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2020 Community-Based Care Resident and Community Characteristics Report On Assisted Living, Residential Care, and Memory Care Communities

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2020 Community-Based Care

Resident and community characteristics report on
assisted living, residential care, and memory care
communities



Paula Carder, Ph.D., Ozcan Tunalilar, Ph.D., Sheryl Elliott, M.U.S, & Sarah Dys, M.P.A.

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



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2020 Community-based care resident and community characteristics report on assisted living, residential care, and memory care communities

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



About the Institute on Aging at Portland State University

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

ODHS 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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Previous years' CBC reports are available at:
<https://www.pdx.edu/ioa/oregon-community-based-care-project>

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Common Acronyms

ADLs - Activities of daily living

ADRD - Alzheimer's Disease and related dementias

APD - Division of Aging and People with Disabilities

AL - Assisted living

CBC - Community-based care

CMA - Certified medication assistant

CNA - Certified nursing assistant

CMS - Centers for Medicare and Medicaid Services

ODHS - Oregon's Department of Human Services

HCBS - Home and community-based services

MC - Memory care community

IOA - Institute on Aging

LPN/LVN - Licensed Practical Nurse/Licensed Vocational Nurse

OHA - Oregon Health Authority

OAR - Oregon Administrative Rules

ORS - Oregon Revised Statutes

PSU - Portland State University

RC - Residential care

RN - Registered nurse

Introduction

This report summarizes characteristics of Oregon community-based care (CBC) settings based on a study conducted between December 2019 and March 2020. In Oregon, Community-based care (CBC) settings include assisted living (AL), residential care (RC), and memory care (MC) communities. Data collection was complete before the global novel coronavirus (COVID-19) pandemic led Oregon's governor to declare a state of emergency on March 8, 2020, and a state-wide lockdown soon after. Thus, this report reflects the status of AL/RC/MC residents and facilities just before the pandemic began affecting life for most Oregonians. As a type of congregate care setting, AL/RC/MC staff, residents, and their families have been disproportionately affected by COVID-19, with restricted visitor policies and infection prevention policies that, while designed to control the spread of the disease, might also contribute to social isolation. The state implemented social isolation practices on February 29, 2020, with [subsequent modifications throughout the pandemic](#). The state-wide [Long-Term Care Facility Testing Plan](#) was announced by Oregon Health Authority and Oregon Department of Human Services on June 12, 2020.

All AL/RC/MC settings are licensed and monitored by the Oregon Department of Human Services (ODHS), Office of Aging and People with Disabilities (APD). The study purpose is to collect data that can inform Oregon ODHS, community stakeholders, CBC providers, and consumers about this sector of long-term services and supports. Because there is no central source of data on CBC residents, services, and policies, ODHS has contracted with The Institute on Aging at Portland State University (IOA/PSU) each year since 2014 to collect and report information about residents and facilities.

The current report includes:

- Information about AL/RC/MC, including licensed capacity, occupancy, policies, resident move-in and move-out locations, private pay rates and Medicaid data, and staffing.
- Information about residents, including age, sex, race, ethnicity, prior living arrangement, health status, and health service use.
- Comparisons to national studies, where relevant and available.

AL/RC facilities are licensed residential settings, authorized by Oregon Administrative Rules (OAR 411-054). Additionally, AL/RC may apply for and receive approval from

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ODHS to operate as an MC community (OAR 411-057). AL/RC/MC provide individualized personal care (e.g., activities of daily living), social services, and social/recreational activities for older adults and persons with disabilities.

Licensed communities must:

- Be staffed 24-hours daily to meet current residents' care and service needs,
- Hire or contract with a licensed nurse(s) who are routinely scheduled for onsite duties and available to assess resident needs, and provide phone consultation,
- Provide daily meals and snacks,
- Provide housekeeping and laundry services,
- Offer social and recreational activities,
- Provide medication administration,
- Coordinate transportation, and
- Coordinate, monitor, and provide interventions from on-site and off-site health service providers to residents.

Assisted living facilities must provide private apartments that have a living and sleeping space, kitchen area, bathroom, and storage. In contrast, Oregon rules do not require RC to provide private bathrooms, living quarters, or kitchenettes, although they may choose to do so. Older RC might have shared bathrooms, while newer constructions may have a combination of these building designs. Since AL and RC are similar in all other aspects, including the Oregon Administrative Rules they must follow, we report findings for these two settings in aggregate (AL/RC). Separate data briefs prepared by the IOA/PSU team describe similarities and differences between these two setting types.

MC is designated for adults with a diagnosis of Alzheimer's disease or a related dementia (ADRD). Oregon DHS may approve a licensed AL, RC, or a nursing facility to operate MC through an "endorsement" (OAR 411-057-0110). This report includes only MC units with an AL or RC license. All MC must meet requirements such as training staff in dementia care practices, building design standards such as controlled exits, and programming for people with health and behavioral symptoms associated with ADRD.

For the purpose of this report, the following acronyms are used to organize findings associated with the three licensed setting types:

- AL/RC/MC includes findings from assisted living, residential care, and memory care,
- AL/RC includes findings from assisted living and residential care only, and

- MC includes findings from memory care only.

The report describes similarities and differences between AL/RC and MC settings. A total of 550 AL/RC/MC settings were operating in Oregon as of November 2019, and of these, 209 (38%) were endorsed MC communities. The total licensed capacity for all AL/RC/MC was 28,376 residents.

Based on the AL/RC/MC settings that returned study questionnaires, just over half of residents were ages 85 or older, most were female, and nine percent were a race/ethnicity other than non-Hispanic White. Slightly more than half of residents lived in their AL/RC/MC communities for over one year, and the primary reason for departures for residents who left in the prior 90 days was death. Although a larger share of AL/RC/MC residents paid using private resources, 43% of residents in the responding facilities were Medicaid recipients. Private pay rates vary widely, with an average of \$5,281 per month.

Memory care residents differ from AL/RC residents in several ways in terms of the share of residents who receive assistance with personal and health-related care services. These and other findings are described in more detail throughout the report.

Study methods

The data summarized in this report were collected using two separate questionnaires. The facility questionnaire included questions about policies, services and rates, staffing, and about residents who moved out in the prior 90 days. The resident questionnaire asked about three randomly selected and anonymous residents. All 550 AL/RC/MC licensed as of November 2019 received both questionnaires. Of these, 37 included multiple facility types in one building or property. As such, there were 587 eligible cases for the purpose of data collection. Of these 587 cases, 389 completed the facility questionnaire, for a response rate of 66%, and 388 completed the resident questionnaire, for a response rate of 66%. In this report, resident data are based on the resident questionnaires unless otherwise noted. See the Appendices for additional details about data collection, including the questionnaires, and data analyses.

Highlights

AL/RC/MC capacity and private apartment occupancy

- The total licensed capacity for all AL/RC/MC settings in Oregon was 28,376 residents.
- The total licensed capacity for the AL/RC/MC settings that responded to the study was 18,643 residents.
- 80% of residents lived in a private room/apartment, 13% shared their unit with an unrelated roommate, and 7% lived with a relative or spouse.

Memory Care

- 209 of all AL/RC in Oregon had a MC endorsement. Most MC were stand-alone communities with no other license type, and 37 were co-licensed with an AL/RC.
- 36% of all residents living in the responding facilities lived in MC.

AL/RC/MC Medicaid use and expenditure

- 43% of residents were Medicaid beneficiaries.
- In 2019, ODHS paid a total of \$361,517,952 on behalf of Medicaid-eligible residents in all CBC facilities.

AL/RC/MC Private Payers and Rates

- 56% of residents were private pay (e.g., personal sources, long-term care insurance, social security).
- \$5,281 was the average total monthly charge paid by current AL/RC/MC residents.
- \$57,492 is the amount that a single resident would pay for 12 months based on the average total monthly charge.
 - Average monthly charges ranged from \$626 to over \$20,000.

AL/RC/MC staffing

- The 550 AL/RC/MC in Oregon employed an estimated 22,304 staff.
 - 14,759 were designated as care-related employees.
- 317 responding facilities employ a total of 11,650 staff.
- 67% of employees' job responsibilities include resident care.
- 81% of employees work full-time.
- Average care-related staff-to-resident ratios:
 - 0.56 AL/RC.
 - 0.91 MC.
 - 0.65 AL/RC/MC.
- Estimated care hours per resident per day provided by care staff:
 - 2 hours and 59 minutes in AL/RC.
 - 4 hours and 27 minutes in MC.
 - 3 hours and 28 minutes in AL/RC/MC.

AL/RC/MC resident demographics

- 70% female.
- 80% ages 75 and older.
- 51% ages 85 and older.
- 91% non-Hispanic White.
- 9% either Asian, Black or African American, American Indian/Native American or Alaska Native, or Native Hawaiian/other Pacific Islander.

Length of stay among AL/RC/MC residents who moved out or died in the prior 90 days

- 46% less than 1 year.
- 55% more than 1 year.
- 15% for 4 or more years.
- 62% of move-outs were due to death.

AL/RC/MC residents who regularly received assistance with personal care and other services

- 67% bathing and grooming.
- 52% dressing.
- 46% staff assistance during the night.
- 43% to use the bathroom.
- 29% both urinary and bowel incontinence.
- 23% from two staff.
- 12% assistance/companionship from an outside personal care aide.

AL/RC/MC residents who regularly received assistance with behavioral symptoms associated with ADRD

- 41% received staff assistance with at least one behavioral symptom.
- Reasons for assistance:
 - 40% due to lack of awareness or ability to orient to surroundings.
 - 10% due to wandering.
 - 7% danger to self or others.

AL/RC/MC facility policies

- 82% used nonpharmacologic interventions before and after residents display behavioral symptoms.
- Over 60% of settings always used one of three specified human resource practices: formal job evaluations, employee recognition, and employee suggestion systems.

Top five most reported AL/RC/MC resident health conditions

- 63% of residents had high blood pressure/hypertension.
- 49% had Alzheimer's disease or related dementias (ADRD).
- 39% had heart disease.
- 38% had depression.
- 27% had arthritis.

Fall-related injuries among current AL/RC/MC residents, prior 90 days

- 18% injured because of at least one fall.
 - Of these residents, 36% went to the hospital due to a fall.

Health service use among current AL/RC/MC residents, prior 90 days

- 19% treated in a hospital emergency department.
- 10% hospitalized overnight.
- 8% used hospice services.

Medication administration and use among current AL/RC/MC residents

- 53% took nine or more medications on a regular basis.
- 25% took antipsychotic medications in the last week.
- 22% took opioid medications in the last week.
- 20% took a dementia-specific medication in the last week.
- 13% self-administered their own medications.

Community characteristics

Across the state, AL/RC/MC vary in terms of size, private pay rates, Medicaid acceptance, staffing, and facility-specific policies. These differences might provide more options for people seeking long-term services and supports in their community.

This section provides an overview of:

- Facility capacity and occupancy,
- Private pay rates,
- Fees and services,
- Medicaid acceptance,
- Staffing types and levels,
- Human resource policies, and
- Use of psychosocial or environmental practices.

All AL/RC/MC are licensed for a specific number of residents, referred to as capacity. In AL, a unit may be designated for one or two persons who live together by choice (usually married or partnered couples) and in RC, a unit may be shared by two individuals previously unknown to each other (e.g., roommates) or who choose to live together.

The total licensed capacity for the 550 AL/RC/MC licensed as of November 2019 was 28,376 (Table 1). Of these, 38% (or 209) had a MC endorsement, accounting for 25 % (or 7,221) of the licensed capacity of AL/RC.

Table 1. Number of all licensed settings and licensed capacity as of November 2019

	# of settings	Licensed capacity	# of units
All facilities (AL/RC)	550 ¹	28,376 ¹	23,519
AL/RC with an MC endorsement	209	7,221	-

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

Occupancy rates

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.

We calculated occupancy rates by dividing the number of current residents by the licensed capacity, separately by license type (Table 2 below). Of the 388 facilities for which we have this information, occupancy rates for AL/RC and MC facilities were 77% and 85%, respectively. Thirteen percent of AL/RC facilities had an occupancy rate of 60 or lower. The corresponding figure for MC facilities was eight percent. In contrast, five percent of AL/RC facilities reported full occupancy (100%) compared to 14% of MC facilities.

Table 2. Licensed capacity and occupancy rates of responding facilities, 2020

	Capacity	# of current residents	Occupancy rate
AL/RC	14,078	10,772	77%
MC	4,565	3,858	85%
Total	18,643	14,630	79%

Note: Based on 388 cases with non-missing information.

Occupancy rates varied from 60% to 97% across AL/RC/MC settings in the bottom and top tenth percentiles, respectively (Table 3). The top ten% of MC communities were 100% occupied compared to the top 10% of AL/RCs with 94% occupancy.

Table 3. Distribution of occupancy rates of responding facilities, 2020

	Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
AL/RC	60	70	79	87	94
MC	63	79	88	96	100
Total	60	73	82	91	97

Note: Based on 388 cases with non-missing information.

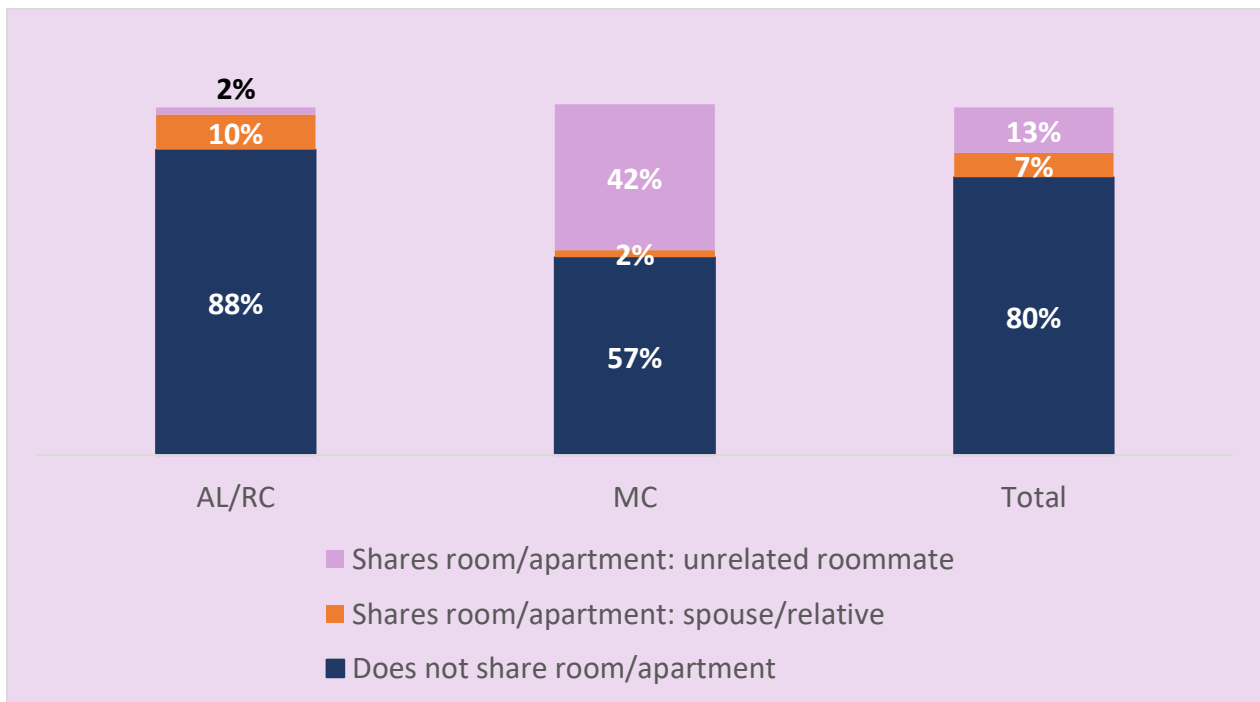
The approach used here to calculate occupancy rate differs from the methods used by senior housing professionals, who calculate occupancy rates as a percentage of occupied units (e.g., apartments) rather than total occupants (e.g., residents). In 2019,

we collected information on occupied units and calculated an occupancy rate of 88 in both AL/RC and MC communities.

Units and room sharing

We asked whether residents currently lived alone or shared their room or apartment with another person. Most residents lived alone (80%). The remaining residents either shared their room/apartment with a spouse or relative, or with an unrelated roommate (Figure 1). A larger percentage of MC residents lived in a shared unit compared to AL/RC residents, likely because MC are most often licensed as RC rather than AL. Among residents in a shared room or apartment, a much larger share of MC residents had an unrelated roommate compared to AL/RC residents.

Figure 1. Unit sharing among residents by setting, 2020



Private pay charges

Providers were asked about each resident's base and total monthly charges for the prior month (Table 4). While the base rate might include some services, facilities may charge for additional services. The average base monthly charge for AL/RC was \$4,056 and the average monthly charge including services received by the resident was \$4,791. In other words, additional service charges added approximately \$735 per month to the

base charge for AL/RC facilities. Based on the average total monthly charge, a year-long stay for a single resident would amount to \$57,492.

On average, MC communities charged \$5,801 for the base monthly charges and \$6,626 for the total monthly charges (that is, including services). As such, the service charge added \$825 per month to the base charge among MC communities. The average total monthly charge for MC was about \$1,835 more than the AL/RC average total charge. A year-long stay in MC based on the average total monthly charge would amount to \$79,512, which is about \$22,000 more than the average annual charge for AL/RC.

