

8-23-2022

2022 Community-Based Care: Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care Communities


Ozcan Tunalilar
Portland State University, tozcan@pdx.edu

Paula Carder
Portland State University, carderp@pdx.edu

Jaclyn Winfree
Portland State University, jwinfree@pdx.edu

Sheryl Elliott
Portland State University, sheryle@pdx.edu

Minju Kim
Follow this and additional works at: https://pdxscholar.library.pdx.edu/aging_pub
Portland State University

 Part of the [Public Policy Commons](#), [Social Policy Commons](#), [Social Welfare Commons](#), and the [Social Work Commons](#)

See next page for additional authors

Let us know how access to this document benefits you.

Citation Details

Tunalilar, O., Carder, P.C., Winfree, J., Elliott S., Kim, M., Jacoby, D., Albalawi, W. (2022). 2022 Community-Based Care: Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care Communities: Portland, OR: Portland State University Institute on Aging.

This Report is brought to you for free and open access. It has been accepted for inclusion in Institute on Aging Publications by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.

Authors

Ozcan Tunalilar, Paula Carder, Jaclyn Winfree, Sheryl Elliott, Minju Kim, Diana Jacoby, Wafi Albalawi, and Portland State University Institute on Aging

2022 Community-Based Care

Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care Communities



Ozcan Tunalilar, Ph.D.
Paula Carder, Ph.D.
Jaclyn Winfree, M.S.
Sheryl Elliott, M.U.S.
Minju Kim, M.S.
Diana Jacoby, M.S.G.
Wafi Albalawi

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.

2022 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



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.

IOA/PSU Study Team:

Ozcan Tunalilar, Ph.D.
Paula Carder, Ph.D.
Sheryl Elliott, M.U.S
Minju Kim, M.S.
Diana Jacoby, M.S.G.
Jaclyn Winfree, M.S.
Wafi Albalawi, M.S.

For more information:

Ozcan Tunalilar, Ph.D.
tozcan@pdx.edu
503-725-3952
P.O.Box 751, Portland, OR 97207

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.

ODHS Study Team:

Julia Brown	Max Brown
Rebecca Mapes	Jordan Purdy
Jay Grussing	Jan Karlen

Special thanks to all the community-based care providers throughout Oregon, Oregon Health Care Association, and LeadingAge Oregon for contributing to this effort.

Additional contributors from Portland State University:

Madeline Fox, Megan McLaughlin, and Cassidy Rogoway, Nathan Parsons

Suggested citation:

Tunalilar, O., Carder, P.C., Winfree, J., Elliott S., Kim, M., Jacoby, D., Albalawi, W. (2022). 2022 Community-Based Care: Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care: Portland, OR: Portland State University Institute on Aging.

Contents

INTRODUCTION.....	1
Study Methods.....	3
HIGHLIGHTS.....	4
COMMUNITY CHARACTERISTICS.....	8
AL/RC/MC Supply Across Oregon.....	8
Ownership, Chain Affiliation, and Multi-License Settings.....	10
Occupancy Rates.....	12
Units and Room Sharing.....	13
Medicaid Acceptance, Medicaid Reimbursement, and Payer Sources.....	14
Private Pay Charges.....	15
Estimated Industry Charges.....	16
Use of Electronic Health Records and Health Information Exchange.....	17
Additional Services.....	19
FACILITY STAFF.....	22
Care-Related Staff Employed Full-Time and Part-Time.....	22
Staff to Resident Ratios.....	26
Staffing Levels.....	28
Current Job Openings.....	30
Unplanned Staff Absences and Outside Service Provider Use.....	31
Recent Turnover and Current Staff Tenure.....	32
RESIDENTS.....	33
Resident Demographics.....	33
Move-in and Move-out Locations, and Length of Stay.....	35
Length of Stay Among Residents Who Moved.....	37
Hospice Use Among Residents Who Died.....	40
Assistance with Personal Care.....	41
Night-Time Care.....	42
Mobility Aids and Staff Assistance with Using Mobility Aids.....	42
Two-Person Staff Assistance.....	43
Outside Personal Care Aides.....	43
Assistance with Behavioral Symptoms.....	43

Health Conditions	44
Significant Change in Condition	45
Falls & Fall-Related Injuries	45
Health Service Use	46
Medication Use	47
Assistance with Medications and Treatments.	47
Dementia-Specific Medications.	48
Antipsychotic Medications.	48
Opioid Medications.....	49
Anti-depressant Medications.....	49
Anxiolytic/sedative-hypnotic Medications.	50
IMPACT OF COVID-19 PANDEMIC	51
Community Experiences during the COVID-19 Pandemic	51
What AL/RC/MC Administrators Want Others to Know About Operating an AL/RC/MC During the Pandemic.....	52
CONCLUSION	55
APPENDIX A: METHODS	58
Study Population	58
Data Collection Instruments	58
Response Rates	59
Item Non-Response	60
Weights	61
Data Analysis	62
Staffing Ratio and Level Calculation	62
Profession Charges	63
APPENDIX B: ADDITIONAL TABLES	65
APPENDIX C: REFERENCES	72
APPENDIX D: FACILITY QUESTIONNAIRE	78
APPENDIX E: RESIDENT QUESTIONNAIRE	87

List of Tables

- Table 1. Number of all licensed settings and licensed capacity as of November 2020-2021
- Table 2. Multi-License Settings, 2022
- Table 3. Type of Ownership, 2022
- Table 4. Chain affiliation, 2022
- Table 5. Occupancy Rates Based on Number of Residents, 2020-2022
- Table 6. Distribution of occupancy rates of responding facilities, 2022
- Table 7. Occupancy rates based on number of units, 2020-2022
- Table 8. Unit sharing among residents by setting, 2022
- Table 9. Medicaid reimbursement rates by setting, January 2022
- Table 10. Distribution of payer sources among sampled residents by setting, 2022
- Table 11. Average monthly private-pay charges among sampled residents by setting, 2022
- Table 12. Electronic Health Records Uses, 2022
- Table 13. Use of Electronic Health Information Exchange, 2022
- Table 14. Services provided or arranged by AL/RC/MC, 2022
- Table 15. Distribution of Care-related staff employed, by employee categories, 2022
- Table 16. Percentage of communities that employed at least one full- or part-time care-related staff by employee categories, 2022
- Table 17. Percentage of care-related staff employed full- and part-time, within employee categories and by setting, 2022
- Table 18. Percentile distribution of staff ratios by setting, 2022
- Table 19. Care hours per resident per day among Care-related staff by setting, 2020-2022
- Table 20. Percentile distribution of care hours per resident per day by setting, 2022
- Table 21. Percentage of facilities that hired contract or agency staff to cover staff absences, 2022
- Table 22. Sex/Gender and Age distribution among sampled residents by setting, 2022
- Table 23. Race/Ethnicity among sampled residents by setting, 2022
- Table 24. Move-In locations among sampled residents by setting, 2022
- Table 25. Move-Out locations of recent Move-Outs in the prior 90 days, 2022
- Table 26. Residents who receive staff assistance for behavioral symptoms by setting, 2022
- Table 27. Resident health conditions by setting, 2022
- Table 28. Fall-related injuries & Hospitalizations, 2022
- Table 29. Health service use among residents in the last 90 days, 2022

Table 30. Medication assistance and use by setting, 2022

Table 31. Medication as scheduled/routine or as needed/PRN among Residents by Setting, 2022

Table 32. Provider agreement with statements regarding the Coronavirus (COVID-19) pandemic, 2021-2022

List of Figures

Figure 1. AL/RC/MC supply by county

Figure 2. MC supply by county

Figure 3. Estimated total annual charges for AL/RC and MC facilities in Oregon, 2022

Figure 4. Staff to resident ratios by setting and staff type, 2020-2022

Figure 5. Care hours per resident per day among Care-related staff by setting, 2022

Figure 6. Length of stay among residents who moved out by setting, 2022

Figure 7. Short- and Long-term stays among recent move-outs, 2019-2022

Figure 8. Share of residents who died among recent move-outs, 2019-2022

Figure 9. Residents who receive staff assistance with personal care, 2022

Figure 10. Residents by number of ADLs for which they receive staff assistance, 2022

Figure 11. Distribution of number of behavioral symptoms among residents by setting, 2022

APPENDIX A

Table A1. Response rates by facility type and region, facility and resident questionnaires, 2022

Table A2. Estimated annual profession charges for AL/RC and MC communities in Oregon, 2022

APPENDIX B

Table B1. Unit sharing among residents by setting, 2020-2022

Table B2. Licensed capacity and occupancy rates of responding facilities, 2022

Table B3. Average monthly private-pay charges among sampled residents, excluding Bottom and Top 1 percentile

Table B4. Monthly private-pay charges among sampled residents by region

Table B5. Monthly private-pay charges among sampled residents by region, excluding Bottom and Top 1 Percentile

Table B6. Comparison of communities that employed at least one full- or part-time care-related staff by employee categories, 2020-2022

Table B7. Staff to resident ratios by setting and staff type, 2020-2022

Table B8. Sex/Gender and Age distribution of residents by setting, 2020-2022

Table B9. Resident Race/Ethnicity by setting, 2020-2022

Table B10. Move-In locations among sampled residents by setting, 2020-2022

Table B11. Move-Out locations of recent Move-Outs in the prior 90 days, 2020-2022

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

CI - Confidence Interval

CMA - Certified Medication Assistant

CMS - Centers for Medicare & Medicaid Services

CNA - Certified Nursing Assistant

COVID-19 - SARS-CoV-2

EHR - Electronic Health Record

HCBS - Home and Community Based Services

HIE - Health Information Exchange

HPRD - Hours Per Resident Per Day

IOA - Institute on Aging

LPN/LVN - Licensed Practical Nurse/Licensed Vocational Nurse

LTSS - Long-Term Services and Supports

MC - Memory Care Community

NCHS - National Center for Health Statistics

NCAL - National Center for Assisted Living

NIA - National Institute on Aging

NIC - National Investment Center

NPALS - National Post-Acute Long-Term Care Study

OAR - Oregon Administrative Rules

ODHS - Oregon's Department of Human Services

OHCA - Oregon Health Care Association

OHA - Oregon Health Authority

PACE - Program of All-Inclusive Care for the Elderly

PPE - Personal Protective Equipment

PRN - As needed (referring to *pro re nata* medication administration)

PSU - Portland State University

RC - Residential Care

RN - Registered Nurse

INTRODUCTION

This report summarizes findings from the 8th annual study of Oregon community-based care settings. This is the second year that the study took place since the global outbreak of SARS-CoV-2 (referred to as COVID-19 henceforth), first recognized by the World Health Organization as a pandemic in March 2020. Since that time, the Oregon Health Authority (OHA), Oregon Department of Human Services (ODHS), Oregon Occupational Safety and Health Administration (OSHA), and state legislature enacted new and numerous policy changes to protect residents and staff of assisted living, residential care, and memory care (AL/RC/MC) settings, including; physical distancing, infection and outbreak procedures (such as restriction of move-ins, routine staff and resident testing), changes to communal activities, and visitation guidelines (ODHS 2021a; ODHS 2021b), as well as policies to support the long term care staffing and workforce crisis.

