, but 32 were co-located with an AL or RC facility ("combination") and these communities increased the total number of eligible cases to 556. Of the 524 licensed (stand-alone and co-located) facilities, 384 (70 percent) completed and returned a questionnaire (Table E1).

Table E1: Number of AL/RC/MC Facilities and Questionnaires Distributed

AL/RC/MC as of December 2017	524
MC co-located with an AL/RC	32
Number of questionnaires that were sent to AL/RC/MC	556
AL/RC/MC that responded (70%)	384

As relevant, we include results from three prior years of this study. For example, some questions were asked each year, and other questions were asked in alternating years. In addition, as possible, we include information about facility characteristics from DHS and other state agency sources since the year 2000. The study methods are described in Appendix A: Methods (pages 44-48 of the full report. Table E2 describes the project timelines for each year. To reach a response rate of at least 50 percent, questionnaires were collected through March for the first three years, and through February for the fourth year.

Table E2. Survey Mailing and Report Dates, 2014 to 2018

Round	Sample Collected from DHS	Survey Mailing	Data Analysis Findings Reported
1	November, 2014	January, 2015	May, 2015
2	November, 2015	January, 2016	May, 2016
3	November, 2016	December, 2016	May, 2017
4	November, 2017	December, 2017	May, 2018

HIGHLIGHTS

Capacity

- The number of CBC settings increased from 325 in 2000 to 524 in 2017.
- The number of MC communities (AL/RC) increased from 62 in in 2000 to 186 in 2017.
- Licensed capacity of CBC increased from 22,204 residents in 2006 to 26,774 in 2018.
- The capacity among MC communities has **tripled** since 2000 while the capacity among non-MC endorsed RC increased more modestly, at 10%. Starting in 2015, the standalone MC capacity exceeded the RC capacity.
- The capacity among non-MC endorsed AL increased at about 10% since 2009.

Community Services and Policies

- 84% of CBC settings used a falls risk-screening tool as either standard practice or case-by-case.
- 74% of CBC settings used a cognitive screening tool as either standard practice or case-by-case.
- The three most common reasons that might prompt a move-out notice were non-payment (84%); Hitting/acting out with anger to other residents/caregivers (75%); Lease violation other than non-payment (44%)
- 17% of facilities issued a less than 30-day move-out notice

Staff

- The total number of all AL staff employed by all CBCs is estimated to be nearly 20,000.
- 50% of administrators were in their current position for one and a half years or less.
- 36% of RNs and 42% of other care-related staff left employment in the prior six month period (as a share of current RNs and other care-related staff).
- The ratio of all staff to residents was higher for RC (1.14) and MC (1.06) compared to AL (0.80).
- Total staffing levelsfor all residents per resident, per day were 3 hours and 48 minutes for MC, 3 hours and 24 minutes in RC, and 1 hour and 58 minutes in AL.
- The combined staffing level for all care-related staff was 2 hours and 51 minutes. This rate is nearly identical to a 2014 national study that reported 2 hours and 53 minutes (Harris-Kojetin et al. 2016).

Private Pay Rates and Fees

- Average total monthly private pay charges including services for a single person living in the smallest unit and receiving the lowest level of services were $3,959 in AL, $4,497 in RC, and $5,620 in MC communities.
- The inflation-adjusted percentage increases in the average total monthly charge were **34%** for RC, **19%** for AL, and **7%** for MC since 2007.
- Some CBC settings charge additional fees for services: 74% of AL charged a fee for routine meal delivery to resident rooms, compared to 45% of RC and 28% of MC.
- We estimate that private pay charges for all private pay residents totaled $655,114,711 in 2017.

Medicaid

- **79%** of all CBC settings had a contract with DHS to accept Medicaid beneficiaries.
- **42%** of Oregon CBC residents were Medicaid beneficiaries compared to 19% of residential care residents in the United States.
- In 2018, DHS paid CBC providers a total of $288,408,528 on behalf of Medicaid-eligible AL, RC, and MC residents.
- **20%** of CBC settings reported having no current Medicaid residents.

Resident Health

- **68%** of CBC residents did not fall in the prior 90 days. The percentage of residents who did not fall was higher in AL (**72%**) and RC (**71%**) facilities compared to MC communities (**59%**).
- **26%** of CBC residents were prescribed an antipsychotic medication, including 44% of MC residents, **26%** of RC, and **17%** of AL residents.
- **16%** of CBC residents had an emergency department visit, and **8%** were hospitalized overnight in the prior 90 days.

Resident Demographics

- **70%** of CBC residents were female
- **51%** of CBC residents were ages 85 and over**; 30%** were ages 75 to 84**.**
- The average age for all residents across CBC settings was 82.
- **90%** of CBC residents were White
- **2%** of residents primarily spoke a language other than English
- **44%** of residents moved to an AL/RC/MC from their home, or the home of a child or other relative
- **19%** of CBC residents who moved out had reported lengths of stay from one to 90 days compared to **23%** who stayed 90 or fewer days in 2015.

BACKGROUND

Oregon has three types of community-based care (CBC) settings: assisted living (AL), residential care (RC), and memory care (MC), referred to as AL/RC/MC. The number of CBC settings has increased since the 1980s, from 88 in 1986 (Hernandez, 2007) to 524 as of November 2017. In 2017, the combined total capacity, meaning the number of residents the facility is licensed to accommodate, for AL/RC/MC was 26,774. In comparison, the total capacity for the 1,584 adult foster homes (AFH) was 6,552 and the capacity among the 137 nursing facilities was 11,464.

Collecting information directly from CBC providers is important because no central data source about residents, staff, facility services, rates, and policies exists. The Oregon Department of Human Services (DHS), the licensing authority for these settings, gathers information only on Medicaid-funded beneficiaries via the Client Assessment and Planning system (CAPS). Unlike nursing facilities, CBC facilities are not required to use a standardized tool to collect and report on resident characteristics and staffing. Therefore, the questions asked for this study are the primary source of information about CBC settings in the state. HB3359 passed in the 2017 legislative session will require CBCs to report on a set of quality metrics that include staff retention, antipsychotic use, fall, staff training and consumer satisfaction.

The research methods are described in Appendix A: Methods, pages 44-47. In addition, PSU surveyed a statewide sample of adult foster care homes.

All AL/RC/MC communities licensed as of November, 2017 received a questionnaire that asked about residents, staffing, and monthly rates and fees for additional services.

All prior CBC reports, and the adult foster care reports, are available at:
https://www.pdx.edu/ioa/oregon-community-based-care-project
OR
http://www.oregon.gov/DHS/SENIORS-DISABILITIES/Documents/ARM%20Summary%20Report%20-%202017.pdf

ASSISTED LIVING, RESIDENTIAL CARE, AND MEMORY CARE COMMUNITIES

What are they, how many are there, what is their capacity and occupancy?

AL/RC facilities are authorized by Oregon Administrative Rules (OAR 411-054))and must also follow the CMS Home and Community Based Services rules. These facilities provide individualized personal care (activities of daily living), social services, and activities in a residential setting for older adults and persons with disabilities. Both facility types are required to:

- Be staffed 24-hours daily to meet current residents care and service needs (acuity)
- Either hire or contract with a registered nurse
- Provide daily meals and snacks
- Offer social and recreational activities
- Evaluate, coordinate, and monitor health services

The primary regulatory difference between AL and RC is that AL must provide fully self-contained individual living units, defined as a private apartment with living and sleeping space, kitchen area, bathroom, and storage. RCs are more varied. Oregon rules do not require RC to provide private bathrooms, living quarters, or kitchenettes. Older RC might have shared bathrooms, while newer construction RC may have a combination of these building configurations. Facilities are licensed for a specific number of residents (capacity). In ALs, a unit may be designated for one or two persons who live together by choice (usually married or partnered couples) and in RCs, a unit may be shared by two individuals previously unknown to each other (e.g., roommates).

The number of MC communities increased from 325 in 2000 to 524 in 2017. 35% of Oregon's AL/RC facilities have a memory care endorsement.

Memory care (MC) facilities are designated for adults who have a dementia diagnosis, including Alzheimer's disease, and are authorized under OAR 411-057. MC communities must receive an "endorsement" from DHS to operate as either a licensed AL, RC, or a nursing facility. This report includes only MC units with an AL or RC license. The endorsement means the facility has met requirements at the time of licensure visits, such as training staff in dementia care practices, and physical environment standards such as controlled exits and programming for people with disabilities.

Number of Community-Based Care Settings

Table 1 describes the number of licensed settings and the total capacity as of November 2017. The 524 AL/RC facilities include 186 MC communities. For the purposes of this report, a stand-alone MC provides memory care only and "combination" includes settings that have MC units as well as either AL or RC units that are not designated as MC.

Table 1: Number of Licensed Settings and Licensed Capacity as of November 2017

	# of Settings	Licensed Capacity	# of Units
AL	227[1]	15,264	12,805
RC	297[1]	11,510	9,374
Total AL/RC Facilities	524[1]	26,774	22,179
AL/RC with a MC endorsement	186	6,574	-

[1] This figure includes all AL or RC facilities, including those that have an MC endorsement.

Growth in AL/RC/MC:

- Since the 2017 report, the number of CBC settings in Oregon increased by seven, with 10 that were newly licensed and three that closed (two were MC and one was AL).
- Of the 10 newly licensed facilities, seven have a MC endorsement and three are licensed as AL.
- Of the settings licensed prior to 2017, four RCs added an MC endorsement (two converted to stand-alone MC communities), and one that had previously been licensed for both RC and MC converted to a stand-alone MC.
- The primary growth in the number of AL/RC facilities last year is due to an increase in MCs (Figures 1 and 2; Figure B1 and Table B2 in Appendix B).

Figure 1: Change in Number CBC Settings, by Type, 2000-2018

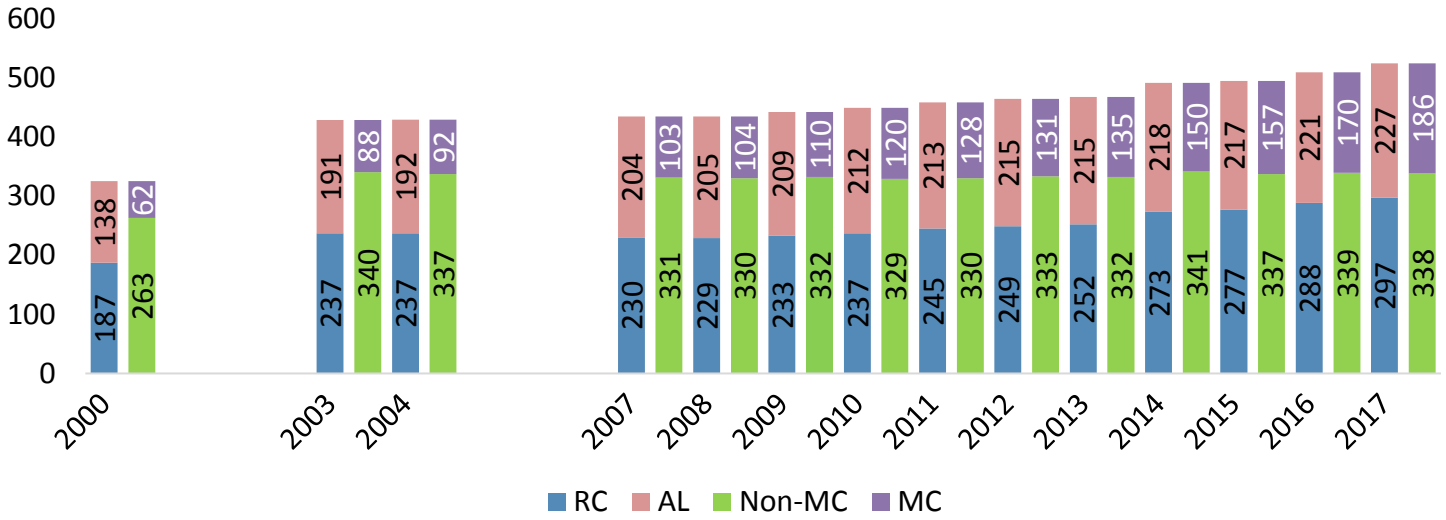
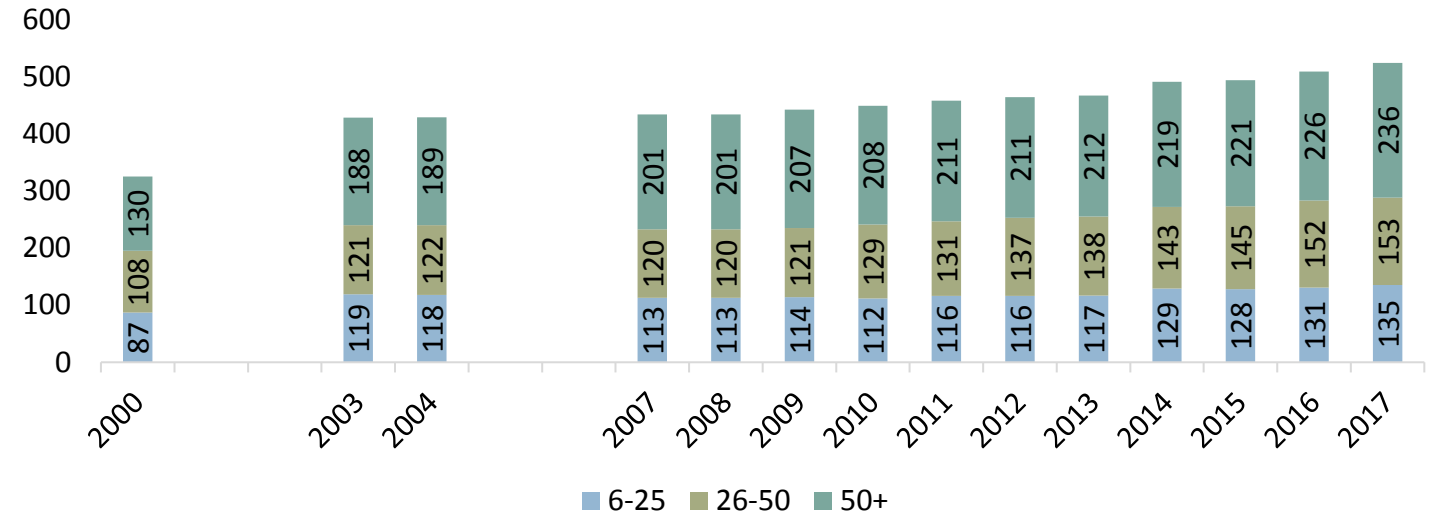


Figure 2: Change in Facility Size, All Facilities, 2000-2018



There were minimal changes in the distribution of smaller and larger facilities over time between 2000 and 2017 (Figure 2). In June 2000, 27 percent (87 out of 325) of all facilities had a licensed capacity of between 6 and 25 residents, 33 percent were licensed for 26 to 50 residents, and the remaining 40 percent had a licensed capacity of 51 and higher. By 2017, the corresponding figures were 26, 29, and 45 percent. Each CBC setting has a licensed capacity, or number of occupants allowed to reside in the building. The licensed capacity is typically larger than the number of units since some units will be shared by two persons. The occupancy rate is a measure of utilization relative to licensed capacity. The occupancy rates described in Table 2 are calculated by dividing the number of current residents by the licensed capacity. This approach might differ from the method used by some CBC professional, who typically calculate occupancy rates as a percentage of occupied units rather than total occupants. Since we did not collect information on occupied units, the occupancy rates reported here might be lower than calculations based on occupied units.

Of the 384 facilities that completed a questionnaire, the highest occupancy rate was reported by MC communities (Table 2). The National Investment Center, a professional group that does research on the senior housing market, reports that the national occupancy rate for assisted living was 86.5 percent during the last quarter of 2017 (NIC, 2018).

In 2000, MC accounted for about 14% of all total capacity. By 2017, that figure increased to 25%

Table 2: Licensed Capacity and Occupancy Rates of Responding Facilities, 2018

Setting Type	Licensed Capacity	# of Current Residents	Occupancy Rate
AL	10,057	7,741	77%
RC	3,296	2,478	75%
MC	4,314	3,664	85%
Total	**17,667**	**13,883**	**79%**

Figure 3 shows the changes that occurred in AL, RC, and MC capacity between 2000 and 2017. During this period, the greatest increases in AL capacity occurred between 2000 and 2009. AL (non-MC) capacity increased from 8,637 in June 2000 to 13,740 in March 2009, an increase of 60 percent. Since then, the increase in non-MC AL capacity slowed down. It increased by 1,402 up to 15,142, a 10 percent increase.

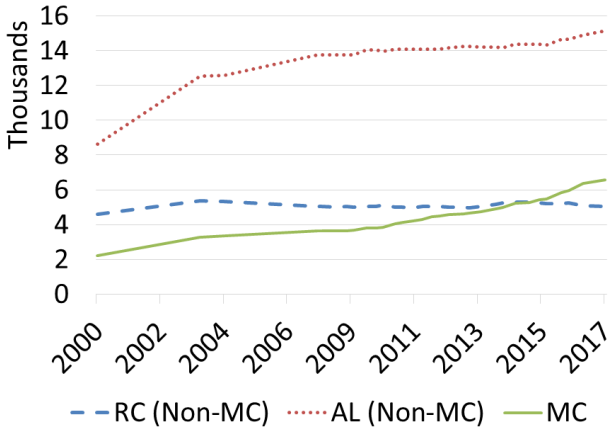
There was a slight increase in RC (non-MC) capacity between 2000 and 2009, after which it remained mostly flat. Between 2000 and 2017, the RC capacity increased from 4,614 to 5,058 – an increase of about 10 percent.

In June 2000, there were **2,215** Alzheimer's care units (or ACU, as they were known then). Between 2000 and 2017, the MC capacity more than tripled to **6,574**. Starting in 2015, the MC capacity exceeded the RC (non-MC) capacity (Figure B1 in Appendix B).

Similar to Oregon, there has been growth in the number of settings designated for memory care in the U.S. Based on a 2010 survey, the National Center for Health Statistics estimated that 17 percent of AL/RC facilities had a dementia care unit (Park-Lee, et al. 2013) and their 2014 survey reported that 22 percent of AL/RC facilities were designated entirely for dementia care or had a

dementia care unit co-located within a larger building or campus (Harris-Kojetin et al. 2016).

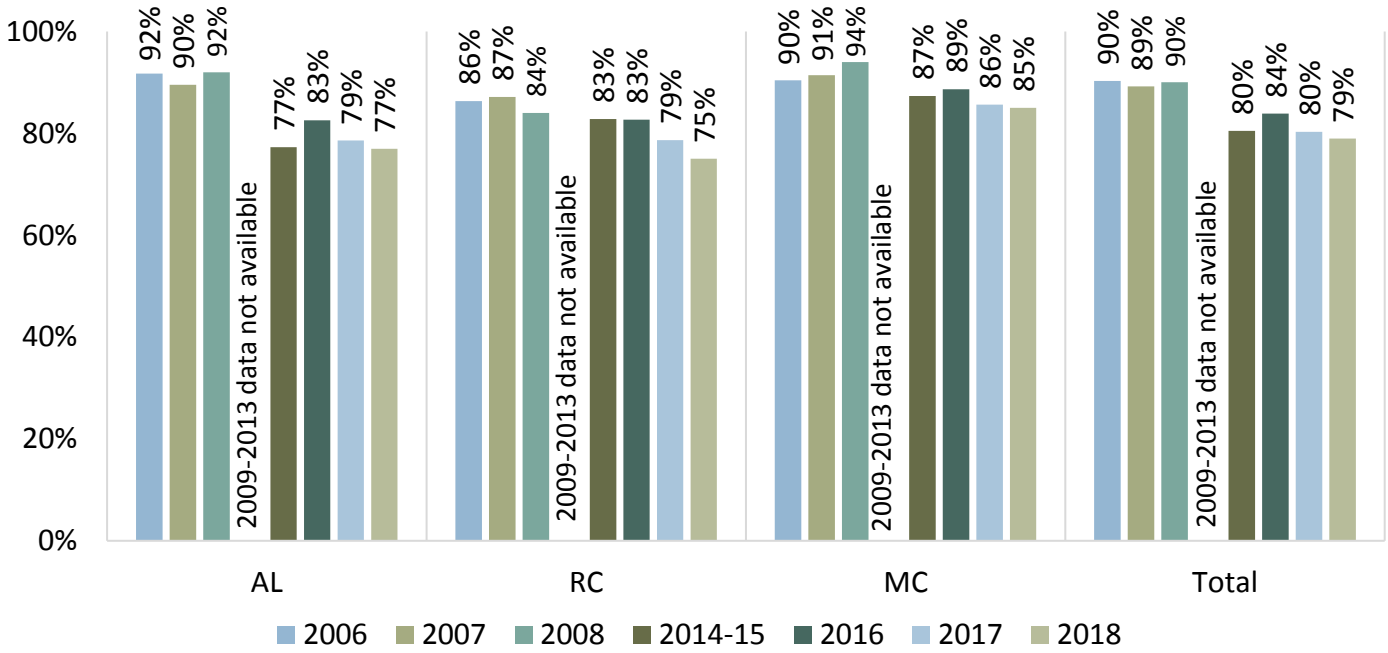
Figure 3: Change in Licensed Capacity by Setting, 2000-2017



Overall, occupancy rates appear to have declined since 2006, with the rate of decline in MCs lower compared to AL and RC. (Figure 4).

When we look at the change in occupancy since 2014-2015 (when the current formula for calculating occupancy rates was adopted), the picture looks a bit different. The greatest decline in occupancy rates occurred among RC (9 percent), followed by MC (3 percent) and AL (no change). Possible reasons for these declines could be any of the following, or a combination of these and other factors: differences in the ways that occupancy rate is calculated; competition from other long-term services and supports, including home health care; licensed capacity is higher than necessary; demographic factors associated with the Great Depression and post-World War II baby boom; or impact of the moratorium placed on licensing new AL/RC units in the 2000s.

Figure 4. Change in Occupancy by Setting, 2006 – 2018



COMMUNITY SERVICES AND POLICIES

What are common services and policies?

Several questions were asked about CBC setting-level policies regarding resident services and staffing. The topics listed below were identified by the DHS and PSU research team, with input from stakeholders.

Move-out notices
30-day move-out notice
Medicaid acceptance for private pay residents who spend down
Use of fall risk assessment
Use of cognitive screening tool
Use of a depression screening tool
Resident and staff flu shots

Move-Out Notices

Oregon rules encourage CBC providers to support residents' choice to remain in the setting, but recognizes that for some residents, remaining in the setting risks their safety, or health (OAR 411-054-0080). Providers may ask a current resident to move out due to one of the reasons specified in the rule.