Table 4. Average monthly private-pay charges among sampled residents by setting, 2020

Monthly charge	AL/RC		MC		Total	
	Base	Total	Base	Total	Base	Total
Minimum	\$441	\$626	\$515	\$2,418	\$441	\$626
Maximum	\$12,350	Over \$20,000	\$11,966	\$12,011	\$12,350	Over \$20,000
Average	\$4,056	\$4,791	\$5,801	\$6,626	\$4,521	\$5,281

Private-pay charges among sampled residents that exclude outliers at the top and bottom one percentiles (Table B1) and by region (Table B2 and Table B3) can be found in [Appendix B](#).

Payer sources

The primary payer sources among responding facilities were residents’ personal funds (56%) and Medicaid (43%). AL/RC and MC residents had comparable levels of Medicaid use (43% and 44%, respectively). Because other payer sources (one percent) included Providence ElderPlace, a Program of All-Inclusive Care for the Elderly (PACE), some of the residents accounted for in the “Other” category (one percent) may be eligible for or actively using Medicaid, even though it was not reported by the facilities as their primary source of payment for services (Table 5).

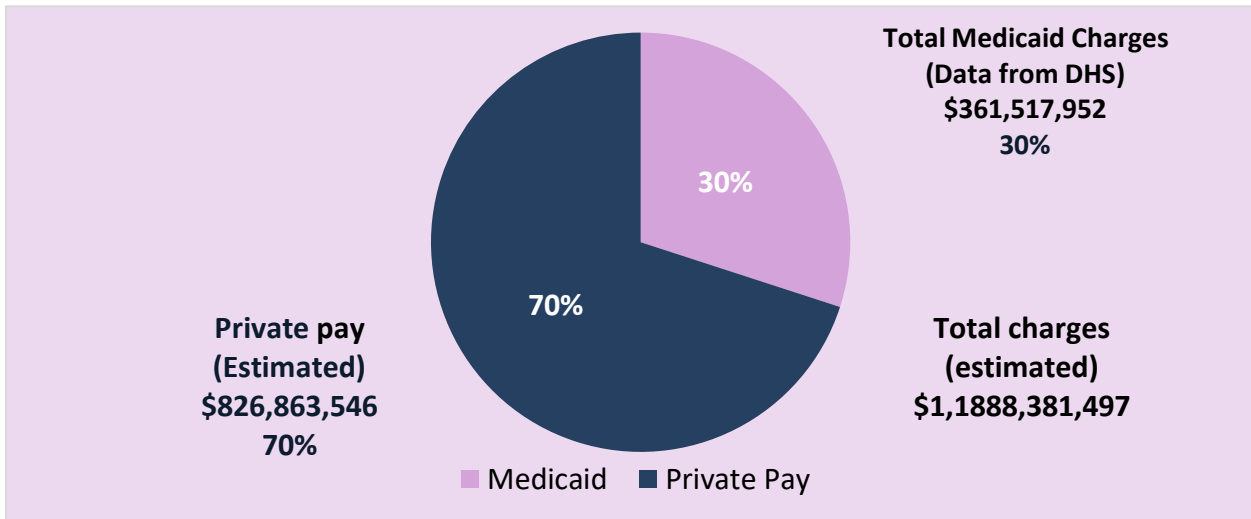
Table 5. Distribution of payer sources by setting, 2020

	AL/RC	MC	Total
	%	%	%
Medicaid	43	44	43
Private sources	56	54	56
Other	1	2	1

Estimated profession charges

Based on the average total monthly charge for private pay residents reported by providers and the amount billed to ODHS for Medicaid services (see Table A1, [Appendix A](#) for a description of the calculations), we estimated total annual charges for all AL/RC/MC settings. As Figure 2 shows, the total estimated industry charges were over 1.1 billion dollars, at \$1,188,381,497. Of the total charges, 70% were from private sources and 30% from Medicaid charges (including room and board charges) billed to ODHS on behalf of Medicaid-eligible residents.

Figure 2. Estimated total annual charges for AL/RC and mc facilities in Oregon, 2020



Ongoing & one-time charges

AL/RC/MC structure their fees and additional services in varying ways. Providers were asked to describe the most common one-time and ongoing fees charged to private-pay residents. Of the 389 facility questionnaires received, 309 indicated ongoing fees and 353 described one-time fees.

The most commonly reported ongoing fees include monthly rent and personal care service charges (e.g., levels of care, assistance with activities of daily living). Additional ongoing charges consisted of two categories: living expenses and care-related fees. Living expenses included monthly cable, television, internet, phone fees, pet fees, and billing for use of the beauty salon, laundry services, or parking. Care-related additional charges included fees for meal delivery to rooms, medication management or administration, use of an outside pharmacy, and personal care supplies (e.g., incontinence pads).

Some providers described one-time fees associated with moving into the AL/RC/MC, including administrative fee, application fee, cleaning deposit, community fee, pet deposit, move-in fee, and security deposit.

Additional services

AL/RC/MC were asked if they offer any of 10 specified services to their residents, and if so, whether facility staff provided the service, if they arranged for the service with outside agencies, or if residents were referred to outside agencies. In addition, information about charges for these services was collected.

Of the 10 services listed, five were provided directly by over half of AL/RC/MC communities: meals delivered to resident rooms/apartments, transfer assistance requiring two staff, transportation for social and recreational activities, management of behavioral symptoms, and transportation for health-related appointments (Table 6).

The three services least often provided directly by AL/RC/MC communities included routine dental, emergency dental, and hospice services. A small share of communities did not provide, arrange, or refer for any of the services listed in Table 6 (ranging from two to 23% depending on the service).

Differences in the types of services provided were observed for AL/RC and MC. For example, a larger share of MC provided two-person transfer services compared to AL/RC, and a larger share of AL/RC charged for providing, arranging, or referring services (ranging from 10 to 38%) compared to MC (ranging from three to 28%) (see [Appendix B](#), Table B4). These differences potentially reflect differences in the type of residents served by AL/RC and MC settings.

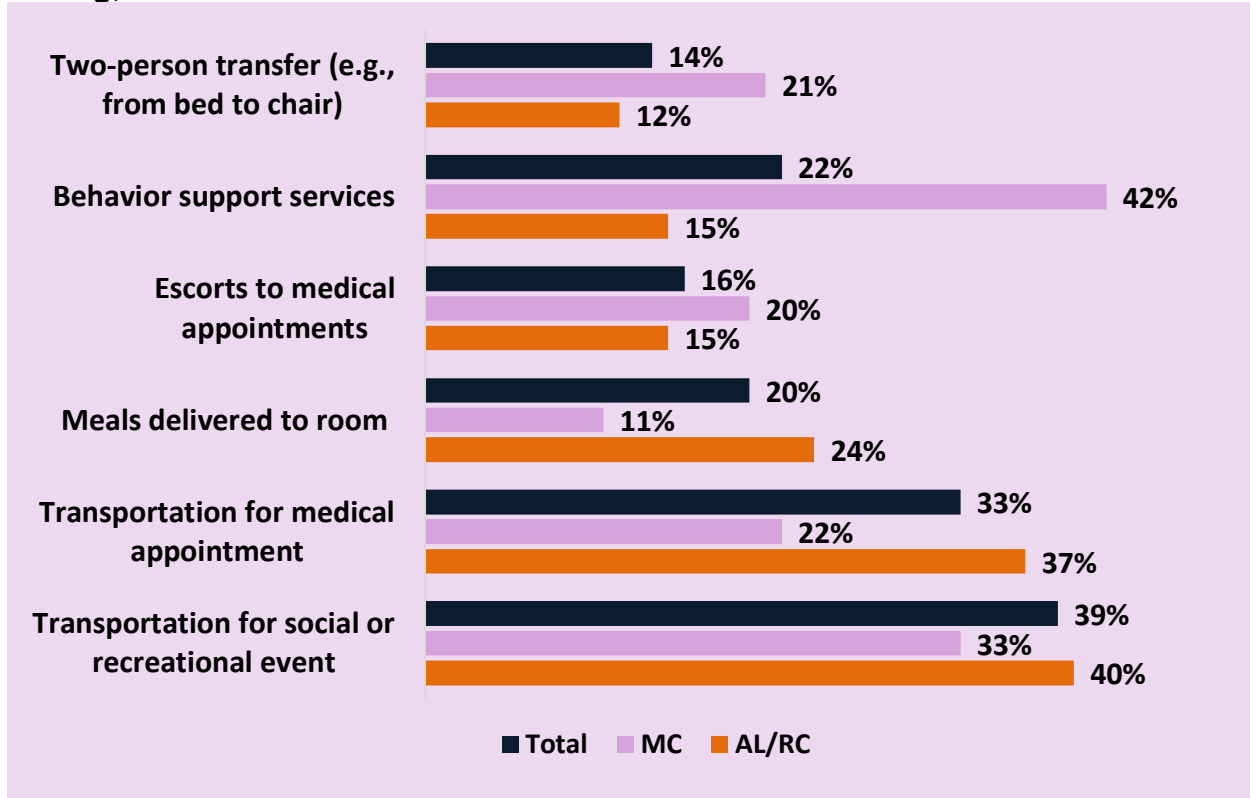
Table 6. Services provided by, arranged by, or referred by AL/RC/MC, and charges, 2020

	Provided	Arranged	Referred	Charges	Does not provide
	%	%	%	%	%
Routine dental services by a licensed dentist	0	58	54	10	16
Emergency dental services by a licensed dentist	1	51	52	9	20
Hospice services	6	73	51	8	2
Meals delivered to room	79	1	0	32	4
Transfer that requires 2 staff	67	1	1	26	23
Escorts to health-related appointments	45	30	23	35	14
Pharmacy services	34	63	17	20	3
Transportation to health-related appointments	59	56	28	22	5
Transportation for social, recreational	77	29	16	10	6
Management of behavioral symptoms	73	40	29	21	3

Note: These are not mutually exclusive categories, so percentages may not add to 100%.

Additionally, AL/RC/MC were asked whether residents had received any of the listed services in Table 6 in the last month. Figure 3 presents the share of residents who lived in facilities where a particular service was offered. Less than half of sampled residents were reportedly receiving any of the services listed in Table 6. Three percent of residents lived in communities where these services were not offered.

Figure 3. Share of residents who received specific services in the past month by setting, 2020



Variation in receipt of services among residents is similar to the range of services provided by AL/RC/MC communities. More AL/RC residents received transportation for medical or recreational reasons compared to MC residents (Figure 3). While more MC provide meal delivery to residents’ rooms, a larger share of residents in AL/RC received meal delivery (24%) compared to MC residents (11%). Unsurprisingly, more MC residents received behavioral support services compared to AL/RC residents (42% and 15%, respectively). Although nearly all MC residents have ADRD, some residents in AL/RC also have these diseases, as described on page 36. People living with ADRD and/or cognitive impairment may have neuropsychiatric symptoms, or behavioral expressions such as delusions, aggression, and/or motor disturbance (Lanctôt et al., 2017).

Communities use different methods for calculating charges for additional services. For each resident who reportedly received a service listed in Figure 3, providers were asked to describe how the resident was billed for the service (Table 7). Most of the listed services were included in the base monthly charge. Only one service, two-person transfer assistance, was more often associated with service level, rather than a base charge. A larger share of residents received transportation to medical appointments by an outside party (27%) compared to other services provided by outside agencies.

AL/RC and MC residents had comparable distributions of charges among services (see [Appendix B](#), Table B5). When reviewing this information, it is important to consider that some AL/RC/MC used methods other than the four included in the questionnaire and some used more than one of the four methods to assess fees.

Table 7. Distribution of charge type among residents who received a particular service, 2020

	Charge structure			
	Included in the base monthly charge	Charged as part of service level	Charged á la carte, per use	Arranged by facility, done by outside party
Meals regularly delivered to residents' rooms	70	25	5	0
Transfer that requires two staff	39	60	2	0
Escorts to medical, dental, or other health-related appointments	57	20	11	12
Transportation to medical, dental, or other health-related appointments	59	12	2	27
Transportation to social, recreational activities and shopping	90	4	3	4
Management of behavioral symptoms, such as agitation	54	39	2	5

Facility staff and human resources practices

This section describes three aspects of staffing in AL/RC/MC including:

- Staff to resident ratios,
- Staffing levels, and
- Human resources practices

Although Oregon Administrative Rules do not require specific staffing ratios, Oregon AL/RC/MC must employ sufficient numbers of qualified staff based on resident acuity, total number of residents, the scheduled and unscheduled needs of residents, the building's physical structure, and fire and life safety evacuation plans (OAR 411-054-0070). This section describes three aspects of staffing in AL/RC/MC. The first section describes the number of staff employed either full- or part-time, including all staff and care-related staff. Second, we calculate the ratio of staff to residents, and then we calculate staffing level using the method from the National Study of Long-Term Care Providers (Harris-Kojetin et al., 2019).

Staffing ratios and staffing levels are two common methods of calculating the number of staff relative to the number of residents. However, it is important to note that averages do not reflect the actual staff to resident ratios, staffing level, the amount of time that staff spend with residents, or the differential care needs of residents at any given AL/RC/MC community. The purpose of these calculations is to compare by setting type and over time, and to document variation by setting characteristics.

For this study, we asked administrators to count the number of staff currently employed. However, a sizable share of facilities did not respond or responded in ways that could not be used (e.g., incomplete, combined staff from multiple licenses; [see Appendix A for details](#)). A total of 317 settings reported information on the number of staff and residents. These 317 AL/RC/MC employed a total of 11,650 staff, of which 7,800 (67%) were care-related staff. For this study, care-related staff positions include registered nurses (RN), licensed professional or vocational nurses (LPN/LVN), certified nursing assistants (CNA), certified medication aides (CMA), personal care staff with no licensure or health-related certifications, social workers, and activities staff (including activity directors).

Care-related staff

Most care-related employees were personal care staff across all AL/RC/MC (82%), followed by activities staff (six percent), RNs (five percent), and CNAs (three percent)

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(Table 8). MC had a higher proportion of personal care staff (85%) compared to AL/RC (81%). It is possible that some communities employ staff who provide both personal care and other tasks, including social/recreational activities. Oregon rules define a “universal worker” as an “employee whose assignments include other tasks (for example, housekeeping, laundry, or food service) in addition to providing direct resident services” (OAR 411-054-0005).

Table 8. Share of care-related staff employed part-time and full-time, by employee categories and setting, 2020

	Part time %	Full time %	All Care Staff %	Part time %	Full time %	All Care Staff %	Part time %	Full time %	All care staff %
RN	9	4	5	9	3	4	9	4	5
LPN/LVN	2	2	2	1	2	2	2	2	2
CNA	5	3	4	4	3	3	5	3	3
CMA	2	2	2	<1	<1	<1	1	2	2
Personal care staff	76	82	81	76	87	85	76	84	82
Social workers	<1	<1	<1	1	<1	<1	<1	<1	<1
Activities directors or staff	7	6	6	8	5	6	7	6	6
Total	100	100	100	100	100	100	100	100	100

Table 9 describes the percentage of staff employed full-time and part-time within each employee category. We asked providers to report the number of currently employed care-related staff employed either full-time (35 hours per week) or part-time (17.5 hours per week). Most AL/RC/MC staff were employed at full-time capacity (81%) compared to part-time (19%). MC had a higher share of full-time employees compared to AL/RC (84% and 78%, respectively) (Table 9). Among RNs, over one-third were employed part-time. MC were more likely to employ social workers on a part-time basis compared to AL/RC.

Table 9. Percentage of full-time and part-time care-related staff within employee categories by setting, 2020

	AL/RC		MC		Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
	%	%	%	%	%	%
RN	65	35	63	37	64	36
LPN/LVN	81	19	87	13	83	17
CNA	68	32	80	20	72	28
CMA	83	17	80	20	82	18
Personal Care Staff	80	20	86	14	82	18
Social workers	94	6	17	83	75	25
Activity directors or staff	76	24	77	23	77	23
All Care-Related Staff	78	22	84	16	81	19

Note: Percentages within each staff category and setting type add up to 100%.

In contrast to Table 8 and 9, Table 10 describes the percentage of AL/RC/MC that employed at least one care-related staff person at part-time capacity, full-time capacity, and at any capacity. Of the 317 communities included in this analysis, most employed at least one personal care staff (98%) or registered nurse (94%) at any capacity. AL/RC/MC are not required to employ a nurse full-time, but they must have a licensed nurse available for phone consultation and regularly scheduled onsite visits (OAR 411-054-0045-1b). However, 69% of AL/RC and 60% of MC reported a full-time RN on staff. Only five percent of settings employed at least one social worker at any capacity. More AL/RC employed social workers and certified medication aides compared to MC. The share of AL/RC/MC employing other staff types were comparable.