In this report, we use the terms *facility* to refer to AL/RC and *community* to refer to MC, following the language used in Oregon Administrative Rules (OAR). We use the term *setting* to interchangeably refer to AL/RC or MC or both. The following acronyms are used to organize findings associated with the three 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 current report includes:

- Information about AL/RC/MC capacity, occupancy, policies, resident move-in and move-out locations, private pay rates and Medicaid spending, staffing and COVID-19 impacts.
- Information about residents, including sociodemographic characteristics (e.g., age, sex, race, ethnicity), measures of health status, and indicators of health service use.
- Comparisons to data from prior reports and discussion of similarities and changes in indicators of interest.
- Comparison to national studies, where relevant and when data are available.

As of November 2021, 570 AL/RC/MC settings were operating in Oregon. Of these, 224 (39 percent) were endorsed MC communities. The total licensed capacity for all AL/RC/MC was 29,563 in comparison to 28,925 residents in fall 2020.

Based on the AL/RC/MC settings that participated in this study, 48 percent of residents were ages 85 or older, 69 percent were female, and 11 percent were a race/ethnicity other than non-Hispanic White. About half of the residents (52 percent) had been living 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 (66 percent). A large share of residents living in the responding facilities were Medicaid recipients (45 percent). Private pay rates (i.e., rates among residents who paid primarily using private resources) varied widely by setting type and region, with an average total rate of \$6,117 per month, which would correspond to \$73,404 annually.

MC residents differ from AL/RC residents in many aspects of care provision, such as prevalence of receiving assistance for ADLs, health services use, and cost of care. These and other differences and similarities are described in more detail throughout the report.

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

Licensed AL/RC/MC communities must:

- Be staffed 24-hours daily to meet current residents' care and service needs.
- Provide access to a licensed nurse(s) who is (are) regularly 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 and treatment administration.
- Coordinate transportation.
- Coordinate, monitor, and provide interventions from on-site and off-site health service providers to residents.

AL must provide private apartments that have a living and sleeping space, kitchen area, bathroom, and storage. While RC are not required by Oregon rules to provide private bathrooms, living quarters, or kitchenettes, they may choose to do so. Older RC might have shared bathrooms, while newer constructions of RC may have a combination of these building designs. Since AL and RC are similar in all other aspects, including the Oregon Administrative Rules (OAR) they must follow, we report findings for these two settings in aggregate (AL/RC) in this report.

ODHS may approve a licensed AL, RC, or a nursing home (NH) to operate MC through an “endorsement” (OAR 411-057-0110) indicating the setting is designated for adults with a diagnosis of Alzheimer’s disease or a related dementia (ARD). This report includes only MC units with an AL or RC license, and not NH. 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 ARD.

Study Methods

Since 2019, data for this study have been collected using two separate questionnaires. The facility questionnaire included questions about policies, resident services, rates, staffing, residents who moved out in the prior 90 days, and the impacts of the COVID-19 pandemic. The resident questionnaire asked detailed information about three randomly selected, anonymized residents, such as their demographic information, health services and medication use, diagnosed conditions, staff assistance with activities of daily living and behavioral expressions, and payer type and charges.

All 570 AL/RC/MC licensed as of fall 2021 received both questionnaires. Of these, 37 had multiple setting types in one building or on the same property, resulting in 607 eligible cases for the purpose of data collection. Of these 607 cases, 333 completed the facility questionnaire for a response rate of 55 percent, and 340 completed the resident questionnaire, for a response rate of 56 percent. In this report, resident information comes from the resident questionnaire 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

- There were 570 AL/RC/MC licensed settings as of November 2021.
 - 333 licensed settings completed facility questionnaires.
 - 340 licensed settings completed resident questionnaires.
- The total licensed capacity for all AL/RC/MC settings in Oregon was 29,563 residents.
 - The total licensed capacity for the 333 AL/RC/MC settings that responded was 15,859 residents.
- There were an estimated 21,056 residents living in all 570 AL/RC/MC settings in Oregon.
- 82% of residents lived in a private apartment, 11% shared their unit with an unrelated roommate, and 7% lived with a relative or spouse.

AL/RC/MC Ownership

- 86% of settings shared their building or campus with at least one other type of setting.
- 87% were for-profit settings.
- 83% were owned by a person, group, or organization that owns or manages two or more AL/RC/MC, including a corporate chain.

Memory Care

- 224 of all AL/RC in Oregon had a MC endorsement.
- 29% of all residents living in the responding settings lived in MC.

AL/RC/MC Medicaid Use and Expenditure

- 46% of residents were Medicaid beneficiaries.
- In 2021, ODHS was billed a total of \$425,547,195 on behalf of Medicaid-eligible residents in all AL/RC/MC settings.

AL/RC/MC Private Payers and Rates

- 53% of residents were private pay (e.g., personal sources, long-term care insurance, social security).
- \$6,117 was the average total monthly charge paid by current AL/RC/MC residents.

- \$73,404 is the amount that a single resident would pay for 12 months based on the average total monthly charge.

AL/RC/MC Electronic Health Records (EHR) Usage and Health Information Exchange (HIE) Capabilities

- 88% of settings used an EHR system for at least one of six functions.
 - 84% recorded resident demographics.
 - 85% recorded clinical notes.
 - 90% recorded resident medications and allergies.
 - 89% recorded individual service plans.
 - 31% viewed lab or imaging reports.
 - 67% ordered prescriptions.
- 59% were capable of using a HIE with a pharmacy.
 - 16% with a physician.
 - <10% with a hospital, behavioral health provider, skilled nursing facility, or other long-term care provider.

AL/RC/MC Staffing

- 9,625 staff were employed by 280 responding settings reported staffing data.
 - 69% of employees' job responsibilities encompass resident care.
 - Care-related employees included RNs, LPN/LVNs, CNAs, CMAs, personal care staff who are not licensed or certified, social workers, and activities directors and staff.
 - 83% of care-related employees worked full-time.
- Average care-related staff-to-resident ratios.
 - 0.75 care-related staff for each AL/RC resident.
 - 0.83 care-related staff for each MC resident.
 - 0.81 care-related staff for each AL/RC/MC resident.
- Estimated average care hours per resident per day provided by care-related staff.
 - 2 hours and 40 minutes in AL/RC.
 - 3 hours and 29 minutes in MC.
 - 2 hours and 59 minutes in AL/RC/MC.

AL/RC/MC Resident Demographics

- 69% female.
- 76% ages 75 and older.
- 48% ages 85 and older.

- 89% non-Hispanic White.
- Approximately 4% were either Asian, Black or African American, American Indian/Native American or Alaska Native, or Native Hawaiian/ or other Pacific Islander.
- 2% were Hispanic/Latino of any race.

Length of Stay among AL/RC/MC Residents who Moved Out or Died in the Prior 90 Days

- 48% less than 1 year.
- 36% 1 year to 4 years.
- 16% for 4 or more years.
- 66% of move-outs were due to death.
- 83% received hospice services prior to death.

AL/RC/MC Residents Who Regularly Received Assistance with Personal Care and Other Services

- Eating: 30% for MC residents; 10% for AL/RC residents.
- Dressing: 76% for MC residents; 44% for AL/RC residents.
- Bathing and grooming: 90% for MC residents; 66% for AL/RC residents.
- Using the bathroom: 67% for MC residents; 34% for AL/RC residents.
- Mobility/walking: 39% for MC residents; 27% for AL/RC residents.
- Staff assistance during the night: 69% for MC residents; 36% for AL/RC residents.
- Assistance from two staff: 32% for MC residents; 18% for AL/RC residents.

AL/RC/MC Residents Who Regularly Received Assistance with Behavioral Symptoms

- 64% received staff assistance with at least one of the following three behavioral symptoms.
 - 43% due to lack of awareness or ability to orient to surroundings.
 - 15% due to wandering.
 - 6% danger to self or others.

Top Five Most Commonly Reported AL/RC/MC Resident Health Conditions

- 60% of residents had high blood pressure/hypertension.
- 56% had Alzheimer's disease or related dementias (ADRD).
- 42% had depression.
- 35% had heart disease.
- 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, 33% went to the hospital due to a fall.

Health Service Use Among Current AL/RC/MC Residents, Prior 90 Days

- 20% treated in a hospital emergency department.
- 10% hospitalized overnight.
- 8% used hospice services.
 - 6% AL/RC.
 - 12% MC.

Medication Administration and Use Among Current AL/RC/MC Residents

- 48% took nine or more medications on a regular basis.
- 26% took antipsychotic medications in the last week.
- 17% took opioid medications in the last week.
- 19% took a dementia-specific medication in the last week.
- 10% self-administered their own medications.

COMMUNITY CHARACTERISTICS

This section provides information about:

- AL/RC/MC supply across Oregon,
- Ownership, chain affiliation, and multi-license settings,
- Occupancy rates based on beds and units,
- Units and room sharing,
- Payer sources, Medicaid reimbursement, and private pay charges,
- Use of electronic health records and health information exchange, and
- Additional services.

AL/RC/MC Supply Across Oregon

Table 1 describes the total number of all licensed settings and their licensed capacity as provided by ODHS as of fall 2020 and 2021. Licensed capacity refers to the maximum number of residents that each AL/RC and MC are permitted to accommodate. Because the MC designation must be received alongside an AL/RC base license, the table includes the number of settings with an MC endorsement within the AL/RC and reports them separately.

Between 2020 and 2021, the number of AL/RC increased by 11 from 559 (217 MC) to 570 (224 MC). The increase was accounted for by five AL/RC and eight MC opening and one AL/RC and one MC closing. During the same period, the licensed capacity increased for both settings: from 28,925 to 29,563 for AL/RC and from 7,597 to 7,926 for MC - an annual increase of two percent and four percent, respectively. Put another way, MC now constitutes 27 percent of all AL/RC licensed capacity in Oregon.

Table 1. Number of all licensed settings and licensed capacity as of November 2020-2021

	# of Settings		Licensed Capacity		# of Units	
	2020	2021	2020	2021	2020	2021
All Facilities (AL/RC)¹	559	570	28,925	29,563	23,519	24,444
MC Endorsed AL/RC	217	224	7,597	7,926	-	-