Providers were asked which of the following circumstances would typically prompt them to give a resident a move-out notice:

- Two-person transfer
- Sliding-scale insulin shots
- Wandering outside
- Hitting/acting out with anger to residents or caregivers
- Lease violations other than non-payment
- Non-payment (Table 3).

The three most common reasons that might prompt a move-out notice:
Non-Payment **84%**
Hitting/acting out with anger to other residents /caregivers **75%**
Lease violation other than non-payment **44%**

Some variation was noted. For example, MC communities were far less likely to give a move-out notice for two-person transfer or wandering outside. Given that MC communities have a larger percentage of residents who have behaviors associated with dementia, including wandering and aggression, and have a higher staffing level compared to AL/RC, these findings are expected (Staff Section, page 20).

Table 3: Resident Needs and Behaviors That Would Typically Prompt a Move-Out Notice

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Non-payment	89 (139)	76 (75)	84 (108)	84 (322)
Hitting/acting out with anger	87 (136)	72 (71)	62 (79)	75 (286)
Lease violation other than non-payment	51 (80)	45 (45)	34 (44)	44 (169)
Wandering outside	65 (102)	37 (37)	4 (5)	38 (144)
Two-person transfer	37 (58)	34 (34)	7 (9)	26 (101)
Sliding-scale insulin shots	7 (11)	7 (7)	5 (6)	6 (24)
None	3 (4)	5 (5)	4 (5)	4 (14)

30-day Move-Out Notices

When it is no longer possible to safely meet residents' health and service needs, a community can issue a 30-day written notice

requesting that the resident move elsewhere. If the resident presents safety risks to others, and delaying a move increases risk of harm, or if a resident has left the facility to receive urgent care and upon returning a re-evaluation determines the facility is unable to meet the resident's needs, a less than 30-day move-out notice can be issued. Residents and their designees can choose to dispute a 30-day or less than 30-day move-out notice by requesting an administrative hearing (OAR 411-054-0080).

Of the 318 facilities that answered this question, 17 percent had issued a less than 30-day move-out notice. A total of 89 residents received such a notice. Facilities reported whether the move-out notice went to an administrative hearing for 86 of 89 residents. Of those 86 residents, 20 percent (17 residents) requested such a hearing.

Medicaid acceptance for private pay residents who spend down

Residents who pay monthly fees with private resources, such as savings, might run out of money during their stay in a CBC setting. Providers were asked if they would allow such residents to stay if they qualified for Medicaid.

Overall, 79 percent of responding facilities would allow residents to stay, 17 percent would not. Four percent reported that this circumstance was not applicable for them, most likely because they did not have a Medicaid contract. RC facilities were less likely to report that they allow residents to spend-down to Medicaid (65 percent) compared to AL (84 percent) and MC (86 percent) communities. For more information about the rate of Medicaid recipients, see the Rates, Fees, and Medicaid section, page 24.

Every **14 seconds** an older adult is seen in an emergency department for a fall-related Injury (AoA, 2016).
Most facilities (**84%**) used a fall screening tool as either standard practice or on a case-by-case basis.

Use of Resident Fall Risk Screening Tool

Falls among older adults are an important public health issue. Nationally, older Americans experienced 29 million falls causing seven million injuries and costing an estimated $30 billion in annual Medicare costs (Bergen et al. 2016; Florence, et al. 2018). Recent legislation passed in Oregon (HB3359) will require CBC communities to track and report the number of resident falls that result in physical injury. Oregon rules require communities to assess residents' risk of falling during the initial admission, and quarterly evaluations (OAR 411-054-034).

Oregon's DHS encourages CBC providers to use a validated fall risk screening tool. Over 60 percent of CBC settings used a fall risk assessment tool to screen every resident as standard practice (Figure 5). A larger percentage of AL (67 percent) reported using a fall risk assessment tool as a standard practice compared to MC (60 percent) and RC (54 percent). The use of a fall risk assessment tool has remained relatively consistent since this question was first asked, in 2016 (Figure 6 and Table B3 in Appendix B).

Figure 5: Use of Fall Risk Assessment by Setting, 2018

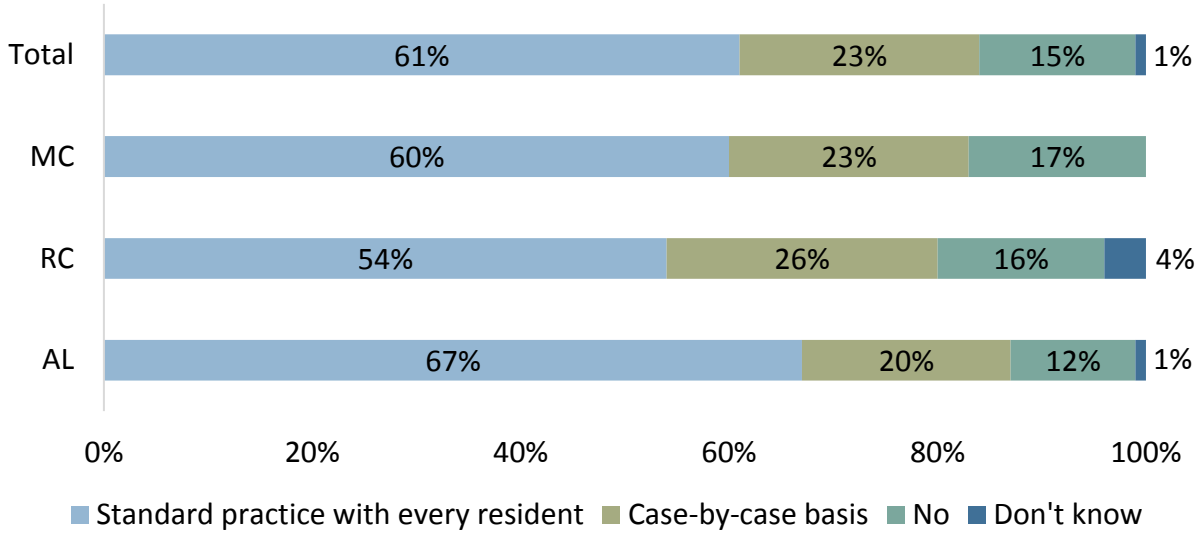
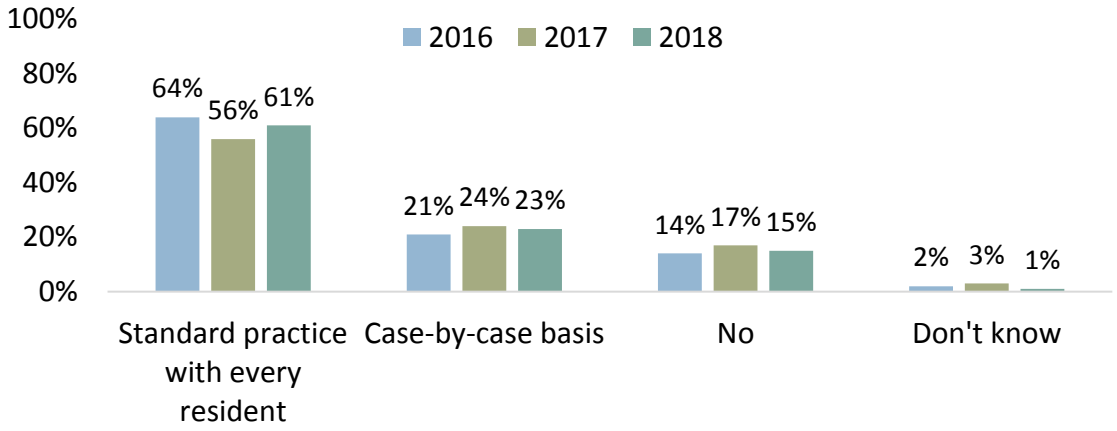


Figure 6: Use of Fall Risk Assessment over Time, All Facilities, 2016-2018



In 2013, an estimated 5 million Americans were diagnosed with dementia. By 2050, the number is projected to rise to 14 million (CDC, 2017). In 2012, an estimated 76,000 Oregonians were diagnosed with dementia.

Use of Cognitive Screening Tool

Cognitive screening tools can be used to identify whether an individual has a cognitive impairment. The benefits of identifying cognitive impairment include enabling providers to deliver better care and allowing individuals and families to prepare for and manage diseases associated with cognitive impairment, including forms of dementia (Alzheimer's Association, 2015). Cognitive screening tools can be used to track changes in an individual's cognitive impairment over time (Alzheimer's Association, 2017b). These tools should not be used to diagnose dementia, though the results could be shared with a clinician who might then run additional tests.

74% of providers used a standard cognitive screening tool as a standard practice or on a case-by case basis

Oregon does not require providers to use cognitive screening tools but they must conduct an initial screening before a resident moves in to determine service needs and resident preferences and whether the facility can meet those needs and preferences (OAR 411-054-0034). MC communities must implement policies and procedures to evaluate resident behavioral symptoms, interests, abilities and skills, emotional and social needs, physical limitations, and medication needs (411-057-0140). For these reasons, providers were asked whether they use a cognitive screening tool.

Overall, 47 percent of providers used a standard cognitive screening tool as standard practice, and 27 percent did so on a case-by-case basis (Figure 7 and Table B3 in Appendix B). A larger percentage of communities reported using a tool as standard practice in 2018 compared to 2017.

There was some variation in the standard use of a screening tool, with a smaller share of RC facilities (39 percent) doing so compared to MC (50 percent) and AL (49 percent) in 2018. The percent of communities that did not use any tool decreased between 2017 and 2018.

In Oregon, the Mini-Mental State Examination (MMSE) was the cognitive screening tool that was used most frequently, with **54%** of providers using this tool.

A variety of validated cognitive screening tools can be used in community-based, clinical, and research settings, including the St. Louis Mental Status (SLUMS), the Mini-Mental State Examination (MMSE), the Mini-Cog, the General Practitioner Assessment of Cognition (GPOG), and the Montreal Cognitive Assessment (MoCA). Facilities that use a standard tool were asked if they use one of these or any other cognitive assessment methods (Figure 8). Of the facilities that reported using a standard cognitive assessment tool, either as a regular practice or on a case-by-case basis, most reported using MMSE (54 percent), followed by SLUMS (32 percent) and Mini-Cog (9 percent). Fourteen percent reported using other tools not listed here.

Figure 7: Use of Cognitive Screening Tool by Setting, 2017-2018

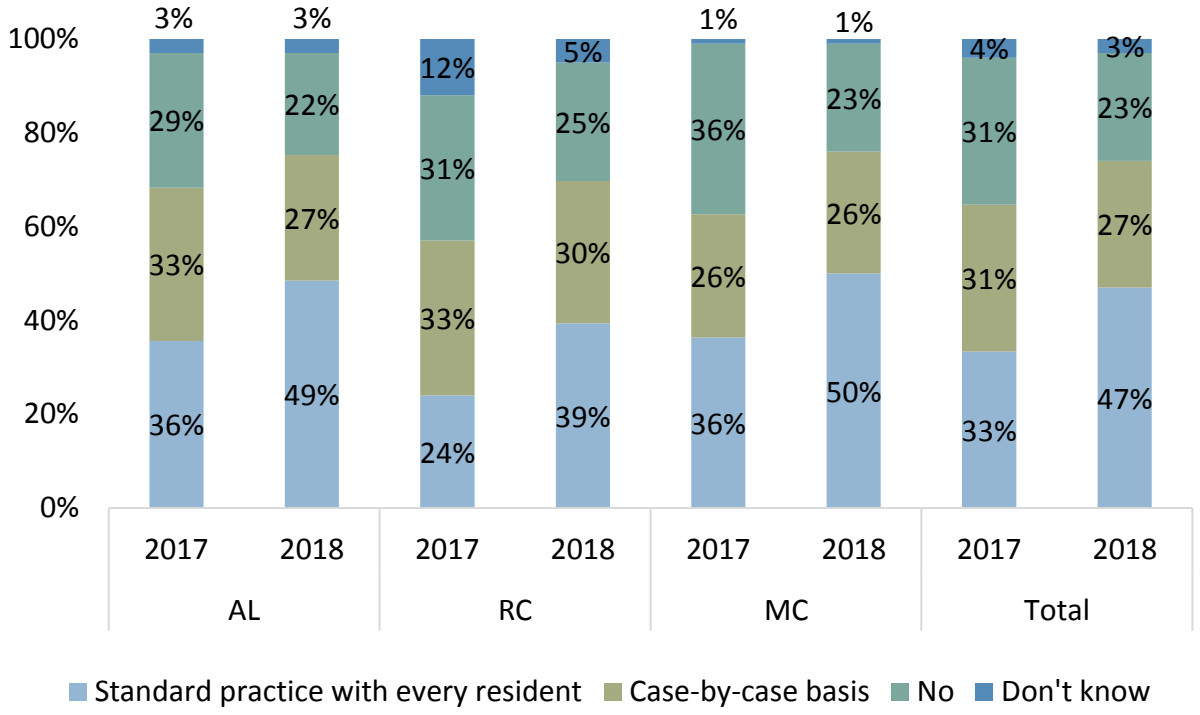
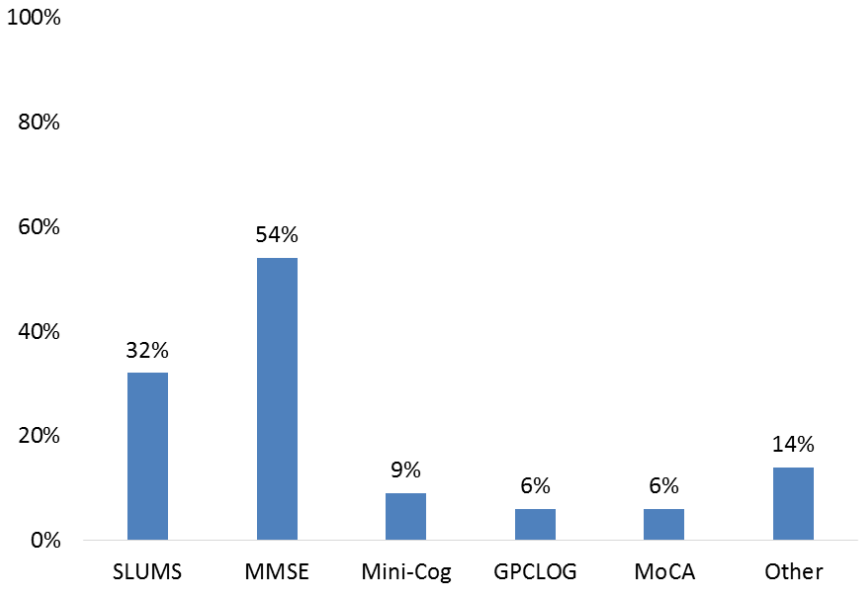


Figure 8: Percent of Facilities That Use a Specific Cognitive Assessment Tool among Facilities that Reported Using a Cognitive Assessment Tool



Depression Screening

When recognized and treated, depression can be reduced or alleviated (CDC, 2017a). Screening is recommended since depression can be overlooked or misinterpreted as a natural part of aging (CDC, 2017a). Oregon requires facilities to use tools and protocols to determine if residents' experience mental health issues, including depression (OAR 411-054-0036).

Overall, 37 percent of responding facilities used a standard tool such as the Patient Health Questionnaire (PHQ-9) or the Geriatric Depression Scale (GDS) for assessing depression among their residents. MC communities were slightly more likely to report using a standard tool (41 percent) compared to RC (36 percent) and AL (35 percent).

Flu Vaccination

Since many residents in CBC settings experience a greater number of conditions, have compromised immune systems, and reside in close quarter living arrangements, they are vulnerable to contracting a flu virus (Lansbury, et al. 2017; CDC, 2018b). Adults aged 65 years and older are more likely to experience flu-related hospitalizations and, according to the Centers for Disease Control and Prevention, between 50 percent and 70 percent of flu-related deaths occur among this group. In long-term care settings, it is recommended that all residents receive a flu vaccine (CDC, 2017b).

Overall, 73 percent of current residents received a flu shot this past fall. The differences across settings were small, with MC and RC reporting slightly higher percentages compared to AL. Of the 379 facilities that responded to this question, 16 percent (61) did not know or did not track the number of current residents who received a flu shot.

Designated Smoking Area

Oregon allows AL/RC/MC facilities to designate whether they will or will not allow residents to smoke (OAR-411-054-0025). Most (77 percent) reported that they provided a designated area outside of the building that is reserved for smoking. MC communities (65 percent) were less likely to report a designated smoking area compared to RC (77 percent), and AL (87 percent). In addition, the majority of facilities reported that they had a non-smoking place or area where smoking is prohibited (81 percent). The rate did not differ across setting types.

Written policy that addresses sexual contact between residents

Although it is understood that intimacy in relationships contributes to older individual's quality of life, little is understood about how sexual contact is managed in CBC settings (Bentrott et al. 2011). Overall, 69 percent of facilities reported having a written policy that addresses sexual contact between residents. MC (76 percent), and RC (70 percent) were more likely to report having a written policy compared to AL (62 percent).

COMMUNITY-BASED CARE STAFF

Who works in assisted living, residential care, and memory care?

Direct care workers comprise the largest number of employees in CBC settings, and the hands-on care they provide is vitally important to residents' welfare. These workers provide assistance with activities of daily living (ADLs), administer medications, and provide assistance with social and recreational activities, as well as emotional support. The questionnaire included the following staffing topics:

- Administrator Tenure
- Number of Current Employees
- Care-related Staff
- Staffing Level
- Care-Related Staff: Tenure and Turnover
- Staff Training Topics
- Languages Spoken by Staff

Administrator Tenure (Length of Employment in Current Position)

Fifty percent of administrators had been working in their current position as administrator for 18 months (1.5 years) or less. Administrator tenure by facility type was comparable. Fifty percent of administrators working at AL, RC, and MC had been working in their current position for less than 17, 18, and 19.5 months, respectively.

50% of administrators had been in their current position for 18 months (1.5 years) or less.

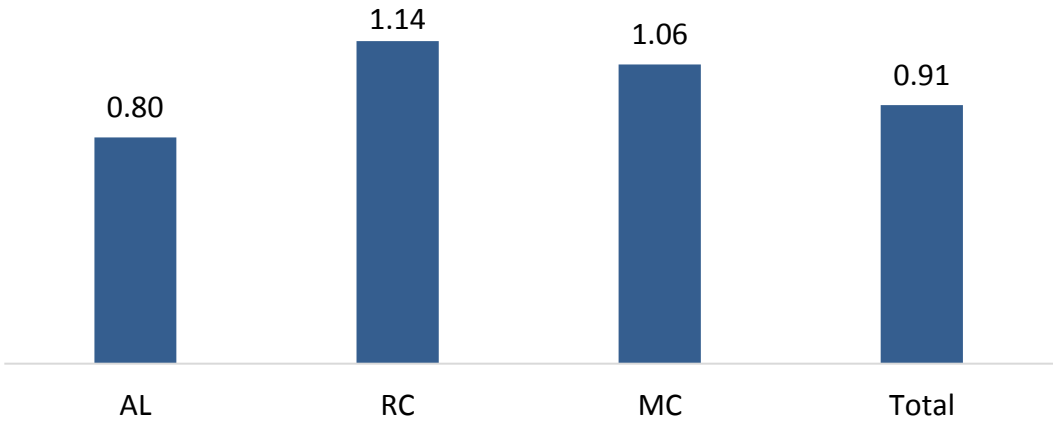
Number of Current Employees

The total number of persons employed (e.g., administration, facilities, housekeeping, kitchen staff, dietary staff, care-related staff) in the 270 CBC settings with staffing information was 9,650. In facilities with multiple settings (e.g., standalone memory care units, independent living, nursing facilities, hospitals), care staff may be employed to work in more than one setting on different shifts. Among survey respondents, 38 percent said their staff also worked in other buildings or units at the same address as their setting. Fewer AL reported sharing staff among buildings/units (28 percent) compared to both RC (41 percent) and MC (47 percent). Not all providers were able to indicate which staff primarily worked in which buildings.

Of an estimated 20,000 staff, **67%** were care-related staff

Two hundred and eighty facilities provided information about the total number of residents and number of total staff. We calculated the ratio of total employees to residents for those facilities (Figure 9). The ratio of all employees to residents was 1.14 for RC and 1.06 for MC, and both of these were higher than AL. In 2017, staff ratios were 0.84, 1.12, and 1.10 for AL, RC, and MC respectively. Therefore, current staff ratios among facilities are nearly identical to those described in the 2017 report.

Figure 9: Ratio of all employees to residents



Care-Related Staff

Providers were asked for the number of full-time and part-time care-related staff that they employed, which includes the following employee categories: registered nurses (RNs), licensed practical nurses (LPNs) or licensed vocational nurses (LVNs), certified nursing assistants (CNAs), certified medication aides (CMAs), personal care staff who are not licensed or certified, social workers, activities directors or staff, and residential care coordinators (Table 4). The 270 responding facilities employed a total of 6,499 care-related staff, who represented 67 percent of all CBC employees.

Some cases were excluded due to missing information or because they did not separate out staff employed in more than one setting on a campus or building. The 270 responding facilities represent 70 percent of the total number of questionnaires received. This level of missing rate is comparable to the missing rate of staffing questions in a national study (National Center for Health Statistics, [NCHS], 2015).

Of all care-related staff in the 270 responding AL/RC/MC facilities, 17 percent were employed part-time and 83 percent were employed full-time. A total of 5,041 (non-certified and non-licensed) personal care staff and 405 licensed nurses (RN, LPN/LVN) were employed. Most—84 percent—of the personal care staff were employed full-time, and 64 percent of RNs were employed full-time. Oregon rules require facilities to employ personal care staff 24-hours daily and registered nurses as needed, so it is not surprising that the largest share (78 percent) of all care-related staff are non-certified, non-licensed staff (Table 4 and Table B4, Appendix B).

A greater percentage of ALs (**76%**) compared to MCs (**60%**) and RCs (**42%**) employed at least one full-time RN.

More RCs (**29%**) have full-time CNAs on staff compared to MCs (**22%**) and ALs (**19%**).