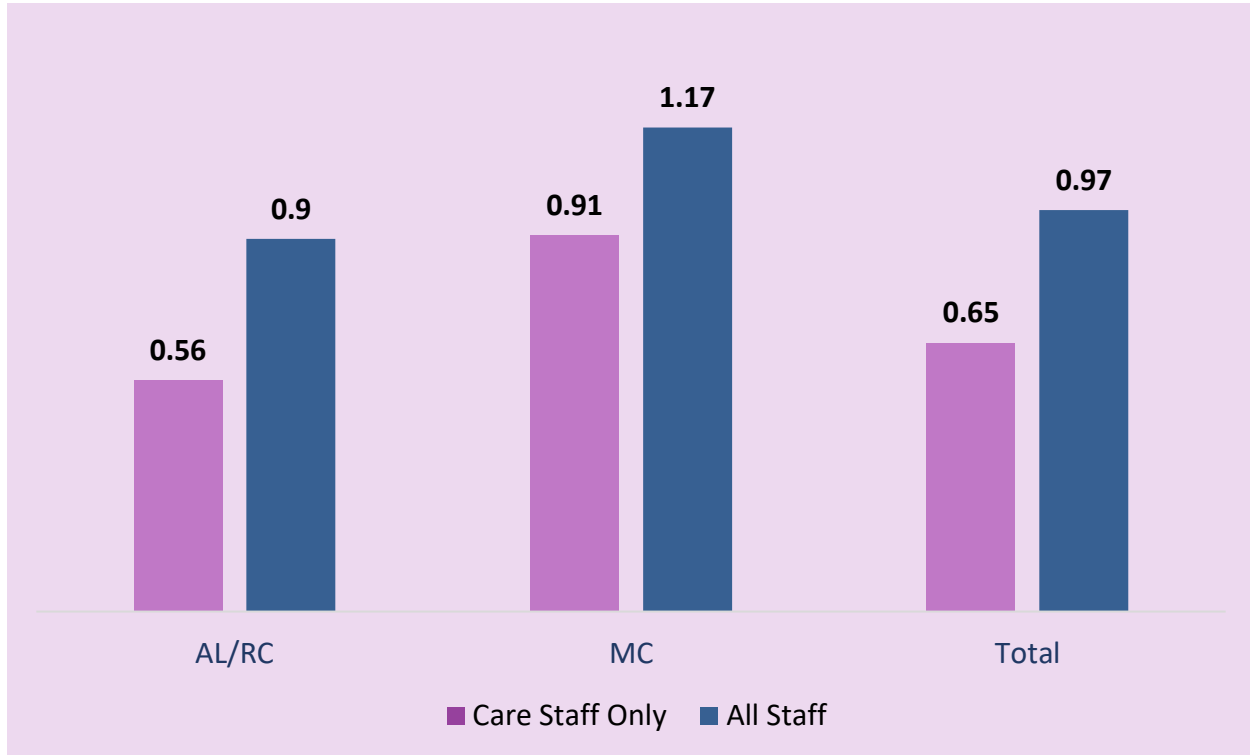
Table 10. Share of communities that employed care-related staff by employee categories, 2020

	AL/RC			MC			Total		
	PT	FT	Any	PT	FT	Any	PT	FT	Any
	%	%	%	%	%	%	%	%	%
RN	33	69	96	37	60	91	34	66	94
LPN/LVN	8	27	32	6	28	33	7	28	33
CNA	8	23	25	8	22	25	8	22	25
CMA	4	12	12	1	5	4	3	10	10
Personal care staff	64	93	98	62	96	99	63	94	98
Social workers	<1	6	6	2	1	3	1	4	5
Activity directors or staff	27	77	88	31	75	84	29	76	87

Staff to resident ratios

We calculated the ratio of all AL/RC/MC employees (n=11,650) to current residents (n=12,024). Of the 389 providers who responded to the survey, 317 completed the staffing questions. The ratio of all employees to residents is 0.97, and the ratio of care-related staff to residents is 0.65 (Figure 4). However, MC have higher staff to resident ratios. In MC, the care-staff to resident ratio is 0.91 compared to 0.56 in AL/RC. Differences between MC and AL/RC are expected, given that communities must have sufficient staff to respond to residents' scheduled and unscheduled needs (OAR 411-054-070), and MC residents have relatively higher care needs, as described in the [Personal care assistance section](#).

Figure 4. Staff to resident ratios by setting, 2020



We calculated staffing ratios by dividing the number of all staff by the number of residents from the 317 responding facilities. Table 11 below shows the distribution of this indicator by setting type. The fiftieth percentile (median) corresponds to the middle point of the distribution. For instance, half of all AL/RC had a care-related staffing ratio of 0.53 — meaning that they employed one staff member (part-time or full-time) for every two residents. On the other hand, the top 10% of AL/RC had a staffing ratio of 1.21 and higher (90th percentile) meaning that they employed six care-related staff members for every five residents.

Across all AL/RC/MC, the top tenth percentile had care staff to resident ratios 3.6 times larger than those in the bottom tenth percentile. For the top 10% of AL/RC the care staff to resident ratio was 3.6 times larger than AL/RC in the bottom 10%, while care staff to resident ratios in the top 10% of MC were 2.2 times larger than the bottom 10% of MC. As shown in Table 11 MC communities have larger staff to resident ratios compared to AL/RC settings for each percentile.

Table 11. Percentile distribution of staff ratios by setting, 2020

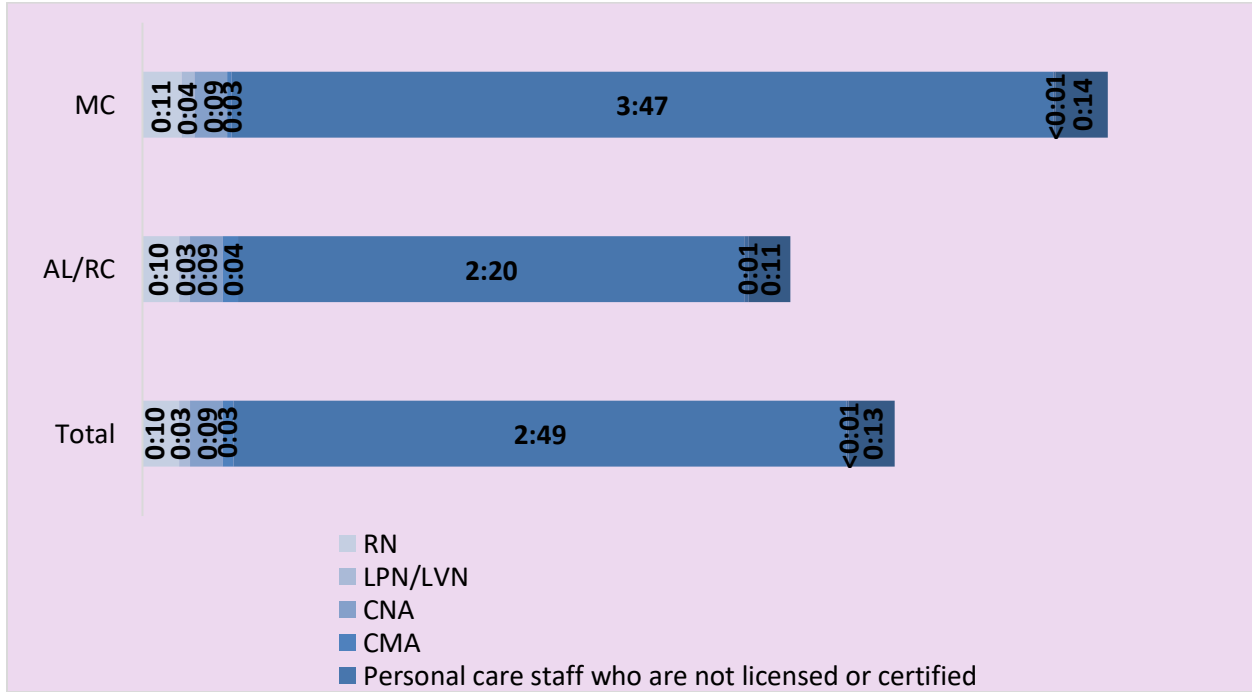
Percentile	Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
Care staff	0.34	0.41	0.53	0.83	1.21
All staff	0.61	0.69	0.85	1.15	1.63
Care staff	0.64	0.73	0.89	1.07	1.41
All staff	0.8	0.91	1.04	1.38	1.91
Care staff	0.36	0.47	0.67	0.98	1.29
All Staff	0.63	0.76	0.94	1.23	1.8

Staffing levels

Another way of understanding the availability of staff in licensed care settings is based on a method developed by the National Center for Health Statistics (NCHS) (Harris-Kojetin et al., 2016). Specifically, staffing level is calculated as the total number of hours worked by care-related employees per day (licensed nurses, CNAs, CMAs, personal care staff, social workers, and activities staff) divided by the total number of residents (see [Appendix A](#), Methods, for more details). This approach provides an estimate of staff time spent with residents rather than an actual accounting of staff time.

Figure 5 presents the average staffing levels across 317 responding AL/RC/MC. The AL/RC/MC care-related staff provide an estimated 3 hours and 28 minutes per resident per day. Personal care staff provide the majority of this care time (2 hours and 49 minutes), followed by activities staff (13 minutes), RNs (10 minutes), and CNAs (9 minutes) (Table 12). Care staff provide approximately 1.5 more care hours per resident per day in MC (4 hours and 27 minutes) compared to AL/RC (2 hours and 59 minutes). The proportion of care hours by staff type (e.g., RN) is comparable between AL/RC and MC.

Figure 5. Care hours per resident per day among care-related staff by setting, 2020



Staffing levels in any given facility vary widely. AL/RC/MC communities in the top tenth percentile have 3.75 times as many care hours per resident per day compared to the bottom tenth, and almost twice as many as the median (Table 12). AL/RC in the top tenth percentile have 3.67 times as many care hours per resident per day compared to the bottom tenth percentile and MC in the top tenth percentile have twice as many care hours as MC in the bottom tenth percentile. Possible reasons for these observed differences include residents’ care needs and preferences, staff availability (e.g., labor market), and company policies, as well as other unknown factors.

Table 12. Percentile distribution of care hours per resident per day by setting, 2020

Percentile	Bottom 10 th	Bottom 25 th	Middle	Top 25 th	Top 10 th
AL/RC	1:26	1:48	2:21	3:49	5:15
MC	3:00	3:19	3:57	4:54	6:15
Total	1:32	2:05	3:04	4:14	5:44

Note: The numbers reflect Hours:Minutes.

Human resources (HR) practices

Workplace support measures in AL/RC settings, including satisfaction with supervisors, benefits and opportunities for career advancement, training and education, flexibility in work schedule, and pay raises can increase employee satisfaction and retention (Chou, 2012; Chou, 2009). One study conceptualized human resource practices into three categories: technical, quality of work life, and high involvement, and found high involvement and quality of work life human resource practices were associated with lower nurse turnover within facilities (Rondeau & Wagar, 2016). Technical human resource practices regulate the relationship between employees and employers (e.g., orientation, performance evaluations). Quality of work life practices emphasize employee and family friendly policies (e.g., flexible scheduling, job sharing). Finally, high involvement human resources practices increase involvement and engagement among employees (e.g., merit pay, suggestion systems, attitude surveys).

This year for the first time, providers were asked whether they employ any of several human resources practices for staff listed (Table 13). The top three HR practices used were formal job evaluations, employee recognition, and employee suggestion systems, which fall into the category of high involvement HR practices as described above. In contrast, some of the quality-of-life practices, such as job sharing, flexible scheduling, and self-scheduling, were least often used.

Few differences between AL/RC and MC were observed for HR practices that were “always” used, with one exception. Among AL/RC, 35% reported using incentive based or merit pay, while 45% of MC reported doing so.

Table 13. Share of communities with human resource practices, by setting, 2020

	Always	Some times	Never	Always	Some times	Never	Always	Some times	Never
	%	%	%	%	%	%	%	%	%
Formal job evaluations	81	16	4	81	16	4	81	16	4
Employee recognition system	80	16	4	76	19	5	79	17	4
Employee suggestion system	64	30	6	68	27	5	66	29	6
Internal promotion policy	47	46	7	51	44	5	49	45	7
Employee attitude surveys	35	31	33	39	32	29	37	31	32
Incentive-based or merit pay	35	42	23	45	28	27	39	37	24
Flexible work hours	31	61	8	34	56	10	32	59	9
Job sharing	7	49	44	9	48	43	8	49	43
Self-scheduling system	3	20	77	3	16	81	3	18	78

Residents

This section describes AL/RC/MC resident characteristics including:

- Demographics,
- Move-in and move-out locations,
- Length of stay,
- Personal care assistance,
- Health conditions,
- Falls,
- Health service use, and
- Medication use.

Resident demographics

This section describes AL/RC/MC residents' age, sex, race, and ethnicity. The majority of residents were female, ages 85 and older, and White. The average age of residents was 83. Overall, these findings were similar across settings. A slightly higher share of MC residents were ages 85 and older (Table 14).

Table 14. Gender and age distribution of residents by setting, 2020

		AL/RC	MC	Total
		%	%	%
Gender				
	Male	30	29	30
	Female	70	71	70
	Transgender	<1	0	<1
Age Groups				
	18-49	<1	0	<1
	50-64	6	3	5
	65-74	15	13	15
	75-84	29	30	29
	85 and over	49	54	51

Oregon’s population is becoming more racially and ethnically diverse (Vespa et al., 2020). For example, the share of non-Hispanic White Oregonians grew from six percent in 1980 to 22% in 2015. By 2060, an estimated 44% of Oregonians will be Black, Indigenous, or people of color. In 2000, Oregon’s Latinx population was eight percent compared to approximately 13% in 2018 (Vespa et al., 2020). Examining the racial and ethnic distribution in AL/RC/MC could inform providers about unique care needs of an ethnically and culturally diverse resident population.

We asked providers to describe residents’ race and ethnicity. The greatest share was non-Hispanic White. Overall, approximately nine percent of residents were either Native American/Alaska Native, Asian, Black/African American, Native Hawaiian or other Pacific Islander, Hispanic/Latino, or multiracial (Table 15).

Table 15. Resident race/ethnicity by setting, 2020

	AL/RC %	MC %	Total %
Hispanic/Latino of any race	1	1	1
non-Hispanic	99	99	99
American Indian/Native American or Alaska Native	1	0	1
Asian	1	1	1
Black/African American	1	1	1
Native Hawaiian/Other Pacific Islander	0	0	<1
White	91	90	91
Two or more races	0	0	<1
Other or unknown	5	7	5

Note: Percentages may not add up to 100% due to rounding.

Move-in and move-out locations, and length of stay

Older adults may have difficulty transitioning to and from their current residence due to complex medical conditions, multiple medication use, cognitive issues, and the need for assistance with ADLs (American Medical Directors Association, 2010). Understanding reasons for moves between home or other CBC settings can facilitate smooth transitions, promote health, and reduce relocation stress (Phillips et al., 2017).

Tables 16 and 17 describe residents’ move-in and move-out locations in the prior 90 days. The top three prior living arrangements for AL/RC residents included home (alone or with spouse/partner), independent senior housing, and another AL/RC or nursing/skilled nursing facility. Most MC residents moved in from home, another AL/RC, or the home of a child or other relative (Table 16). A larger share of AL/RC residents moved in from their home, compared to MC residents, and fewer AL/RC residents than MC residents moved from another AL/RC.

Table 16. Move-In locations among sampled residents by setting, 2020

Location before move-In	AL/RC	MC	Total
	%	%	%
Home (alone or with spouse/partner)	45	30	41
Assisted Living/Residential Care	10	27	15
Nursing or Skilled Nursing Facility	10	8	9
Independent living apartment in senior housing	13	5	11
Home of child or other relative	6	11	7
Memory care community	1	6	2
Adult foster care	3	3	3
Don’t know	7	9	8
Other	4	1	3

Note: Hospital was inadvertently not included as a category on the questionnaires, but 21 providers noted “hospital” (acute care and psychiatric) specifically in the “Other” category.

The most frequently reported reason a resident left an AL/RC/MC in the prior 90 days was death (62%). A larger share of MC residents left due to death compared to AL/RC residents. Overall, nine percent or fewer residents moved out to any other location (Table 17).

Table 17. Move-out locations of recent move-outs in the prior 90 days, 2020

	AL/RC	MC	Total
	%	%	%
Resident died	54	79	62
Memory care community	9	8	9
Nursing or skilled nursing facility	9	2	7
Assisted living/residential care	8	3	6
Home (alone or with spouse/partner)	5	1	4
Adult foster care	5	2	4
Home of child or other relative	4	2	3
Hospital	2	2	2
Independent living apartment in senior housing	3	<1	2
Other	1	1	1
Don't know	1	<1	<1

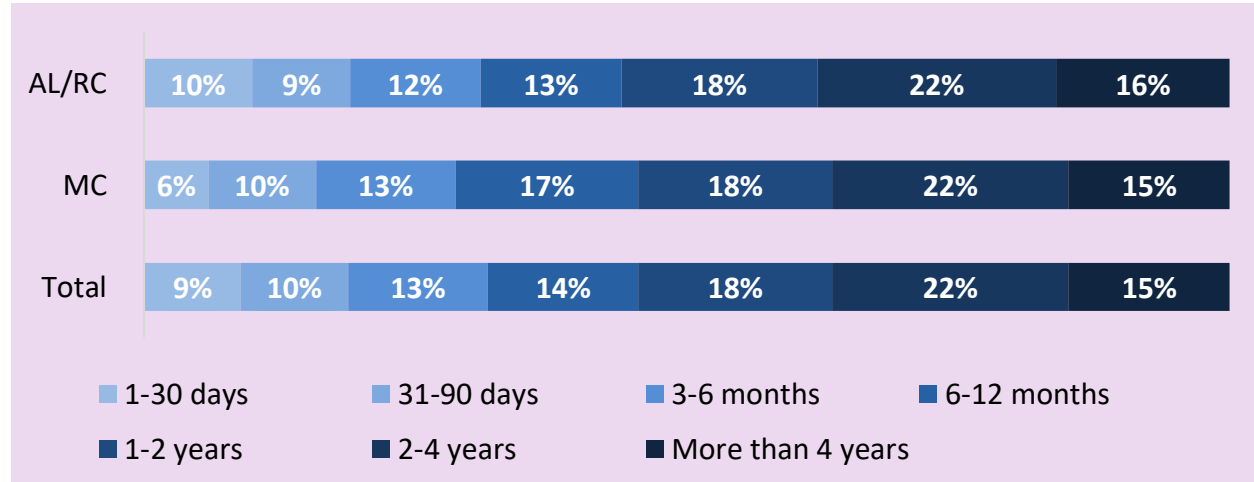
Note: This question was included only in the “Facility Questionnaire” ([see Appendix D](#)).