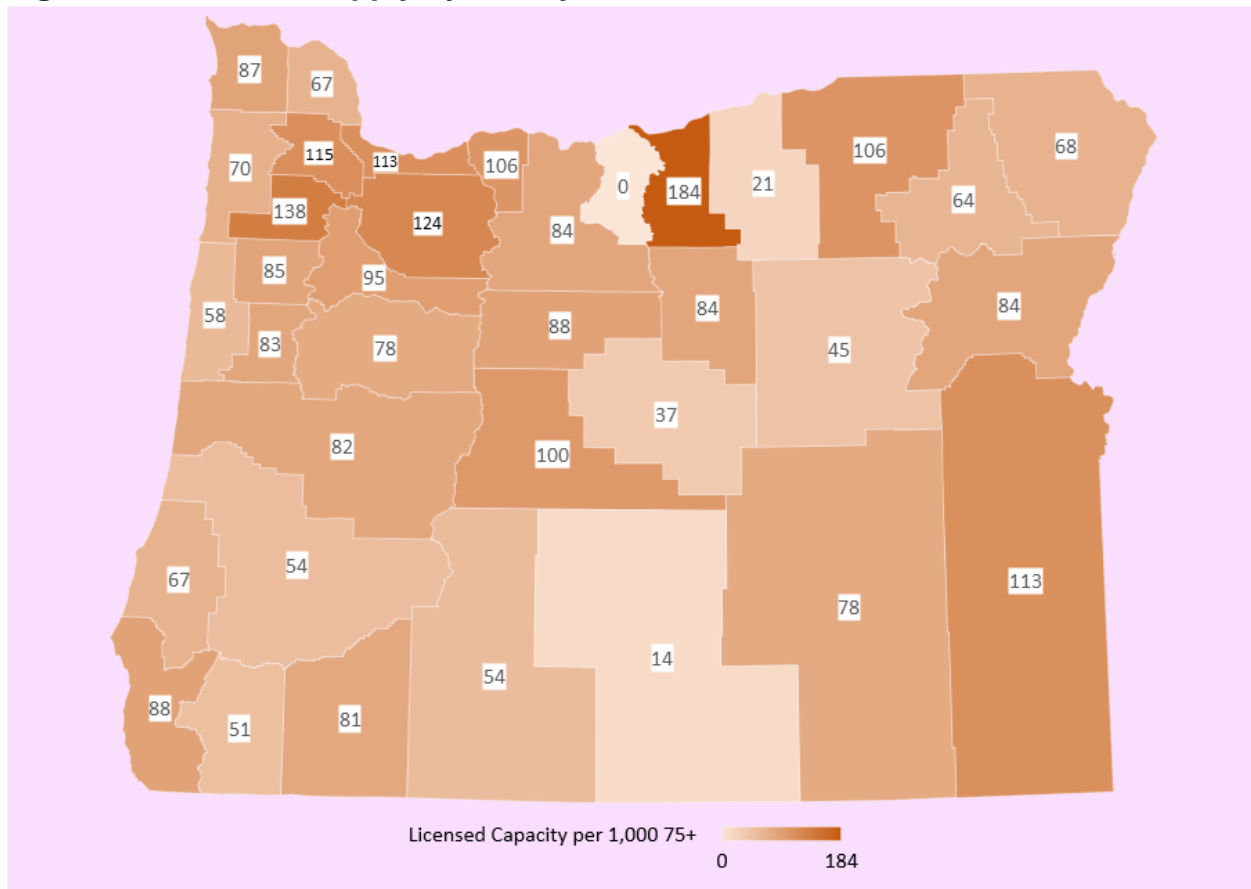
¹This figure includes all AL or RC facilities, including those that have a MC endorsement.

The availability of AL/RC and MC varies across Oregon. All 36 counties except Sherman had at least one AL/RC/MC and 30 counties (except Harney, Lake, Morrow, Sherman, Tillamook, and Wheeler) had at least one MC. Three counties with the largest number of AL/RC/MC beds were Multnomah, Washington, and Clackamas, together accounting for 41 percent of the overall licensed capacity.

To better account for the differences in the number of Oregonians who may need AL/RC/MC, we calculated a measure of supply that takes into account differences in population across counties: licensed capacity and memory care units per 1,000 persons aged 75 and over (Figure 1 and Figure 2, respectively).

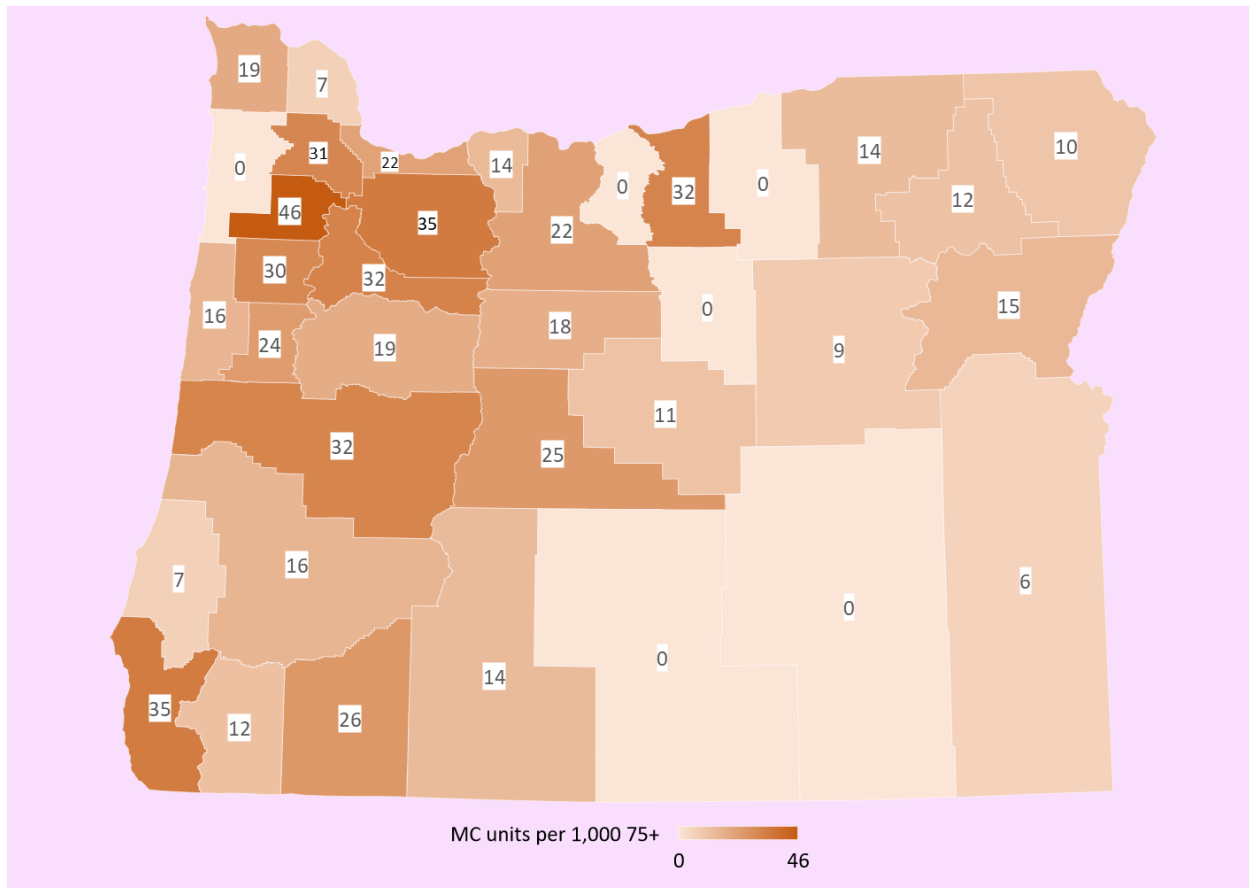
According to this measure, the geographic distribution of AL/RC/MC supply was not extremely concentrated, though counties exhibited varying levels of supply (Figure 1). AL/RC/MC supply was greatest in Gilliam and Yamhill Counties, followed by the Portland Metro Area (Multnomah, Washington, and Clackamas).

Figure 1. AL/RC/MC supply by county



MC supply was concentrated in the Willamette Valley and Southern Oregon, with Yamhill, Clackamas, and Curry Counties having the highest supply, according to this measure (Figure 2). Eastern Oregon had the lowest MC supply across Oregon.

Figure 2. MC supply by county



Ownership, Chain Affiliation, and Multi-License Settings

This year, for the first time, we asked settings specific questions about the type of ownership they had, whether they were part of a chain, and whether their community shared a building or campus with one of the four types of settings.

Table 2 shows the percent of the 329 responding settings that reported whether they shared a building or campus with an independent living, another AL/RC, another MC, or skilled nursing facility. Overall, 29 percent reported sharing a building or campus with an independent living setting and nine percent with a skilled nursing facility. About a quarter of AL/RC/MC shared their building or campus with another AL/RC or MC (25 percent and 23 percent, respectively). Most AL/RC/MC (58 percent) shared their building or campus with at least one other type of setting (not shown in table),

suggesting a high prevalence of campus-type arrangements among AL/RC/MC in Oregon. Some of these might be continuing care retirement communities (CCRC), also called life plan communities, which are required to be registered with Oregon DHS and typically include some combination of the setting types listed in Table 2 (OAR 411-067).

Table 2. Multi-License Settings, 2022

	AL/RC	MC	All
	%	%	%
Independent living	33	21	29
Another AL/RC facility	11	49	25
Another MC community	29	11	23
Skilled nursing facility	10	8	9

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

The senior housing market is typically considered a for-profit, private industry. Twelve percent of the responding AL/RC/MC were nonprofit and less than one percent were government entities (Table 3). The remaining 87 percent were for-profit organizations, either private or in the form of publicly traded or LLC. This rate is slightly higher than the 84 percent reported as for profit in 2016 (Carder et al., 2016). These figures somewhat mirror the AL market in the country, though nonprofit organizations providing AL/RC/MC are somewhat higher at 19 percent compared to Oregon (Sengupta et al., 2022).

Table 3. Type of Ownership, 2022

	AL/RC	MC	All
	%	%	%
Nonprofit	14	9	12
For profit	86	90	87
Government (federal, state, county, or local)	1	<1	<1

Note: Percentages may not add up to 100 due to rounding. Private for profits and publicly traded and limited liability companies (LLC) were combined as for profit.

We asked settings whether their community was owned by a person, group, or organization that owns or manages two or more AL, RC, or MC, including a corporate chain. Table 4 shows that 83 percent of responding settings reported being a chain member with chain membership being slightly higher in MC (87 percent) compared to AL/RC (80 percent). These rates are much higher compared to the national average of 60 percent (Sengupta et al., 2022, p. 9, Figure 5). The 2015 CBC report asked whether

the setting was “part of a community chain,” and 66 percent indicated that they were part of a community chain with two or more settings (Carder et al., 2014). This question, while not directly comparable due to question wording, suggests that there has been an increase in chain ownership since 2015.

Table 4. Chain affiliation, 2022

	AL/RC	MC	All
	%	%	%
Chain-affiliated	80	87	83
Not chain-affiliated	20	13	17

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

Occupancy Rates

Occupancy is an important indicator of financial well-being for these settings. We calculated the occupancy rate by dividing the number of current residents by the licensed capacity, separately for AL/RC and MC. Of the 333 settings for which we have this information, occupancy rates for AL/RC and MC were 70 percent and 75 percent, respectively (Table 5). These figures remain lower compared to occupancy rates right before the COVID-19 pandemic when the occupancy rates for AL/RC and MC were 77 percent and 85 percent, respectively (Table 5).

Table 5. Occupancy Rates Based on Number of Residents, 2020-2022

	2020	2021	2022
AL/RC	77%	70%	70%
MC	85%	76%	75%
Total	79%	71%	71%

Note: For the current year, calculation is based on 333 cases with non-missing information. The figures for 2020 and 2021 were retrieved from past years' reports.

Table 6 below provides a more detailed look at occupancy rates, showing the range of occupancy rates among responding AL/RC and MC at five cut points (bottom 10th and 25th; middle; top 25th and 10th). Only a small share (bottom 10 percent) reported an occupancy rate lower than 50 percent. At the top end, 25 percent of AL/RC and MC reported occupancy rates higher than 83 percent and 91 percent, respectively. MC had occupancy rates comparable to AL/RC at the bottom 10th and 25th, but higher occupancy rates toward the top of the distribution (middle and above).

Table 6. Distribution of occupancy rates of responding facilities, 2022

Percentile	Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
AL/RC	52	63	73	83	89
MC	51	65	81	91	100
Total	52	64	75	85	94

Note: Based on 333 cases with non-missing information.

Senior housing professionals such as the National Investment Center (NIC) calculate occupancy rates at the unit level (i.e., as a percentage of units occupied) instead of licensed beds or the number of residents. Based on the unit occupancy, the occupancy rates were 81 percent and 79 percent for AL/RC and MC, respectively, similar to their levels in 2021 and much lower compared to the 2020 data (Table 7 below).