Table 4: Percentage of Care-Related Staff Employed Part-Time or Full-Time, by Employee Categories

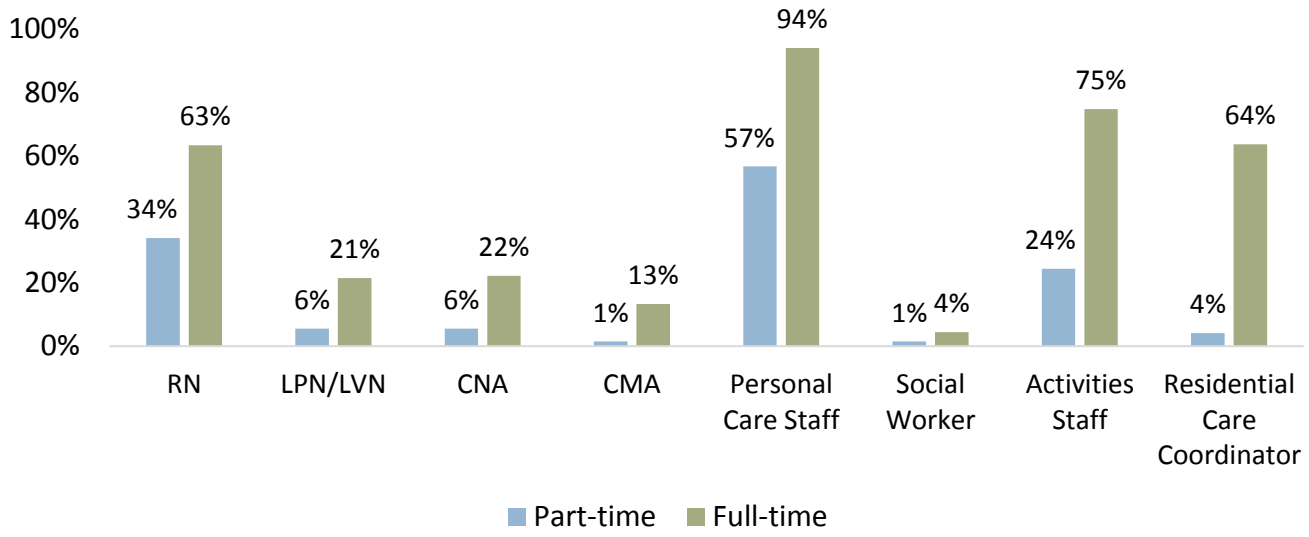
	Part-time % (n)	Full-time % (n)	Total % (n)
RN	36 (110)	64 (192)	5 (302)
LPN/LVN	17 (18)	83 (85)	2 (103)
CNA	20 (54)	80 (211)	4 (265)
CMA	4 (6)	96 (156)	2 (162)
Personal care staff	16 (818)	84 (4,223)	78 (5,041)
Social worker	13 (5)	87 (33)	1 (38)
Activities director/staff	24 (90)	76 (285)	6 (375)
Residential care coordinator	6 (12)	94 (201)	3 (213)
Total	17 (1,113)	83 (5,386)	6,499

Oregon does not require CBC settings to hire CNAs or CMAs. However, 22 percent of responding facilities employed at least one full-time CNA, and 6 percent employed at least one part-time CNA. Thirteen percent employed at least one full-time CMA (Figure 10 and Table B4). The majority of facilities (75 percent) reported employing at least one full-time activities director or staff person. Facilities are not required to employ social workers, though 4 percent did so full-time.

AL/RC facilities are required to employ or contract with a licensed nurse (RN or LPN/LVN). Of all facilities, 63 percent employed at least one full-time RN and 21 percent employed at least one full-time LPN/LVN. There was variation in employment of RNs and LPN/LVNs across settings. A greater percentage of ALs (76 percent) compared to MCs (60 percent) and RCs (42 percent) employed at least one full-time RN, and a larger percentage of MCs (25 percent) compared to ALs (22 percent) and RCs (16 percent) employed at least one full-time LPN/LVN (Table B4, Appendix B). Nationally, 40 percent of RC facilities employ at least one RN, and 36 percent employ an LPN/LVN, either full or part-time (Harris-Kojetin et al. 2016). In addition, more RCs (29 percent) have full-time CNAs on staff compared to MCs (22 percent) and ALs (19 percent).

There were very few changes in the percentage of CBC settings with at least one part-time or full- time employee by staff category between 2017 and 2018 (Table B5, Appendix B). The percentage of facilities employing at least one part-time personal care staff or activities director or activities staff, and at least one full-time RN decreased between 2017 and 2018.

Figure 10: Percentage of Facilities With At Least One Part-Time or Full-Time Staff by Employee Categories



Staffing Level

Oregon requires CBC settings to hire qualified staff in sufficient numbers to meet the needs of each resident. The facility must have a written, defined system to determine numbers of caregivers and general staff based on resident acuity and service needs. The provider must be able to demonstrate how the system works (OAR 411-054-0070). House Bill 3359, passed in 2017 by the Oregon State Legislature, requires DHS to develop a technology supported an acuity-based staffing tool to determine or evaluate staffing levels.

To compare Oregon to national averages and for tracking staffing levels over time, we used the National Center for Health Statistics (NCHS) definition of staffing level (Harris-Kojetin et al. 2016). Staffing level provides an average of staff hours per resident per day, calculated as the total number of hours worked by care-related employees (licensed nurses, CNAs, CMAs, personal care staff, social workers, and activities director or activities staff) divided by the total number of residents. Only facility-employed (not contract) full-time and part-time staff are included in the NCHS calculation. It should be noted that staffing level is not a measure of the amount of actual care given to any specific resident. Staffing level calculations and methods are detailed in Appendix A.

The combined staffing level for all care-related employees was 2 hours and 51 minutes, a 1 minute increase from 2017, and 10 minute increase from 2016. This rate is nearly identical to a 2014 national study that reported 2 hours and 53 minutes (Harris-Kojetin, et al. 2016). Among all Oregon CBC settings, personal care staff account for the largest number of staffing hours, at 2 hours and 26 minutes per resident per day, an increase of 6 minutes since last year. The staffing level for RNs was 8 minutes and 1 minute for LPN/LVNs, which has remained stable over time. The combined level for CNAs and CMAs was 5 minutes per resident per day, a 6-minute decrease since 2016.

Table 5: Staffing Levels by Staff and Facility Type

	AL			RC			MC			Total		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
RN	0:05	0:06	0:05	0:12	0:14	0:11	0:08	0:10	0:09	0:08	0:09	0:08
LPN/LVN	0:00	0:00	0:01	0:00	0:02	0:01	0:04	0:02	0:02	0:01	0:01	0:01
CNA/CMA	0:05	0:06	0:04	0:17	0:13	0:06	0:14	0:09	0:06	0:11	0:08	0:05
Personal care staff	1:30	1:44	1:40	2:33	2:14	2:53	2:46	3:20	3:18	2:10	2:20	2:26
Social worker	0:00	0:00	0:00	0:01	0:01	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Activities director/staff	0:06	0:07	0:07	0:07	0:10	0:10	0:12	0:12	0:11	0:08	0:09	0:09
Total	1:49	2:05	1:58	3:12	2:57	3:24	3:26	3:54	3:48	2:41	2:50	2:51

The staffing levels were highest in MC communities compared to AL and RC (Table 5). The rate for MC was 3 hours and 48 minutes, 24 minutes more than RCs and 1 hour and 50 minutes more than ALs. The staffing level reported in the national study had similar findings, with a staffing level of 3 hours and 37 minutes per resident in RC where a majority of residents had dementia (Rome & Harris-Kojetin, 2016). Staffing levels in both AL and MC communities decreased in the last year, while RCs experienced a 27-minute increase since 2017.

Contract Staff and RNs

> Staff hours per resident per day was 3 hours and 48 minutes for MC, 3 hours and 24 minutes in RC, and 1 hour and 58 minutes in AL.

To ensure comparability with the NCHS data, we did not include contract or agency staff when we calculated staffing levels. Last year's report showed that including contracted staff minimally changed the staffing levels, so we did not ask providers to report the number of contract care staff currently working in their facilities for 2018. However, we asked providers if they hired contract/agency staff to cover unplanned staff absences and found 16 percent of Oregon facilities did so in the last 90 days.

> Compared to last year's report, staffing levels in AL and MC communities decreased and RCs experienced a 27 minute increase.

Providers were asked if the number of hours they employed or contracted with an RN increased between 2016 and 2017. Across all settings, 19 percent indicated an increase in the number of RN hours from 2016-2017. The increase in RN hours was much greater in RC (33 percent) compared to MC (17 percent) and AL (13 percent).

Care-Related Staff: Tenure & Turnover

This year, providers were asked questions regarding length of employment and care staff turnover. There is no standard definition for assessing staff turnover, although studies in nursing homes have assessed both staff

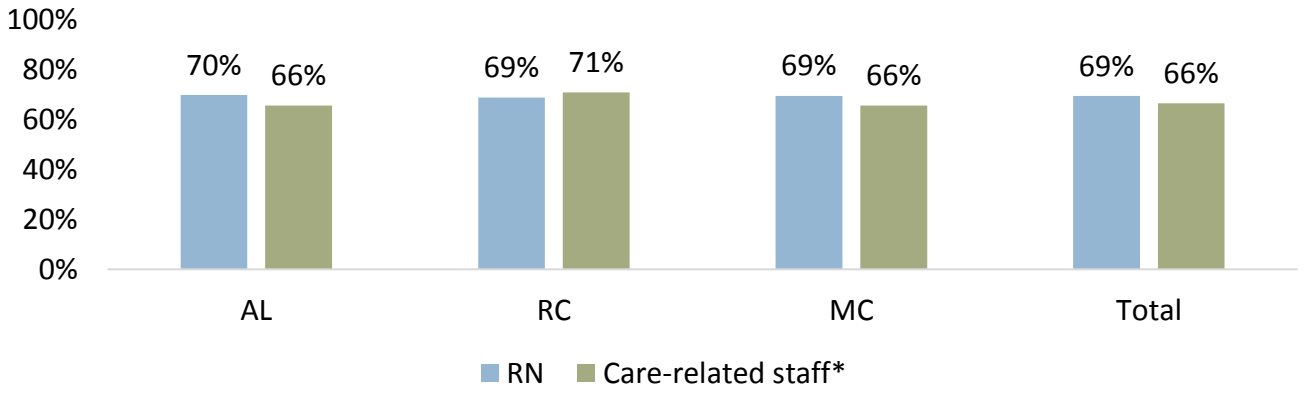
retention and turnover in the prior 6-month, 12-month, facility fiscal year, or research study periods (Castle, 2006).

We asked providers to describe the number of: 1) RNs and 2) other care-related staff that had been employed in their facility for less than or more than 6 months.

Given that CBC settings are required to contract with or employ an RN, we assessed RNs separately from other care-related staff. Of 247 responding facilities (excluding facilities with missing information, unseparated shared staff, or no employed RN), 70 percent of employed RNs had been working in their facility for more than 6 months across all setting types (Figure 12). Among all settings, 66 percent of care-related staff (excluding RNs) were employed for more than six months at their respective facilities. Compared to RNs, there was slightly more variation in the proportions of other care-related staff who were employed for more than six months by facility type, 71 percent in RCs compared to 66 percent in both AL and MCs (Figure 11). This suggests approximately one-third of care-related staff working across all setting types were new hires (as defined as the percent of employees who have been employed for less than six months).

70% of RNs and **66%** of care staff were employed for more than 6 months. Almost **33%** of care-related staff were new hires.

Figure 11: Percentage of RNs and Care-Related Staff Employed in Their Facility for More Than Six Months

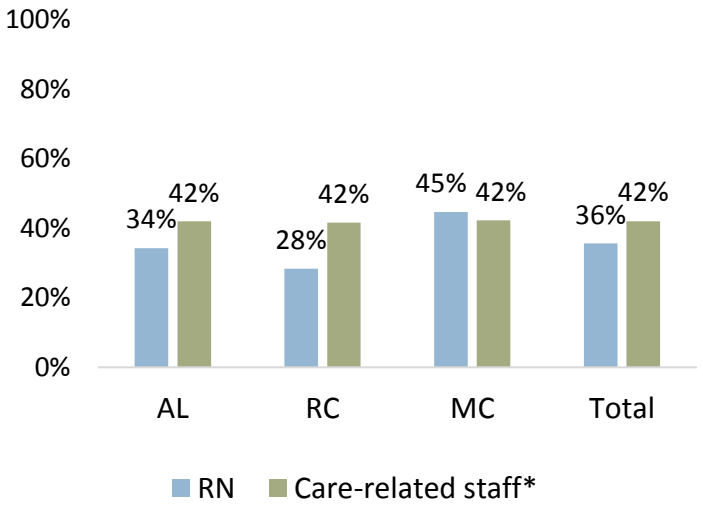


Notes: *Excludes RNs. AL = assisted living, RC = residential care, MC = memory care.

36% of RNs and **42%** of care-related staff left employment in the prior 6 months**.**

Separation refers to staff who left employment for any reason, including quitting, layoffs, and discharges. Figure 12 shows the proportion of RNs and care-related staff who left the facility in the prior six months. The denominator for these calculations refers to the percent of current employees in these categories excluding the RNs or care-related staff who left. Just over one-third of RNs (36 percent) left employment at an AL/RC/MC facility in the prior six months, and this rate varied by setting type: 45 percent of RNs left employment in MC compared to ALs and RCs (34 percent and 28 percent, respectively). Among other care-related staff types, 42 percent separated from employment, and this finding was consistent among all facility types (Figure 12).

Figure 12: RNs and Other Care-Related Staff That Left Employment for Any Reason in the Last 6 Months as a Percent of Total Current Employment by Facility Type, 2018



Staff Training Topics

Oregon requires CBC settings to provide staff pre-service training on residents' rights, abuse, infection control, and safety prior to staff beginning their job (OAR 411-54-070). In addition, personal care staff must demonstrate caregiving competencies on several topics within 30 days of hire. Facilities must have a training protocol and a way of evaluating staff performance capability and competency through a demonstration and evaluation process. Staff knowledge and training affect resident quality of life and health-related outcomes (Beeber, et al. 2014).

Oregon requires that older adults, people with disabilities, and their families be treated in a manner that honors choice and respects cultural preferences (DHS, 2017). Last year, 90 percent of CBCs reported training their staff on safety, residents' rights, abuse, Alzheimer's disease and related dementias, medication administration, and prevention of communicable disease. Other topics covered by most settings (67 to 89 percent) included person-directed care, communication, nutrition and food management, working with resident families, mental illness, and hospitality skills.

This year, the questionnaire asked whether staff received training on the following resident rights topics:

- Race and ethnic diversity
- Intercultural differences
- Sexual orientation
- Gender identity

Of these four topics, the most commonly reported training was on race and ethnic diversity (44 percent), followed by sexual orientation (28 percent), intercultural differences (27 percent), and gender identity (21

percent). More AL (52 percent) provided training in race and ethnic diversity compared to RC (31 percent).

In addition, 198 providers (74 percent of all survey respondents) gave 267 written examples of other types of training that could benefit their staff. Most (66 percent) identified training topics related to resident care, such as dementia care, behavioral health and behavior management, health and chronic conditions. Other topics (30 percent) related to administrator and caregiver support including communication, team building, leadership training, and self-care. A few (7 percent) identified the need for training on administrative rules and House Bill 3359.

Languages Spoken by Staff

The U.S. population of older adults who are racially and ethnically diverse is projected to increase from approximately 21 percent in 2012 to 39 percent in 2050 (Ortman, et al. 2014).
To understand cultural differences between staff and residents, we asked what languages, other than English, staff commonly speak. Just six percent of facilities reported having at least one staff person who spoke another language. The most common language spoken by staff was Spanish (56 percent). Other languages included Pacific Islander, Vietnamese, Cantonese, Korean, Russian, Ukrainian, and Bosnian. Few staff spoke various European, African, and Arabic languages.

RATES, FEES, and MEDICAID USE

How much does community-based care cost?

The cost of AL/RC/MC is important to state policymakers and to current and prospective residents. Providers were asked about the following topics:

- Monthly base and total private pay charges
- Payer sources-private resources and Medicaid
- Additional fees

This section also describes changes since 2006.

Private Pay Charges

Many CBC facilities charge a base monthly rate and have additional charges for specific services. Providers were asked to describe the average base monthly private-pay charge for a single resident living alone in the smallest unit and receiving the lowest level of care, and the average total monthly charge, including services (Table 6 and Table B6 and Table B7 in Appendix B). On average, the total monthly charge for MC was $5,620, followed by RCs ($4,497) and ALs ($3,959). For both MC and RC, the highest base monthly charge exceeded $9,000 per month, and exceed $8,000 among AL.

The inflation-adjusted percentage increase in the base monthly charge between 2006 and 2018 was **46%** for RC, **28%** for AL, and **24%** for MC. Average total monthly charge increases were **34%** for RC, **19%** for AL, and **7%** for MC.

Table 6: Average Monthly Private-Pay Charges by Setting, 2018

	AL	RC	MC	Total
Average base monthly charge	$3,405	$3,936	$5,069	$4,095
Minimum	$1,235	$1,200	$1,200	$1,200
Maximum	$8,160	$9,700	$9,900	$9,900
*Average total monthly charge	$3,959	$4,497	$5,620	$4,638
Minimum	$2,216	$1,800	$3,500	$1,800
Maximum	$8,000	$9,700	$9,900	$9,900

*Average total monthly charge includes services

The calculations for average monthly charges may be influenced by a relatively small number of facilities that have unusually high or low charges (i.e., outliers) compared to other facilities. To account for this, we calculated average values excluding these outliers. The conclusions listed above are not sensitive to the outliers. Finally, to better show the range of monthly rates, we report average total and base monthly rates in $2,000 increments (Tables B6 and B7, Appendix B).

The Genworth Cost of Care survey is a national survey of long-term care costs. In 2017, the national average for AL was $3,750 per month, and for Oregon it was $4,070 (Genworth, 2017). A 2010 national survey found that the monthly base rate for a single room in a dementia care unit was $3,843 (Zimmerman et al. 2014). In 2017 dollars, this rate would be $4,372.

Changes in Private Pay Rates over Time

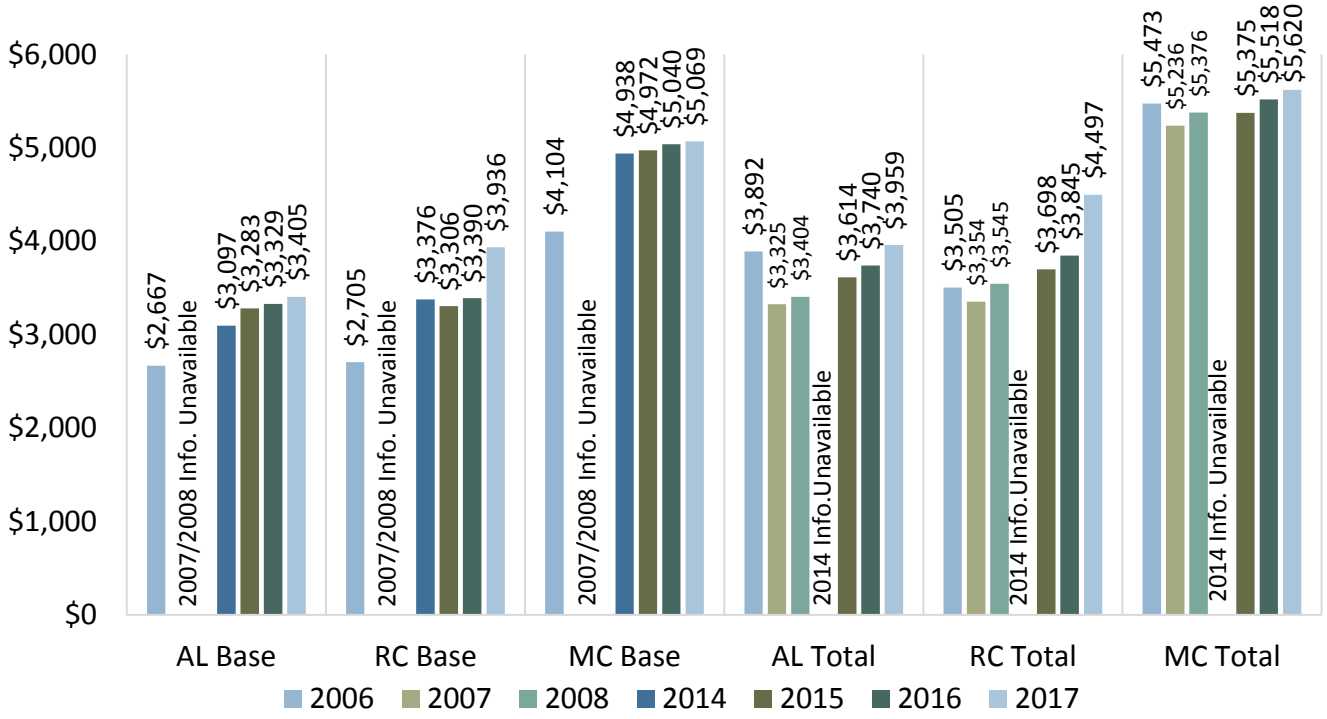
Figure 13 shows changes in base and total monthly private pay charges between 2006 and 2018 (including services). The source of information for the years 2006 to 2014 was prior published reports. All values were adjusted to

2017 dollars. There were some years for which information is not available (noted in the graph where unavailable).

Between 2006 and 2017, the average base monthly charge outpaced inflation. The inflation-adjusted percentage increase between 2006 and 2018 was 46 percent for RC, 28 percent for AL, and 24 percent for MC.
For AL and MC, the increases were incremental while RC had the greatest growth in average base monthly charge between the last and the current year.

The changes in average total monthly charges in inflation-adjusted dollar terms have been increasing since 2007 following a decline between 2006 and 2007. The inflation-adjusted percentage increases in average total monthly charges were 34 percent for RC, 19 percent for AL, and 7 percent for MC communities since 2007.

Figure 13: Changes in Base and Total Monthly Private Pay Charges between 2006 and 2018



Note: All charges are expressed as inflation-adjusted December 2017 dollar amounts.

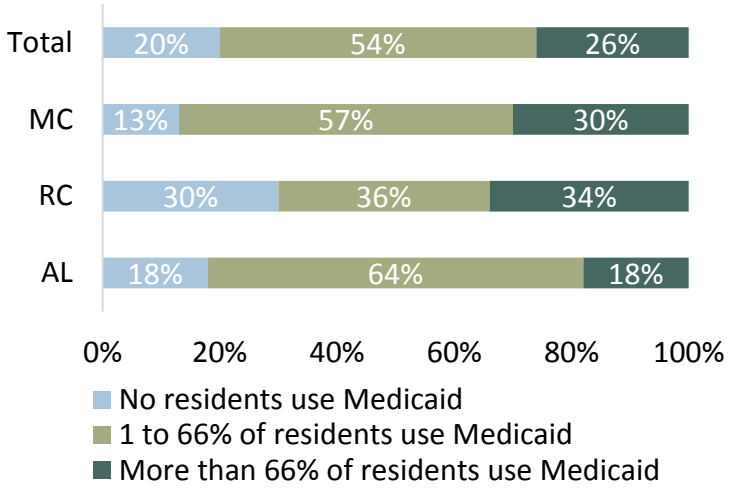
Payer Sources

The primary payer sources among responding facilities were residents' personal funds (56 percent of residents) and Medicaid (42 percent). MC communities had a higher percentage of Medicaid beneficiaries (48 percent) than AL (40 percent) and RC (39 percent). Other payer sources (2 percent) included long-term care insurance, Social/Supplemental Disability Insurance, or Providence Elderplace.