Length of stay among residents who moved

Most AL/RC/MC residents prefer to remain in their facility for as long as possible (Ball et al., 2014; Chapin et al., 2001). However, residents might move for a variety of personal reasons such as the desire to be closer to family, availability of amenities or activities, or for financial reasons. In addition, providers may ask a resident to move if their care needs exceed the level provided by the AL/RC/MC, for inability to pay, and for other reasons described in the Oregon rules (OAR 411-054-0080). At the same time, resident turnover can be costly to providers because of lost rent, renovation costs, and administrative or legal costs associated with rental leases.

The facility questionnaire asked about all residents who moved out in the prior 90 days. Overall, 46% of residents who recently moved out or died had stayed for one year or less, 40% stayed between one and four years, and 15% stayed for more than four years (Figure 6). Nearly one in five residents who recently moved stayed for 90 days or less.

Figure 6. Length of stay among residents who moved out by setting, 2020

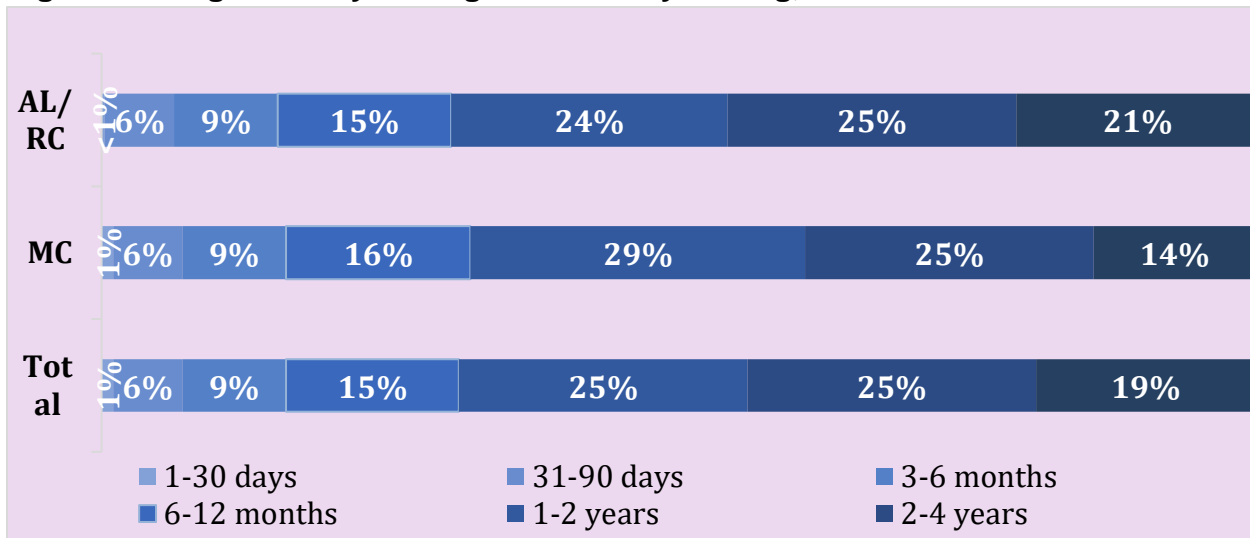


Note: These figures are based on the facility questionnaire ([see Appendix D](#)), which asked about all residents who left in the last 90 days.

The resident questionnaire asked about the move-in dates of three sampled residents and calculated their length of stay based on the study date (Figure 7). While similar to the facility questionnaire, the two might not be directly comparable because the latter is based on all residents who moved out, and the resident questionnaire is based on three current residents (e.g., who have not moved out).

Approximately 30% of current residents had a length of stay of 12 months or less at the time questionnaires were completed. One-quarter of residents had lived in their AL/RC/MC for one to two years or two to four years, and 19% had stayed more than four years. A smaller share of MC residents had lengths of stay longer than four years compared to AL/RC residents. This finding could be due, in part, to a larger number of recently opened MC compared to AL/RC facilities, and to the higher mortality rate among people with dementia (Kramarow & Tejada-Vera, 2019).

Figure 7. Length of stay among residents by setting, 2020



Personal care assistance

Studies have found that an individual’s ability to manage their own activities of daily living (ADLs), such as eating, dressing, bathing/grooming, using the bathroom, and walking/mobility, is an important predictor of falls risk and hospitalization (Jia et al., 2019). Many residents move to AL/RC/MC because they need assistance with ADLs and other personal care needs.

Overall, 67% of AL/RC/MC residents received regular and ongoing staff assistance with bathing and grooming, though the share of residents receiving assistance differed by setting type. For instance, MC residents were more likely to receive such assistance compared to AL/RC residents (92% and 57% respectively), and a larger share of MC residents received assistance with dressing (81%) than AL/RC residents (42%).

A recent national study of AL/RC with four or more units (including AFHs with four or more residents) found that 64% of residents needed assistance with bathing, dressing (48%), toileting, (40%), and eating (19%) (Caffrey & Sengupta, 2018).

Figure 8 describes the percentage of AL/RC/MC residents who received regular and ongoing staff assistance with at least one of five ADLs.

Figure 8. Percent of residents who receive regular and ongoing staff assistance with personal care, 2020

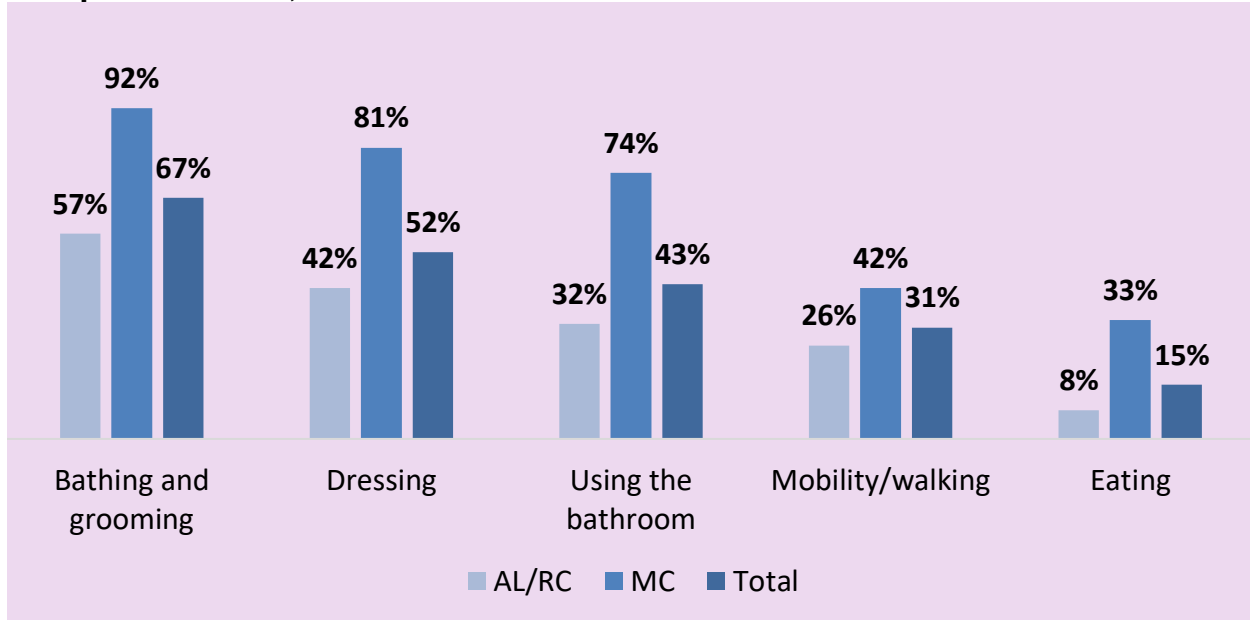
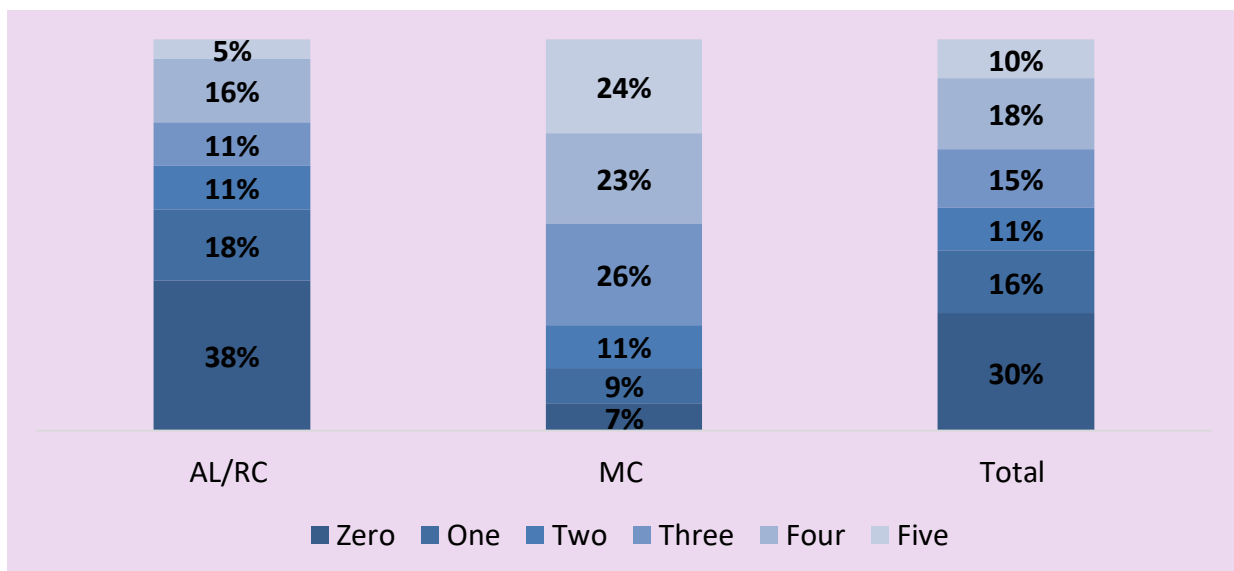


Figure 9 describes the share of residents who received assistance by number of ADLs, from 0 to 5. As expected, MC residents were more likely to receive assistance with ADLs compared to AL/RC residents. The share of MC residents who received assistance with all five ADLs was nearly five times the share of AL/RC residents who received this level of care (Table 24). Notably, over one-third of AL/RC residents did not currently receive any staff assistance with ADLs.

Figure 9. Residents by number of ADLs for which they receive staff assistance 2020



Incontinence. Research suggests that incontinence care can emphasize dignity, compassion, and empathy to promote residents' independence, autonomy, and control (Ostaszkiwicz, 2017). Assessment and management of incontinence that centers on the resident, educates staff, and sustains appropriate supplies can positively affect both residents and staff by providing residents with more restful sleep, increased participation in activities, improved quality of life and satisfaction, fewer bedding and clothing changes, and reduced risk of stress and agitation (Sayabalian et al., 2019).

There were large differences between AL/RC and MC residents' need for assistance with incontinence care. Most MC residents received some type of incontinence care (74%) compared to AL/RC residents (36%). A similar proportion of residents received assistance with urine only care (17% in AL/RC and 15% in MC) and bowel only care (one percent in both AL/RC and MC), while a much larger share of MC residents received assistance with both urine and bowel care (57%) compared to AL/RC residents (19%).

Night-Time Care. Providers were asked whether residents regularly received staff assistance during the night. Just under half of residents (46%) reportedly received regular assistance from staff during the night. A much larger share of MC residents (75%) received regular night-time assistance compared to AL/RC residents (36%).

Mobility Aid and Staff Assistance with Using Mobility Aids. Over three quarters of residents (77%) used a mobility aid, such as a cane, walker or wheelchair to get around. The share of residents who used such an aid was higher in AL/RC compared to MC (82% and 64% respectively). Some residents who used a mobility aid received staff assistance to do so. Among residents who used an aid, 36% received staff assistance, and the share who received this assistance was higher in MC compared to AL/RC (58% and 29%, respectively).

Two-Person Staff Assistance. Some residents may receive assistance from two staff persons for certain personal care tasks such as toileting or transferring from a wheelchair to a bed, or because of cognitive health needs. Among these residents, 23% regularly received assistance for physical or cognitive health needs from two staff. A larger share of MC residents received this type of assistance (36%) compared to 18% of AL/RC residents.

Personal Care Aides. Residents of AL/RC/MC may employ personal care aides in addition to community staff to provide assistance, supervision, or companionship. Providers reported that about 12% of all residents regularly received care or

companionship from an outside care aide. A slightly larger share of MC residents (16%) did so when compared to AL/RC residents (11%).

Assistance with Behavioral Symptoms. One recent study estimated that 34% of cognitively healthy older adults experience mild behavioral impairment, such as apathy, decreased motivation, and irritability (Mortby et al., 2018). Nearly all individuals with dementia and cognitive impairment experience these and other neuropsychiatric or behavioral symptoms, including depression, anxiety, agitation, and sleeplessness (Lyketsos, 2002). Other studies have estimated about 34% to 38% of AL/RC residents express at least one behavioral symptom (Gruber-Baldini et al., 2004; Zimmerman et al., 2014). These symptoms might also be associated with diseases or conditions such as mental illness, stroke, and Parkinson’s disease, among others. Individuals with these symptoms often need staff assistance.

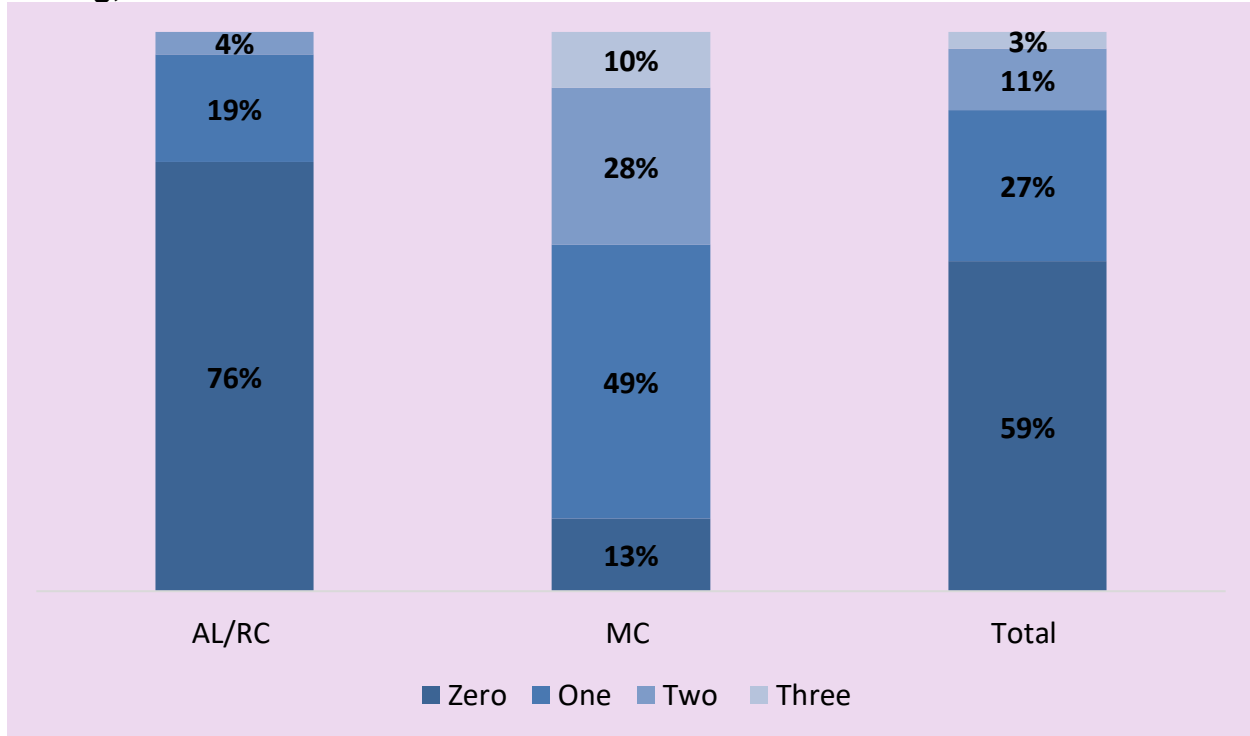
In this study, we asked about three specific behavioral symptoms described in Table 18. The most frequently reported behavioral symptom for which residents received staff assistance was lack of awareness of safety, decision making, or ability to orient to surroundings. However, more MC residents received staff assistance with all behavioral symptoms compared to AL/RC residents. The majority of MC residents received staff assistance due to lack of awareness, and far more MC residents received assistance due to wandering or because they were considered a danger to themselves or others compared to AL/RC residents (Table 18).