Table 7. Occupancy rates based on number of units, 2020-2022

	2020	2021	2022
AL/RC	88	78	81
MC	88	78	79
Total	88	78	80

Note: For the current year, calculation is based on 325 cases with non-missing information. The figures for 2020 and 2021 were retrieved from past years' reports.

Units and Room Sharing

AL/RC rooms may accommodate up to two residents, and rules governing unit or room sharing in AL and RC differ. In RC, units may be private or shared by roommates who did not previously know each other, and residents have the right to choose a roommate when sharing a unit (OAR 411-054-0027). In AL, two people sharing a room must be known or related to each other, such as married couples, relatives, or friends, though an individual exception is required for each AL resident who chooses to share a unit with someone other than their spouse or partner (OAR 411-054-0100).

Most AL/RC/MC residents (82 percent) did not share their room or apartment (e.g., single occupancy), though AL/RC residents were more likely to not share (89 percent) compared to MC residents (63 percent) (Table 8). This is likely because most MCs have a base license of RC rather than AL. A small share of AL/RC (9 percent) or MC (two

percent) residents shared a room/apartment with their spouse or relative. Sharing a room or apartment with an unrelated roommate was much more common among MC residents (34 percent) compared to their AL/RC counterparts (one percent). Prevalence of room/apartment sharing changed little since 2020 ([Appendix B](#) Table B1).

Table 8. Unit sharing among residents by setting, 2022

	AL/RC	MC	All
	%	%	%
Does not share a room/apartment	89	63	82
Shares a room/apartment with spouse/relative	9	2	7
Shares room/apartment with unrelated roommate	1	34	11
Total	100	100	100

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

Medicaid Acceptance, Medicaid Reimbursement, and Payer Sources

AL/RC/MC can enter into a contract with ODHS to accept Medicaid as a form of payment. Medicaid funds can then be used by ODHS to pay for residential LTSS received by eligible residents who meet certain financial and medical criteria (OAR 411-27-0025). Of the 333 responding AL/RC/MC, 78 percent had a Medicaid contract. However, having a Medicaid contract does not necessarily indicate that the setting currently has one or more Medicaid beneficiaries.

APD/ODHS establishes reimbursement rates for Medicaid LTC services (Table 9 below). As of January 2022, the lowest monthly rates that ODHS pays on behalf of eligible AL, RC, and MC residents were \$1,511, \$1,882, and \$4,939, respectively. The resident pays room and board at a rate of \$654 unless the resident’s income is under that amount and qualifies for assistance with this cost. ODHS pays an additional \$365 and \$362 for each eligible add-on among RC and AL residents, respectively, up to three add-ons, the assessment of which is made individually based on needs documented in the Client Assessment and Planning System (CA/PS) and as described in OAR 411-027-0025.

Table 9. Medicaid reimbursement rates by setting, January 2022

	AL	RC	MC
Lowest Rate	\$1,511	\$1,882	\$4,939
Room & Board	\$654		
Total (Lowest Rate + Room & Board)	\$2,165	\$2,536	\$5,593

Note: Lowest rate refers to base rate for RC, Level 1 care for AL, and a flat rate for MC.

For each sampled resident, we asked whether they were primarily paying using private sources (e.g., personal accounts, long-term care insurance, Social Security, pensions), Medicaid, or another source. The share of residents paying primarily using private funds was 53 percent (Table 10). A much higher share of AL/RC/MC were Medicaid beneficiaries (46 percent) compared to the national average (18 percent) (Sengupta et al., 2022, p. 24). This higher share of Medicaid beneficiaries is mostly attributable to a 1915(c) waiver obtained by ODHS from the Centers for Medicare and Medicaid Services (CMS) that allows Oregon to spend Medicaid funds designated for individuals who require nursing facility level of care to instead receive those services in their homes or in a community-based care setting, such as AL/RC or MC (Oregon Department of Human Services, Aging and People with Disabilities, 2022).

Table 10. Distribution of payer sources among sampled residents by setting, 2022

	AL/RC	MC	Total
	%	%	%
Medicaid	45	47	46
Private Sources	54	51	53
Other	1	2	1

Note: Other payer sources (1%) included Providence ElderPlace, a Program of All-Inclusive Care for the Elderly (PACE), some of whose recipients may actually be eligible for or actively using Medicaid, even though Medicaid was not reported as their primary source of payment for services.

Private Pay Charges

Providers were asked about each resident's base and total monthly charges for the prior month (Table 11). While the base rate might include some services, settings may charge for additional services. The average base monthly charge for AL/RC was \$4,445 and the average monthly charge including services received by the resident was \$5,498. These service charges added an average of \$1,053 per month to the base

charge for AL/RC facilities in comparison to \$831 reported in 2021. Based on the average total monthly charge, a year-long stay for a single AL/RC resident would amount to \$65,976, a 11.5 percent increase over the total annual charge (\$59,184) reported last year.

On average, MC communities charged \$6,166 for the base monthly charges and \$7,142 for the total monthly charges, that is, including services (Table 11). As such, the service charge added \$976 per month to the base charge among MC communities, compared to \$944 last year. The average total monthly charge for MC was about \$1,644 more than the AL/RC average total charge. A year-long stay in MC based on the average total monthly charge would amount to \$85,704, a 4 percent increase from the annual charge of \$82,404 reported in 2021. On average, the annual charge for MC is about \$20,000 more than for AL/RC.

The year-on-year increases in private pay charges, even after accounting for general inflation, may be partially attributed to higher rate of inflation for staff wages and other expenses (e.g., PPE and COVID-19 testing) during this period.

Table 11. Average monthly private-pay charges among sampled residents by setting, 2022

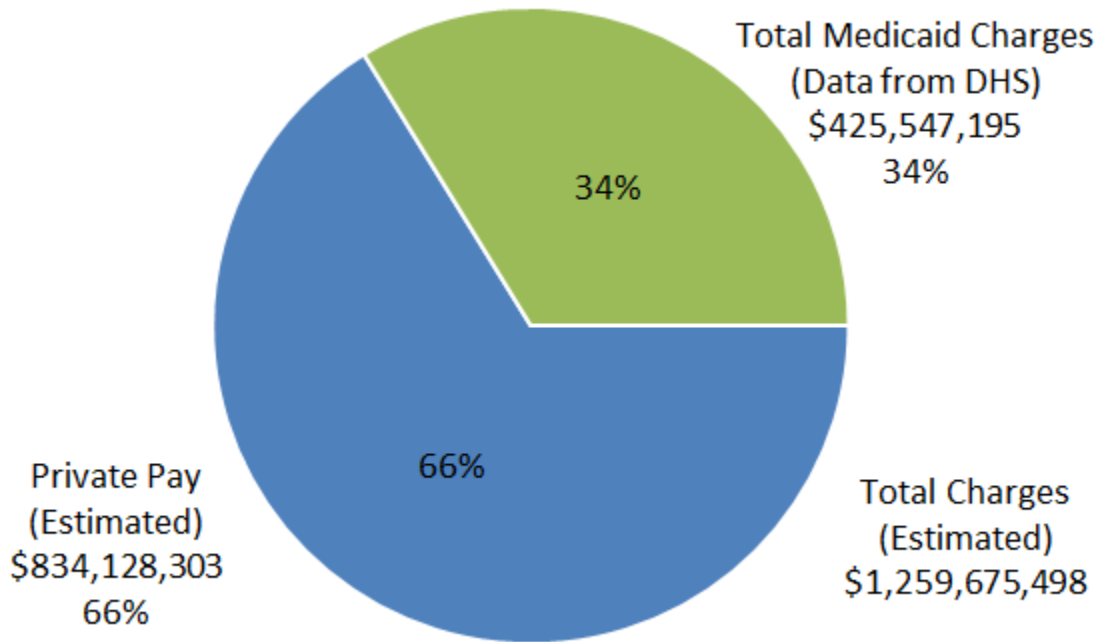
Monthly Charge	AL/RC		MC		Total	
	Base	Total	Base	Total	Base	Total
Median	4,250	5,210	6,000	7,000	4,910	5,918
Average	4,445	5,498	6,166	7,142	5,093	6,117

Estimated Industry Charges

Based on the amount billed to ODHS for Medicaid services by providers and the average total monthly charge for private pay residents, we estimated total annual industry charges for all AL/RC/MC settings (see Table A2, [Appendix A](#) for a description of the calculations). The total estimated industry charges were over 1.2 billion dollars, at \$1,259,675,498 - an increase of eight percent from last year's estimates (Figure 3).

The total estimated industry charges were distributed between private sources (66 percent) and Medicaid funds billed to ODHS on behalf of Medicaid-eligible residents (34 percent). The distribution between private and Medicaid funding was the same as last year.

Figure 3. Estimated total annual charges for AL/RC and MC facilities in Oregon, 2022



Use of Electronic Health Records and Health Information Exchange

An electronic health record (EHR) is “a computerized version of the resident’s health and personal information used in the management of the resident’s health care.” EHR can serve as an important tool for providing high-quality care in AL/RC/MC settings (Lin and Tunalilar, 2022). Especially when combined with electronic health information exchange (HIE) with other providers, EHR can facilitate better care transitions, communication, and coordination, in areas of direct care support such as medication management and hospice care.

This year, for the first time, we asked providers about their use of EHR as well as their use of EHR in facilitating six specific functions: recording resident demographics, clinical notes, resident medications and allergies, and individual service plans; viewing lab or imaging reports; and ordering prescriptions.

We asked settings whether they use EHR, excluding uses for accounting or billing purposes, and 88 percent of AL/RC/MC reported doing so (not shown in table). AL/RC (87 percent) and MC (91 percent) did not differ in their use of EHR.

While settings can use EHR for many purposes, Table 12 shows the share of responding settings that reported using computerized systems or processes to do six specific functions. Overall, most AL/RC/MC used EHR for recording resident demographics, clinical notes, resident medications and allergies, and individual service plans. Two-third of responding settings (67 percent) used EHR in ordering prescriptions, and AL/RC (63 percent) and MC (74 percent) somewhat differed. Only one-third of AL/RC/MC used EHR in viewing lab or imaging reports.

Table 12. Electronic Health Records Uses, 2022

	AL/RC	MC	Total
	%	%	%
Record resident demographics	83	86	84
Record clinical notes	82	88	85
Record resident medications and allergies	89	91	90
Record individual service plans	88	89	89
View lab or imaging reports	30	33	31
Order prescriptions	63	74	67

Note: This question was adopted from the National Study of Long-Term Care Providers 2018. Settings with missing values and those that replied, “Don’t Know” (ranging from 0 to 15 depending on the function) were excluded in calculating the percentages.

HIE refers to “the ability for health care providers to electronically move clinical information among different entities” and allows providers such as AL/RC/MC to confidentially access as well as share their residents’ medical information (Caffrey et al., 2020). We asked providers whether their community’s computerized system supported electronic health information exchange with six specific providers listed in Table 13. Most AL/RC/MC (59 percent) reported HIE with a pharmacy, and MC were more likely to do so compared to AL/RC (67 percent and 54 percent, respectively). Facilities used HIE to a lesser extent with physicians (16 percent), hospitals and SNFs (eight percent each), behavioral health providers (seven percent), and other LTC providers (six percent).