Among responding facilities, **42%** of residents paid using Medicaid funds. Among responding facilities (with or without a Medicaid contract), **20%** had no current Medicaid residents.

Figure 14 shows the percent of facilities with no residents paying using Medicaid funds, and percent of facilities with one or more residents paying using Medicaid funds.

Figure 14: Medicaid Utilization by Facility Type



Only four facilities with a Medicaid contract had no Medicaid residents. In 54 percent of facilities, between 1 to 66 percent of residents paid primarily using Medicaid, and in 26 percent of facilities, more than two-thirds of residents were paying primarily using Medicaid. There were significant differences in residents' Medicaid utilization across setting types.

The largest share of AL (64 percent) and MC (57 percent) facilities had 1 to 66 percent of their residents paying with Medicaid. Approximately 30 percent of RC had no Medicaid residents, 34 percent had between one to 66 percent, and 34 percent had 67 to 100 percent of residents paying with Medicaid.

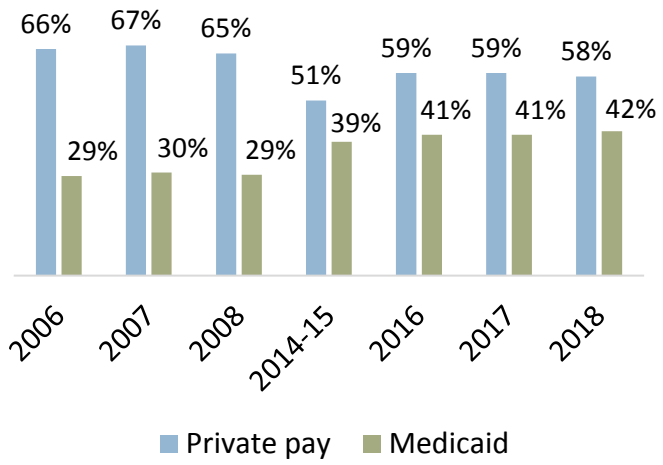
Changes in Payer Sources over Time

Payer sources have changed since 2006. However, the six questionnaires that were used to collect this information since 2006 did not always include the same set of payer sources. In each study year, information about the number of private payers and Medicaid beneficiaries was collected. Other sources, including long-term care insurance, Veteran's Aid and Attendance, or any other source, were not consistently asked. In addition, in 2006-2008, the primary payer source was calculated as a percentage of the facilities' total revenue, and the response rate to these questions was low. Since 2014, providers were asked how many residents paid using each of several different payment sources. Based on feedback from providers, the question was simplified this year to include only Medicaid, any private sources, and any other sources. For these reasons, conclusions regarding changes in payer source over time need to be taken cautiously.

Figure 15 includes only private and Medicaid as payer sources since these two categories were asked each year. Although it appears that the percent of residents who were Medicaid beneficiaries increased after 2008, some of this increase is likely due to differences in how payment sources were measured (number of residents vs. percent of revenue) for 2006 and 2007. The observed increase in the percent of Medicaid beneficiaries after 2008 can be

attributed to differences in how payment sources were measured (number of residents vs. percent of revenue) as well as structural (e.g., changes in eligibility criteria) and demographic (aging population) changes that occurred in Oregon.

Figure 15: Change in Payer Source over Time, 2006-2018



Note: In 2017 and 2018, "private pay" reflects percentage of all residents who paid using sources other than Medicaid.

Providers were asked whether they offer specific services, and whether they charge additional fees for specific services. The top five most commonly reported additional fees were for the following:

- Transfer assistance requiring two staff: **78%**
- Use of a pharmacy other than the facility-preferred pharmacy: **62%**
- Staff escort of a resident to a medical appointment: **61%**
- Meals regularly delivered to the resident's unit: **52%**
- Transport to recreation: **13%**

There was some variability across setting types in the use of additional fees. AL were more likely to charge a fee for 2-person transfer (74 percent) than RC (63 percent) or MC (51 percent). Both AL and MC communities were more likely to charge for use of a pharmacy other than the facility-preferred one (66 percent) than RC (48 percent). AL facilities were far more likely (74 percent) compared to RC (45 percent) or MC (28 percent) to charge a fee for regular meal delivery. See Table B12 in Appendix B for additional fees by facility type.

The estimated total annual charges For all CBC settings approached one billion dollars at **$953,523,240.** **70%** was from private pay sources and **30%** was Medicaid charges.

Medicaid Payment Acceptance and Rates

Oregon has an agreement with the Centers for Medicare and Medicaid Services (CMS) to use Medicaid funds to pay for CBC services, as well as other qualified long-term services and supports. Based on information received from DHS in the fall of 2017, 78 percent (411 out of 524) of all AL and RC facilities had a contract to accept Medicaid beneficiaries. Of the 364 facilities that completed the survey, 81 percent accepted Medicaid. [Note, the 2017 report erroneously stated that the capacity for Medicaid beds was 21,323].

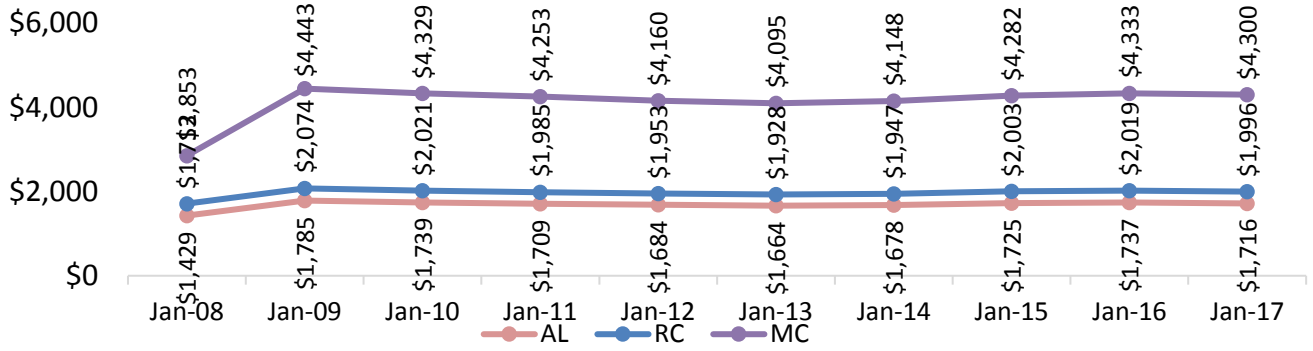
Based on a 2014 national survey, 47 percent of all RC facilities in the U.S. accepted Medicaid payments on behalf of eligible residents (Harris-Kojetin et al. 2016), and the 2010 survey of RC residents found that 19 percent of all residents were Medicaid clients (Caffrey, et al. 2012).

Nationally, RC facilities with dementia care units are less likely to accept Medicaid clients (37 percent accept Medicaid) than those without dementia care units (52 percent) (Caffrey et al. 2012). However, in Oregon, out of a total of 186 facilities with a MC endorsement, 146 accepted Medicaid (79 percent).

Changes in Medicaid Reimbursement Rates over Time

Figure 16 shows the changes in inflation-adjusted (2017 dollars) reimbursement rates between 2008 and 2017. Since 2008, Medicaid reimbursement rates remained fairly constant in real (inflation-adjusted) dollar terms across all facilities, even though the rates have increased in nominal (unadjusted) terms. Overall, this pattern suggests that Medicaid reimbursement rates kept up with inflation, but probably not with the increases in real charges (Figure 16).

Figure 16: Changes in Inflation-Adjusted (2017 dollars) Reimbursement Rates Between 2008 and 2017

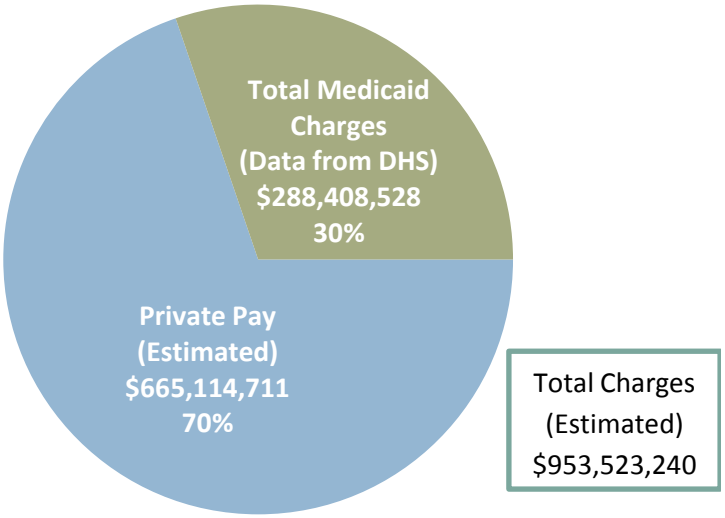


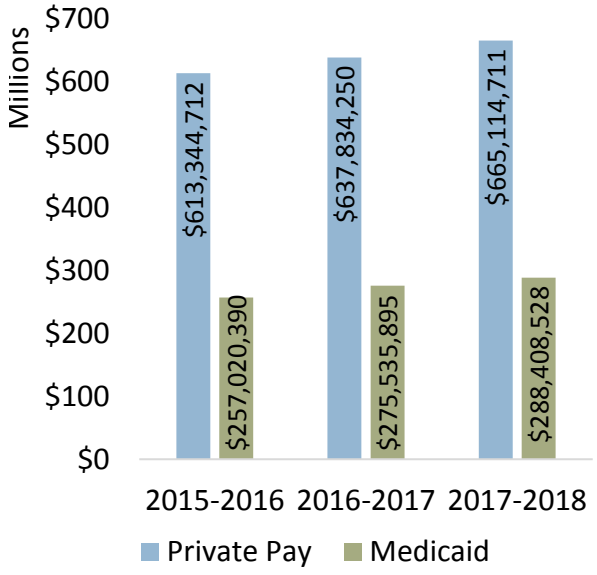
Note: These rates include room and board and are for the lowest service level. All rates have been adjusted for inflation (to December 2017 dollars)

Estimated Profession Charges

Based on the average total monthly charge for private pay residents reported by CBC providers, in addition to the amount billed to DHS for Medicaid services, we estimated the total annual charges for all CBC settings (Table A2, Appendix A for a description of the calculations). As indicated in Figure 17, the total charges were approaching one billion dollars, at $953,523,240. Of this figure, 70 percent was from private pay sources and 30 percent was Medicaid charges (including room and board charges) paid by DHS on behalf of Medicaid-eligible residents.

Figures 17and 18: Total Annual Charges for Private Pay and Medicaid Residents





RESIDENTS

Who lives in assisted living, residential care, and memory care settings?

Nationally, the population of adults age 65 and older is expected to live longer and become more racially and ethnically diverse. In 2010, 13 percent of older adults were age 65 and older, with that number projected to increase to 20 percent by 2030. In Oregon, almost 14 percent of adults were ages 65 and older in 2010, and that number will increase to 18 percent by 2030 (CDC, 2018c).

Based on licensed capacity and provider responses, in 2017 an estimated **20,823** adults lived in an Oregon CBC setting on any given day (see Table A2 in Appendix A for calculations).

The total number of residents in the 364 responding facilities was 13,888. The majority were female (70 percent), White (90 percent), and age 85 or older (51 percent). The average age for all residents across settings was 82 years of age. The average age ranged from 43.5 to 94 years across all settings. Residents of RC were slightly younger (80) compared to residents living in MC (84) and AL (83) (Table 7 and Figure 19). A national study based on data from 2016 reported that 52 percent of residents were age 85 and older, 71 percent were women, and 84 percent were White (non-Hispanic) (Caffrey & Sengupta, 2018).

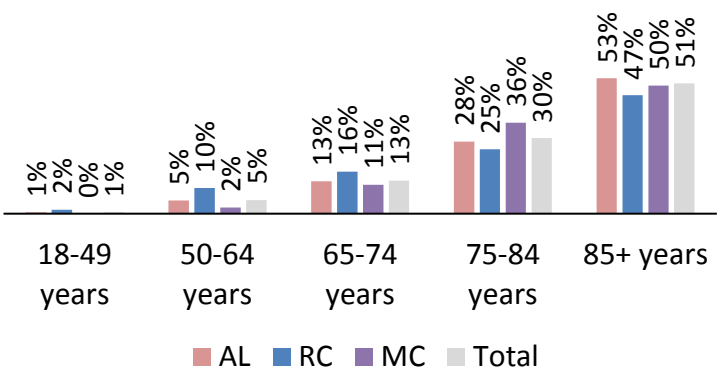
Table 7: Gender, Age, and Race Distribution of Residents over Time

	2015	2016	2017	2018
Gender				
Male	34%	30%	30%	30%
Female	66%	70%	70%	70%
Transgender	<1%	<1%	<1%	<1%
Age Groups				
<18	-	-	-	-
18-49	1%	1%	1%	1%
50-64	6%	6%	5%	5%
65-74	12%	12%	12%	12%
75-84	27%	29%	28%	30%
85 and over	54%	52%	54%	51%
Race[1]				
Hispanic/Latino	-	1%	1%	1%
Not Hispanic/Latino	-	99%	99%	99%
American Indian/Native American or Alaska Native[2]	-	<1%	1%	1%
Asian	-	1%	1%	1%
Black/African American[2]	-	1%	1%	1%
Native Hawaiian/Other Pacific Islander	-	<1%	<1%	<1%
White	-	91%	90%	90%
Two or more races	-	<1%	<1%	1%
Other or unknown	-	6%	5%	5%

[1] Data from 2015 are not comparable to other years, not included.

[2] Race/ethnicity labels are slightly different in 2018, added “Native American” and “African American” for the respective categories.

Figure 19: Age Distribution of Residents across All Community-Based Care Settings



In 2017, an estimated 20,823 adults lived in an Oregon CBC setting on any given day.

The following ethnic/racial categories were each reported at one percent or less in all CBC settings: Asian, Black/African American, Hispanic or Latino, American Indian/Native American or Alaska Native, Native Hawaiian or other Pacific Islander, and two or more races (Table 7).

The population of adults ages 65 and older in Oregon who are ethnically and racially diverse is similar to the resident population in CBC. Throughout the state, approximately 91 percent are non-Hispanic White, and 3 percent are Hispanic/Latino (U.S. Census Bureau, 2016).

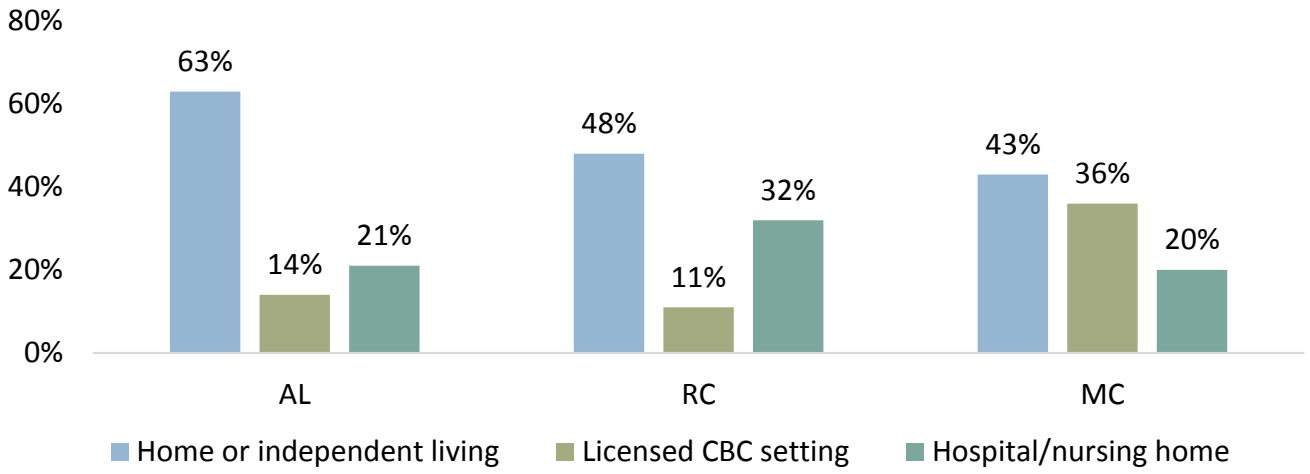
Oregon providers reported that less than two percent of their residents primarily speak a language other than English. As with staff (described above in the Staffing Section on page 23), the next most commonly spoken language was Spanish (37 percent). Other languages spoken by residents included German, Japanese or other Asian languages, Russian, and Tagalog.

Move-In and Move-Out Locations

Understanding the reasons that individuals move into and out of CBC settings is important to providers, policymakers, residents, and families. Older adults typically move to AL/RC facilities because they need assistance with personal care and daily living, have a health-related condition that requires ongoing supervision, or have had an accident or illness resulting in disability (CDC, 2012).

This section describes places where residents lived before moving to a CBC setting, and where residents who left in the prior 90 days moved. Understanding circumstances and conditions that necessitate transitions between home, health care, and CBC settings can promote best practices in care transitions and inform strategies to better match residents' needs with their preferred setting.

Figure 20: Most Common Resident Locations Prior to Move-In by Setting Type: 2018



Residents were most likely to move to a CBC setting from home (34 percent), although there was variation across setting types. AL residents were the most likely to have moved from home (40 percent), compared to MC residents (27 percent), and RC residents (24 percent). Residents who moved into RC were more likely to move from a nursing facility or skilled nursing facility (23 percent) or an independent living apartment in senior housing (17 percent). MC residents were more likely to move in from AL/RC (23 percent), or from the home of a child or other relative (11 percent) (Figure 20, Tables B9 and B10 in Appendix B).

The primary reason a resident left a CBC setting was death (52 percent). In MC communities deaths accounted for over 77 percent of discharges, compared to 39 percent among AL discharges, and almost half in RC (47 percent) (Table B8). Among residents who moved out of a CBC setting, the most common destinations were to MC (11 percent), a nursing facility (9 percent), or AL/RC (seven percent) (Table B8 and B9 in Appendix B). Residents who moved from AL were most likely to move to a MC (14 percent), while RC residents were most likely to move to AL/RC, or adult foster home (17 percent). Ten percent of facilities had no residents who moved out in the prior 90 days, and eight percent had at least one resident who moved out because they could no longer afford to pay or had spent down their assets. Residents who moved out because they could no longer afford to pay or had spent down their assets made up about two percent of all residents who moved out or died.

Deaths accounted for discharges for over **77%** of MC, **47%** of RC, and **39%** of AL residents.

Overall, 45 percent of CBC residents had lengths of stay of one year or less, and rates were similar across settings (Table B10, Appendix B). More Oregon RC residents (25 percent) had stays of one to 90 days than the nine percent reported nationally (Harris-Kojetin et al. 2016). In Oregon, 25 percent of AL residents stayed 90 days or less, compared to 19 percent of RC, and 17 percent of MC residents.

Short-stay respite, which provides temporary living and supports in CBC communities, can provide older adults with temporary increased care needs to return to their preferred living situation and allows family, relatives, and friend caregivers to manage their daily demands and personal care needs. Overall, six percent of residents who moved out in the last 90 days were in the community for a planned short-stay respite or similar care. MC communities had a lower planned short-stay rate (three percent) compared to AL (seven percent), and RC (eight percent).

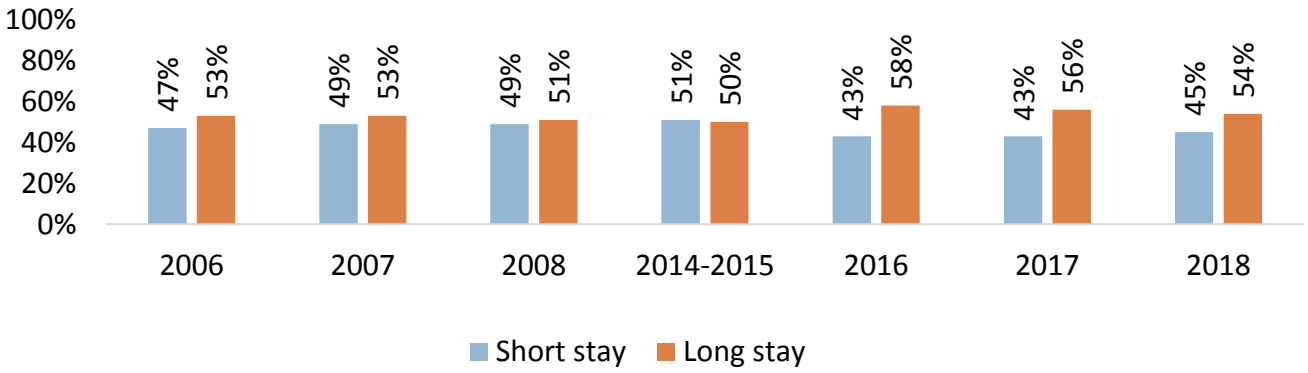
Change in Length of Stay over Time

Length of stay appears to be fairly consistent over time. Figure 21 shows the changes in short-term (less than one year) and long-term (more than one year) stays from 2006 through 2018.

The percent of residents staying longer decreased slightly from 2016 to 2018, although this could be due to a modification in the way the question was asked. Specifically, from 2006 to 2014-15, providers were asked to report the length of stay of all residents who moved out in the prior year, while in 2016, 2017, and 2018 providers were asked to report resident length of stay for the prior 90 days, as providers can more reliably answer questions based on shorter time periods. Figure 21 and Table B10 in Appendix B shows percentages for lengths of stay, the shortest being from one to seven days and the longest being two or more years from 2006 to 2018.

54% of CBC residents who moved out had stayed one year or longer, **45%** stayed one year or less. **8%** of CBC residents stayed three months or less.

Figure 21: Change in Length of Stay for Short- and Long-Term Stays, 2006-2018



Note: Short stay is defined as less than one year, and long stay as more than one year.

Personal Care Needs

As chronic illnesses and health-related disabilities increase with age, older adults' ability to live and function independently often decreases. As a result, these individuals need more assistance with activities of daily living (ADLs) (CDC, 2016a; Jindai et al. 2016). Figure 22 and Table B11 in Appendix B describe the percentage of older adults who needed staff assistance with at least one of five ADLs including eating, dressing, bathing/grooming, using the bathroom, and walking/mobility.