Table 18. Percent of residents who receive staff assistance for behavioral symptoms by setting, 2020

	AL/RC	MC	Total
	%	%	%
Lack of awareness of safety, judgement, and decision making, or ability to orient to surroundings	23	87	40
Wandering	2	30	10
Danger to self or others	3	19	7

Figure 10 describes the share of residents who exhibited one or more of the behavioral symptoms described above. As expected, a larger share of MC residents, compared to AL/RC residents, exhibit one or more of these behavioral symptoms, and 10% of MC residents exhibited all three symptoms, compared to less than one percent of AL/RC residents.

Figure 10. Distribution of number of behavioral symptoms among residents by setting, 2020

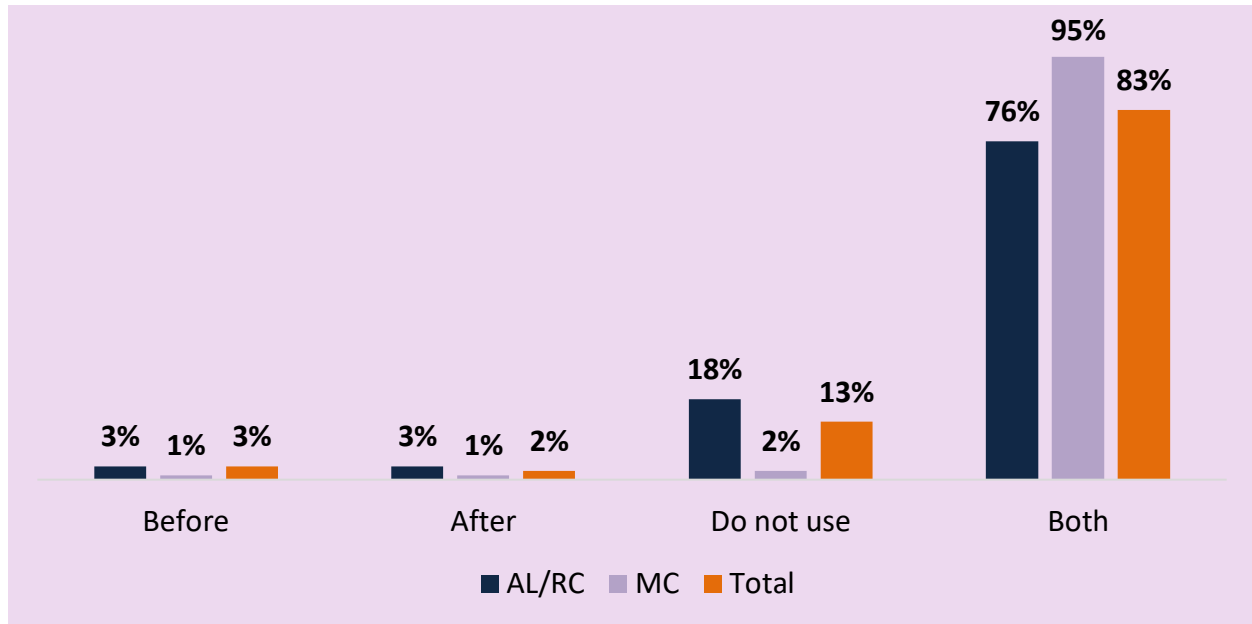


Oregon rules require AL/RC/MC to use nonpharmacological interventions for persons with dementia or behavioral expressions (OAR 411-054-0055-06). Nonpharmacological interventions include sensory, psychosocial, and structured care therapies such as aromatherapy, light therapy, meaningful activities, or resident-specific bathing protocols. These interventions can be used before (prevention) and after (treatment) a resident displays a behavior (Scales et al., 2018). Research and clinical guidelines suggest nonpharmacological approaches as the first line of response to managing behavioral expressions or neuropsychiatric symptoms in older adults with dementia, in an effort to identify underlying causes, practice individualized care, and avoid adverse risks associated with medications (Chang, 2020; Dyer et al., 2018; Kales et al., 2019). However, if an individual experiences behavioral symptoms due to psychosis or serious mental illness, presents a danger to themselves or others, or experiences persistent, inconsolable distress, and non-pharmacologic therapy is not successful, the use of medication is warranted (Alzheimer’s Association, 2020; Gerlach & Kales, 2018). People living with dementia rely on their family and care providers to make decisions about the use of medications for behavioral symptoms.

Most AL/RC/MC reported using nonpharmacologic interventions for both prevention and treatment of behavioral expressions. Only 13% of responding communities do not usually use these types of practices with their residents. A much larger share of MC

reported using these practices compared to AL/RC (Figure 11). This is unsurprising given the distribution of behavioral expressions among residents in MC compared to AL/RC (Figure 10).

Figure 11. Use of Nonpharmacologic Interventions for Persons with Dementia or Behavioral Expressions, 2020



Health conditions

Table 19 below lists the percentage of Oregon AL/RC/MC residents who were diagnosed with common chronic health conditions. The five most prevalent health conditions listed include: hypertension, Alzheimer’s disease and related dementias (ADRD), heart disease, depression, and arthritis. Where available, we report national and Oregon-specific data for these health conditions.

High blood pressure/hypertension. The chance of having high blood pressure increases with age. Older adults have the highest prevalence of hypertension of any age group, yet they are frequently undertreated for this disease (Agarwala et al., 2020). Nationally, about 61% of adults 65 and older, and 55% of Oregonians in this age group have been diagnosed with arthritis (United Health Foundation, 2019). The share of AL/RC/MC residents with hypertension is slightly higher than the national average (63%). A larger share of AL/RC (64%) than MC (59%) residents were diagnosed with this condition.

Alzheimer’s Disease and related dementias (ADRD). Alzheimer’s disease is the sixth leading cause of death in the United States. As the number of older adults ages 65 and older continues to grow, the share of those diagnosed with ADRD will increase. ADRD risk increases with age. In the United States, three percent of people ages 65 to 74, 17% of people ages 75-84, and 32% of people ages 85 and over have an ADRD diagnosis (Alzheimer’s Association, 2020). However, estimates are considered low because a substantial number of those who would meet the diagnostic criteria for ADRD are not diagnosed by a physician. Among AL/RC residents in the U.S., estimates indicate that 40% to 72% have ADRD or are cognitively impaired (Zimmerman et al., 2014) and that 42% had an ADRD diagnosis (Harris-Kojetin, 2016). Furthermore, fewer than half of Medicare beneficiaries with a recorded diagnosis report being told of the diagnosis (Alzheimer’s Association, 2020). Overall, 49% of AL/RC/MC residents were diagnosed with ADRD. Not surprisingly, fewer AL/RC (31%), than MC (99%) residents were diagnosed with this disease.

Heart disease. Age is an independent risk factor for heart disease. Nationally, approximately 11% of adults ages 65 and older, and 12% of Oregonians in this age group were diagnosed with heart disease (United Health Foundation, 2019). The share of residents in AL/RC/MC communities (39%) with this diagnosis was higher than the national and state averages, and more AL/RC (41%) than MC (34%) residents were diagnosed with this disease.

Depression. Risk factors for depression among older adults include certain medication use, experiencing loss, lack of social support, heavy alcohol consumption, and chronic illnesses. Nationally, 16% of adults ages 65 and older reported being told by a health professional they have a depressive disorder. In Oregon, approximately 19% of adults ages 65 and older reported being told by a healthcare professional they have a depressive disorder (United Health Foundation, 2019). The share of residents in AL/RC/MC (38%) is higher than national and state averages, and more residents in AL/RC (39%) than in MC (36%) experienced depression.

Arthritis. Arthritis is prevalent among older adults and is associated with chronic pain and activity limitations (CDC, 2020). Nationally, approximately 53% of adults ages 65 and older reported having been diagnosed with some type of arthritis, and recent research suggests that this may be underestimated. In Oregon, 48% of adults ages 65 and older have an arthritis diagnosis (United Health Foundation, 2019). In AL/RC/MC, 27% of residents had this diagnosis. A larger share of AL/RC (31%) than MC residents (15%) were diagnosed with this condition. However, since communicating pain becomes difficult for people with late-stage dementia (Alzheimer’s Association, 2020), it

is possible that arthritis is underdiagnosed in MC residents unable to describe their pain-related arthritis symptoms.

Table 19. Resident health conditions by setting, 2020

	AL/RC	MC	Total
	%	%	%
High blood pressure/hypertension	64	59	63
Alzheimer’s Disease and other dementias	31	99	49
Heart disease	41	34	39
Depression	39	36	38
Arthritis	31	15	27
Diabetes	23	16	21
Osteoporosis	20	17	19
COPD and allied conditions	17	9	15
Stroke	12	9	12
Cancer	12	10	11
Serious mental illness	11	5	9
Drug and/or alcohol abuse	7	6	7
Traumatic brain injury	2	2	2

Significant change in condition

Oregon AL/RC administrative rules define a significant change in condition as a major deviation from the most recent evaluation, is long-term, affects functioning, and imposes a significant risk to the resident. Some examples include broken bones, acute illness or condition onset, uncontrolled pain, and fast decline in ADLs (OAR 411-054-0005).

Overall, 10% of all residents reportedly had a significant change in condition. A slightly larger share of MC residents (13%) compared to AL/RC residents (9%) had a significant change in condition.

Falls & fall-related injuries

Falls are common among adults ages 65 and older and are a leading cause of injury and injury-related death (Ashman et al., 2020). Common causes include mobility limitations, balance issues, and frailty (Oregon Health Authority, 2020). Nationally, approximately 30% of adults ages 65 and older fall each year, and approximately 25%

of those falls result in an injury (Ashman et al., 2020). In Oregon, a slightly lower percentage of adults ages 65 and older fell (27%) compared to the national average (America’s Health Rankings, 2020). Recent analysis of data reported by the National Center for Health Statistics (NCHS) indicates that unintentional falls accounted for 13% of emergency department (ED) visits made by people ages 60 and over, and this percentage increased with age. Preventing resident falls is a policy goal in Oregon (ODHS, Office of Safety, Oversight, and Quality, 2020), and among AL/RC professionals nationally (National Center for Assisted Living, 2020).

Table 20 describes fall-related injuries, and fall-related injuries that resulted in a hospital visit. The share of AL/RC and MC residents who had a fall with an injury was 18%. Among those residents who had a fall with an injury, just over one-third had a hospital visit due to the fall.

Table 20. Fall-related injuries & hospitalizations, 2020

	AL/RC	MC	Total
	%	%	%
Fall resulting in some kind of injury	17	21	18
Falls resulting in a hospital visit among people who had a fall that resulted in an injury	35	39	36

Health service use

Older adults might be hospitalized due to injuries, complications due to health conditions, or other illness. Nationally, in 2016, approximately 14% of RC residents had an emergency department (ED) visit, and eight percent of residents who went to the ED had an overnight hospital stay (Caffrey & Sengupta, 2018). For older adults in the U.S., ED visit rates increase with age, from 34 visits per 100 persons aged 60–69, to 86 visits per 100 persons aged 90 and over. In addition, 25% of ED visits among people aged 60 and over resulted in a hospital admission, and this percentage increased with age (Ashman et al., 2020). AL/RC/MC operators often coordinate medical care services, such as medication changes, treatments, and third-party services such as physical or occupational therapy when a resident returns from a hospital stay. In addition, Oregon rules permit residents to receive hospice services (411-054-0030).

Among AL/RC/MC residents, 19% were treated in an ED and 10% were hospitalized overnight in the prior 90 days. AL/RC residents had more ED visits, overnight hospitalizations, and 30-day rehospitalizations compared to MC residents.

Hospice care may be provided to AL/RC/MC residents who qualify for this service through their medical insurance. Based on a national study of Medicare claims, Oregon ranks second in the U.S. for the share of residents that remain in their AL/RC/MC in the last month of life, with an average of 12.1 days on hospice within the last month of life for Oregon residents, compared to 8.6 days nationally (Thomas et al., 2020).

Table 21 describes the share of AL/RC/MC residents who received hospice services in the prior 90 days. A larger share of MC residents compared to AL/RC residents used such services in the prior 90 days.

Table 21. Health service use among residents in the last 90 days, 2020

	AL/RC %	MC %	Total %
Treated in the hospital ED	20	15	19
Hospitalized overnight	11	5	10
30-day rehospitalization	17	14	16
Receiving hospice	5	14	8

Note: 30-day rehospitalization estimates are only among those residents hospitalized overnight in the last 90 days.

Providers were asked if residents received services in the AL/RC/MC from any of several types of healthcare professionals (Table 22). Of the healthcare providers listed, medical doctors were most likely to provide services to residents onsite. There were no differences in healthcare professionals or staff providing services onsite between AL/RC and MC. Overall, these rates indicate that if residents receive such services, it likely takes place off-site.

Table 22. Healthcare professionals and staff providing services onsite by setting, 2020

	AL/RC		MC		Total	
	Yes	No	Yes	No	Yes	No
	%	%	%	%	%	%
Medical doctor	22	78	17	83	79	21
Mental health provider	4	96	2	98	3	97
Dentist	2	98	1	99	2	98
Dental hygienist	1	99	0	100	1	99

Note: The look-back period for healthcare use was “in the last seven days.”

Medication use

Assistance with medications and treatments. Oregon licensing regulations specify standards for medication and treatment administration, records, administration storage, and resident self-administration (OAR 411-054-0055). Most AL/RC/MC residents received staff assistance to take oral medications (Table 23). A larger share of MC residents received assistance taking oral medications, compared to AL/RC residents. Some residents prefer to manage their own medications and may do so after being assessed by their physician. Not surprisingly, AL/RC residents were more likely to self-administer their medications, compared to MC residents (Table 23).

Table 23. Medication assistance and use by setting, 2020

	AL/RC	MC	Total
	%	%	%
Receive staff assistance to take oral medications	73	96	79
Self-administer most of their medications	18	1	13
Take 9 or more medications	55	49	53
Take 1-8 medications	43	50	45

Taking multiple medications is common among older adults but can result in side effects and medication-induced symptoms for some individuals (Gurwitz, Kapoor, & Rochon, 2018). Administering multiple medications to residents can be challenging for health providers, administrators, and care staff (Ball et al., 2014; Ryder et al., 2009; Sikma et al.,

2014). Further, research shows that the use of multiple pharmacies to deliver medications can introduce errors (Coleman et al., 2006; Young et al., 2013). Based on the 2016 CBC study, 15% of AL/RC/MC communities used more than five pharmacies (Carder et al., 2016). Just over half of AL/RC/MC residents take 9 or more medications. This rate was slightly higher among AL/RC residents compared to MC residents (Table 33).

Dementia-specific medications. The U.S. Food and Drug Administration currently approves a few medications to treat individuals at various stages of Alzheimer's disease. For mild to moderate Alzheimer's, there are three cholinesterase inhibitors (galantamine, rivastigmine, and donepezil) that treat symptoms related to memory, judgment, and other thought processes (Alzheimer's Association, 2019). For moderate to severe Alzheimer's disease, memantine has been found to improve memory, attention, reason, language and the ability to perform simple tasks (Folch et al., 2018; National Institute of Aging, 2018). However, these medications do not treat some of the behavioral symptoms that people living with dementia and their caregivers find to be most troublesome, including verbally disruptive behavior, agitation, delusions, and irritability, among others (Alzheimer's Association, 2020).

Of all residents with diagnosed ADRD, 35% took a dementia-specific medication regardless of setting type. This finding mirrors a 2009 nationally representative study of Medicare beneficiaries in the U.S. estimating that 35.3% of RC residents diagnosed with dementia were prescribed a cholinesterase inhibitor or memantine (Koller et al., 2016).

In addition to dementia-specific medications, the questionnaire asked about the use of antipsychotic medications and opioids, two medications that have both public health policy and clinical care implications. Either of these medications may be prescribed for use on a scheduled, or routine basis and on an as-needed (or PRN) basis. The latter is used to treat an individual's sudden or escalating symptoms.

Antipsychotic medications. Psychotropic medications are designed to act on the central nervous system and include benzodiazepines, hypnotics, sedatives, antidepressants, and antipsychotic medications. These types of medications are sometimes prescribed to manage behavioral symptoms associated with dementia or cognitive impairment. Policy makers and providers have focused on the risks of antipsychotic medications because their use in older adults with dementia has been associated with an increased risk of adverse effects including mortality (Calsolaro et al., 2019; Maust et al., 2015; Tampi et al., 2016). However, these risks should be considered in the context of the individual receiving medication, frailty status, type of antipsychotic used, and nonpharmacological intervention use (Kales et al., 2012; Stock et al., 2017; Tampi et al., 2016). "Off-label use" occurs when a physician prescribes

antipsychotic or other psychotropic medications for reasons not approved by the FDA, (Alzheimer’s Association, 2020).

Three-quarters of AL/RC/MC residents did not receive an antipsychotic medication in the prior seven days (Table 24). Of the 25% who did receive an antipsychotic medication, most received this medication on a scheduled (or routine) basis. Notably, the share of MC residents who receive antipsychotic medications is more than double that of AL/RC residents (47%, and 18%, respectively). While the major share of residents who receive antipsychotics received them on a scheduled basis, the use of as-needed antipsychotics was more common among MC residents.