Table 13. Use of Electronic Health Information Exchange, 2022

	AL/RC	MC	Total
	%	%	%
Physician	11	24	16
Pharmacy	54	67	59
Hospital	8	9	8
Behavioral health provider	6	8	7
Skilled nursing facility	8	10	8
Other long-term care provider	5	7	6

Note: This question was adopted from the National Study of Long-Term Care Providers 2018. Settings with missing values and those that replied “Don’t Know” (ranging from 0 to 12 depending on the provider type) were excluded in calculating the percentages.

Additional Services

We asked AL/RC/MC whether they offered any of the 10 services listed in Table 14 to their residents, and if they did, whether their own staff provided the service, if they arranged for the service with outside agencies, or if they referred residents and residents’ families to outside agencies.

Of the 10 services listed, five were provided directly by staff in over half of AL/RC/MC settings: meals delivered to resident rooms/apartments (95 percent), transfer assistance requiring two staff (74 percent), transportation for social and recreational activities (68 percent), management of behavioral symptoms (61 percent), and transportation for health-related appointments (59 percent) (Table 14).

The three services least often provided directly by AL/RC/MC settings included routine dental (two percent), emergency dental (two percent), and hospice services (six percent). Although those services are less often provided, over 40 percent of settings refer to services, including routine dental (45 percent), emergency dental (45 percent), and hospice services (41 percent). On the other hand, very few settings refer to services for regular meal delivery to residents’ rooms (< one percent) and transfer that requires two staff (three percent). A small share of settings did not provide, arrange, or refer for a particular service listed in Table 14 depending on the service (not included in Table 14, but ranging from less than one percent to 24 percent).

There were two notable differences in the types of services provided directly by AL/RC and MC. MC (84 percent) were more likely to provide transfer (i.e., from bed to chair) that requires two staff compared to AL/RC (68 percent), and MC were also more likely to provide management of behavioral symptoms such as agitation compared to AL/RC (54 percent and 73 percent, respectively). These differences can likely be explained by the higher acuity profile among MC residents.

Table 14. Services provided or arranged by AL/RC/MC, 2022

P = provides A = arranges	AL/RC		MC		AL/RC/MC	
	P	A	P	A	P	A
	%	%	%	%	%	%
Routine dental services by a licensed dentist	1	51	3	59	2	54
Emergency dental services by a licensed dentist	1	46	3	49	2	47
Hospice services	7	72	5	81	6	75
Meals regularly delivered to resident's room	97	1	91	3	95	2
Transfer that requires 2 staff	68	1	84	2	74	2
Escorts to medical, dental, or other health-related appointments	48	35	54	34	50	34
Pharmacy services, including filling or delivery of prescriptions	46	63	51	55	48	60
Transportation services for medical, dental, or other health-related appointments	61	60	57	54	59	58
Transportation services for social and recreational activities or shopping	69	39	67	26	68	35
Management of behavioral symptoms, such as agitation	54	51	73	52	61	51

Note: Row totals need not add up to 100% because facilities could choose multiple response options simultaneously (e.g., provides and refers). P= provides; A= arranges.

FACILITY STAFF

The following section describes information about facility staff including:

- The care-related staff employed full-time and part-time,
- The staff-to-resident ratios and staffing levels, and,
- Recent staff turnover and current staff tenure.

Care-Related Staff Employed Full-Time and Part-Time

ODHS requires AL/RC/MC to employ “qualified awake direct care staff, sufficient in number to meet the 24-hour scheduled and unscheduled needs of each resident” (OAR 411-054-0070). The number of qualified staff varies 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. Specifically, ODHS requires each AL/RC/MC to adopt an acuity-based staffing tool (ABST) to determine appropriate staffing levels. The ABST assesses resident needs and the results (in the form of number of care hours/minutes) must be used to develop and update the facility staffing plan. In this section, we describe three aspects of staffing in AL/RC/MC.

First, we enumerate the number of staff currently employed either full- or part-time (as reported by settings), including all staff and care-related staff, among responding settings.. We also examine the share of settings that employ at least one staff type (such as RNs, social workers). We next calculate the ratio of staff to the number of current residents (“staffing ratios”). Finally, we calculate and present staffing levels using the method from the National Study of Long-Term Care Providers (Harris-Kojetin et al., 2019).

While staffing ratios and staffing levels are two common methods of calculating the number of staff relative to the number of residents, they constitute averages that cannot reflect the actual amount of time that staff spend with residents or the differential care needs of residents at any given AL/RC/MC setting. As such, the purpose of presenting these ratios and levels is to compare and contrast by setting type as well as over time, and to document variation by setting characteristics. Note that staffing ratios and staffing levels reported in this section are not equivalent to the ABST.

Similar to last year, we asked settings for the number and type of staff they employed by reporting separately the number of care-related staff, including registered nurses (RNs), licensed professional/vocational nurses (LPNs/LVNs), certified nursing assistants (CNAs), certified medical assistants (CMAs), personal care staff, social

workers, and activities directors or staff. Oregon rules require AL/RC/MC settings to employ personal care staff and to have a registered nurse regularly scheduled for onsite duties at the setting and available for telephone consultation (OAR 411-054-0045).

Of the 333 settings that responded to the questionnaire, 53 did not fill out the staffing section or responded in ways that could not be used (e.g., incomplete information, combined staff from multiple buildings and units; see [Appendix A: Method](#) for details), likely due to the staffing challenges faced by settings during the COVID-19 wave in winter. The remaining 280 settings that reported staffing data employed 9,625 individuals, 69 percent of whom had care-related jobs (not shown in Table). This is higher compared to last year's figure (58 percent) but similar to the year before the pandemic started (67 percent), suggesting that the COVID-19 pandemic may have temporarily impacted the share of care-related staffing in the overall employee mix of AL/RC/MC settings.

We next examine the share of staff belonging to each care-related employee category across the 280 responding AL/RC/MC settings (Table 15). Personal care staff (also called direct care workers, caregivers, care aides, or similar) constituted the largest share of care-related staff employed in AL/RC/MC at 82 percent. While personal care staff are not required to be licensed or certified, they have training requirements, including pre-service training and orientation, and annual training (OAR 411-054-0070). Their primary role in assisting residents with personal care is sometimes coupled with other duties, such as leading social and recreational activities, serving meals, and doing laundry and housekeeping.

Considering the “social model” of care provided in this setting, it is not surprising that a smaller share of care-related staff are licensed nurses (RNs and LPNs) at six percent (Table 15). Licensed nurses are expected to be regularly scheduled for onsite duties (e.g., assessments, delegation and teaching, monitoring, and participation in service planning) and available for phone consultation, but they are not required to be on staff 24 hours daily (OAR 411-054-0036). However, the number of RN hours must be informed by the number of residents living in the setting as well as their acuity.

Table 15. Distribution of Care-related staff employed, by employee categories, 2022

	AL/RC			MC			AL/RC/MC		
	FT	PT	All	FT	PT	All	FT	PT	All
	%	%	%	%	%	%	%	%	%
RNs	3	11	5	3	8	4	3	10	4
LPNs/LVNs	2	2	2	2	2	2	2	2	2
CNAs	2	3	2	2	4	2	2	3	2
CMAs	2	1	2	1	2	1	2	1	1
Personal Care Staff	83	72	81	86	77	84	84	74	82
Social Workers	<1	<1	<1	<1	1	<1	<1	1	<1
Activity directors or staff	8	11	8	6	6	6	7	9	7
All Care- Related Staff	100	100	100	100	100	100	100	100	100

Note. Abbreviations: “RNs”= registered nurses; “LPNs/LVNs”= licensed professional/vocational nurses; “CMAs”= certified medication assistants; “CNAs”= certified nursing assistants.”

Table 16 (below) describes the share of responding 280 AL/RC/MC that employed at least one of each type of care-related staff, separately for part-time, full-time, and any staff in that particular category. As expected, at least one personal care staff was employed by almost all AL/RC/MC (98 percent), though only 54 percent employed at least one part-time personal care staff. Most AL/RC/MC employed at least one RN (87 percent) and at least one activity director or staff (86 percent). Part-time employment in those two staff categories was relatively higher 37 percent for RNs and 23 percent for activities director or staff). Very few AL/RC/MC employed at least one social worker (four percent), either part time or full time.

Table 16. Percentage of communities that employed at least one full- or part-time care-related staff by employee categories, 2022

	AL/RC			MC			AL/RC/MC		
	FT	PT	Any	FT	PT	Any	FT	PT	Any
	%	%	%	%	%	%	%	%	%
RNs	56	38	88	53	36	86	55	37	87
LPNs/LVNs	31	5	36	34	7	37	32	6	37
CNAs	19	6	22	18	11	23	19	8	23
CMAs	12	3	12	6	4	7	10	3	10
Personal care staff	92	53	99	88	55	96	91	54	98
Social workers	3	1	4	2	2	3	3	2	4
Activity directors or staff	79	23	88	70	26	82	76	24	86

Note: The estimates in this table represent whether facilities (n=280) had at least one care-related staff person in each category currently employed.

These findings have remained fairly consistent since 2020 with few exceptions (see Appendix Table B6). A potential trend that can be examined over time is the employment of RN or LPN/VN in these settings. Specifically, from 2020 to 2022, the share of AL/RC/MC that employed an RN either full- or part-time declined slightly (94 percent, 91 percent, 87 percent) while the share that employed an LPN increased (33 percent, 36 percent, 37 percent) during these three years. The share that employed activities directors or staff declined from 87 percent in 2020 to 81 percent in 2021 and 86 percent this year.

Table 17 below shows the share of staff employed full- or part-time within the seven care-related employee categories that we asked about. Most care-related staff are employed full-time (83 percent) rather than part-time (17 percent), but there is variation across employee categories and setting type. For instance, MC are more likely to employ CNAs and CMAs part-time (29 percent and 28 percent) compared to AL/RC (20 percent and 12 percent, respectively). Similarly, social workers in AL/RC are more likely to be employed full-time (78 percent) compared to those in MC (63 percent). However, caution is advised when these comparisons are made since there are few staff employed in certain employee categories, such as social workers (see Table 16 above).