Assistance with bathing/grooming was the most frequently reported resident need (67 percent), followed by the need for assistance with dressing (52 percent), using the bathroom (46 percent), and walking/mobility (31 percent). There were differences in ADL needs across settings. As expected, residents in MC communities were more likely to need assistance with all ADL needs compared to AL and RC residents (Figure 22).

For three ADLs, Oregon CBC residents' ADL needs were somewhat higher than the national average. Based on the NCHS study, 62 percent received help with bathing, 47 percent with dressing, 39 percent with toileting, 29 percent with walking/mobility, and 20 percent with eating (Harris-Kojetin et al. 2016).

We calculated an ADL Needs Index by taking the average of a proportion of residents with each of the five ADL needs and multiplying it by 100. For instance, a facility in which half of residents receive regular and ongoing staff assistance with each of these activities has a score of 50 on the ADL Needs Index. A facility in which all residents receive assistance with all of these activities is assigned a score of 100, and a facility where none of the residents need any assistance with any of the activities receives a score of 0.

Figure 23 presents AL/RC/MC facilities separated distinctly in terms of resident ADL needs. The median score for AL and MC is 29 and 65, respectively. However, note the overlap in the middle of the graph where AL and MC share a wide range (from 30 up to 80) of the index score. Interestingly, RC facilities present diverse resident needs that overlap with both AL and MC. This suggests that RC facilities serve a more diverse set of residents in terms of resident needs, as indicated by the index.

Figure 22: ADL Needs

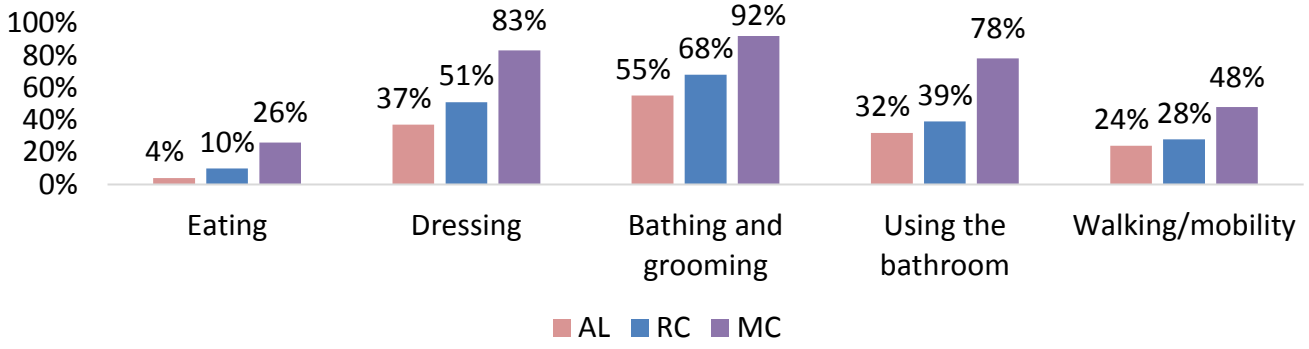
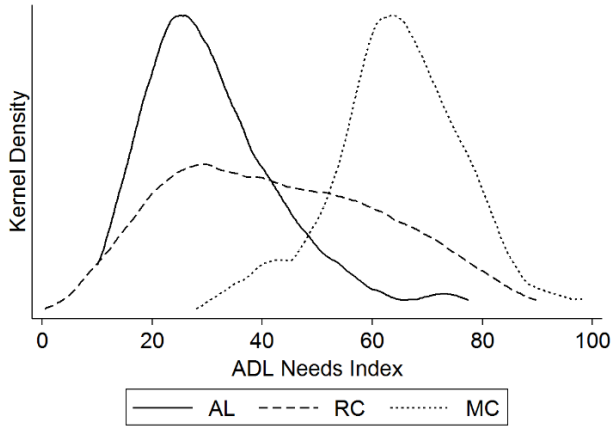


Figure 23: ADL Needs Index by Facility Type, 2018



Night-time Care Assistance

Oregon requires CBC settings to have qualified awake caregivers during all hours of the day and night (ORS 411-054-0070 and 411-057-0150). In MC, night-time staffing hours must adequately address residents' sleep patterns and needs (ORS 410.070, 433.866). Providers were asked how many residents regularly received assistance from the night shift staff. Overall, 39 percent of residents needed assistance during the night, with a much larger percentage of MC residents (70 percent) compared to RC (36 percent) and AL residents (25 percent) who needed night-time assistance. The 2017 report found that a similar rate of 42 percent of all CBC residents needed this type of assistance.

Assistance with Behavioral Health

Addressing behavioral symptoms is increasingly important as the number of older adults who are diagnosed with dementia and/or mental illness increases. Oregon requires MC communities to provide behavioral interventions, and AL and RC facilities to intervene as-needed with residents who are diagnosed with dementia and/or mental illness (OAR 410-054-0030). Examples of behavioral interventions include redirecting the person's attention, and providing person-centered activities that may diffuse a behavior such as music, art, and aromatherapy therapy, and physical exercises (De Oliveira, et al. 2015). In 2017, the Oregon Legislative Assembly enhanced existing law to expand dementia-specific training to AL/RC facilities that provide care for residents who are diagnosed with Alzheimer's disease or other dementias. Staff will be required to complete approved pre-service and annual dementia care training before providing direct care to residents (HB3359).

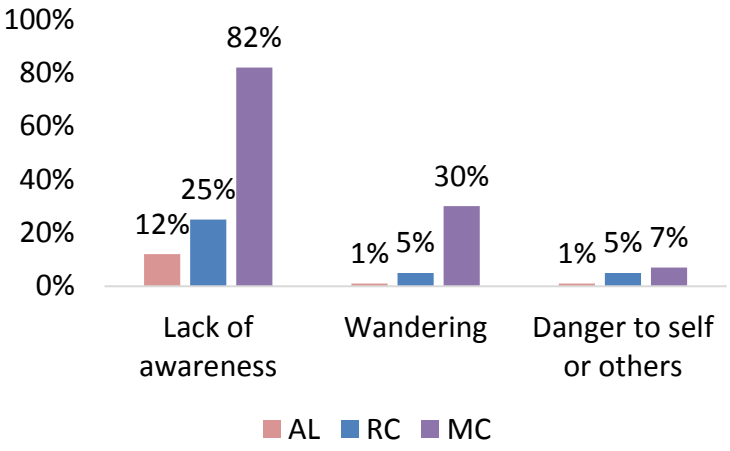
Providers reported that few residents (seven percent) exhibited serious mental illness, with the largest percentage among RC residents (12 percent) (Table B14 in Appendix B).

Providers were asked how many of their current residents received staff assistance for three behavioral health symptoms:

- Lack of awareness to safety, judgement and decision-making, or the ability to orient to surroundings: **33%**
- Wandering: **10%**
- Is a danger to self or others: **3%**

The most common behavioral expression requiring staff assistance across all settings (33 percent) was lack of awareness. There was large variation across setting types, with 82 percent of MC residents receiving staff assistance for lack of awareness compared to only 12 percent in AL (Figure 24). Similarly, a greater number of residents in MC communities (30 percent) wandered, while few residents in RC and AL exhibited the need for assistance with this behavior (five percent in RC, and one percent in AL). In all three settings, few residents needed staff assistance because they were a danger to themselves or others.

Figure 24: Residents Receiving Staff Assistance for Behavioral Health Symptoms



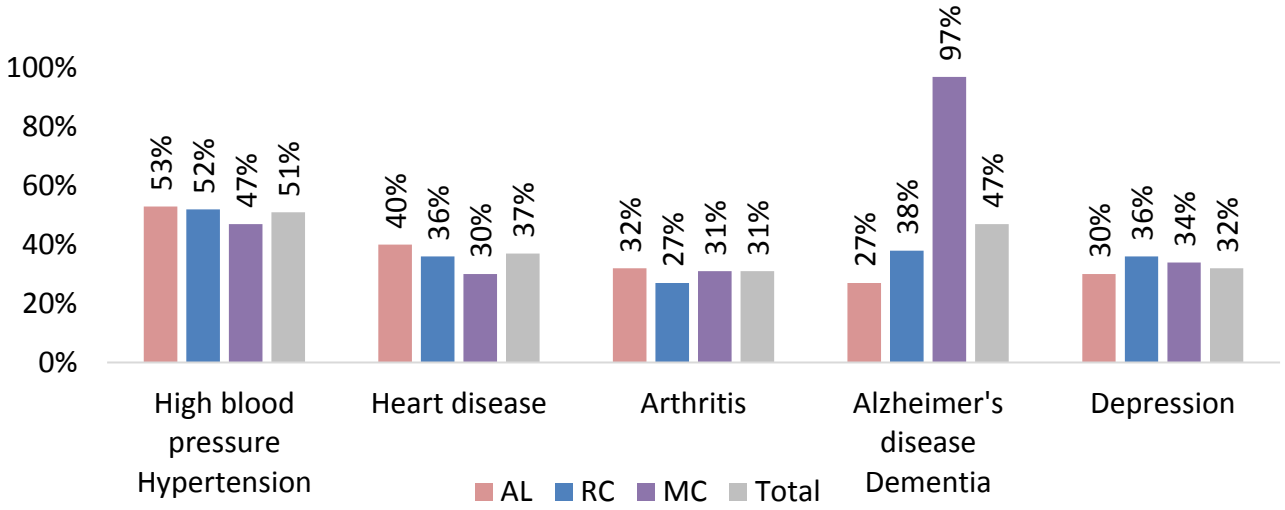
Although 10 percent of current residents regularly received assistance for physical and/or cognitive health needs from two staff, the rates differed across settings. Residents in MC communities were four times more likely to receive such assistance (20 percent) compared to residents in AL (five percent), and almost two times more likely compared to residents in RC (12 percent).

Resident Health

Nationally, approximately 80 percent of all adults age 70 and older have been diagnosed with at least one chronic condition, and 77 percent have been diagnosed with at least two (NIH, 2018). The number and severity of the conditions can vary widely and often result in a range of functional limitations (National Council on Aging, [NCoA], n.d.).

In Oregon, the five most commonly reported chronic conditions among CBC residents were hypertension (51 percent), Alzheimer's disease or other dementias (47 percent), heart disease (37 percent), depression (32 percent), and arthritis (31 percent) (Figure 25 & Tables B13 and B14 in Appendix B). As would be expected, Alzheimer's and other dementias were highest in MC at 97 percent. The rates of residents with heart disease, arthritis, or high blood pressure were highest among AL residents, while the rate of depression was highest among RC residents.

Figure 25. Most Common Diagnosed Chronic Conditions by Setting



Nationally, 42 percent of RC residents had Alzheimer's disease or other dementias compared to 47 percent in Oregon (Caffrey et al. 2018). Other studies have reported rates of dementia and cognitive impairment among residents from 40 to 90 percent (Rosenblatt et al. 2004; Wiener, et al. 2014; Zimmerman, et. al, 2014; Harris-Kojetin, et. al, 2016). Oregon's rates for arthritis and high blood pressure were similar to RC residents nationally (Khatutsky, et al. 2016).

Change in condition

Oregon requires CBC settings to evaluate and document residents who experience a significant change in condition that can affect functioning or health, to update the resident's service plan and to implement interventions that address the resident's current needs (OAR 411-054-0040). A significant change is defined as one that is a major deviation from the resident's prior evaluation, that might affect multiple areas of the health or function, that is not expected to be short-term, and that imposes significant risk to the resident.

Overall, 10 percent of current residents experienced a significant change in condition in the prior 90 days. MC residents were slightly more likely to experience a significant change (13 percent) compared to RC and AL residents (9 percent).

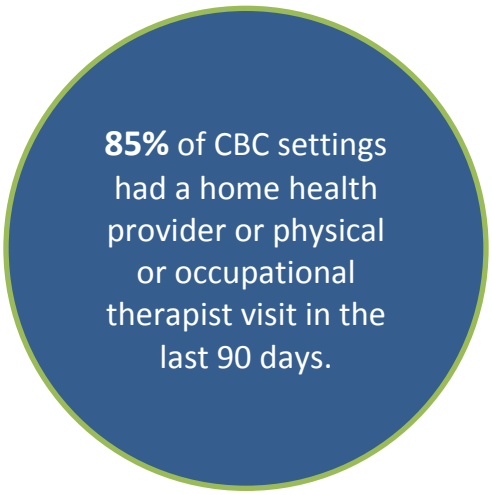
Third-party/External Health Service Visits

Some residents want or need to use health services in addition to those provided by their AL/RC facility. Oregon requires CBC settings to assist residents in accessing third-party health care services that are unavailable in-house, and to coordinate on-site health services with external providers (OAR 411-054-0045). Providers were asked whether a mental health provider, physical or occupational therapist, dentist or dental hygienist, home health provider, or another type of health provider visited the facility to provide training or services in the prior 90 days. Over 85 percent of CBC settings reported that a home health provider or physical/occupational therapist had visited. Fewer than half of facilities reported visits by a mental health provider (49 percent) or a dentist/dental hygienist (24 percent).

In addition, 123 providers described other health providers who visited in the prior 90 days. Of these, 52 percent listed hospice workers, 26 percent primary care physicians, and a few reported that optometrists, podiatrists, or speech therapists visited.

Resident Falls

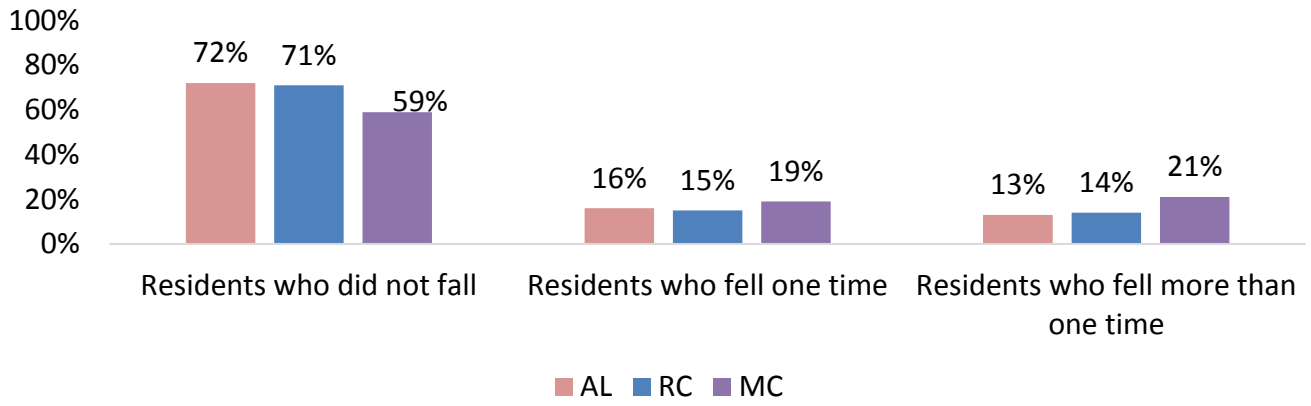
Falls among older adults are a major public health concern because falls are the primary cause of fractures, hospital admissions, loss of independence, injury, and death for this population (National Institute on Health, [NIH], 2017). In 2014, 2.8 million older adults were treated in emergency departments for falls-related injuries, and in 2015, Medicare costs associated with falls totaled over $31 billion (CDC, 2017c).



Across all CBC settings, 68 percent of current residents did not fall in the prior 90 days. Residents of MC were more likely to have fallen at least once in the last 90 days compared to residents in AL and RC (Figure 26 & Table B15 in Appendix B). Dementia is a risk factor for falling because this disease affects the individual's spatial perception and brain function (Mirelman et al. 2012; van der Wardt et al. 2015).

The rate of resident falls in the prior 90 days in Oregon RC was higher (29 percent) than the 21 percent rate reported in the national study (Harris-Kojetin et al. 2016).

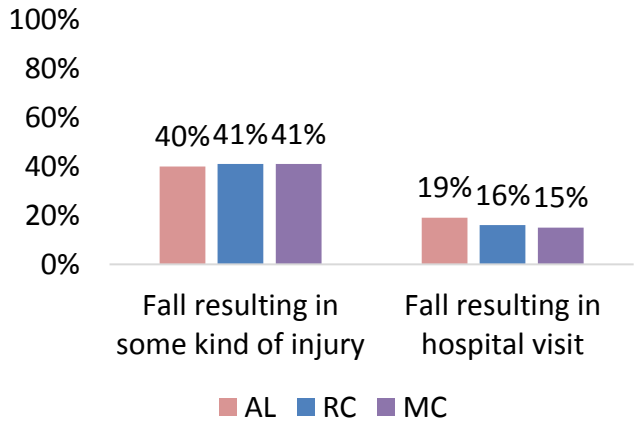
Figure 26. Resident Falls by Setting



Hospital Visits and Injuries due to Falls

Providers were asked to report the number of residents who fell and resident falls with no injury or any injury, or the fall had resulted in a hospital visit. Among the current residents who fell in the last 90 days, 40 percent suffered an injury. This was similar across all settings with 40 percent in AL and 41 percent in RC and MC (Figure 27). Of the current residents who fell in the last 90 days, 17 percent went to the hospital (emergency room or admitted) because of the fall (Figure 27).

Figure 27. Falls Resulting in Injury or Hospitalization by Setting



Health Service Use

Hospital and hospice use among CBC residents can inform policy and program decisions about coordinated care and transitional care planning that meets resident needs. Research shows that older persons, especially those who have dementia, might be distressed by hospital admission and emergency department use (Mitchell et al. 2007; Becker, et al. 2012).

Providers were asked how many residents had a hospital emergency department (ED) visit, an overnight hospital stay, and/or hospice care in the prior 90 days. Across all CBC setting types, 16 percent of residents were treated in an ED in the prior 90 days (Tables B16 and B17, Appendix B), a rate slightly higher than the national average of 14 percent among RC residents treated in an ED (Caffrey et al. 2018). Overall, 8 percent of CBC residents had an overnight hospital stay in the prior 90 days, which was identical to the national average (Caffrey et al. 2018). Of the Oregon CBC residents hospitalized overnight in the last 90 days, 24 percent went back to the hospital within 30 days.

Hospice care provides a team-based approach to medical, personal care, and spiritual services to individuals with a terminal illness. Hospice services may be offered in the individual's home, as well as a CBC setting. Seven percent of CBC residents had received hospice care in the previous 90 days. The rate was highest for MC residents at 12 percent, and lowest for AL residents at five percent (Table B17 in Appendix B).

Assistance with Medications and Treatments

Nearly all CBC residents take at least one prescribed medication—only two percent did not take any medications. Overall, 80 percent of residents received staff assistance to take oral medications (Figure 28). Nearly all MC residents (97 percent) received such assistance. Nationally, 83 percent of RC residents receive assistance taking medications (Lendon, Rome, & Sengupta, 2017).

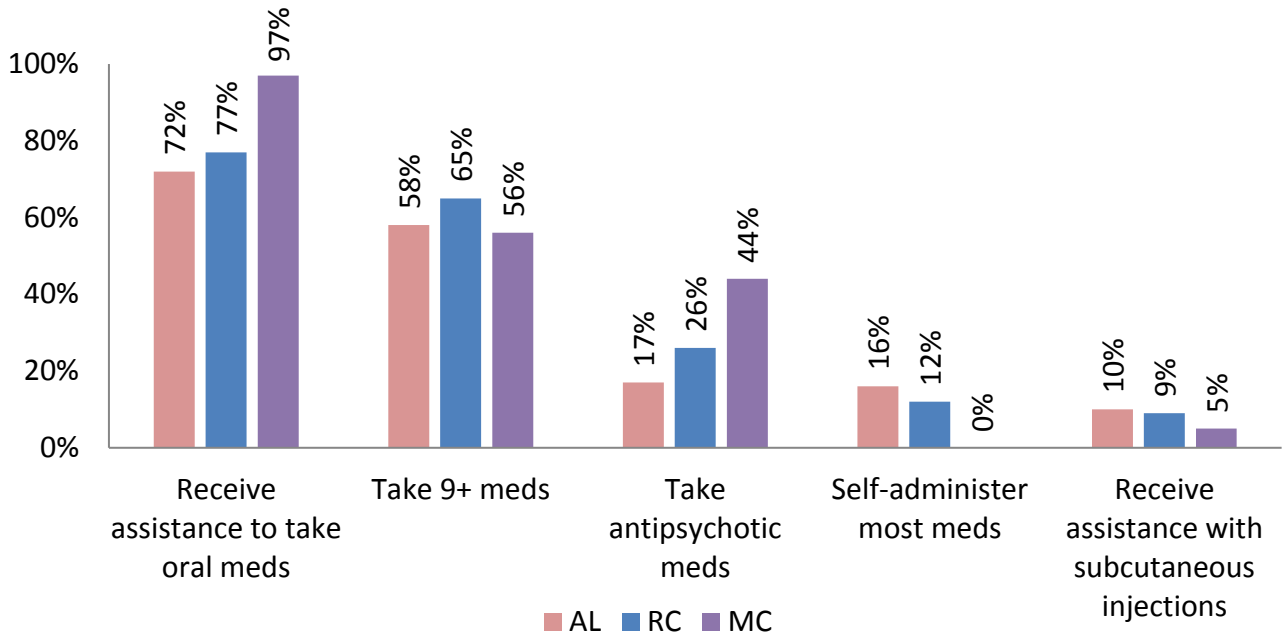
The following types of assistance were less frequently used: receiving assistance with subcutaneous injection medications, receiving nurse treatments from a licensed nurse, and receiving injections from a licensed nurse (Table B18 and B19 in Appendix B).

Multiple Medications

Older adults who are prescribed multiple medications, especially those who take nine or more prescriptions, are at risk of negative health outcomes, including falls and adverse drug events (Tamura et al. 2011). Interventions by geriatricians and in nursing facilities have successfully reduced the number of residents taking multiple medications (Kojima et al. 2014).

Over half of CBC residents take nine or more medications (59 percent), with a larger percent of RC (65 percent) compared to AL (58 percent) and MC (56 percent) residents taking this number of medications (Figure 28 and Tables 18 and 19 in Appendix B).

Figure 28: Medication Use by Setting



Antipsychotic and Pain Medication Use

Physicians may prescribe antipsychotic medications, such as Haldol (Haloperidol), Risperidone, or Ariprazole (Abilify) to treat behaviors associated with dementia. Federal agencies have advised physicians not to prescribe these medications for individuals who do not have certain mental health diagnoses or who are not receiving hospice care (Centers for Medicare and Medicaid Services, [CMS], 2015; Food and Drug Administration, 2008).