Opioid medications. Identifying, assessing, and managing chronic pain among older adults with and without cognitive impairment presents significant challenges for health providers (Arnstein & Herr, 2017). Similar to psychotropic medication, opioid medications are considered a secondary or tertiary response to pain management in older adults because associated risks may outweigh potential benefits (Davies, 2017).

Most residents did not receive opioid medication in the last seven days (Table 24). Of the 22% of residents who did receive an opioid medication, nearly half received the medication on a scheduled basis. In contrast to antipsychotic medication use, opioid use in the prior seven days was comparable across setting types.

Table 24. Antipsychotic & opioid administration among residents by setting 2020

	AL/RC		MC		Total	
	Anti- psychotic	Opioid	Anti- psychotic	Opioid	Anti- psychotic	Opioid
	%	%	%	%	%	%
Do not receive	83	79	53	77	75	78
Only as scheduled/routine	15	9	37	10	21	10
Only as needed/PRN	1	8	3	9	1	8
Both scheduled and PRN	2	4	7	4	3	4

Conclusion

This report describes findings based on AL/RC/MC settings that responded to Oregon Department of Human Services, Office of Aging and People with Disabilities -sponsored studies. To conclude this report, we discuss the following topics that deserve additional attention: length of stay and move-out locations, nurse staffing, and differences between memory care (MC) and assisted living/residential care (AL/RC) settings specific to assistance with personal care, medication use, hospice use, staffing level and costs of care.

The 550 AL/RC/MC communities in Oregon currently have an estimated 22,340 residents. The study findings are based on the 14,630 residents in the 388 facilities that completed the resident questionnaires. The majority of residents were White, though nine percent were reported to be a race other than White (including Asian, Black or African American, American Indian/Native American or Alaska Native, or Native Hawaiian/or other Pacific Islander).

The facility questionnaire collects aggregate information about current residents, with some questions asked about residents who moved out or services received by residents in the prior 90 days. Among the facilities that responded, 36% of residents lived in a MC unit. Of AL/RC/MC residents who moved out in the prior 90 days, 62% died, and a larger share of MC died (79%) compared to AL/RC residents (54%).

The majority (94%) of AL/RC/MC employed RNs, although the state's rules permit facilities to contract with rather than employ licensed nurses (OAR 411-054-0070). Most employ RNs on a full-time basis (66%), with a higher share of AL/RC doing so (69%) compared to MC (60%).

Comparing AL/RC and MC residents

While it is not surprising that residents in AL/RC settings differ on some measures compared to MC residents, it is useful to understand the nature of the differences. It is also important to note that nearly one-third (31%) of AL/RC residents have a diagnosis of Alzheimer's disease and that this and other forms of dementia are under-diagnosed by physicians. Thus, AL/RC settings continue to be an important setting for people with dementia and other forms of cognitive impairment.

A larger share of MC residents, compared to AL/RC residents, received personal care assistance, behavioral supports, nighttime care, and two-person staff assistance, and a

larger share of MC residents experienced incontinence, were administered antipsychotic medications, and received hospice care. For example, the share of MC residents who received assistance with all five ADLs was nearly five times the share of AL/RC residents who received this level of care, and just over one-third of AL/RC residents did not currently receive any staff support with ADLs.

AL/RC and MC also differ in terms of the use of antipsychotic medications, which is a quality metric in Oregon. A much larger share of MC residents receives antipsychotic medications compared to AL/RC residents (47% and 18%, respectively). In contrast, the rate of opioid medication use was similar across setting types, at 22%. While we cannot know from this study the specific reasons for these findings, studies indicate that assessing and managing pain is complex, especially among individuals with cognitive impairment. For example, pain can be the source of behavioral expressions among some people living with dementia.

The two staffing measures used in this study found that staffing ratios and staffing levels differed in MC compared to AL/RC. Specifically, among the 317 responding providers, MC had higher staff to resident ratios, at 1.17 compared to .90 in AL/RC, and the staffing level in MC is 1.5 hours per resident per day higher in MC compared to AL/RC. Of note was the marked variation in staffing ratios and levels as described in Tables 13 and 14. For example, AL/RC/MC in the top tenth percentile had care staff to resident ratios 3.58 times larger than those in the bottom tenth percentile. Similarly, AL/RC/MC in the top tenth percentile had 3.75 times as many care hours per resident per day compared to the bottom tenth. This pattern was true for MC compared to AL/RC settings. These variations might be due to a variety of factors, such as residents' care needs and preferences, staff availability (e.g., labor market), company policies, or other reasons.

In addition to the care-related and staffing differences between AL/RC and MC settings, there was variation in the monthly charges for MC versus AL/RC. The average total monthly charge for MC was about \$1,835 more than the AL/RC average. A year-long stay in MC based on the average total monthly charge would amount to \$79,512, which is about \$22,000 more than the average annual charge for AL/RC, at \$57,492.

Trends (2016-2020)

One goal of this ongoing study is to examine data over time to identify trends, including stability as well as changes in resident and facility characteristics. We present trends of selected characteristics that represent a snapshot of AL/RC/MC resident population demographics, personal care needs, medication use, adverse events, and health services use (see Figure B1 in [Appendix B](#)). Oregon's AL/RC/MC resident population

has remained relatively stable over time. This remains true for both AL/RC and MC resident populations separately (Figures B2 and B3). Minor differences from year to year may be explained by individual questions that changed slightly between survey years or differences in community- and resident-level samples. Please refer to the Trends (2016-2020) section in [Appendix A](#) for additional discussion on these differences.

New topics

Non-pharmacological interventions. AL/RC/MC providers might use a variety of non-pharmacological treatments to prevent and/or respond to residents' behavioral expressions such as agitation, verbal disruptions, or pacing. Examples include sensory, psychosocial, and structured care therapies such as aromatherapy, light therapy, meaningful activities, or resident-specific bathing protocols. Not surprisingly, a much larger share of MC settings use non-pharmacological interventions compared to AL/RC.

Human resources practices. Staff training and staff retention are important to providers and to policymakers. Nine HR practices associated with staff satisfaction and retention were included in the study. Of these, three HR practices were “always” used by at least 60% of facilities: formal job evaluations, employee recognition, and employee suggestion systems. All 9 of the HR practices were used by at least some AL/RC/MC.

Medications for treating dementia. As expected, a higher share of MC residents (36%) took a dementia-specific medication (as described on page 41) compared to 14% of AL/RC residents. However, the share of residents diagnosed with dementia who took this medication type was the same.

Opioid medication use. As mentioned above, opioid medications were received by about 22% of all AL/RC/MC residents.

Personal care aides. Residents may employ personal care aides outside of facility staff to assist with a variety of social, personal and health related activities. Slightly more MC residents hired personal care aides (16%) compared to AL/RC residents (11%).

Conclusion

In sum, AL/RC/MC communities and residents vary in many and important ways. While this report mainly focuses on resident and community characteristics and compares AL/RC and MC communities, there remain other comparisons of interest. The IOA/PSU plans future research to compare urban and rural communities, residents who pay using private resources versus Medicaid, and by other resident characteristics (for example, short stay versus long stay). To understand resident experiences, future research could include interviews with current residents as well as research with individuals and their families who might be considering a move to an AL/RC/MC. Such research could inform us about risk factors as well as barriers to access for specific groups, such as racial or ethnic minorities, people with low or modest incomes, and people living in rural communities. In addition, interviews with residents could provide information about quality, satisfaction, and person-directed care that the current facility-level questionnaires do not permit.

Oregon rules define five quality metrics that providers must report annually to ODHS (Department of Human Services, Office of Aging and People with Disabilities, 2020). Two of those metrics are addressed in this study: use of antipsychotic medications and resident falls with injury. Although not all facilities completed this study, the information reported here can be compared to the quality metrics communities report to ODHS. Finally, we recognize the significant challenges that the COVID-19 pandemic has presented to AL/RC/MC communities, including the residents, their families, staff, and management. To make matters worse, Oregon's 2020 wildfire event exposed these communities to real danger, evacuation, and hazardous smoke. These events have a disproportionate burden on AL/RC/MC and other long-term service and support providers, who have demonstrated resilience under these tremendous circumstances. The IOA/PSU team extends our appreciation for the hard work done by community staff and stakeholders as well as our sympathies to those most negatively impacted by these statewide tragedies.

Appendix A: Methods

This is the sixth annual study of community-based care settings conducted by the Institute on Aging at PSU. As in previous years (see the 2015-2019 reports), study methods and content of questionnaires used in the study were developed in partnership with stakeholders from the following agencies:

- Oregon Department of Human Services, Division of Aging and People with Disabilities
- Oregon Health Care Association (OHCA)
- Leading Age Oregon
- Oregon Assisted Living, Residential Care, and Memory Care Providers

Study population

The total population for both studies included all 550 assisted living (AL), residential care (RC), and memory care (MC) communities in Oregon that were licensed as of fall 2019. Of 550 AL/RC, 209 held a memory care endorsement. Because MC receive an endorsement to offer memory care in addition to their AL or RC license, there are two types of MC communities: stand-alone or combination. Stand-alone MC offer solely memory care. Combination MC offer memory care units as well as additional AL or RC units under their primary licensure type (AL or RC). For example, a combination type MC community can be licensed to provide 50 RC units and receive an endorsement for 20 memory care units.

For the purpose of data collection, we asked combination facilities to complete two separate 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 eligible cases (n=587) were greater than the total number of licensed facilities (n=550). Overall, this strategy allowed us to separate data from MC communities when there are multiple license types (e.g., AL and MC, RC and MC) associated with the same license number.

Data collection instruments

Each of the 587 eligible facility/cases received one facility questionnaire, three resident questionnaires, and a sampling tool. The sampling tool is designed to guide respondents to randomly select three of their current residents from their facility roster.

Details about the development of this tool and the sampling strategy can be found in the 2019 report.

Facility questionnaire. Questionnaire topics for facility-level study included resident demographics (gender, race/ethnicity, age) and primary payment method, move-in and move-out information, staffing (e.g., number and type of care-related staff), human resource practices, community policies regarding psychosocial and environmental practices, and additional services and fees. We also asked providers a few open-ended questions about the most common types of one-time and ongoing fees that communities charged to private pay residents (see attached questionnaire [in Appendix D](#)).

To support providers and decrease response burden, PSU sent a tracking tool in October 2019 to assist in collecting relevant data three months prior to receiving the questionnaire. The tool was offered as an option to log residents' move-out dates and locations for a 90-day period.

Resident questionnaires. All licensed AL/RC facilities were sent three questionnaires and a sampling tool to select and report about three of their randomly selected residents (see attached questionnaire in [Appendix E](#)). Similar to the resident questionnaire described in the 2019 report, topics included resident demographics (gender, age, race/ethnicity), move-in characteristics (month/year, residence prior to move-in), resident health and service use (e.g., hospital emergency room visit, hospice care), information about recent falls with injury, staff assistance with ADLs and behavioral symptoms, resident conditions (e.g., heart disease, depression, diabetes), medication use, pay type and charges, and services received.

Unlike last year's study, there was little overlap this year in the content between the facility questionnaire and resident questionnaires. We included four variables in both questionnaires to check that we collected comparable data in terms of resident characteristics using the resident questionnaires: resident gender, age, race/ethnicity, and primary method of payment. Overall, our results showed that the two questionnaires (facility and resident) resulted in similar findings (Table A1), except the race/ethnicity variable. This difference can be due to the design and wording of the race/ethnicity questions between the two questionnaires.

Table A1. Comparing results by questionnaire type, 2020

	Facility %	Resident %
Female	69	70
75-84 years	29	29
85 and older	50	51
Non-Hispanic White	85	91
Paid via Medicaid	42	43

Trends (2016-2020)

This year, we included a discussion of trends for selected characteristics from 2016 through the current year in 2020. Given changes over the course of the CBC study, these trends over time should be interpreted with caution. Specifically, questions have been added, revised, or removed from the questionnaire each survey year. Additionally, there have been updates to the design of the study to incorporate both community- and resident-level data collection. From 2016-2018, providers answered questions about all the residents in their community (e.g., how many of your current residents...?). In 2019 and 2020, the PSU team developed a questionnaire so providers could answer questions about three randomly selected residents. Detailed figures showing these selected trends can be found in [Appendix B](#) and are available as separate two-page summaries located [at https://www.pdx.edu/institute-on-aging/oregon-community-based-care-project](https://www.pdx.edu/institute-on-aging/oregon-community-based-care-project). These figures use community-level (2016-2018) and resident-level (2019-2020) data.

To report unbiased point estimates, design weights were used for both community- and resident-level data. Previous research has shown responding communities and nonresponding communities in this study differ slightly but significantly in terms of certain structural characteristics (i.e., Medicaid contracts, rural/urban designation, and nonprofit status) (Tunalilar et al., 2018). For the community-level data (2016-2018), we estimated a logistic regression model assessing whether license type (AL/RC vs. MC), presence of a Medicaid contract (yes/no), profit status (nonprofit vs. for profit), capacity (small, medium, large, very large), and geographic designation (urban/rural) was associated with the likelihood of a setting responding (yes/no) for each survey year. Based on these models, the inverse of the estimated probability of a setting responding was used to calculate design weights for each survey year. Point estimates for resident-

level data collected in 2019-2020 were calculated using the weighting procedure described on page 3.

In addition to two types of questionnaires, individual questions that changed slightly over time may contribute to differences from year to year.

- Medicaid payer source: From 2018-2020, the questionnaires asked how many residents/whether the selected residents paid using the following payment types in the last month: Medicaid, Private Pay (including long-term care insurance and Veteran's aid), or Other. This question was asked differently in 2016 and 2017.
 - 2016: Do you currently have a Medicaid contract or accept Medicaid as a source of payment? If yes, how many of your current residents are Medicaid clients?
 - 2017: Last month, how many residents paid using the following payment type(s)? Resident and/or family pay using private resources, Resident's long-term care insurance, Veteran's (Aid & Attendance), Medicaid, or Other
- Polypharmacy: From 2016-2018, the community-level questionnaire asked how many residents took 9 or more medications. This question changed in the resident-level questionnaire to: How many medications does this resident take on a typical day? 0 medications, 1-8 medications, or 9 or more medications.
 - In 2019, there was an error in this question where instead of 9 or more medications, the category was more than 9 medications.
- Assistance with bathing/grooming and using the bathroom: In 2016, and 2018-2020 questionnaires asked how many residents/whether the selected residents received ongoing and regular staff assistance with activities of daily living.
 - In 2017, this question asked how many residents received full time or standby assistance with activities of daily living.
- Falls with injury: From 2016-2018, the community-level questionnaire asked how many residents had a fall that resulted in an injury in the past 90 days. In 2019, the resident questionnaire asked if the resident fell in the prior 90 days, and if it resulted in an injury. In both the community and resident questionnaires, falls with injury were asked as a separate question to the total number of falls.
 - In 2020, to align with the Quality Metrics Council definition of fall with injury this question was changed to: During the last 90 days, how many falls with injury has this resident had? By falls with injury, we mean an unintended descent to the floor or other object (e.g. sink, table, surrounding furniture) that results in an injury. This includes falls witnessed by staff or reported by a resident. An "injury" may include any of the following: bruise, abrasion or wound requiring simple intervention such as dressing, ice, limb elevation, topical medications, oral pain medications, etc., dislocation, fracture, intracranial injury, laceration requiring sutures/stitches, skin tear/avulsion or significant bruising.

New topics

For the first time, we asked whether residents regularly received care, assistance, or companionship from a personal care aide from outside the community. We included a question about whether residents received services from a list of four specific types of healthcare providers not employed by the community (i.e., medical doctors, mental health providers, dentists, and dental hygienists). At the facility level, questions related to psychosocial and environmental interventions (e.g., light therapy, reminiscence) and human resources practices (e.g., flexible work hours, self-scheduling system) were asked for the first time. We also re-designed the question matrix related to additional services to make it more respondent-friendly and comparable to the national study.

Survey (Unit) response

Of the 587 eligible cases, 389 completed the facility questionnaire and 388 completed the resident questionnaires for a response rate of 66%. Virtually all facilities that returned their facility questionnaire also sent back their resident questionnaires, and vice versa. Response rates were almost identical across setting types (Table A2 below). For both questionnaire types, 65% of eligible AL/RC and 67% of eligible MC responded. Response rates differed somewhat by region (Table A2 below). For both questionnaire types, facilities located in Eastern and Southern Oregon were more likely to respond compared to Portland Metro and Willamette Valley regions.

Table A2. Response rates by community type and region, facility and resident questionnaires

	Facility questionnaire			Resident questionnaire		
	AL/RC	MC	Total	AL/RC	MC	Total
	%	%	%	%	%	%
Portland Metro	66	64	65	66	65	65
Willamette Valley	56	63	60	56	63	60
Southern Oregon	68	78	74	68	76	73
Eastern Oregon	80	73	75	80	71	73
Total	65	67	66	65	67	66

Note: 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.

Item non-response

Providers sometimes returned their questionnaires incomplete (e.g., some questions unanswered). While all providers were called multiple times to request missing information for the facility questionnaire, we were not able to retrieve all missing information for all facilities. Some providers reported difficulty with reporting some of the resident data requested because they did not regularly track those items. Due to the random selection of residents and our choice for not retaining any information identifying individual residents, we did not collect missing data for the resident questionnaires. 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).