Table 17. Percentage of care-related staff employed full- and part-time, within employee categories and by setting, 2022

	AL/RC		MC		Total	
	FT	PT	FT	PT	FT	PT
	%	%	%	%	%	%
RNs	60	40	58	42	59	41
LPNs/LVNs	86	14	85	15	86	14
CNAs	80	20	71	29	76	24
CMAs	88	12	72	28	83	17
Personal Care Staff	86	14	83	17	85	15
Social Workers	78	22	38	63	69	31
Activity directors or staff	79	21	80	20	79	21
All Care- Related Staff	84	16	81	19	83	17

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

Staff to Resident Ratios

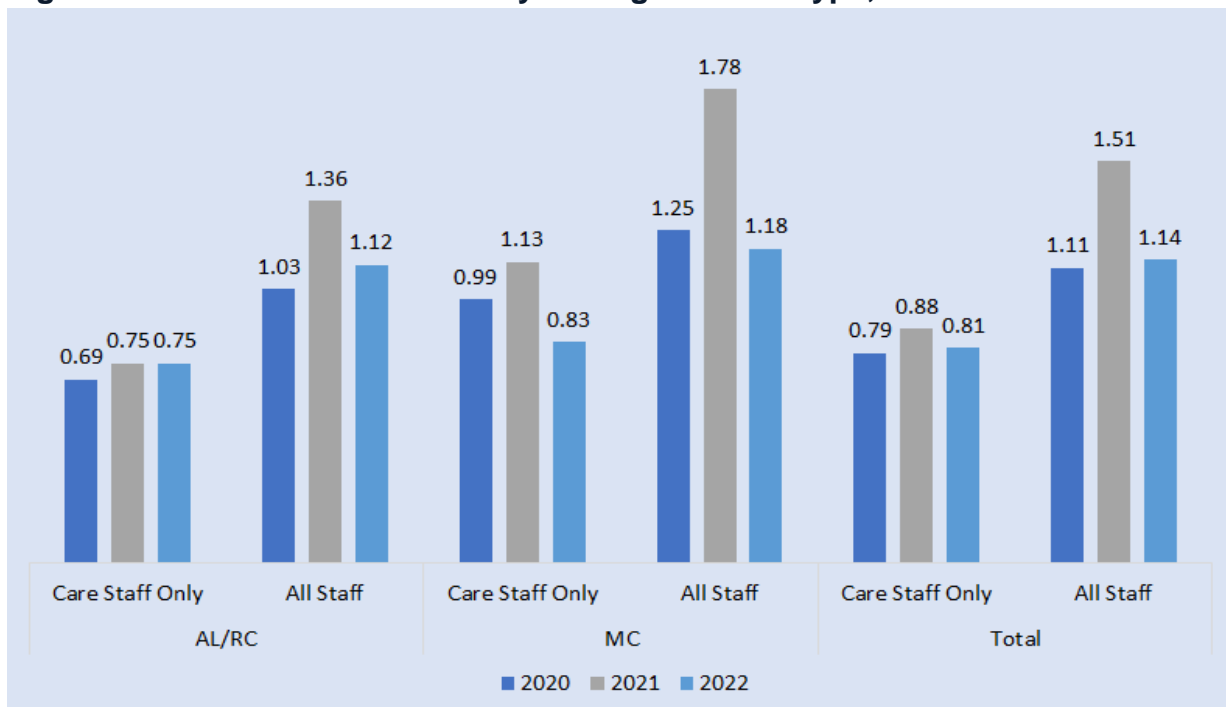
Oregon does not have specific regulations for staffing ratios in AL/RC/MC; however, each setting must provide sufficient and qualified staff to meet residents' 24-hour scheduled and unscheduled needs. This section describes staff to resident ratios and changes in staffing ratios over time. This ratio was calculated by dividing the number of employees to current residents reported by settings. Of the 333 settings that responded to the questionnaire, 280 included valid information for calculating the ratio.

The ratio of all staff (including care-related and other employees) to residents was 1.14 (Figure 4). Not surprisingly, the staff to resident ratio in MC was higher than AL/RC (1.18 and 1.12), a pattern that held for care-related staff (.83 and .75, respectively). Compared to previous CBC studies, this year's staffing ratios were lower than those reported in 2021 for both care-related and all staff, but slightly higher than those in 2020. Although the 2022 staff ratios were lower than those in 2021, the current ratios for both care-related staff and all staff in MC (.83 and 1.18) were lower compared to 2020 (.99 and 1.25), while the current ratios of both care-related staff and all staff in AL/RC

(.75 and 1.12) were higher than those in 2020 (.69 and 1.03) (Figure 4). As noted above, it is possible that the changes that occurred last year were due to the impact of the pandemic, driven by declines in occupancy rates reported in the Occupancy Rates section.

The above information provides average rates across all respondents. Table 18 instead compares the range of staff ratios, by setting, organized by five percentiles. Focusing first on care-related staff, settings in the top 10th percentile had ratios of 1.34 in AL/RC and 1.49 in MC. Regardless of percentile, care-related staff ratio in MC is higher compared to AL/RC.

Figure 4. Staff to resident ratios by setting and staff type, 2020-2022



Note: Based on cases with no missing data on staffing items and valid staffing data for AL/RC/MC (n=317 in 2020, n=314 in 2021, and n=280 in 2022).

While ratios for all staff among AL/RC in the top 10th percentile is nearly four times higher than those in the bottom 10th, ratios for all staff among MC communities in the top 10th percentile is two and half times higher than those in the bottom 10th. Potential reasons for these variations might include different resident-level characteristics such as care needs and preferences, and setting-level characteristics such as staffing policies. Possibly, newly opened settings had fewer residents and therefore fewer staff, and as noted above, some settings had lower occupancy rates in 2020, which could be associated with staffing.

Table 18. Percentile distribution of staff ratios by setting, 2022

Percentile		Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
AL/RC	Care Staff	0.33	0.40	0.58	0.85	1.34
	All Staff	0.54	0.66	0.85	1.25	2.02
MC	Care Staff	0.60	0.76	0.90	1.06	1.49
	All Staff	0.71	0.88	1.04	1.34	1.82
Total	Care Staff	0.35	0.46	0.73	0.99	1.39
	All Staff	0.57	0.75	0.94	1.30	1.93

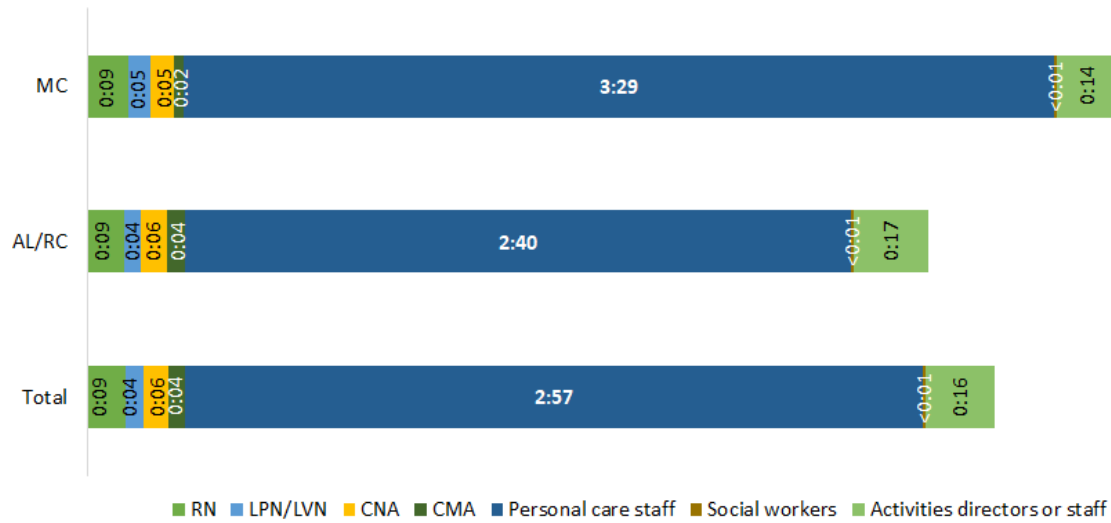
Note: Percentiles are based on unweighted staffing data from the 280 AL/RC/MC with non-missing, valid staffing data.

Staffing Levels

Staffing level is an additional way to describe the availability of staff in licensed care settings. Staffing levels are 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](#), for more details). This measurement indicates the average staff hours per resident per day (HPRD), and it is commonly used as an indicator of long-term care setting quality (Rome et al., 2019). This approach provides an estimate of staff time spent with residents rather than an actual accounting of staff time.

Personal care staff have the highest HPRD among all care-related staff as shown in Figure 5. Activities staff accounted for the next highest HPRD, followed by RNs. When we combine personal care staff with CNA/CMA levels, Oregon’s “aide” staffing level is three hours seven minutes. The nurse staffing hours, combining RN and LPN/LVN time, were 13 minutes per resident per day.

Figure 5. Care hours per resident per day among Care-related staff by setting, 2022



Note: Based on unweighted staffing data from the 280 AL/RC/MC with non-missing, valid staffing data. As shown in Table 19 below, the personal care staffing level in MC communities is higher compared to AL/RC, for all years, though staffing levels for other job types is relatively similar across the setting types. In terms of personal care staffing levels, since 2020 the level has increased slightly, while for MC, the personal care staffing level increased between 2020 and 2021 (from 3:47 to 4:18) and then declined this year to 3:29, which is below the 2020 level. Given that the staffing level calculation includes the number of residents, and the occupancy rate of MC declined during this time period, at least some of this change could be due to fewer residents.

Table 19. Care hours per resident per day among Care-related staff by setting, 2020-2022

	AL/RC			MC			Total		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
RNs	0:10	0:11	0:09	0:11	0:12	0:09	0:10	0:11	0:09
LPNs/LVNs	0:03	0:06	0:04	0:04	0:07	0:05	0:03	0:06	0:04
CNAs	0:09	0:10	0:06	0:09	0:08	0:05	0:09	0:09	0:06
CMAs	0:04	0:04	0:04	0:03	0:03	0:02	0:03	0:04	0:04

Personal care staff	2:20	2:38	2:40	3:47	4:18	3:29	2:49	3:12	2:57
Social workers	0:01	0:01	<0:01	<0:01	<0:01	<0:01	<0:01	<0:01	<0:01
Activity directors or staff	0:11	0:11	0:17	0:14	0:17	0:14	0:13	0:13	0:16
Total	2:59	3:22	3:22	4:27	5:06	4:07	3:28	3:58	3:38

Note: Based on cases with no missing data on staffing items and valid staffing data for AL/RC/MC (n=317 in 2020, n=314 in 2021, and n=280 in 2022). The numbers reflect Hours:Minutes.

Similar to staffing ratios discussed above, staffing levels in any given setting vary widely (Table 20). AL/RC/MC settings in the top 10th percentile have almost four times as many care hours per resident per day compared to the bottom 10th, and almost two times as many as the median setting. Among AL/RC, the top 10th percentile has 4.1 times as many care hours per resident per day compared to the bottom 10th percentile. Among MC, the top 10th percentile has 2.9 times as many care hours as MC in the bottom 10th percentile. These observed differences are likely due to variation in residents' care needs and preferences, ability of AL/RC/MC settings to find, attract, and retain staff, as well as other unknown factors.

Table 20. Percentile distribution of care hours per resident per day by setting, 2022

Percentile	Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
AL/RC	1:32	1:49	2:30	3:42	6:15
MC	2:15	3:16	4:01	4:49	6:38
Total	1:36	2:01	3:07	4:22	6:21

Note: Based on unweighted staffing data from the 280 AL/RC/MC with non-missing, valid staffing data. The numbers reflect Hours:Minutes.

Current Job Openings

Hiring and retaining staff continues to be a major challenge in AL/RC/MC (e.g., see the section on COVID-19 pandemic below). We asked providers how many job openings they currently have in order to gauge the unmet demand for staff. Among the 279 settings with non-missing, valid staff data, there were 1,100 current openings,

corresponding to about 12 percent of all employees currently employed by these AL/RC/MC.

Unplanned Staff Absences and Outside Service Provider Use

To understand how the pandemic might be impacting staffing, we asked providers whether they experienced any unplanned care-related staff absences. These last-minute staffing issues may create challenges for ensuring resident safety and providing high-quality care. Among responding AL/RC/MC, two-third (64 percent) reported having had such staff absences (not shown in table).

Understanding how settings deal with staff absences is an important topic. This year, we asked settings whether they hired outside service providers (e.g., agency or contract staff) to cover planned and unplanned staff absences that occurred in the last 7 days. As Table 21 shows, most AL/RC/MC (77 percent) did not do so. AL/RC (26 percent) were slightly more likely to hire agency or contract staff compared to MC (17 percent).