Nationally, about **20%** of nursing facility, and 22 percent of RC residents were prescribed an antipsychotic medication (Ciolatin, et al. 2017; Zimmerman, et al. 2014).

In Oregon, **26%** of all current CBC residents were prescribed antipsychotic medication, although the rate was **44%** for MC residents.

The National Center for Assisted Living's (NCAL) quality initiative set a goal of reducing antipsychotic medication use in AL NCAL, 2015).

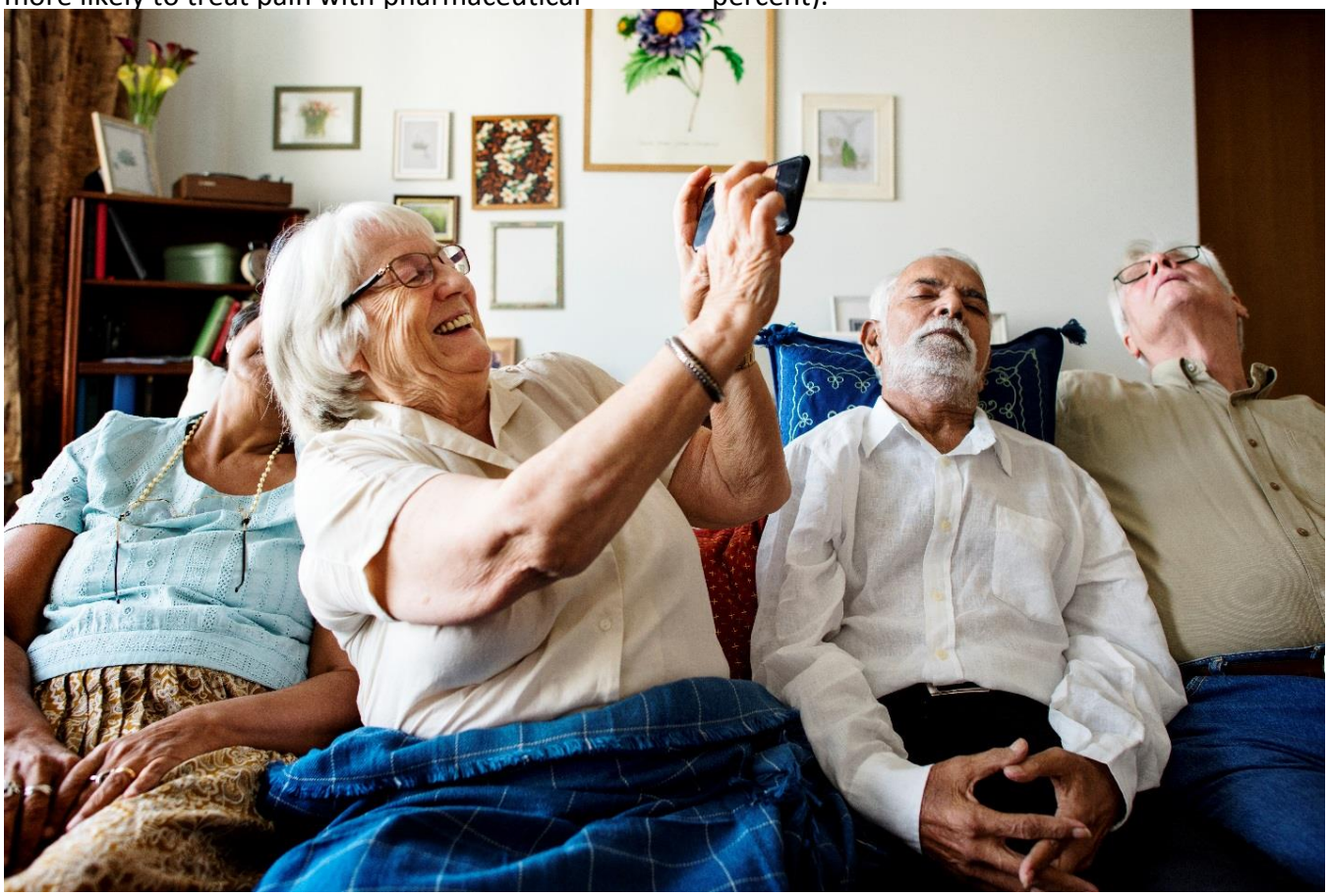
Overall, 26 percent of CBC residents took an antipsychotic medication, though the rate was 44 percent for MC residents (Figure 28 and Table 18 in Appendix B).

Many older adults experience pain associated with chronic conditions such as arthritis or cancer. Acute conditions such as these can affect their health and quality of life (Horgas, et al. 2012). Pain can be treated in a variety of ways including with prescribed or over the counter medications taken on a regular or as- needed basis, and with nonpharmacologic interventions such as meditation, exercise, and cognitive behavioral therapy (National Institute on Aging, [NIA], 2017).

Across all CBC settings almost half (49 percent) of all current residents treated pain with pharmaceutical interventions and about a

quarter (23 percent) treated pain with non-pharmaceutical interventions. There were differences across setting types. Residents in MC (56 percent) and RC (52 percent) were more likely to treat pain with pharmaceutical

Similarly, residents in MC (30 percent) communities were more likely to treat pain with non-pharmaceutical interventions compared to RC (26 percent) and AL (18 percent).



POLICY CONSIDERATIONS AND CONCLUSIONS

This report describes current findings based on responding CBCs about Oregon community-based care settings as well as changes since the year 2000. On any given day last year, an estimated 21,000 adults resided in one of the 517 AL/RC/MC facilities, which employed nearly 20,000 people. The total profession charges for 2017, including private sources and Medicaid, are estimated to be nearly one billion dollars, at $953,523,240. These settings clearly have a large impact in terms of numbers of residents, staff, and the state and local economy.

Based on this study and comparison to prior studies conducted by PSU and by the Office for Oregon Health Policy and Research, the following policy topics were identified:

1. Growth in the number of MC communities over time;
2. Notable differences between MC communities compared to AL and RC in terms of the number of units, staffing levels, resident needs, and monthly costs;
3. Change over time in CBC private payer costs and the Medicaid reimbursement rate paid to providers; and
4. Turnover among staff and licensed nurses, and administrator length of employment.

The growth in MC communities and capacity is noteworthy. Between 2000 and 2017, the MC capacity more than tripled to 6,574 residents. Starting in 2015, the MC capacity exceeded the RC (non-MC) capacity.

As anticipated, MC communities differ on many measures compared to AL and RC. These settings have additional regulatory requirements, and provide services to individuals who have a dementia diagnosis. Compared to AL/RC, MC communities had higher staffing levels, more residents who received assistance with personal care, more residents who took an antipsychotic medication, higher monthly private pay costs, larger Medicaid reimbursement rates, more residents on hospice, more residents who died, and they were less likely to give a move-out notice for wandering and/or aggressive behaviors.

While some aspects of CBC settings, residents, and staff have changed, others have remained relatively stable over time. For example, the length of stay for CBC residents has remained fairly consistent since 2006, with roughly equal percentages of residents staying for either less than or more than one year. The percent of individuals receiving assistance with personal care has remained about the same over time.

The majority of both direct care staff and RNs had been employed at the current CBC setting for at least six months, and about one-third of direct care staff were newly hired. Across all CBC settings, half of administrators had been employed for about eighteen months. Because administrators are asked to complete the questionnaire, it did not include a question about administrator turnover. It is possible that administrator turnover could be examined using DHS records, as CBC facilities are required to file a form when a new administrator is hired. However, turnover among other staff, and staffing levels, requires additional study. Only 247 of the 364 responding facilities fully completed the section on staff

turnover, and the study team had to call the majority of facilities to ask questions about these and other staffing items. We suggest in-person interviews with a small number of facilities should be conducted to learn more about the challenges that CBC providers have when reporting staffing information.

Legislation passed during the 2017 Oregon legislative session (HB 3359) included a set of quality metrics for AL and RC facilities. The new rule requires them to report the incidence of falls with injury, staff retention, compliance with staff training requirements, the use of antipsychotic medications for nonstandard purposes, and resident satisfaction. These quality measures will be reported to DHS and publicly. Based on our experience in collecting information from CBC providers, we suggest that the State prepare a standardized data collection tool that is accessible and easy to complete. The tool should be tested in a variety of different settings before being used.

Finally, we recognize that completing the questionnaire requires significant staff time and investment, and thank the 70 percent of Oregon providers who returned the questionnaire this year.

APPENDIX A: METHODS

Data Collection Instrument

This project is the fourth annual study conducted by the Institute on Aging at PSU as a follow-up to previous ones administered by the Office for Oregon Health Policy and Research. The content of questionnaires (see the 2015, 2016, and 2017 reports) were developed in partnership with stakeholders from the following agencies:

- DHS, Division of Aging and People with Disabilities
- Oregon Health Care Association (OHCA)
- Oregon assisted living, residential care and memory care providers
- Leading Age Oregon

Questionnaire topics included facility information, resident demographics, resident activities of daily living (ADLs), facility rates and fees, staffing, additional services, and facility policies. Most of the questions ask for a number (e.g., number of residents with Dementia diagnosis) or include a list of possible responses. A few open-ended questions were included so that providers could explain an answer or give additional information (see attached questionnaire in Appendix D). Some provider information reported in previous years was not asked again because (1) few changes were expected, (2) to decrease respondent burden, and (3) to be able to gather other information about increasingly relevant topics. Several new questions that address facility policies (e.g., use of standard tools for assessing depression, types of standard tools used for assessing cognitive impairment, availability of smoking and non-smoking areas, less than 30-day move-out notices issued and whether any went to an administrative hearing, and sexual contact between residents). Other new questions asked about staffing characteristics (e.g., if staff worked in more than one building on campus, length of time RNs and care-related staff have been employed, number of RNs who left employment in the last six months, whether the number of hours facilities employed and/or contracted with an RN increased, training topics on race and ethnicity, intercultural differences, sexual orientation, and gender identity, and types of health care providers who visited the facility to provide services or training).

The majority of questions described in the current report (and those in 2016 and 2017) asked questions based on the prior 90 days because this is the method used in the National Center for Health Statistics survey of RC communities (Harris-Kojetin, 2016), and because of feedback we received from Oregon providers that a 12-month look-back is overly burdensome. To support providers and decrease response burden, PSU sent a tracking tool in October 2017 to assist in collecting relevant data three months prior to receiving the questionnaire. The tool was offered as an option to log in move-in, move-out, hospital admissions, falls, and hospice use on a daily, weekly, or monthly basis.

Population and Survey Implementation

The total population for this study includes all 524 AL/RC/MC communities in Oregon that were licensed as of November, 2017. Of these 524, 225 were licensed for AL, 292 were licensed for RC. Of 524 AL and

RC facilities, 179 held a memory care endorsement. In previous years, facilities that offered "enhanced care" as a service were counted as MC. Considering that these facilities focus on residential needs of people with serious mental illness (only one of which may be memory care), we count them as RC this year forward. In 2018, there were five facilities that offered “enhanced care.”

As MCs receive an endorsement to offer memory care in addition to their AL or RC license, they can be divided into two categories: stand-alone or combination. Stand-alone MCs offer solely memory care, and combination MCs offer memory care units and additional units under their primary licensure type. For example, a facility can be licensed to provide 40 RC units and receive an endorsement for 10 memory care units. For the purposes of data collection, we asked combination facilities to complete two questionnaires: one for their AL or RC units and one for their MC endorsed units. MC questionnaires were counted separately from the AL and RC totals because of the licensing overlap. Therefore, the total number of cases (384) exceeded the total number of licensed facilities (364) who responded to the questionnaire. This allowed us to isolate data from MC communities when there are multiple license types (e.g., AL and MC, RC and MC) associated with a license number.

The questionnaire was mailed to facility administrators during the first week of December, 2017. Providers were asked to complete the questionnaire and return it to the Institute on Aging at PSU via fax, scan and email, or US postal service. Returned surveys were checked for missing information and responses. As needed, providers were contacted to clarify missing or confusing responses. Data collection efforts continued until mid-February, 2018.

To increase the response rate of 60 percent from last year, we called all providers to remind them the upcoming questionnaire. We then called providers who had not returned a questionnaire within a week of the original mailing. Each provider was called at least 3 times. In addition, we called or emailed some corporate offices that owned more than 8 facilities, DHS posted a provider alert, and OHCA and LeadingAge published information about the project in their newsletters.

Survey (Unit) Response

A total of 364 facilities responded, for a response rate of 70 percent (Table A1, Appendix A). Response rates were very similar across setting types, but differed somewhat by region. Facilities located in Eastern Oregon were more likely to respond compared to other regions. Some questionnaires were returned with some questions unanswered. Although all providers were called multiple times to request missing information, we were not able to retrieve all missing information for all facilities (see data analysis section below). Some providers reported difficulty with reporting some of the resident data requested because they did not regularly track some of these items, such as length of stay and race/ethnicity of residents. When data availability was a challenge, providers were encouraged to give their best estimate following a similar practice adopted by the national study (CDC, 2016).

Table A1: Response Rates by Community Type and Region

	AL	RC	MC	Combined	Total
	% (n)	% (n)	% (n)	% (n)	% (n)
Portland Metro	62% (48)	76% (40)	63% (32)	78% (14)	67% (134)
Willamette Valley	68% (49)	60% (12)	70% (40)	64% (7)	68% (108)
Southern Oregon	69% (20)	71% (15)	63% (15)	100% (2)	68% (52)
Eastern Oregon	82% (36)	64% (14)	86% (19)	100% (1)	79% (70)
Total	69% (153)	70% (81)	69% (106)	69% (22)	70% (364)

Portland Metro = Counties of Clackamas, Columbia, Multnomah, Washington
Willamette Valley = Counties of Benton, Clatsop, Lane, Lincoln, Linn, Marion, Polk, Tillamook, Yamhill
Southern Oregon = Counties of Coos, Curry, Douglas, Jackson, Josephine
Eastern Oregon = Counties of Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler
Note: There were no licensed AL/RC facilities located in Lake and Sherman counties.

A total of 160 facilities did not respond to the questionnaire. Response was not associated with setting type. Forty-three percent of communities that did not respond was AL (42 percent among respondents). Similarly, 36 percent of responding facilities were MC compared to 35 percent among non-respondents. On average, the licensed capacity was somewhat larger among non-responding facilities (55.2) compared to respondents (49.2), although the difference was not statistically significant ($p = .09$). Finally, responding facilities were more likely to have a Medicaid contract (81 percent) compared to non-responding facilities (73 percent). However, a Fisher's exact test did not indicate that this difference was statistically significant ($p = .065$). Of the facilities that were open in both 2016 and 2017 (n=514), 67 percent of this year's respondents responded last year as well. About one-fifth (21 percent) of those who responded last year did not respond this year. Reasons given for non-response included survey not being mandatory, administrative changes, currently too busy, survey length, and administrator was unavailable.

Item Non-Response

The percentage of missing information per questionnaire ranged from zero to 37 percent depending on the question. The questions with highest likelihood of having missing responses were those related to staffing information (e.g., 37 percent for care-related staff retention, 36 percent for RN retention, 30 percent for staff distribution). One question on staff flu vaccination had a missing rate of 78 percent, mostly due to facilities reporting that they do not track this information. We found the results from this question not reliable and chose not to report them. Similarly, the resident flu shot question had a high rate of missing values (17%). Excluding questions related to staffing and flu shots, the percentage of cases with missing information ranged from zero to 8 percent. These item nonresponse rates are in line with national surveys collecting information from similar facilities (e.g., National Study of Long-Term Care Providers 2014) for which highest item non-response rates were over 30 percent for questions related to full-time staff information (Harris-Kojetin, et al. 2016).

Data Analysis

All data were entered into SPSS, a statistical software program, and checked for errors. Data analysis mainly involved calculating descriptive statistics (i.e., counts and percentages). Data cleaning involved three types of data quality checks. First, we ensured that skip logic was correctly followed. Skip logic is used when a specific response to a question directs respondent to skip a follow-up question that is applicable only to those with relevant characteristics. For instance, if a facility had no resident who fell in the last 90 days, they were not expected to answer questions related to residents who fell. Second, we checked if all numbers were within valid ranges for each facility. For example, if the facility reported having 20 current residents, they should not have reported having 22 residents with dementia. When such erroneous instances occurred, we went back to the original questionnaire to correct errors in data entry. Third, when there were multiple categories that are supposed to add up to a total, we cross-checked the summation with the total. For instance, for gender question, we ask facilities to report number of female, male, and transgender residents. The total of each of these categories were expected to add up to total number of residents.

Answers to open-ended responses were read and coded by the study team. Responses to these questions were summarized according to themes. The number of facilities offering comments varied. Some did not respond and others gave more than one answer. The numbers of providers and their responses are noted in the text when applicable.

Using digitized rosters published by DHS and stored at the State Library of Oregon since 2000, we created a dataset that includes information about facility capacity over time. We used this dataset to construct Figure 3 on page 9.

The Oregon Health Authority, Office of Equity and Inclusion has established uniform standards for collecting data on race and ethnicity (ORS 413.042 & 413.161). As a result, the question that asked about residents' race was slightly modified in 2018 to include two additional categories. African American was added to the Black category, and Native American was added to the American Indian/Alaska Native category.

Average staff hours per resident per day (i.e., staffing level) were computed by multiplying the number of FTE employees for each type of staff by 35 hours, and then multiplying the number of part-time employees for each type of staff by 17.5. These two quantities were summed and the total staff hours were then divided by total number of residents which was further divided by seven to provide average staff hours/resident/day. That is, average hours per resident per day = ((FT staff type * 35) + (PT staff type * 17.5))/total number of residents/7. In calculating the staffing level, we re-coded outliers as the setting type-specific mean for a given staff type. Outliers were defined as values two standard deviations above or below the setting type-specific mean for a given staff type within each study year.

Inflation Adjustments for Trend Data

We calculated all inflation-adjusted dollar values using the Consumer Price Index Inflation Calculator provided by the Bureau of Labor Statistics (BLS). The calculator can be accessed using the following website: https://www.bls.gov/data/inflation_calculator.htm. We adjusted all historical dollar amounts

to December 2017 dollars. For the current survey, since we asked facilities to report on their charges in December 2017, no inflation-adjustment was needed.

Profession Charges

Following the method utilized in previous years' reports, we calculated industry charges -- an analytic exercise originally inspired by a similar calculation conducted using data from the national survey of RC facilities (Khatutsky et al. 2016), which resulted in total estimated industry charges nationally. Our study, focused only on AL, RC and MC in Oregon, uses the following method and data from DHS to reach an estimate for industry charges in Oregon. In the following calculations, the estimated percentage of Medicaid residents was determined by applying the ratio of facilities with a Medicaid contract among respondents with those of non-respondents and assumes the same ratio of residents who are Medicaid beneficiaries. Fewer Medicaid contracts among non-respondents might potentially result in fewer Medicaid beneficiaries among non-respondent facilities if non-respondents' Medicaid utilization rate is lower as well. Rates of respondent facilities were applied to non-respondents for occupancy rate and average monthly private pay charges.

Table A2: Estimated Annual Profession Charges for AL, RC, and MC communities in Oregon

	Questionnaire Respondent Facilities	**AL**	**RC**	**MC**	**Total**
	Private Pay				
	Total current residents	7,573	2,425	3,645	13,643
-	Total current Medicaid beneficiaries	3,063	937	1,740	5,740
=	Total current private pay residents	4,510	1,488	1,905	7,903
x	Average total monthly charge incl. services	$3,959	$4,497	$5,620	
=	Total private pay charges	$17,856,276	$6,691,329	$10,705,942	$35,253,547
	Other (Non-Respondent) Facilities				
	Private Pay				
	Licensed capacity	5,091	1,770	2,274	
x	Occupancy rate*	0.77	0.75	0.85	
=	Estimated total current residents	3,920	1,328	1,933	7,180
x	Estimated % of Medicaid residents	38%	42%	34%	
=	Estimated total Medicaid beneficiaries	1,504	552	666	2,722
	Estimated total current residents	3,920	1,328	1,933	7,180
-	Estimated total Medicaid beneficiaries	1,504	552	666	2,722
=	Estimated total private pay residents	2,417	776	1,266	4,459
x	Average total monthly charge incl. services	$3,959	$4,497	$5,620	
=	Total est. charges for private pay residents	$9,567,570	$3,487,591	$7,117,517	$20,172,679
		Estimates Total Annual Private Pay Charges			$665,114,711
		Total Annual Medicaid Charges (Data from DHS)			$288,408,528
		Total Annual Profession Charges			$953,523,240

Note: AL = assisted living; RC = residential care; MC = memory care community.

* Rate of respondents applied to non-respondents.

APPENDIX B: TABLES and FIGURES

Figure B1: Change in Capacity of MC over Time 2000-2017 (Data from Rosters)

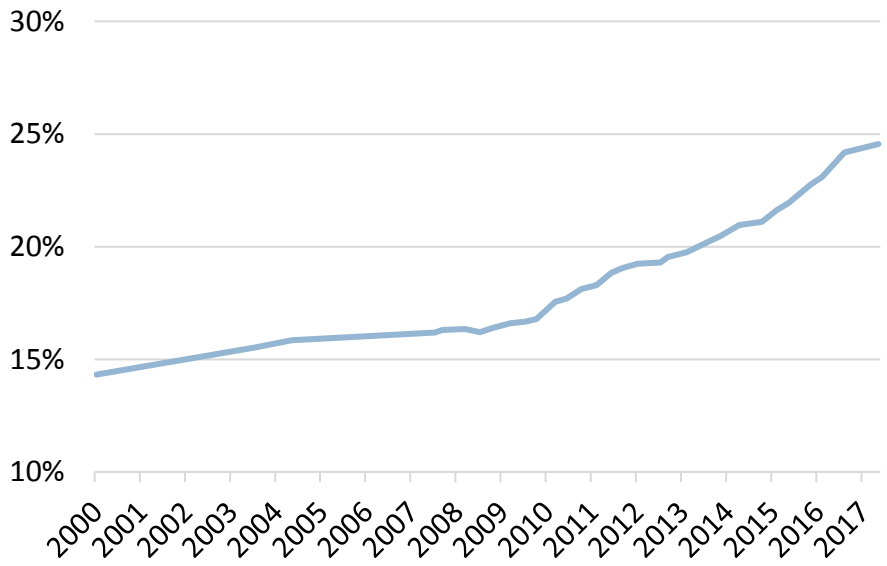


Table B2: Change in Number of CBC Settings (Openings, Closings) 2017-2018

	All		MC	
	#	Licensed Capacity	#	MC Capacity
Facilities (from the 2017 report)	517	26,261	179	6,268
+ Opened	+10	+521	+7	+284
+ Turned into Mixed from RC		+1	+2	+38
+ Turned into MC from RC			+2	+44
+ Turned into MC from Mixed				+15
- Turned into RC from MC[1]			-2	-26
- Closed	-3	-122	-2	-86
Facilities (2018)	524		186	
Capacity Changes Only				
+ Increases	11	+142	3	+37
- Decreases	4	-29		
		26,774		6,574

[1] Two facilities that provided "enhanced care" were coded as MC communities in 2017. We consider these facilities as RC this year as their focus is not on memory care, but residential needs of people with serious mental illness.