The percentage of missing information ranged from <1% to 19% (facility questionnaires) and from less than one percent to eight percent (resident questionnaires) depending on the question. For the resident questionnaires, the questions with the highest likelihood of having missing responses were those related to move-in location and base and total month charges. For the facility questionnaire, the questions with the highest likelihood of having missing responses were those related to staffing. The extent of missing values for staffing questions is similar to our experience in previous years when we asked these questions and our conversations with providers suggest multiple reasons. These are detailed questions (number and type of staffing) that may require significant time for some facility administrators to collect. Some facilities share staffing across multiple units or buildings that might make it harder to report separately (38% according to last year's study). Overall, these item nonresponse rates are comparable to most recent national surveys collecting information from similar settings (e.g., National Study of Long-Term Care Providers 2016) (Harris-Kojetin et al., 2019). In the 2014 wave of the national study, when staffing questions were asked, the highest item non-response was related to full-time staff information at over 30% item non-response (Harris-Kojetin et al., 2016).

Weights

To result in unbiased point estimates, our study that collected resident-level data requires use of design weights as residents have unequal probabilities of being selected randomly. Broadly, the probability of a resident being selected depends on the number of residents in the census of the facility in which they live. In other words, data from residents living in larger facilities (i.e., with a higher number of current residents on average) represent information about a larger number of AL/RC residents in Oregon. Thus, they should be assigned larger weights compared to residents living in smaller facilities. The weights were calculated by dividing the number of randomly selected

residents (two or three depending on whether the facility sent a questionnaire for two or three residents) by the number of residents on the census as reported by the facility. We then used the inverse of this average probability of selection within the cluster as design weights.

The IOA conducted a series of bivariate analyses examining the relationship between facility-level characteristics (facility type, region, size, Medicaid contract, and urban/rural) and responses to the resident questionnaires (since responding facilities to both questionnaires were nearly identical, we did not repeat this analysis for the facility questionnaire). Results showed that facilities did not differ in their likelihood of responding by these characteristics. Because differential response across the two studies was a small issue, we opted to not use non-response weights this year and only used design weights for resident questionnaires as described above. As such, the report presents weighted percentages for resident questionnaires unless noted otherwise.

Data analysis

All data were entered into Stata, a statistical software, and checked for errors. Data cleaning involved multiple data quality checks.

- First, we ensured that skip logic was correctly followed. Skip logic is used when a specific response to a question directs the respondent to skip a follow-up question that is applicable only to those with relevant characteristics. For instance, if a resident did not have a fall with injury in the last 90 days, facilities were not expected to answer follow-up questions related to that resident's fall.
- Second, we checked if all numbers were within valid ranges for each facility. For example, if the facility reported having 30 current residents, they should not have reported having 35 current residents with heart disease. 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 were supposed to add up to a total (e.g., number of current residents), we cross-checked the summation with the total. For instance, for the payment type question, we asked facilities to report the number of residents who paid primarily using Medicaid, private sources or other resources. The total of three of these categories were expected to add up to the total number of current residents.

Quantitative data analysis primarily involved producing descriptive statistics (counts, averages, and percentages) for all respondents and separately by facility type. Cases with missing data were excluded from analyses on a variable-by-variable basis (see Item Non-Response section above). All estimates are weighted unless otherwise noted in the text (see Weights section above).

Answers to open-ended questions (i.e., descriptions of ongoing and one-time fees) were read and coded by members of the study team. Among 389 facility questionnaires received, 309 indicated some type of ongoing fee and 353 described at least one type of one-time fee. Responses were organized in Excel alphabetically and the most common descriptions are reported in text.

Staffing ratio and level calculation

Staffing ratio was calculated by dividing the number of all employees reported by facilities to all current residents. Staffing level (i.e., average staff hours per resident per day) 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 per resident per day. That is, average hours per resident per day = $((\text{FT staff type} * 35) + (\text{PT staff type} * 17.5)) / \text{total number of residents} / 7$. While Oregon rules allow for licensed nurses to be employed on a contract basis, we did not include contract RNs in staffing levels to ensure comparability with the national study and our previous studies. Based on our 2017 study, only a small number of facilities (n=33) reported they contracted with RNs.

Profession charges

We calculated estimated industry charges and share of total industry charges paid by Medicaid and private sources following the same formula as previous years (Table A3 below). We first calculated the number of residents who were private pay residents among responding facilities. We multiplied the resulting number by average total monthly charges calculated using resident-level data. We used estimates from responding facilities to impute values about non-respondent facilities. First, we used occupancy rates among responding facilities to calculate the number of residents in non-respondent facilities using licensed capacity. Second, we used Medicaid rates among responding facilities and prevalence of Medicaid contract among non-responding facilities to calculate percent of Medicaid and private residents living in non-respondent facilities. Finally, we calculated total monthly charges by multiplying the estimated total number of private pay residents with average total monthly charges calculated using data from the resident-level study. Since all three estimates (occupancy rates, Medicaid rates, and average total monthly charges) for non-respondent facilities assumes that the responding and non-respondent facilities are similar to each other in terms of these characteristics (an assumption that cannot be tested using available data), the results should be interpreted with caution.

Table A3. Estimated annual profession charges for AL/RC and mc communities in Oregon

		AL/RC	MC	Total
Responding Communities (Facility Data, Unweighted)				
Private Pay				
	Total current residents	10,772	3,767	14,539
-	Total current Medicaid beneficiaries	4,434	1,674	6,108
=	Total current private pay residents	6,338	2,093	8,431
x	Average total monthly charge incl. services (Resident Data)	\$4,791	\$6,626	
=	Total private pay charges	\$30,365,358	\$13,868,218	\$44,233,576
Non-Respondent Communities				
Private Pay				
	Licensed capacity	7,086	2,759	
x	Occupancy rate*	77%	85%	
=	Estimated total current residents	5,456	2,345	7,801
x	Estimated % of Medicaid residents	40%	41%	
=	Estimated total Medicaid beneficiaries	2,206	972	3,178
	Estimated total current residents	5,456	2,345	7,801
-	Estimated total Medicaid beneficiaries**	2,206	972	3,178
=	Estimated total private pay residents	3,250	1,374	4,623
x	Average total monthly charge incl. services*	\$4,791	\$6,626	
=	Total est. charges for private pay residents	\$15,570,254	\$9,101,466	\$24,671,719
	Estimated total annual private pay charges			\$826,863,546
	Total annual Medicaid charges billed (data from ODHS)			\$361,517,952
	Total annual profession charges			\$1,188,381,497

Note: AL/RC = Assisted living and residential care; MC = memory care community

* Estimates based on Resident Data among respondents applied to non-respondents.

** Responding communities are more likely to have a Medicaid contract compared to their non-respondent counterparts. To account for potentially fewer Medicaid beneficiaries among non-respondent communities, we adjusted this estimate downward by using Medicaid contract rates.

Appendix B: Additional figures & tables

Table B1. Average monthly private-pay charges among sampled residents, excluding bottom and top one percentile

	AL/RC		MC		Total	
Monthly charge	Base	Total	Base	Total	Base	Total
Minimum	\$663	\$1,159	\$2,404	\$2,418	\$663	\$1,159
Maximum	\$10,025	\$10,025	\$9,874	\$10,025	\$10,025	\$10,025
Average (95% CI)	\$4,055 (\$3,865 - \$4,244)	\$4,781 (\$4,569 - \$4,994)	\$5,896 (\$5,695 - \$6,096)	\$6,642 (\$6,417 - \$6,868)	\$4,550 (\$4,369 - \$4,731)	\$5,282 (\$5,081 - \$5,483)

Table B2. Monthly private-pay charges among sampled residents by region

	Portland Metro	Willamette Valley	Southern Oregon	East of Cascades
Average base monthly charge (95% CI)	\$4,976 (\$4,657-\$5,296)	\$3,995 (\$3,638-\$4,352)	\$4,447 (\$3,908-\$4,987)	\$4,091 (\$3,679-\$4504)
Minimum	\$599	\$441	\$1,130	\$515
Median	\$5,215	\$,3987	\$4,635	\$4,070
Maximum	\$12,350	\$9,669	\$11,276	\$8,048
Average total monthly charge (95% CI)	\$5,807 (\$5,436-\$6,179)	\$4,711 (\$4,352-\$5,070)	\$5,201 (\$4,539-\$5,863)	\$4,708 (\$4,255-\$5,161)
Minimum	\$750	\$626	\$1,130	\$800
Median	\$6,010	\$4,788	\$5,225	\$4,688
Maximum	Over \$20,000	\$9,689	\$11,276	\$9,340

Table B3. Monthly private-pay charges among sampled residents by region, excluding bottom and top one percentile

	Portland Metro	Willamette Valley	Southern Oregon	East of Cascades
Average base monthly charge	\$4,919	\$4,138	\$4,419	\$4,233
Minimum	\$663	\$704	\$1,130	\$800
Median	\$5,195	\$3,899	\$4,632	\$4,032
Maximum	\$10,025	\$9,669	\$8,945	\$8,048
Average total monthly charge	\$5,683	\$4,682	\$5,203	\$4,826
Minimum	\$1,244	\$1,159	\$2,175	\$1,740
Median	\$5,995	\$4,825	\$5,225	\$4,700
Maximum	\$10,025	\$9,689	\$9,774	\$9,430

Table B4. Additional service provision by setting, 2020

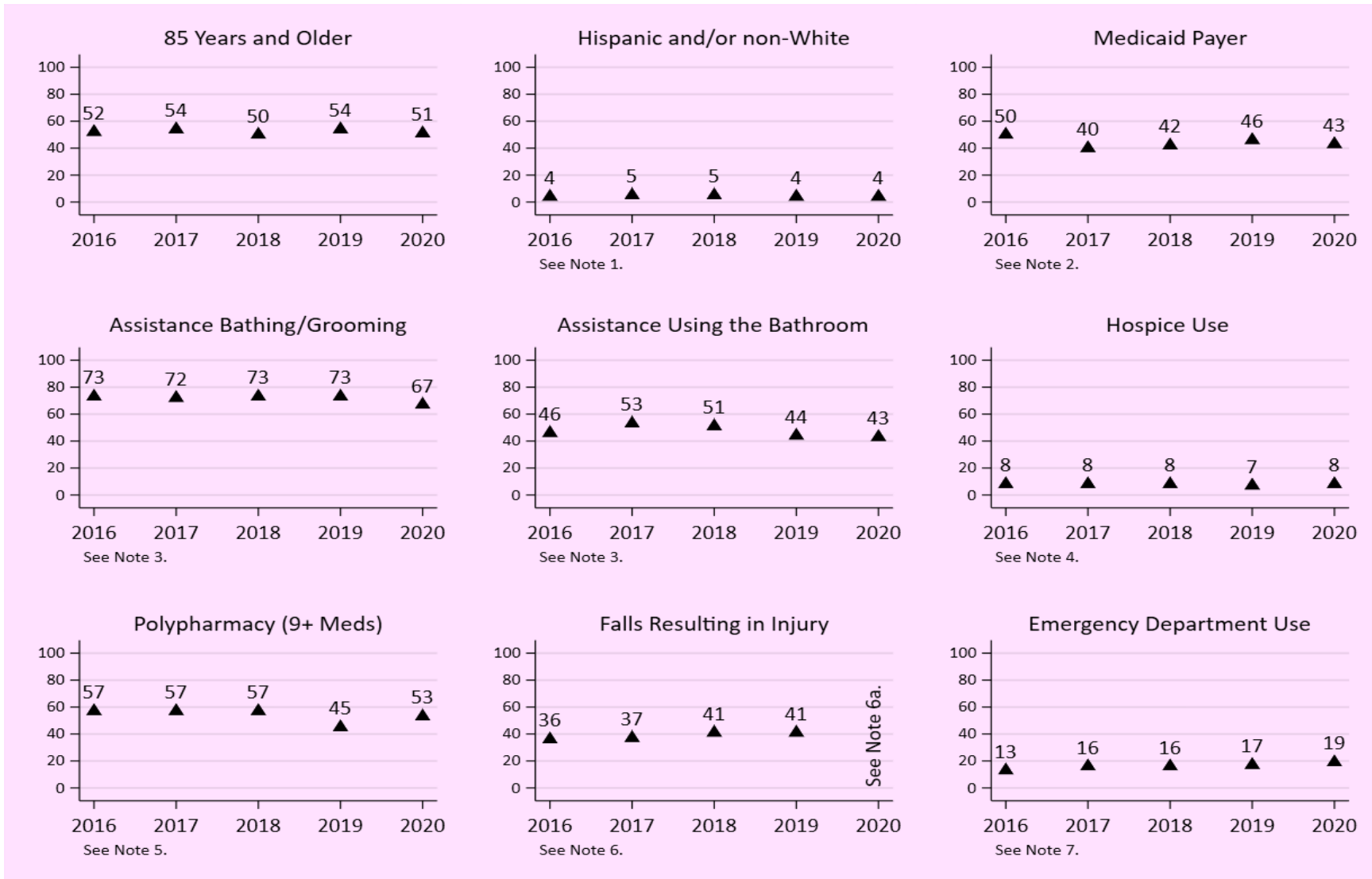
	Provided		Arranged		Referred		Charges		Does not provide	
	AL/RC	MC	AL/RC	MC	AL/RC	MC	AL/RC	MC	AL/RC	MC
	%	%	%	%	%	%	%	%	%	%
Routine dental services by a licensed dentist	0	0	63	48	50	62	12	6	14	18
Emergency dental services by a licensed dentist	0	2	56	41	49	58	11	5	18	22
Hospice services	7	4	74	71	52	50	10	3	2	2
Meals delivered to room	78	81	1	0	0	0	38	20	2	7
Transfer that requires two staff	60	81	2	0	2	1	28	23	29	11
Escorts to health-related appointments	42	50	34	23	20	28	38	28	16	11
Pharmacy services	36	32	60	68	18	17	24	11	4	2
Transportation for health-related appointments	61	56	60	49	26	31	24	17	4	8
Transportation for social, recreational	77	77	36	16	15	17	12	6	4	11
Management of behavioral symptoms	69	81	40	39	29	29	24	17	5	0

Note: These are not mutually exclusive categories, so percentages may not add to 100%.

Table B5. Distribution of charge type among service recipients by setting type, 2020

	Charge structure							
	Included in the base monthly charge		Charged as part of service level		Charged á la carte, per use		Arranged by facility, done by outside party	
	AL/RC	MC	AL/RC	MC	AL/RC	MC	AL/RC	MC
	%	%	%	%	%	%	%	%
Meals delivered to room	68	77	25	23	6	0	0	0
Two-person transfer	38	40	60	59	2	1	0	0
Escorts to medical	58	55	19	21	11	12	12	12
Transportation for medical	59	60	11	16	3	0	27	24
Transportation for social, recreational	91	87	3	5	2	3	3	6
Behavior support services	55	53	38	40	2	2	5	5

Figure B1. Trends of selected AL/RC/MC resident characteristics, 2016-2020



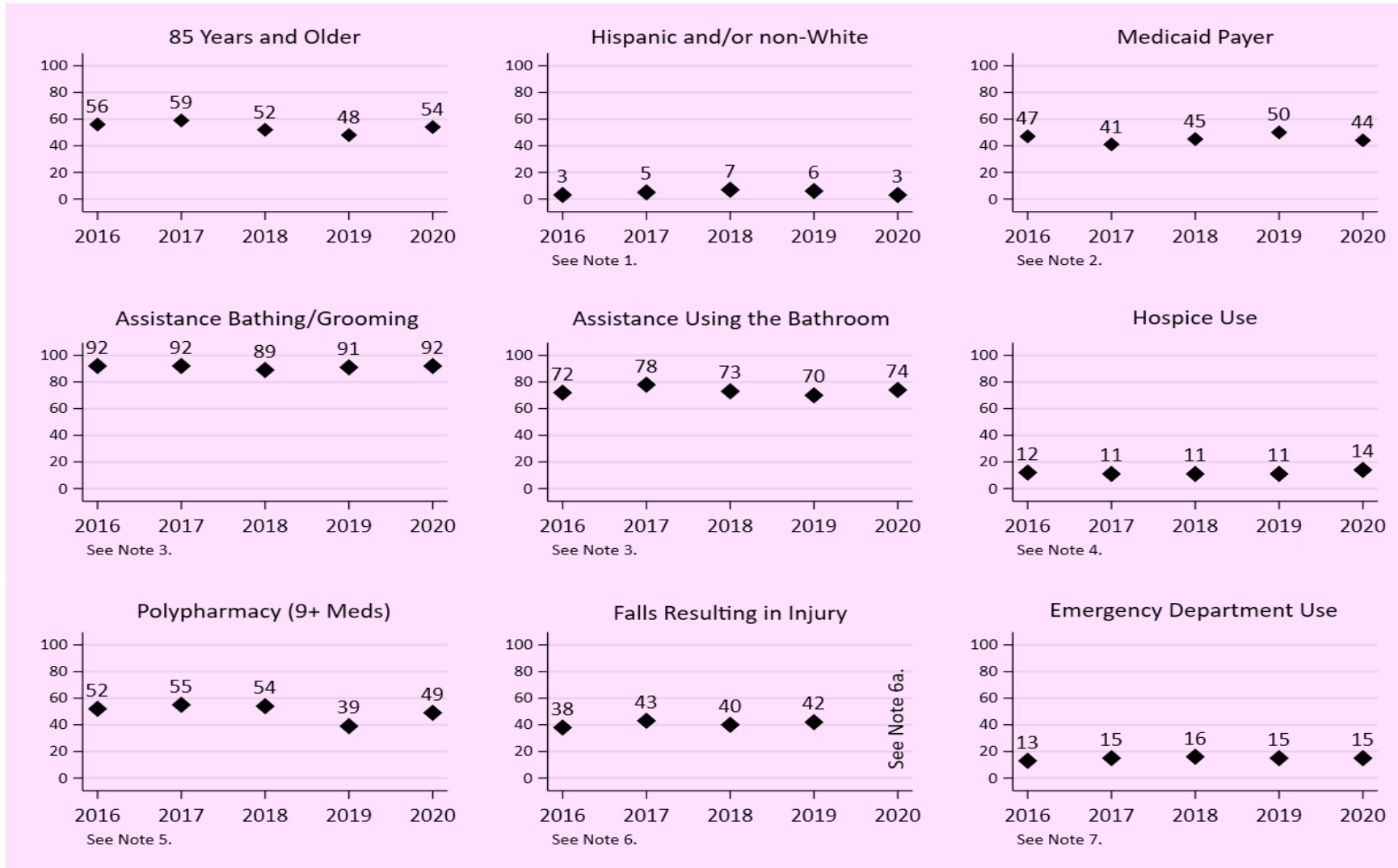
See page 66 for figure notes.