Table 21. Percentage of facilities that hired contract or agency staff to cover staff absences, 2022

	AL/RC	MC	Total
	%	%	%
Hired for planned staff absences only	8	3	6
Hired for unplanned staff absences only	4	1	3
Hired for both types of staff absences	14	13	14
Did not hire contract or agency staff	74	83	77

Recent Turnover and Current Staff Tenure

Retaining staff can help settings provide high-quality care by increasing experienced, trained staff and by reducing search costs. To measure staff retention, we asked settings about staff who left employment for any reason in the last six months (recent turnover) and how many of their current care-related staff have been employed for more than six months (current staff tenure). We asked these questions separately about RNs and non-RN care-staff.

In the 282 AL/RC/MC that provided turnover and tenure data for RNs, 67 percent of current RNs had been working for over six months at their setting. One-third (35 percent) of these 282 AL/RC/MC had at least one RN leave employment for any reason in the past six months.

In the 222 AL/RC/MC that provided turnover and tenure data for non-RN care-staff, 67 percent of these staff had been working for over six months at their setting. A majority of these 222 AL/RC/MC (91 percent) had at least one non-RN care-related staff leave employment for any reason in the past six months. Those staff who left correspond to about 40 percent of the current non-RN care-related staff these settings employed.

While these figures indicate somewhat high turnover among RN and non-RN care staff, results should be interpreted with caution due to the low number of AL/RC/MC settings that responded to these particular questions.

RESIDENTS

The following section describes information about residents including:

- Demographics by setting type
- Move-in, move-out locations, and length of stay of residents who move
- Personal care needs and types of staff assistance receive
- Falls
- Health conditions and health service use
- Medication use

Resident Demographics

Growth in the older adult population (ages 65 and older) is outpacing the overall population growth rate in Oregon, and an estimated one in five people will be age 65 and over by 2030 (Oregon Office of Economic Analysis, 2019). Significantly for CBC and other long-term service sectors, the oldest old population, including people ages 85 and older, is rapidly increasing because the “baby boom” population (those born after 1946) will move into this age group starting in 2031 (Oregon Office of Economic Analysis, 2019). These demographics vary by race and ethnicity, economic status and geography (e.g., urban and rural).

Table 22 describes residents’ sex/gender and age ranges by setting type. As in previous study years, most residents were female and ages 85 and older. A larger share of MC versus AL/RC residents were ages 75-84, while more AL/RC than MC residents were 85 and older. The median age of residents in both setting types was 84. The mean age of residents across both setting types was 82.2 years. The median age of AL/RC residents was slightly higher than MC residents (82.4 versus 81.7 years).

Table 22. Sex/Gender and Age distribution among sampled residents by setting, 2022

	AL/RC	MC	Total
	%	%	%
Sex/Gender			
Male	32	28	31
Female	68	72	69
Transgender	<1	<1	<1

Age categories			
18-49	1	0	1
50-64	6	4	5
65-74	18	20	18
75-84	24	37	28
85 and over	51	40	48

Oregon’s population is becoming more diverse in terms of race and ethnicity, with 25 percent of all Oregonians belonging to a minority group as of 2018 (Oregon Office of Economic Analysis, 2019). The largest minority group in the state includes Hispanics or Latinos (regardless of race), at 13 percent of the total population, though only five percent of people ages 65 and older (Oregon Office of Economic Analysis, 2019). Examining the racial and ethnic distribution of AL/RC/MC residents might inform providers and policymakers about unique care needs of an ethnically and culturally diverse resident population.

As in previous CBC study years, most residents in AL/RC/MC were identified as non-Hispanic White (89 percent) and the remaining 11 percent of residents were either Native American/Alaska Native, Asian, Black/African American, Native Hawaiian or other Pacific Islander, Hispanic/Latino, or multiracial (Table 23).

Table 23. Race/Ethnicity among sampled residents by setting, 2022

	AL/RC	MC	Total
	%	%	%
Hispanic/Latino of any race	2	2	2
Non-Hispanic	98	98	98
American Indian/Native American or Alaska Native	<1	<1	<1
Asian	2	1	1
Black/African American	1	1	1
Native Hawaiian/Other Pacific Islander	<1	1	<1
White	89	90	89

Two or more races	<1	0	<1
Other or unknown	6	5	6

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

Move-in and Move-out Locations, and Length of Stay

Older adults prefer to age in place in their communities (Wiles et al., 2012), though changes in their social support networks (e.g., loss of family caregiver), financial resources, and physical or cognitive abilities can result in a move into an AL/RC/MC setting. Some individuals make multiple moves between different types of residence, including moves made by choice, such as to live closer to family or in a more affordable setting, and other moves might be forced (e.g., discharge or move-out notice). Understanding reasons for moves between home, CBC settings and institutions can facilitate smooth transitions and promote health (Phillips et al., 2017). Positive reframing of the move can ease transitions and may help reduce relocation stress (Costlow & Parmalee, 2020).

AL/RC/MC providers were asked the move-in and move-out locations in the prior 90 days for sampled residents. The largest share of both AL/RC and MC residents moved in from their own home. However, there are notable differences between these resident groups. The next prior residence that was reported most was independent living in senior housing for AL/RC residents (13 percent), and for MC residents it was another AL/RC (23 percent). Not surprisingly, a larger share of MC residents moved from another licensed care setting (e.g., AL/RC/MC, nursing facility or adult foster care) compared to AL/RC residents (40 percent and 21 percent, respectively).

Table 24. Move-In locations among sampled residents by setting, 2022

	AL/RC	MC	Total
	%	%	%
Home (alone or with spouse/partner)	48	27	43
(Another) Assisted living/residential care	11	23	14
Nursing or Skilled Nursing Facility	7	7	7
Independent living apartment in senior housing	13	2	10
Home of child or other relative	7	17	9
(Another) Memory care community	1	6	2
Adult foster care	2	4	3

Hospital	3	5	3
Psychiatric hospital	<1	1	<1
Houseless/homeless	1	<1	1
Criminal justice system (e.g., prison)	<1	0	<1
Don't know	5	8	6
Other	1	0	1

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

As in prior years of this study, the most frequently reported reason a resident left an AL/RC/MC in the prior 90 days was death (66 percent), as shown in Table 25 below. A larger share of MC residents left for this reason, compared to AL/RC residents. Reflecting the findings in Table 24 above, a larger share of AL/RC residents moved out to an MC compared to current MC residents who did so (11 percent and five percent, respectively). The share of AL/RC residents who moved to the community (e.g., their own or a relative’s home, independent senior living) is larger than the share of MC residents moving to the community (12 percent and five percent, respectively).

Some residents who moved out went to another licensed care setting. Among AL/RC residents, 27 percent moved to a licensed care setting compared to 13 percent of MC residents.

Table 25. Move-Out locations of recent Move-Outs in the prior 90 days, 2022

	AL/RC	MC	Total
	%	%	%
Resident died	58	81	66
Another memory care community	11	5	9
Nursing or Skilled Nursing Facility	7	4	6
Home of child or other relative	4	2	3
Another assisted living/residential care	6	2	5
Home (alone or with spouse/partner)	6	2	5
Adult foster care	3	2	3
Hospital	2	<1	2
Independent living apartment in senior housing	2	<1	1

Don't know	1	1	1
Other (including psychiatric hospital, motel, prison)	1	1	1

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

Length of Stay Among Residents Who Moved

As described above, residents move out for a variety of reasons. This section presents the length of stay among those residents who moved out (or died) in the prior 90 days (from the “Facility Questionnaire”). Figure 6 divides lengths of stay into several categories that can be grouped into shorter or longer time periods. For example, 22 percent of all residents had stays of less than 90 days and 34 percent stayed less than six months. Among residents with stays of less than 30 days, the larger share moved from AL/RC compared to an MC setting (12 percent compared to eight percent). Potential reasons for short stays could include planned short stays (e.g., following discharge from an acute care setting, family respite), death, and moves to other care setting types. Based on the 2018 CBC study, six percent of residents who moved out in the prior 90 days were in the AL/RC/MC for a planned short stay (Carder et al., 2018).

Notably, more than one-third of all residents who moved had resided in their AL/RC/MC setting for two or more years. A larger share of AL/RC residents stayed for this length of time compared to MC residents (37 percent compared to 31 percent).

Move-in and move-out dynamics may result in differences in terms of length of stay between residents who moved-out and those who remain. We asked providers when their current residents moved in and calculated length of stay among current residents as of March 2021. Overall, the mean length of stay for current AL/RC/MC residents were 2.46 years; AL/RC residents had a longer average length of stay (2.65 years) compared to MC residents (1.99 years).

Figure 6. Length of stay among residents who moved out by setting, 2022

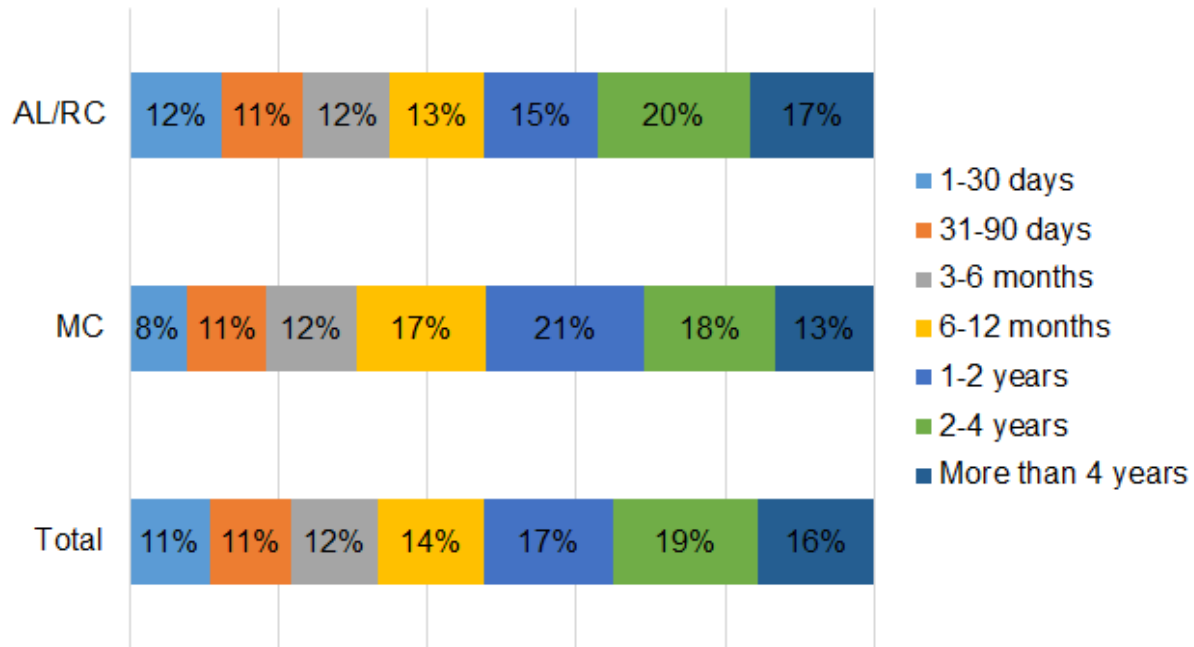
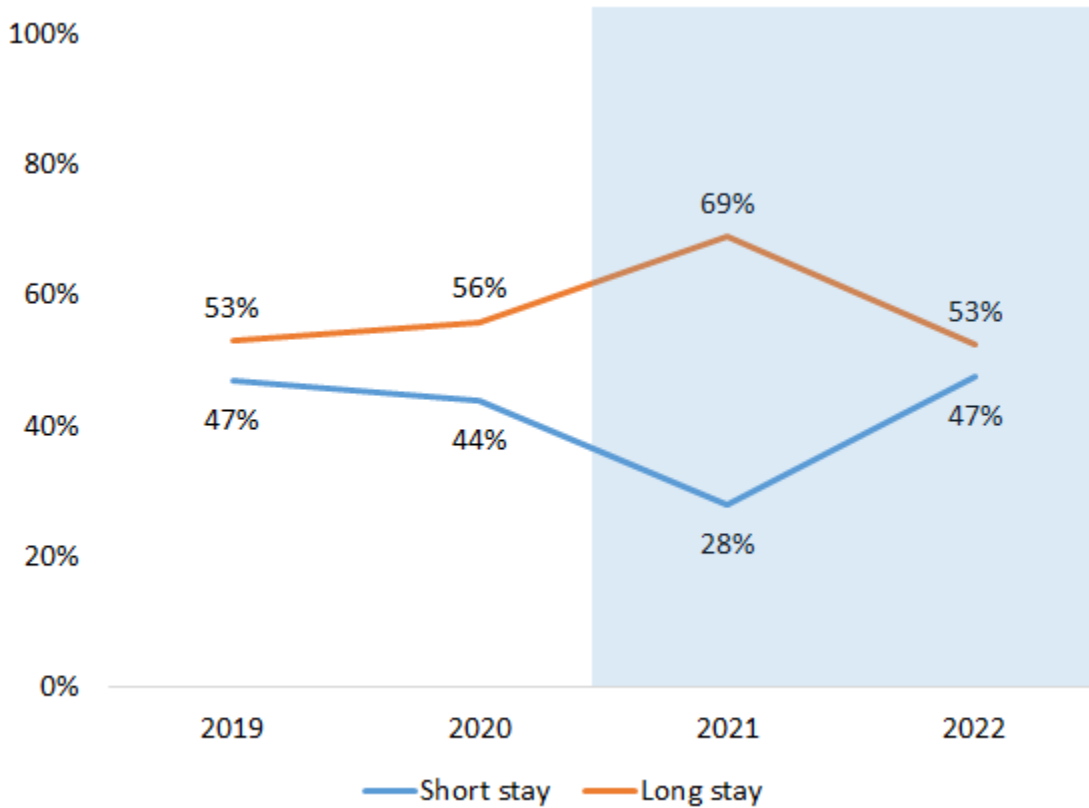