Table B3: Community Policies and Practices over Time

	2015	2016	2017	2018
Use of fall risk assessment tool as standard practice	-	64%	54%	61%
Use of cognitive screening tool as standard practice	-	-	33%	47%

[1] Question wording is different in 2015, which may influence comparability over time.

Table B4: Percentage of Communities with at least one part-time or full-time staff by community type and employee categories, 2018

	AL (n = 127)		RC (n = 62)		MC (n = 81)	
	Part-time % (n)	Full-time % (n)	Part-time % (n)	Full-time % (n)	Part-time % (n)	Full-time % (n)
RN	24 (30)	76 (96)	58 (36)	42 (26)	32 (26)	60 (49)
LPN/LVN	7 (9)	22 (28)	5 (3)	16 (10)	4 (3)	25 (20)
CNA	6 (7)	19 (24)	10 (6)	29 (18)	2 (2)	22 (18)
CMA	2 (2)	16 (20)	2 (1)	10 (6)	1 (1)	12 (10)
Personal Care Staff	54 (69)	95 (121)	68 (42)	94 (58)	52 (42)	93 (75)
Social Workers	0 (0)	4 (5)	5 (3)	10 (6)	1 (1)	1 (1)
Activities Staff	22 (28)	89 (113)	21 (13)	55 (34)	31 (25)	68 (55)
RCC	3 (4)	75 (95)	5 (3)	45 (28)	5 (4)	60 (49)

Notes. AL = assisted living, RC = residential care, MC = memory care. RN = registered nurse, LPN = licensed practical nurse, LVN = licensed vocational nurse, CNA = certified nursing assistant, CMA = certified medication aide, RCC = residential care coordinator.

Table B5: Percentage of Care-Related Staff Employed Part-Time or Full-Time, 2017-2018

	Part-time		Full-time	
	2017	2018	2017	2018
RN	33%	34%	68%	63%
LPN/LVN	7%	6%	20%	21%
CNA	6%	6%	21%	22%
CMA	5%	1%	14%	13%
Personal care staff	63%	57%	93%	94%
Social worker	3%	1%	5%	4%
Activities director/staff	32%	24%	72%	75%
Residential care coordinator	-	4%	-	64%

Table B6: Total Monthly Charge by $2,000 Increments and Setting

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Less than $2,000	0 (0)	2 (2)	0 (0)	1 (2)
$2,001 to $4,000	57 (87)	46 (41)	2 (2)	36 (130)
$4,001 to $6,000	41 (63)	35 (31)	69 (82)	49 (176)
$6,001 to $8,000	1 (2)	12 (11)	25 (29)	12 (42)
$8,001 or more	0 (0)	4 (4)	4 (5)	3 (9)

Table B7: Monthly Private-Pay Charges by Setting (Excluding Outliers*)

	AL	RC	MC
Average base monthly charge	$3,378	$3,805	$4,949
Average total monthly charge (including services)	$3,889	$4,270	$5,459

*A small number of outliers can affect the average. We define outliers as values that fall outside (above or below) the upper/lower quartile plus/minus 3/2 interquartile range.

Table B8: Move-In and Move-Out Location of Residents, 2018

	AL		RC		MC		Total	
	In % (n)	Out % (n)	In % (n)	Out % (n)	In % (n)	Out % (n)	In % (n)	Out % (n)
Home of resident	40 (406)	8 (67)	24 (63)	6 (15)	27 (144)	3 (16)	34 (613)	6 (98)
Home of relative	9 (95)	6 (49)	7 (19)	5 (13)	11 (61)	2 (8)	10 (175)	4 (70)
Independent living	14 (143)	4 (38)	17 (46)	3 (8)	5 (26)	0 (0)	12 (215)	3 (46)
AL/RC	10 (99)	7 (64)	7 (20)	13 (33)	23 (125)	2 (12)	13 (244)	7 (109)
MC	2 (18)	14 (123)	1 (4)	8 (21)	8 (41)	6 (28)	3 (63)	11 (172)
Hospital	5 (51)	2 (18)	9 (24)	2 (6)	10 (54)	2 (12)	7 (129)	2 (36)
AFH	2 (17)	4 (38)	3 (9)	4 (9)	5 (25)	2 (10)	3 (51)	4 (57)
NF	16 (166)	11 (98)	23 (61)	9 (23)	10 (56)	4 (19)	16 (283)	9 (140)
Other	<1 (2)	2 (14)	3 (9)	2 (5)	1 (6)	1 (7)	1 (17)	2 (26)
Died	-	39(341)	-	47 (119)	-	77 (370)	-	52 (830)
Don't know	2 (18)	2 (16)	4 (12)	0 (0)	1 (4)	<1	2 (34)	1 (17)
Total	1,015	866	267	252	542	483	1,824	1,601

Note. AL = assisted living; RC = residential care; MC = memory care community; AFH = adult foster home; NF = nursing facility.

Table B9: Move-In and Move-Out Locations over Time

	Move-In Locations				Move-Out Locations			
	2015[1]	2016	2017	2018	2015[1]	2016	2017	2018
Home	38%	30%	33%	34%	9%	5%	4%	6%
Home of child/other relative	5%	8%	9%	10%	2%	5%	3%	4%
Independent living	12%	10%	10%	12%	3%	4%	1%	3%
AL/RC	13%	12%	16%	13%	8%	4%	4%	7%
MC	2%	3%	4%	3%	9%	9%	9%	11%
Hospital	10%	10%	7%	7%	4%	3%	2%	2%
AFH	3%	3%	2%	3%	6%	5%	3%	4%
NF or SNF[2]	15%	13%	14%	16%	12%	10%	9%	9%
Other[3]	3%	4%	1%	1%	4%	1%	1%	2%
Don't Know	-	6%	2%	2%	-	1%	1%	1%
Died at community	-	-	-	-	43%	51%	62%	52%

[1] The time interval covers past year for 2015 and the previous 90 days for the rest.
[2] Combined for 2015.
[3] Includes hospice and psychiatric unit for 2015.

Table B10: Length of Stay over Time, All Communities, 2018

	2006[1]	2007[1]	2008[1]	2015[1]	2016	2017	2018
Short Stay	**47%**	**49%**	**49%**	**51%**	**43%**	**43%**	**45%**
1-7 days	4%	4%	3%	7%	2%	3%	2%
8-13 days	3%	2%	3%	2%	2%	2%	1%
14-30 days	5%	4%	6%	5%	5%	3%	5%
31-90 days	10%	11%	11%	9%	9%	11%	11%
3-6 months	10%	11%	11%	11%	11%	11%	11%
6-12 months	15%	17%	15%	17%	14%	13%	15%
Long Stay	**53%**	**53%**	**51%**	**50%**	**58%**	**56%**	**54%**
1-2 years	21%	20%	19%	19%	20%	18%	16%
2-4 years	19%	19%	19%	18%	21%	21%	21%
4+ years	13%	14%	13%	13%	17%	17%	17%

[1] Look-back window is the previous year, which is different from the 2016-2018 questionnaires (the last three months). Longer time interval may have introduced larger recall error. Three-month look-back period may be susceptible to seasonality.
Notes: Totals might not add up to 100 percent due to rounding.

Table B11: ADL Needs over Time

	2015[1]	2016	2017[1]	2018
Eating	13%	9%	18%	11%
Dressing	54%	48%	53%	52%
Bathing and/or grooming	68%	65%	67%	67%
Using the bathroom[2]	49%	39%	47%	46%
Walking/mobility[3]	29%	30%	35%	31%

[1] The question related to ADL measured "full assist" and "standby" separately (and differently for 2015 and 2017).
[2] The question wording in 2015 is somewhat different ("toileting" instead of "using the bathroom").
[3] Calculated from a question inquiring about resident ambulatory status rather than ADL needs.

Table B12: Additional Fees for Services

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Meals delivered to resident's room	74 (110)	45 (38)	28 (31)	52 (179)
Transfer that requires 2 staff	74 (79)	63 (44)	51 (59)	62 (182)
Staff escort resident to medical appointments	61 (56)	68 (48)	55 (46)	61 (150)
Transport to recreation	12 (15)	13 (8)	14 (13)	13 (36)
Use of a pharmacy other than preferred	66 (95)	48 (41)	66 (74)	62 (210)

Note: Estimates may differ from previous years' because the current year's data focus on facilities that offer a particular service instead of all facilities.

Table B13: Resident Chronic Conditions by Community Setting, 2018

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Heart disease	40 (3,020)	36 (874)	30 (1,027)	37 (4,921)
Alzheimer's disease/dementia	27 (2,026)	38 (910)	97 (3,344)	47 (6,280)
High blood pressure/hypertension	53 (3,958)	52 (1,260)	47 (1,617)	51 (6,835)
Depression	30 (2,231)	36 (866)	34 (1,175)	32 (4,272)
Serious mental illness	5 (407)	12 (294)	6 (198)	7 (899)
Diabetes	22 (1,613)	23 (550)	15 (507)	20 (2,670)
Cancer	9 (654)	9 (217)	7 (249)	8 (1,120)
Osteoporosis	21 (1,606)	20 (492)	20 (699)	21 (2,797)
COPD and allied conditions	15 (1,113)	16 (385)	11 (384)	14 (1,882)
Current drug and/or alcohol abuse	2 (142)	2 (54)	0 (15)	2 (211)
Intellectual/developmental disability	2 (118)	2 (54)	2 (59)	2 (231)
Arthritis	32 (2,369)	27 (644)	31 (1,066)	31 (4,079)
Traumatic brain injury	1 (110)	4 (106)	1 (39)	2 (255)
Skin issues	5 (404)	7 (176)	6 (210)	6 (790)
Weight change	4 (325)	4 (105)	7 (227)	5 (657)

Table B14: Resident Chronic Conditions over Time by Community Setting

	Assisted Living				Residential Care				Memory Care			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Heart disease	-	40%	42%	40%	-	37%	37%	36%	-	32%	30%	30%
Alzheimer's disease/dementia	31%	29%	27%	27%	42%	35%	44%	38%	93%	96%	98%	97%
High blood pressure/hypertension	-	53%	55%	53%	-	51%	57%	52%	-	49%	47%	47%
Depression	-	28%	28%	30%	-	32%	35%	36%	-	39%	33%	34%
Serious mental illness	13%	6%	5%	5%	21%	14%	17%	12%	12%	8%	7%	6%
Diabetes	18%	20%	21%	22%	11%	21%	20%	23%	12%	13%	15%	15%
Cancer	-	7%	9%	9%	-	7%	7%	9%	-	7%	7%	7%
Osteoporosis	-	21%	19%	21%	-	19%	20%	20%	-	26%	21%	20%
COPD and allied conditions	-	21%	15%	15%	-	16%	17%	16%	-	12%	11%	11%
Current drug and/or alcohol abuse	-	2%	2%	2%	-	14%	3%	2%	-	1%	<1%	0%
DD/IDD	-	1%	2%	2%	-	3%	2%	2%	-	<1%	1%	2%
Arthritis	-	37%	37%	32%	-	31%	33%	27%	-	39%	27%	31%
Traumatic brain injury	-	-	2%	1%	-	-	5%	4%	-	-	2%	1%
Skin issues	6%	-	-	5%	6%	-	-	7%	5%	-	-	6%
Weight change	5%	-	-	4%	3%	-	-	4%	8%	-	-	7%

Table B15: Resident Falls over Time by Community Setting

	Assisted Living				Residential Care				Memory Care			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Residents with no/zero falls	60%	75%	73%	72%	50%	76%	72%	71%	50%	65%	56%	59%
Residents who fell one time	15%	14%	15%	16%	10%	13%	17%	15%	14%	17%	21%	19%
Residents who fell more than one time	16%	11%	12%	13%	17%	11%	11%	14%	29%	18%	23%	21%
Among residents who fell:												
Fall resulting in injury	-	33%	35%	40%	-	38%	27%	41%	-	43%	40%	41%
Fall resulting in hospital visit	-	17%	18%	19%	-	17%	15%	16%	-	16%	15%	15%

Table B16: Health Service Utilization by Setting, 2018

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Treated in a hospital emergency room (ER) in the last 90 days	16 (1,174)	15 (362)	17 (603)	16 (2,139)
Discharged from an overnight hospital stay in the last 90 days	9 (668)	8 (185)	6 (211)	8 (1,064)
Went back to the hospital within 30 days[1]	24 (162)	21 (39)	24 (49)	24 (250)
Received hospice care in the last 90 days	5 (359)	6 (136)	12 (429)	7 (924)

Note: Among residents who were hospitalized overnight in the last 90 days.

Table B17: Health Service Utilization over Time

	2015	2016	2017	2018
Treated in a hospital ER[1]	17%	14%	17%	16%
Discharged from an overnight hospital stay[1]	11%	8%	9%	8%
Went back to the hospital within 30 days after discharge	-	-	27%	24%
Received hospice care	10%	7%	8%	7%

Table B18: Medication Use and Assistance by Setting, 2018

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
No medication/injection	3 (202)	1 (21)	1 (20)	2 (243)
Nine or more medications	58 (4,297)	65 (1,591)	56 (1,988)	59 (7,876)
Antipsychotic medication	17 (1,232)	26 (639)	44 (1,576)	26 (3,447)
Self-administer most medications	16 (1,171)	12 (287)	<1 (1)	11 (1,459)
Receive assistance to take oral medications	72 (5,334)	77 (1,900)	97 (3,433)	80 (10,667)
Receive assistance with subcutaneous injection medications	10 (722)	9 (218)	5 (179)	8 (1,119)
Receive injections from a licensed nurse	2 (118)	4 (107)	2 (60)	25 (285)
Receive nurse treatments from a licensed nurse	5 (404)	9 (214)	7 (236)	6 (854)

Table B19: Medication Use and Assistance over Time

	2015[1]	2016	2017	2018
No medication/injection	-	2%	1%	2%
Nine or more medications	51%	55%	57%	59%
Antipsychotic medication	24%	26%	27%	26%
Self-administer most medications	-	10%	9%	11%
Receive assistance to take oral medications	-	73%	79%	80%
Receive assistance with subcutaneous injection medications[2]	11%	9%	9%	8%
Receive injections from a licensed nurse	-	3%	2%	2%
Receive nurse treatments from a licensed nurse	-	6%	6%	6%

[1] Coverage period for 2015 differs from other years ("typical" instead of "current residents").

[2] Wording is slightly different in 2015.

APPENDIX C: REFERENCES

Alzheimer's Association. (2015). Early Detection and Diagnosis of Alzheimer's Disease. Retrieved from: https://www.alz.org/publichealth/downloads/policy-brief.pdf

Alzheimer's Association. (2017a). *2017 Alzheimer's Disease Facts and Figures. Alzheimer's & Dementia*. Retrieved from: https://www.alz.org/documents_custom/2017-facts-and-figures.pdf.

Alzheimer's Association. (2017b). *Health Care Professionals and Alzheimer's: Cognitive Assessment.* Retrieved from: http://www.alz.org/health-care-professionals/cognitive-tests-patient-assessment.asp

Becker, M., Boaz, T., Andel, R., & DeMuth, A. (2012). Predictors of avoidable hospitalizations among assisted living residents. *J Am Med Dir Assoc, 13(4),* 355-359.

Beeber, A. S., Zimmerman, S., Reed, D., Mitchell, C. M., Sloane, P. D., Harris-Wallace, B., & Schumacher, J. G. (2014). Licensed nurse staffing and health service availability in residential care and assisted living. *J Am Geria Soc, 62(5)*, 805-811.

Bergen, G., Stevens, M.R., & Burns, E.R. (2016). Falls and Fall Injuries Among Adults Aged ≥65 Years — United States, 2014. *MMWR Morb Mortal Wkly Rep 65,* 993–998. DOI: http://dx.doi.org/10.15585/mmwr.mm6537a2.

Bureau of Labor Statistics. (2017). CII Inflation Calculator. Retrieved from: https://www.bls.gov/data/inflation_calculator.htm

Caffrey, C., Sengupta, M., Park-Lee, E., Moss, A., Rosenoff, E., & Harris-Kojetin, L. (2012). Residents living in residential care facilities, United States, 2010. Washington, DC: National Center for Health Statistics. Retrieved from http://www.cdc.gov/nchs/data/ databriefs/db91.pdf.

Caffrey, C., & Sengupta, M. (2018). Variation in residential care community resident characteristics, by size of community, United States, 2016. NCHS Data Brief, no 299. National Center for Health Statistics.

Castle, N. (2006). Measuring staff turnover in nursing homes. The Gerontologist, 46(2), 210-219. https://doi.org/10.1093/geront/46.2.210

Centers for Disease Control and Prevention, [CDC]. (2016a, January). *Multiple Chronic Conditions.* Retrieved from: https://www.cdc.gov/chronicdisease/about/multiple-chronic.htm

CDC. (2016b). *National Study of Long-Term Care Providers. 2016 Residential Care community Questionnaire.* Retrieved from: https://www.cdc.gov/nchs/data/nsltcp/NSLTCP_RCC_Questionnaire_Version_A.pdf

CDC. (2017a, January). *Depression is Not a Normal Part of Growing Older.* Retrieved from: https://www.cdc.gov/aging/mentalhealth/depression.htm

CDC. (2017b, November). *What You Should Know and Do this Flu Season If You Are 65 Years and Older.* Retrieved from https://www.cdc.gov/flu/about/disease/65over.htm

CDC. (2017c, February). *Important Facts About Falls.* Retrieved from https://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html

CDC. (2018a, April). *Stats of the State of Oregon, 2016.* Retrieved from: https://www.cdc.gov/nchs/pressroom/states/oregon/oregon.htm

CDC. (2018b, January). *People at High risk of Developing Flu-Related Complications.* Retrieved from: https://www.cdc.gov/flu/about/disease/high_risk.htm

CDC. (2018c). *State Population Projections, 2004-2030.* Retrieved from: https://wonder.cdc.gov/population-projections.html

Cioltan, H., Alshehri, S., Howe, C., Lee, J., Fain, M., Eng, H., Schachter, K., & Mohler, J. (2017). Variation in use of antipsychotic medications in nursing homes in the United States: A systematic review. *MioMed Central Geriatrics, 17(32)*.

Center for Medicare & Medicaid Services, [CMS]. (2015). *Atypical antipsychotic medications: use in adults.* Retrieved from https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Pharmacy-Education-Materials/Downloads/atyp-antipsych-adult-factsheet11-14.pdf

De Oliveira AM, Radanovic M, de Mello PCH, et al. (2015). Nonpharmacological Interventions to Reduce Behavioral and Psychological Symptoms of Dementia: A Systematic Review. *BioMed Research International*. 2015;2015:218980. doi:10.1155/2015/218980.

Department of Human Services, Aging and People with Disabilities, Oregon Administrative Rules. (2017). *Residential Care and Assisted Living Facilities.* Retrieved from: http://www.dhs.state.or.us/policy/spd/rules/411_054.pdf.

Department of Human Services, Seniors and People with Disabilities Division, Oregon Administrative Rules. (2010) Memory Care Communities. Retrieved from: https://www.dhs.state.or.us/policy/spd/rules/411_057.pdf.

Food and Drug Administration, [FDA]. (2008). *FDA requests black box warnings on older class of antipsychotic drugs.* Retrieved from http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2008/ucm116912.htm

Florence, C., Bergen, G., Ahterly, A., Burns, E., Stevens, J., & Drake, C. (2018). Medical costs of fatal and non fatal falls in older adults. *J Am Geriatr Soc,* doi:10.1111/jgs.15304

Genworth. (2017). *Compare long-term care costs across the United States.* Retrieved from: https://www.genworth.com/about-us/industry-expertise/cost-of-care.html

Harris-Kojetin L., Sengupta M., Park-Lee E., Rome, V., Caffrey, C., et al. (2016). Long-term care providers and services users in the United States: Data from the National Study of Long-Term Care Providers, 2013–2014. National Center for Health Statistics. *Vital Health Stat 3(38).* Retrieved from: https://www.cdc.gov/nchs/data/series/sr_03/sr03_038.pdf

Hernandez, M. (2007). Assisted living and residential care in Oregon: Two decades of state policy, supply, and Medicaid participation trends. *Gerontologist, 47(1),* 11-8124.

Horgas, A. L., Yoon, S. L., & Grall, M. (2012). *Pain management in older adults. Evidence-based geriatric nursing protocols for best practice (4th ed.)*, 258-263. New York: Springer.

Jindai, K., Nielson, C.M., Vorderstrasse, B.A., Quiñones, A.R. (2016). Multimorbidity and functional limitations among adults 65 or older, NHANES 2005–2012. *Prev Chronic Dis*ease, *(13),* 160-174.

Khatutsky G., Ormond C., Wiener J.M., Greene A.M., Johnson R., Jessup E.A., Vreeland E., Sengupta M., Caffrey C., & Harris-Kojetin L. (2016). Residential care communities and their residents in 2010: A national portrait. *DHHS Publication No. 2016-1041.* Hyattsville, MD: National Center for Health Statistics.

Kojima, G., Bell, C. L., Tamura, B., Davis, J., Inaba, M., Lorenzo, P., … Masaki, K. (2014). Combining Quality Improvement and Geriatrics Training: The Nursing Home Polypharmacy Outcomes Project. Gerontology & Geriatrics Education, 35(4), 395–408. http://doi.org/10.1080/02701960.2014.907159

Lansbury, L.E., Brown, C.S., Nguyen-Van-Tam, J.S. (2017). Influenza in long-term care facilities. *Influenza Other Respiratory Viruses*, *11,* 356–366.

Lendon, J.P., Rome, V., & Sengupta, M. (2017). *Maps of selected characteristics of residential care communities and residents in the United States: Data from the National Study of Long-Term Care Providers, 2013–2014.* National Center for Health Statistics. Washington, D.C.

Mirelman, A., Herman, T., Brozgol, M., Dorfman, M., Sprecher, E., Schweiger, A., ... & Hausdorff, J. M. (2012). Executive function and falls in older adults: new findings from a five-year prospective study link fall risk to cognition. *PloS one, 7*(*6)*, e40297.