Figure B2. Trends of selected AL/RC characteristics (excluding MC), 2016-2020



See page 66 for figure notes.

Figure B3. Trends of selected MC characteristics, 2016-2020



See page 66 for figure notes.

Notes for figures B1 – B3.

1. Race and ethnic categories included in this figure: Hispanic/Latino, American Indian/Alaska Native, Asian, Black/African American, Native Hawaiian/Pacific Islander, and multiracial.
2. In 2016, providers were asked separate questions about Medicaid beneficiaries and private pay residents. In 2017, Veteran’s assistance and long-term care insurance were considered separate categories, not included in private pay.
3. In 2017, providers were asked how many residents received full or standby assistance with different activities of daily living (ADLs). In other years, providers responded with how many residents receive any regular and ongoing assistance with ADLs.
4. Refers to hospice use in the prior 90 days.
5. In 2019 and 2020, this question expanded to include residents who took 0, 1-8, or 9+ medications. In 2019, there was an error in the question text which asked how many residents took more than 9 medications, rather than 9 or more.
6. Refers to falls that resulted in injury in the prior 90 days.
 - a. In 2020, this question significantly changed to align with the Quality Metrics Council definition of falls with injury and was not comparable to prior years.
7. Refers to ED use in prior 90 days.

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Appendix D: Facility questionnaire



Oregon Community-Based Care 2020 Community Questionnaire

Please only fill out information for your «FacType» community

CCMU/Provider #:

Capacity:

Name of Community:

Address of Community:

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 _____

Please update any incorrect/outdated information.

Name of Community: _____

Administrator Name: _____

Community Phone #: _____

Good News! The questionnaire is much shorter this year!

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

DHS requires communities to complete this questionnaire by February 17, 2020.

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

Scan and email to:	cbcor@pdx.edu OR:
Fax to:	503.725.9927 OR:
Mail to:	CBC Project - Institute on Aging Portland State University PO BOX 751 Portland, Oregon 97207

If you used the optional **PSU tracking sheet** emailed in October 2019, please use it for Question #7.

We greatly appreciate your time and the work that you do on behalf of older adults and persons with disabilities!

Please keep a copy of your completed questionnaire for your records

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>

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.

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)

3. 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)

4. 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 above)

All answers are kept private and confidential. None of your individual information is reported to DHS. 1

AS ACCEPTED BY ODHS
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

Section B. Move-In/Move-Out

5. 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 or 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

6. 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 or 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

7. 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 #6 above)

Section C. Staffing

8. How many staff does your community currently employ?

An individual is an employee if the community is required to issue a Form W-2 federal tax form on their behalf.

Current staff includes all employees, such as direct care, dietary, housekeeping, janitorial, administration, etc.

TOTAL NUMBER OF ALL STAFF

All answers are kept private and confidential. None of your individual information is reported to DHS. 2

AS ACCEPTED BY ODHS
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

9. How many of these staff are the following types of care-related staff: RNs, LPN/LVNs, CNAs, CMAs, personal care staff who are not licensed or certified, social workers, and activities directors or staff?

TOTAL NUMBER CARE-RELATED STAFF

10. For each staff type below, write the number of full-time or part-time employees currently employed by your community.

Enter "0" if no employees. If any of these employees work in more than one building or campus, please include only the hours those employees currently work in the building/community listed on the first page.

# 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
		TOTAL # CARE-RELATED STAFF (total of full-time and part-time staff should match total in question #9)

11. Does your community provide any of the following for staff? Please check always, sometimes, or never for each category.

	Always	Sometimes	Never
Formal job evaluations			
Job sharing			
Internal promotion policy			
Flexible work hours			
Self-scheduling system			
Employee recognition system			
Employee attitude surveys			
Employee suggestion system			
Incentive-based or merit pay			

Section D. Community Characteristics & Policies

12. Many facilities use (psychosocial/environmental) practices such as validation, reminiscence, music, light therapy and others for persons with dementia who have agitation, anxiety, aggression, or other types of behaviors. When do you USUALLY use such practices? Please check all that apply.

- Before the resident displays the behavior (for prevention)
- After the resident displays the behavior (for treatment)
- Both before and after the resident displays the behavior (for prevention and treatment)
- We don't usually use such practices

All answers are kept private and confidential. None of your individual information is reported to DHS. 3

AS ACCEPTED BY ODHS
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

13. For each service listed below, mark all that apply in each row:

This community...	Provides the service by paid employees at this community	Arranges for the service to be provided by outside service providers	Refers residents or family to outside service providers	Charges for providing, arranging, or referring these services	Does not provide, arrange, or refer for this service
a. Routine dental services by a licensed dentist					
b. Emergency dental services by a licensed dentist					
c. Hospice services					
d. Meals regularly delivered to resident's room					
e. Transfer that requires 2 staff					
f. Escorts to medical, dental, or other health-related appointments					
g. Pharmacy services – including filling or delivery of prescriptions					
h. Transportation services for medical, dental, or other health-related appointments					
i. Transportation services for social and recreational activities or shopping					
j. Management of behavioral symptoms, such as agitation					

14. What are the most common types of one-time fees your community charges to private pay residents at move-in (e.g., application fee, community fee, security deposit)?

15. What are the most common types of ongoing (e.g., monthly, annual) fees your community charges to private pay residents?

16. Please send us a copy of this community's Uniform Disclosure Statement (Form 9098A) along with the completed survey.

Thank you for taking the time to complete this questionnaire!

Appendix E: Resident questionnaire

Oregon Community-Based Care Resident Characteristics

Write down below the name of the resident for whom this form is being filled.

RESIDENT: _____

FOR COMMUNITY USE ONLY

**PLEASE REMOVE THIS PAGE
AFTER COMPLETING THE QUESTIONS AND
BEFORE SENDING TO PSU**

SEE NEXT PAGE FOR INSTRUCTIONS



2020 Profile of Assisted Living, Residential Care, and Memory Care Resident Study

Please answer these questions for 1 resident

See the blue sheet for instructions for randomly choosing the resident

DHS requires communities to complete this form by February 17, 2020.

Please return your **THREE** completed resident forms and the blue sheet in **ONE** of the following ways:

Scan and email to:	cbcor@pdx.edu OR:
Fax to:	503.725.9927 OR:
Mail to:	CBC Project - Institute on Aging Portland State University PO BOX 751 Portland, Oregon 97207

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

PSU does not publish or share responses about individual communities, staff, or residents.

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

1. Who is completing this questionnaire? **Mark all that apply.**

- Administrator
- Nurse
- Resident Care Coordinator
- Direct Care Staff
- Office staff/Receptionist
- Other: _____

COMMUNITY CENSUS

2. How many residents live in this community today? This should be equal to the highest number on your resident list (refer to the blue sheet).

Number of residents

RESIDENT INFORMATION

3. Does this resident live in an endorsed Memory Care Unit? **Mark only one answer.**

- Yes
- No

4. What is this resident's gender? **Mark only one answer.**

- Male
- Female
- Transgender

5. What is this resident's age? **Write the age in years.**

Age of resident

6. Which one (or more) of the following would you say is this resident's race? **Mark all that apply.**

- American Indian or Alaska Native
- Asian
- Black/African American
- Native Hawaiian or Other Pacific Island
- White
- Other

7. Is this resident of Hispanic, Latino, or Spanish origin or descent? **Mark only one answer.**

- Yes
- No
- Don't know

8. When did this resident first move into your community (e.g., January 2017, 11/2005)?

Month and Year

9. Does this resident currently share their room/apartment with another person? **Mark only one answer.**

- No
- Yes, with a partner, spouse or other relative
- Yes, with an unrelated roommate

10. Where did this resident live immediately before moving into your community? **Mark only one answer.**

- Home (alone or with spouse or partner)
- Home of a child or relative
- Independent living apartment in senior housing
- Assisted living or residential care community
- Memory care community
- Adult foster/care home
- Nursing facility or Skilled nursing facility
- Other _____
- Don't know

RESIDENT HEALTH, ACUITY, AND HEALTH SERVICES USE

11. In the last 90 days, was this resident treated in a hospital emergency room? **Mark only one answer.**

- Yes
- No
- Don't know

12. In the last 90 days, was this resident hospitalized overnight? Please exclude trips to the emergency room that did not result in an overnight hospital stay. **Mark only one answer.**

- Yes (go to question 13)
- No (skip to question 14)
- Don't know (skip to question 14)

13. If the resident was hospitalized overnight in the last 90 days, were they re-admitted to the hospital within 30 days of any hospital discharge? **Mark only one answer.**

- Yes
- No
- Don't know

14. In the last 90 days, did this resident receive hospice care? **Mark only one answer.**

- Yes
- No
- Don't know

The following section asks about falls.

15. As best you know, during the last 90 days, how many falls with injury has this resident had? By falls with injury, we mean an unintended descent to the floor or other object (e.g. sink, table, surrounding furniture) that results in an injury. This includes falls witnessed by staff or reported by a resident.

An "injury" may include any of the following:

- Bruise, abrasion or wound requiring simple intervention such as dressing, ice, limb elevation, topical medications, oral pain medications, etc.
- Dislocation, fracture, intracranial injury, laceration requiring sutures/stitches, skin tear/avulsion or significant bruising.

Number of falls with injury

→ If '0' SKIP to question 17.

16. Did the resident go to the hospital because of any of these falls?

- Yes
- No
- Don't know

This next section is about this resident's mobility and supports provided by staff to this resident.

17. Does this resident use a mobility aid to get around? By mobility aid, we mean a device designed to assist walking or otherwise improve the mobility of people with a mobility impairment, such as a cane, walker, or wheelchair. **Mark only one answer.**

- Yes
- No
- Don't know

18. Does this resident need staff assistance to use a mobility aid? **Mark only one answer.**

- Resident does not use a mobility aid
- Yes
- No
- Don't know

19. Does this resident regularly receive assistance from NOC or night shift staff during the night? **Mark only one answer.**

- Yes
- No
- Don't know

20. Does this resident regularly receive assistance for physical and/or cognitive health needs from two staff? **Mark only one answer.**

- Yes
- No
- Don't know

21. Does this resident regularly receive care, assistance, or companionship from a personal care aide from outside your community? **Mark only one answer.**

- Yes
- No
- Don't know

22. Does this resident regularly receive staff assistance for incontinence? **Mark only one answer.**

- Yes, urine only
- Yes, bowel only
- Yes, both urine and bowel
- No
- Don't know

23. Does this resident regularly receive staff assistance because they lack awareness to safety, judgment, and decision-making, or ability to orient to their surroundings? **Mark only one answer.**

- Yes
- No
- Don't know

24. Does this resident regularly receive staff assistance because they wander? **Mark only one answer.**

- Yes
- No
- Don't know

25. Does this resident regularly receive staff assistance because they are a danger to themselves or others? For instance, they may be aggressive or abusive. **Mark only one answer.**

- Yes
- No
- Don't know

26. Does this resident need regular and ongoing staff assistance with any of the following? **Mark Yes or No for each activity.**

	Yes	No
Eating	<input type="checkbox"/>	<input type="checkbox"/>
Dressing	<input type="checkbox"/>	<input type="checkbox"/>
Bathing and grooming	<input type="checkbox"/>	<input type="checkbox"/>
Using the bathroom	<input type="checkbox"/>	<input type="checkbox"/>
Mobility/Walking	<input type="checkbox"/>	<input type="checkbox"/>

Next, we would like to ask about this resident's health-related needs.

27. In the last 90 days, has this resident 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)? **Mark only one answer.**

- Yes
- No
- Don't know

28. Has this resident been diagnosed with any of the following conditions? **Mark Yes or No for each condition.**

	Yes	No
Heart disease (e.g., congestive heart failure, coronary or ischemic heart disease, heart attack)	<input type="checkbox"/>	<input type="checkbox"/>
Stroke	<input type="checkbox"/>	<input type="checkbox"/>
Alzheimer's or other dementias (including Lewy body, Huntington's disease, and vascular dementia)	<input type="checkbox"/>	<input type="checkbox"/>
High blood pressure or hypertension	<input type="checkbox"/>	<input type="checkbox"/>
Depression	<input type="checkbox"/>	<input type="checkbox"/>
Serious mental illness (such as bipolar disorder, schizophrenia)	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes	<input type="checkbox"/>	<input type="checkbox"/>
Cancer	<input type="checkbox"/>	<input type="checkbox"/>
Osteoporosis	<input type="checkbox"/>	<input type="checkbox"/>
Chronic obstructive pulmonary disease (COPD) and allied conditions	<input type="checkbox"/>	<input type="checkbox"/>
Drug or alcohol abuse	<input type="checkbox"/>	<input type="checkbox"/>
Arthritis	<input type="checkbox"/>	<input type="checkbox"/>
Traumatic brain injury (TBI)	<input type="checkbox"/>	<input type="checkbox"/>

The following questions ask about prescription medications that this resident takes. Prescription medications include standing (routine) or PRN (as-needed) medications, as prescribed or ordered by a physician or other health care provider.

29. About how many prescription medications does this resident currently take on a typical day? **Mark only one answer.**

- Resident does not take any medications
- 1-8 medications
- 9 or more medications

30. In the last 7 days, did this resident receive any antipsychotic medications, such as Haldol (Haloperidol), Quetiapine (Seroquel), Olanzapine (Zyprexa), Aripiprazole (Abilify), or Risperidone (Risperdal)? **Mark only one answer.**

- Yes, as scheduled/routine
- Yes, as needed (PRN)
- Yes, as scheduled/routine and as needed (PRN)
- No
- Don't know

31. In the last 7 days, did this resident receive any dementia-specific medications, such as Aricept (Donepezil), Exelon (Rivastigmine), Razadyne (Galantamine), Namenda (Memantine), or Namzaric? **Mark only one answer.**

- Yes
- No
- Don't know

32. In the last 7 days, did this resident receive any opioid medications, such as Hydrocodone (Norco/Lortab), Tramadol, Oxycodone, Fentanyl, Codeine, Morphine, Hydromorphone, or Methadone? **Mark only one answer.**

- Yes, as scheduled/routine
- Yes, as needed (PRN)
- Yes, as scheduled/routine and as needed (PRN)
- No
- Don't know

33. Does this resident self-administer most of their medications? **Mark only one answer.**

- Yes
- No
- Don't know

34. Does this resident receive staff assistance to take oral medications? **Mark only one answer.**

- Yes
- No
- Don't know

35. In the last 7 days, did this resident receive services from any of the following health care providers who visited your community? Please include visits only by health care providers not currently employed by your community. **Mark Yes, No or Don't Know for each health care provider listed below.**

	Yes	No	Don't Know
Medical doctor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mental health provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dentist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dental hygienist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMUNITY RATES, FEES, AND SERVICE USE

36. During the last month, what was the primary method of payment used by this resident? **Mark only one answer.**

- Medicaid
- Private sources (e.g., resident and/or family personal accounts, Veteran's Aid & Attendance, long-term care insurance, pension, Social Security)
- Other: _____

If 'Medicaid', skip to question 37 on the next page.

37. During the last month, what was the base monthly charge for this resident to live in this community? Please include the base charge for this resident.

Write dollar amount

38. During the last month, what was the total monthly charge for this resident to live in this community? Please include basic monthly charge and charges for any additional services for this resident.

Write dollar amount

PLEASE GO TO NEXT PAGE

39. Did this resident receive any of the following in the past month?
 If they did, how was the resident charged for each service?

	Yes	No	Not offered	Don't know	Included in the base monthly charge	Charged as part of service level, points, or other monthly service package	Charged à la carte fees on an as-needed or on demand basis, by day or per use	Arranged by facility, charged by outside party
Meals regularly delivered to their room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transfer that requires two staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Escorts to medical, dental, or other health-related appointments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation services for medical, dental, or other health-related appointments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation services for social and recreational activities or shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management of behavioral symptoms, such as agitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>