Mitchell, A., & Selmes, T. (2007). Why don't patients attend their appointments? Maintaining engagement with psychiatric services. *Advances in Psychiatric Treatment, 13,* 423-434.

National Center for Assisted Living, [NCAL]. (2015). *The quality initiative for assisted living.* Retrieved from: https://www.ahcancal.org/ncal/quality/qualityinitiative/Pages/default.aspx

National Center for Health Statistics, [NCHS]. (2015). *2014 National study of Long-Term Care Providers (NSLTCP) Residential Care Communities Survey Restricted Data File*. Retrieved from: https://www.cdc.gov/nchs/data/nsltcp/nsltcp_2014_rcc_readme_rdc_release.pdf

National Council on Aging, [NCOA]. (n.d.). *Healthy Aging Facts*. Retrieved from: https://www.ncoa.org/news/resources-for-reporters/get-the-facts/healthy-aging-facts/

National Institute on Aging, [NIA]. (2017, May). *Acute and Chronic Pain.* Retrieved from: https://www.nia.nih.gov/health/what-long-term-care.

NIA. (n.d). *Reducing Chronic Disease and Disability.* Retrieved from: https://www.nia.nih.gov/es/node/1854

National Institute on Health, [NIH]. (2017, March). *NIH Senior Health; Falls and Older Adults.* Retrieved from: https://nihseniorhealth.gov/falls/aboutfalls/01.html.

National Investment Center (NIC) (2018, February). *NIC Insider Newsletter, February issue,* 11. Retrieved from http://www.nic.org/wp-content/uploads/pdf/Insider-February-2018-1.pdf

Ortman, J., Velkoff, V., & Hogan, H. (2014). *An Aging Nation: The Older Population in the United States.* Current Population Reports, U.S. Census Bureau:Washington, DC.

Park-Lee, E., Sengupta, M., & Harris-Kojetin, L.D. (2013). Dementia special care units in residential care communities: United States, 2010. NCHS data brief, no 134. Hyattsville, MD: National Center for Health Statistics. https://www.cdc.gov/nchs/data/databriefs/db134.pdf

Reinhard, S., Accius, J., Houser, A., Ujvari, K., Alexis, J., and Fox-Grage, W. (2017). *Picking up the pace of change. A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers*. AARP Public Policy Institute.

Rome V. & Harris-Kojetin L.D. (2016). Variation in residential care community nurse and aide staffing levels: United States, 2014. *National Health Statistics Reports; no 91*. Hyattsville, MD: National Center for Health Statistics.

Rosenblatt, A., Samus, Q. M., Steele, C. D., Baker, A. S., Harper, M. G., Brandt, J., & Lyketsos, C. G. (2004). The Maryland Assisted Living Study: Prevalence, recognition, and treatment of dementia and other psychiatric disorders in the assisted living population of central Maryland. Journal of the American Geriatrics Society, 52(10), 1618-1625.

Tamura, B., Bell, C., Lubimir, K., Iwasaki, W., Ziegler, L., & Masaki, K. (2011). Physician Intervention for Medication Reduction in a Nursing Home: The Polypharmacy Outcomes Project. Journal of American Medical Directors Association, 12(5), 326-330.

U.S. Census Bureau. (2016). American FactFinder. Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

van der Wardt, V., Logan, P., Hood, V., Booth, V., Masud, T., & Harwood, R. (2015). The association of specific executive functions and falls risk in people with mild cognitive impairment and early-stage dementia. *Dementia and geriatric cognitive disorders, 40*(3-4), 178-185.

Wiener, J. M., Feng, Z., Coots, L. A., & Johnson, R. (2014). What is the effect of dementia on hospitalization and emergency department use in residential care Facilities? RTI.

Zimmerman, S., Sloane, P. D., & Reed, D. (2014). Dementia prevalence and care in assisted living. *Health Affairs, 33(4),* 658-666. https://doi.org/10.1377/hlthaff.2013.1255

Portland State UNIVERSITY
Institute on Aging

DHS Oregon Department of Human Services

Oregon Community-Based Care
2018 Resident & Community Characteristics Questionnaire

Assisted Living + Residential Care + Memory Care

Please only fill out information for your «FacType»

CCMU/Provider #: **«CCMU_Number»**

Capacity: **«Capacity»**

Name of Community: **«Facility_Name»**

Address of Community: **«Facility_Address»**
«CityStateZip»

Management Company: **«OP_Operator»**

Administrator: **«Administrator»**

Community Phone: **«Facility_Phone»**

Please update incorrect or outdated information

Name of Community: _____

Address: _____

Management Company: _____

Administrator: _____

Community phone: _____

1. Person Completing Report_____ Title_____ Phone _____

2. Person Completing Report_____ Title_____ Phone _____

3. Person Completing Report_____ Title_____ Phone _____

Email_____ Web address _____

DHS requires communities to complete this questionnaire by January 8, 2018.

Once complete, please choose **one** of the following to return the questionnaire:

1. Scan and email to: cbcor@pdx.edu

2. Fax to: 503.725.9927

3. Mail to: CBC Project - Institute on Aging
Portland State University
PO BOX 751
Portland, Oregon 97207

If you have questions about completing this questionnaire, please contact:
Sheryl Elliott at 503-725-2130 or cbcor@pdx.edu

Questionnaire Instructions:

If there is someone else at your organization that we should contact about answering these questions, please let us know and we will call that person.

First, check that the information on page 1 is up to date and correct.

If your community has more than one CCMU/Provider number and community type:

You might have more than one licensed community type, such as assisted living and residential care and/or memory care units. If so, please **only fill out information for the community written on the previous page.** A separate questionnaire has been sent and should be used for other licensed communities located in your building and/or on your property.

To answer some questions, you will need information that might be in resident and employee files. It may be helpful to have your **Acuity Roster** nearby when answering these questions. If you used the optional **PSU tracking sheet** emailed in October 2017, please use it for Questions 6, 7, 13, 24, and 27.

Please give your best estimate for each question. If the answer to a question is "none" or "zero", please write "0". If the question does not apply to your community, please write "N/A" (not applicable).

Most questions ask you to write a number in a box like this | 35 | or mark a box like this ☒ .

How to calculate averages: Some questions ask for an average. For example, question #4 on page 1 asks the average age of all current residents. The average is the total of the ages of all of current residents divided by the total number of current residents.

We greatly appreciate your time and the work that you do on behalf of older adults and persons with disabilities. The study results will be most accurate if everyone participates. We look forward to hearing from you by **January 8, 2018.**

PSU does not publish or share responses from individual communities. The final report is posted on these websites: http://www.oregon.gov/DHS/SENIORS-DISABILITIES/Pages/publications.aspx & https://www.pdx.edu/ioa/oregon-community-based-care-project

Please keep a copy of your completed questionnaire for your records.

CCMU/Provider Number:

Section A. Resident Information

1. How many of **your current residents** are:
Please count each resident only once and write 0 for any categories with no residents.

- ☐ Female
- ☐ Male
- ☐ Transgender
- ☐ **TOTAL # OF CURRENT RESIDENTS**

2. How many of **your current residents** are:
Please count each resident only once and write 0 for any categories with no residents.

- ☐ Hispanic/Latino (any race)
- ☐ American Indian/Native American or Alaska Native, not Hispanic or Latino
- ☐ Asian, not Hispanic or Latino
- ☐ Black/African American, not Hispanic or Latino
- ☐ Native Hawaiian or Other Pacific Islander, not Hispanic or Latino
- ☐ White, not Hispanic or Latino
- ☐ Two or more races
- ☐ Other/unknown/or resident would most likely choose not to answer
- ☐ **TOTAL # OF CURRENT RESIDENTS** (should match total in question #1 above)

3. How many of **your current residents** primarily speak a language other than English? *Please write 0 if none.*

☐ Number of residents

a. Other than English, which languages do **your current residents** primarily speak?

_____
_____
_____
_____

4. What is the average age of **your current residents**?
See previous page for instructions.

☐ Average age of all current residents

5. How many of **your current residents** are:
Please count each resident only once and write 0 for any categories with no residents.

- ☐ 17 years and younger
- ☐ 18-49 years
- ☐ 50-64 years
- ☐ 65-74 years
- ☐ 75-84 years
- ☐ 85+ years
- ☐ **TOTAL # OF CURRENT RESIDENTS** (should match total in question #1 above)

CCMU/Provider Number:

6. In the last 90 days, how many new residents moved in (for the first time) from the following places? *Please write 0 for any categories with no residents.*

# of residents	**Moved in from:**
	Home (alone or with spouse/partner)
	Home of child or other relative
	Independent living apartment in senior housing
	Assisted living/residential care
	Memory care community
	Hospital
	Adult foster care
	Nursing facility (NF) or Skilled nursing facility (SNF)
	Other, specify: _____
	Don't know
	TOTAL – New residents, last 90 days

7. In the last 90 days, how many residents moved out (permanently) to the following places, or died? *Please write 0 for any categories with no residents.*

# of residents	**Moved out to:**
	Home (alone or with spouse/partner)
	Home of child or other relative
	Independent living apartment in senior housing
	Assisted living/residential care
	Memory care community
	Hospital
	Adult foster care
	Nursing facility (NF) or Skilled nursing facility (SNF)
	Other, specify: _____
	Resident died
	Don't know
	TOTAL – Residents who moved out or died, last 90 days

8. For the residents who moved out or died **in the last 90 days**, what was the length of stay for each resident? *Please write 0 for any categories with no residents.*

# of residents	**Length of Stay**
	1 - 7 days
	8 - 13 days
	14 - 30 days
	31 - 90 days
	91 - 180 days (3-6 months)
	181 days - 1 year (6-12 months)
	More than 1 but less than 2 years
	More than 2 but less than 4 years
	More than 4 years
	TOTAL – Residents who moved out or died, last 90 days (should match total in question #7 above)

9. Of the residents who moved out **in the last 90 days**, how many moved out because they could no longer afford to pay or had spent down their assets? *Please write 0 if none.*

☐ Number of residents

10. Of the residents who moved out **in the last 90 days**, how many were in your community for a planned short-stay (respite care or similar)? *Please write 0 if none.*

☐ Number of residents

CCMU/Provider Number:

11. Which of the following would typically prompt a move-out notice? *Please check all that apply.*

- ☐ Two-person transfer
- ☐ Wandering outside
- ☐ Sliding-scale insulin shots
- ☐ Hitting/acting out with anger to residents or caregivers
- ☐ Lease violation other than non-payment
- ☐ Non-payment
- ☐ None/Not available
- ☐ Other – please explain: _____

12. How many residents received **a less than 30-day move-out notice in the last year**? *Please write 0 if none.*

☐ Number of residents

If no residents received **a less than 30-day move-out notice**, SKIP to #13.

a. How many of these went to an administrative hearing? *Please write 0 if none.*

☐ Number of residents

Section B. Resident Health, Acuity & Service Use

13. In the last 90 days, how many of **your current residents:**

Please write 0 for any categories with no residents.

- ☐ Did not fall/had 0 (zero) falls?
- ☐ Fell only one time?
- ☐ Fell more than one time?
- ☐ **TOTAL** (should match total in question #1 above)

➔ If none of your current residents fell in the last 90 days, **SKIP to #15**.

14. Of the **current residents** who fell **in the last 90 days**:

a. How many had a fall resulting in some kind of injury? *Please write 0 if none.*

☐ Number of residents

b. How many went to the hospital (emergency room or admitted) because of the fall? *Please write 0 if none.*

☐ Number of residents

15. Does your community assess residents' risk for falling using a fall risk assessment tool (e.g., Stopping Elderly Accidents, Deaths & Injuries [STEADI] or Timed Up & Go [TUG])? **Please CIRCLE ONLY ONE.**

1. Yes, as a standard practice with every resident
2. Yes, only case-by-case depending on each resident
3. No
4. Don't know

16. Does your community use a standard tool for assessing depression (e.g., Patient Health Questionnaire [PHQ-9] or Geriatric Depression Scale [GDS])? **Please CIRCLE ONLY ONE.**

1. Yes 2. No

CCMU/Provider Number:

17. Does your community use a standard tool for assessing cognitive impairment (see list of examples below)? **Please CIRCLE ONLY ONE.**

1. Yes, as a standard practice with every resident
2. Yes, only case-by-case depending on each resident
3. No
4. Don't know

a. If you circled 1 or 2 in question 17 above, which tool(s) do you use? *Please circle all that apply. If you circled 3 or 4, please skip to #18 below.*

1. St. Louis Mental Status (SLUMS)
2. Mini-Mental State Examination (MMSE)
3. Mini-Cog
4. General Practitioner Assessment of Cognition (GPCOG)
5. Montreal Cognitive Assessment (MoCA)
6. Other:_____

18. How many of **your current residents** regularly use a mobility aid (e.g., cane, walker, wheelchair) to get around? *Please write 0 if none.*

☐ Number of residents

19. How many of **your current residents** need staff assistance to use a mobility aid? *Please write 0 if none.*

☐ Number of residents

20. How many of **your current residents** regularly receive assistance from NOC (*night shift*) staff during the night? *Please write 0 if none.*

☐ Number of residents

21. How many of **your current residents** need regular and ongoing staff assistance with each of the following? *Please write 0 for any categories with no residents*:

☐ Eating
☐ Dressing
☐ Bathing and grooming
☐ Using the bathroom
☐ Mobility/Walking

22. How many of **your current residents** regularly receive assistance for physical and/or cognitive health needs from two staff? *Please write 0 if none.*

☐ Number of residents

23. How many of **your current residents** regularly receive staff assistance because of the following behavioral symptoms? *Please write 0 for any categories with no residents*:

☐ Lack of awareness to safety, judgement, and decision making, or ability to orient to surroundings
☐ Wandering
☐ Is a danger to self or others (e.g., disruptive, aggressive, abusive, sexually inappropriate)

24. How many of **your current residents** received a flu shot this past fall? *Please write 0 if none.*

☐ Number of residents

☐ Don't know/We do not track this

CCMU/Provider Number:

25. How many of **your current residents** have been ***DIAGNOSED*** with each of the following conditions? *Include all diagnoses for each resident. Please write "0" for any categories with no residents.*

- ☐ Heart disease (e.g., congestive heart failure, coronary or ischemic heart disease, heart attack, stroke)
- ☐ Alzheimer's disease and other dementias (including Lewy body, Huntington's disease, and vascular dementia)
- ☐ High blood pressure/hypertension
- ☐ Depression
- ☐ Serious mental illness (such as bipolar disorder, schizophrenia)
- ☐ Diabetes
- ☐ Cancer
- ☐ Osteoporosis
- ☐ COPD and allied conditions
- ☐ Current drug and/or alcohol abuse
- ☐ Intellectual/developmental disability
- ☐ Arthritis
- ☐ Traumatic brain injury
- ☐ Skin issues (e.g., residents with stage 2 or greater pressure ulcers or bedsores and/or a skin condition that requires staff to deliver and/or coordinate treatment in the last month)
- ☐ Weight change (i.e., an unexplained weight loss or gain in the last month)

26. In the last 90 days, which (if any) of the following health care providers visited your community to provide services and/or training? *Please check the appropriate category for type of health care provider.*

	Yes	No	D/K N/A
Mental health provider			
Physical/occupational therapist			
Dentist or dental hygienist			
Home health provider			
Other (specify):			

If you completed the tracking sheet we sent you in OCTOBER, please use it for question 27.

27. How many of **your current residents** were: *Please write "0" for any categories with no residents.*

- ☐ Treated in the hospital emergency room (ER) **in the last 90 days**?
- ☐ Hospitalized overnight **in the last 90 days**? (Exclude trips to the ER that did not result in an overnight hospital stay.)
  - → ☐ How many of these residents went back to the hospital within 30 days?
- ☐ Receiving hospice care **in the last 90 days**?

28. In the last 90 days, how many of **your current residents** treated pain with: *Please write 0 if none.*

a. Pharmaceutical intervention

☐ Number of residents

b. Non-pharmaceutical intervention

☐ Number of residents

CCMU/Provider Number:

29. In the last 90 days, how many of **your current residents** experienced a significant change in condition (i.e., a major deviation from the most recent evaluation that may affect multiple areas of functioning or health that is not expected to be short-term, and imposes significant risk)? *Please write 0 if none.*

☐ Number of residents

30. How many of your **current residents** take ***no*** medications and ***no*** injections? *Please write 0 if none.*

☐ Number of residents

31. How many of **your current residents**: *Please write "0" for any categories with no residents.*

☐ Take 9 or more medications?

☐ Take antipsychotic medication (e.g., Haldol (Haloperidol); Quetiapine (Seroquel), Olanzapine (Zyprexa), Ariprazole (Abilify), Risperidone (Risperdal)?

☐ Self-administer most of their medications?

☐ Receive staff assistance to take oral medications?

☐ Receive subcutaneous injection medications from personal care staff (including a medication aide or CNA, but not an RN/LPN)?

☐ Receive injections from a licensed nurse?

☐ Receive nurse treatments from a licensed nurse (e.g., oxygen and respiratory treatments, such as nebulizers; rectal medications; suctioning mouth with bulb syringes; wound care, such as staging pressure ulcers and dressing changes)?

Section C. Community Rates, Fees, and Policies

32. Last month, how many of **your current residents** primarily paid using the following payment types? *Please count each resident only once and write 0 for any categories with no residents.*

☐ **Medicaid**

☐ **Private sources** - May include resident and/or family personal accounts, Veteran's Aid & Attendance, long-term care insurance, pension, Social Security

☐ **Other:** _____

☐ **TOTAL # OF CURRENT RESIDENTS** (should match total in question #1)

33. If a private pay resident spends down their assets, may they stay in the community and pay via Medicaid, if they qualify? **Please CIRCLE ONLY ONE.**

1. Yes 2. No 3. Not applicable

34. Private Pay Only: For the past month, what was the average **base monthly charge (no added services)** for a single resident living alone in the smallest room or unit type and receiving the lowest level of care?

$_/ month

35. Private Pay Only: For the past month, what was the average **total monthly charge (including services)** for a single resident living alone in the smallest room or unit and receiving the lowest level of care?

$_/ month

CCMU/Provider Number:

36. Does your community offer the following services? If so, is there an additional fee? *Please write Y for yes or N for no for each service.*

Offer service? (Y/N)	Charge fee? (Y/N)	Fees and Deposits
		Meals regularly delivered to resident's room
		Transfer that requires 2 staff
		Staff escort resident to medical appointments
		Application fee
		Transport to recreation
		Security/damage deposit
		Cleaning deposit
		Administrative fee
		Community fee
		Assessment fee
		Use of pharmacy other than the preferred/ institutional pharmacy

37. Is there a designated place or area outside of your building reserved for smoking or non-smoking? *Please check all that apply.*

	Yes	No
Smoking place or area (where smoking is allowed)		
Non-smoking place or area (where smoking is prohibited)		

38. Does your community have a written policy that addresses sexual contact between residents? **Please CIRCLE ONLY ONE.**

1. Yes 2. No

Section D. Staffing

39. When did the current Administrator start working as Administrator at this community?

Date (month/year) _____

40. What languages, other than English, do your staff speak fluently?

_____

_____

_____

41. Which of the following topics have been covered in staff training during the past year? *Please check all that apply.*

- ☐ Race and ethnic diversity
- ☐ Intercultural differences (e.g., differences between cultures such as Vietnamese, Chinese, Korean, and Japanese populations within the Asian culture)
- ☐ Sexual orientation (e.g., lesbian, gay, bisexual)
- ☐ Gender identity (e.g., concept of self as male, female, blend of both, neither)

42. What other types of training do you think could benefit your staff? **Please describe:**

_____

_____

_____

43. Do any of your staff work in any other building or unit on this campus/at this location (e.g., assisted living, residential care, skilled nursing)? **Please CIRCLE ONLY ONE.**

1. Yes 2. No

CCMU/Provider Number: ***«CCMU_Number» («FacType»)***

The following questions are about employees in your community. An individual is considered an employee if the community is required to issue a W-2 federal tax form on their behalf.

- *Currently employed staff includes all employees, such as direct care, dietary, housekeeping, janitorial, administration, etc.*
- *If any employees work in more than one building or campus (i.e., if you chose Yes for question #43), please count only those who are employed* ***primarily*** *at this location (assisted living, residential care, or memory care written on page 1).*

44. How many staff are **currently employed** by this community?

☐ Number of all current staff

45. How many **current care-related staff** (i.e. RN, LPN/LVN, CNA, CMA, personal care staff, social workers, activities staff, or residential care coordinator) are currently employed by this community?

☐ Number of all care-related staff

46. For each of the care-related staff types listed below, please write the number of full-time or part-time employees **currently employed by this community** (AL/RC/MC written on page 1). *Please count each employee only once and write "0" for any categories with no employees.*

# of full-time	# of part-time	Care-Related Staff
		Registered nurses (RNs)
		Licensed practical or vocational nurses (LPNs)/ (LVNs)
		Certified nursing assistants (CNA)
		Certified medication aides (CMA)
		Personal care staff who are not licensed or certified
		Social workers
		Activities directors or staff
		Residential care coordinator
		TOTAL *(of full-time and part-time employees should match the total in question #45 above)*

CCMU/Provider Number: «CCMU_Number» («FacType»)

47. How many **current RNs** have been employed in this community for: *Please write 0 if none.*

☐ Less than 6 months

☐ More than 6 months

48. **In the last 6 months**, how many RNs left employment for any reason? *Please write 0 if none.*

☐ Number of RNs that left employment

49. How many **current care-related staff** (exclude RNs for this question) have been employed in your community for: *Please write 0 if none.*

☐ Less than 6 months

☐ More than 6 months

50. **In the last 6 months**, how many care-related staff (exclude RNs for this question) left employment for any reason? *Please write 0 if none.*

☐ Number of care-related staff

51. **In the last 90 days**, have you hired contract/ agency care staff (including nurses) to cover unplanned staff absences? **Please CIRCLE ONLY ONE.**

1. Yes 2. No 3. Do not know

52. Did the number of hours that you employed and/or contracted with an RN increase between 2016 and 2017? **Please CIRCLE ONLY ONE.**

1. Yes 2. No 3. Don't know

53. Of **all your current staff** (that you reported in question 44), how many received a flu vaccine this past fall in 2017? *Please write 0 if none.*

While flu vaccines are not mandatory, they are strongly encouraged by the Centers for Disease Control and Prevention (CDC). You will not be penalized for your response to this or any other question.

☐ Number of residents

☐ Don't know/We do not track this

If you would like to write any additional comments, please use the back of this page.

Thank you for taking the time to complete this questionnaire!