Figure 7 below charts short and long stays, defined as less than or more than one year, since 2019. The share of residents who had a short stay declined sharply between 2020 and 2021, and has now returned to pre-pandemic levels. This change likely reflects a combination of policies and personal choices in managing the uncertainties related to the pandemic. For example, policies enacted by the ODHS to curb levels of infections included limited visits and new admissions (ODHS, 2022a), and individuals who might have been considering moving to an AL/RC/MC setting might have postponed that decision due to concerns about relocating during the pandemic.

During this time period, long-term stays increased until 2021, and returned to the pre-pandemic level. Possibly some residents who might have moved out preferred to remain in the community rather than relocate.

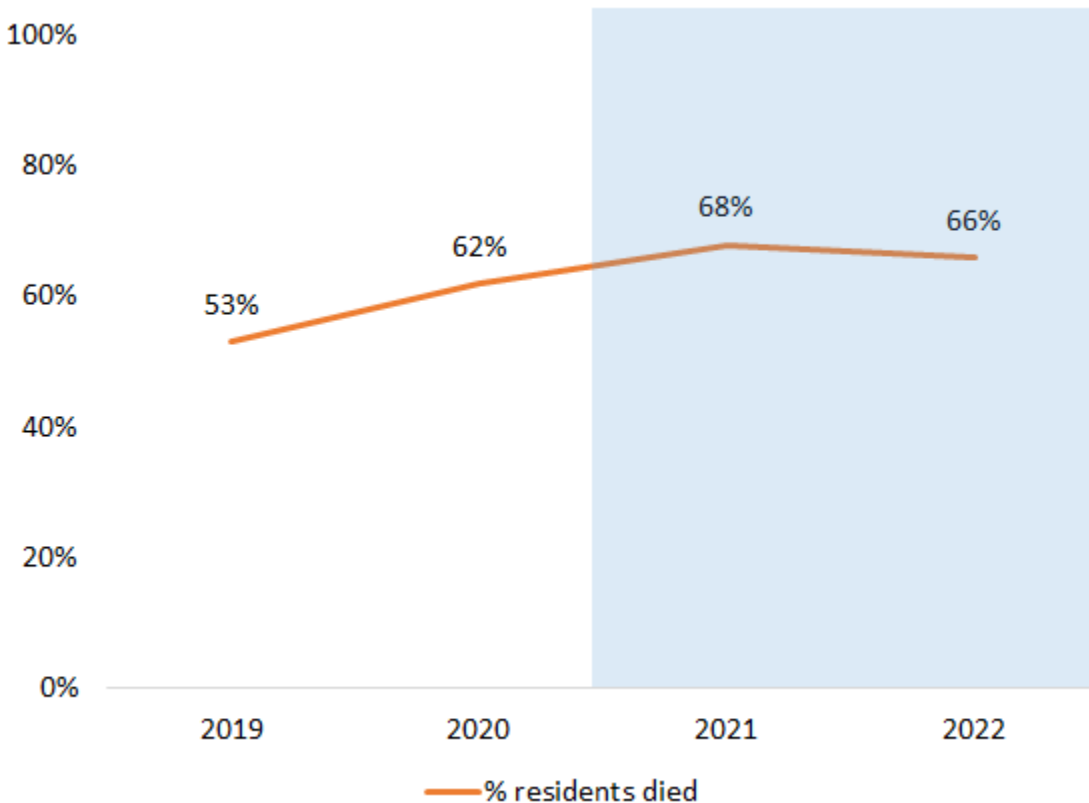
Figure 7. Short- and long-term stays among recent move-outs, 2019-2022



Note: Based on the facility questionnaire (see [Appendix D](#)), which asked about all residents who left in the last 90 days. Short stay is defined as less than one year, and long stay as more than one year. Shaded area indicates the period during the COVID-19 pandemic.

Figure 8 below depicts the share of residents who left in the prior 90 days because they died. The trend has increased each year since 2019, and peaked in 2021 at 68 percent. Though we do not have mortality data for Oregon CBC residents, a national study estimated that AL residents experienced 17 percent higher overall mortality in 2020 compared with the year prior (Thomas et al., 2021).

Figure 8. Share of residents who died among recent move-outs, 2019-2022



Note: Based on the facility questionnaire (see [Appendix D](#)), which asked about all residents who left in the last 90 days. Shaded area indicates the period during the COVID-19 pandemic.

Hospice Use Among Residents Who Died

Hospice provides an important resource for residents with a terminal illness and their families, as well as AL/RC/MC staff. Oregon rules permit residents to receive hospice care as a supplement to the daily care provided by the setting staff (OAR 411-070-0140). Hospice services include doctors', nursing and medical services; medications for pain management; durable medical equipment; physical and occupational therapy, and social services; and spiritual and grief counseling for patients and family members (Medicare, 2022). These services can support residents aging in place. Analysis of the 2019 CBC study data found that hospice users were older than non-hospice users, and that these residents were more likely to have a cancer diagnosis, to receive more staff assistance, and to use a mobility aid, compared to non-hospice users (Bucy et al., 2021).

This year for the first time, we asked about hospice use among residents who died in the past 90 days prior to the questionnaire. Overall, 83 percent of residents were receiving hospice services when they died. The share was greater among MC residents

(90 percent) compared to AL/RC residents (79 percent). A national study of Medicare beneficiaries in AL/RC found that 45.6 percent died with hospice services and that the number of days residents stayed in AL with hospice during the last month of life varied greatly by state (Thomas et al., 2019). Oregon was in the top three states; with Utah residents spending 13.8 days and Oregon and Georgia residents spending 12.1 days in their AL/RC with hospice during their last month of life (Thomas et al., 2019).

Assistance with Personal Care

Factors such as normal aging processes, chronic health conditions, cognitive decline, and medication effects can increase older adults' need for personal care assistance (Edemekong et al., 2022). Residents of AL/RC/MC settings who are unable to independently manage activities of daily living (ADLs) often need assistance with personal care, such as eating, dressing, bathing/grooming, using the bathroom and walking or mobility. Figure 9 describes the percentage of residents who receive regular and ongoing staff assistance with these five ADLs. The largest share of AL/RC/MC residents received assistance with bathing and grooming, while assistance with eating was the least reported need. A greater percentage of MC residents than AL/RC residents required assistance with all five ADLs.

Figure 9. Residents who receive staff assistance with personal care, 2022

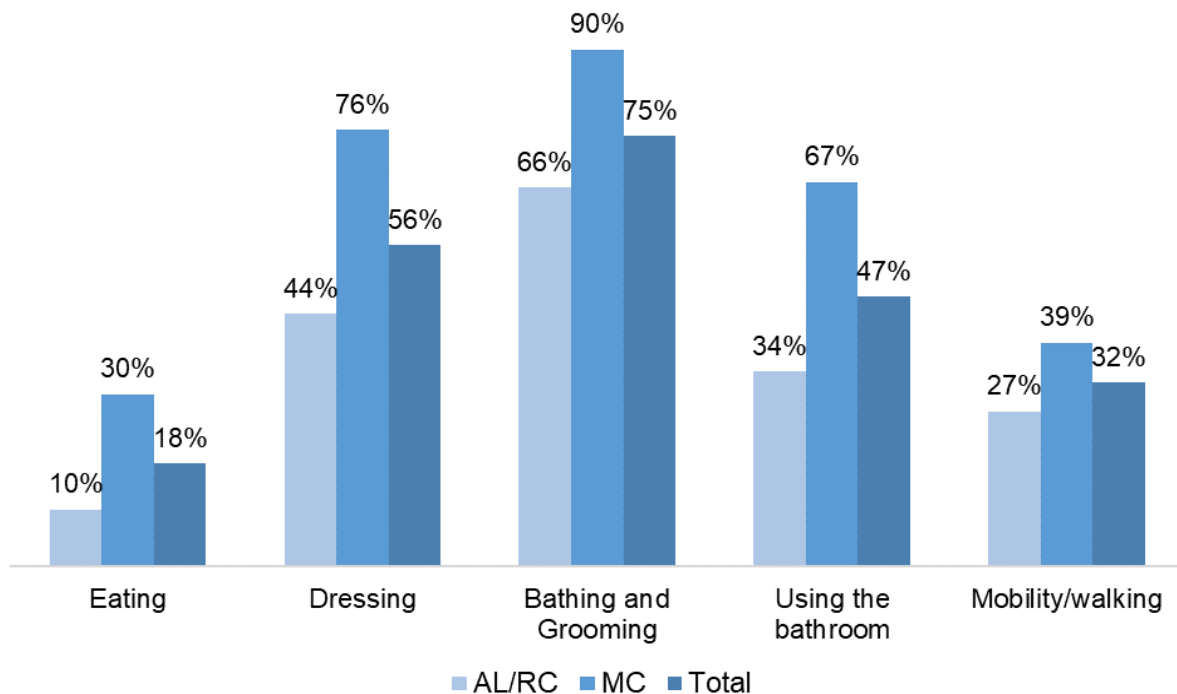
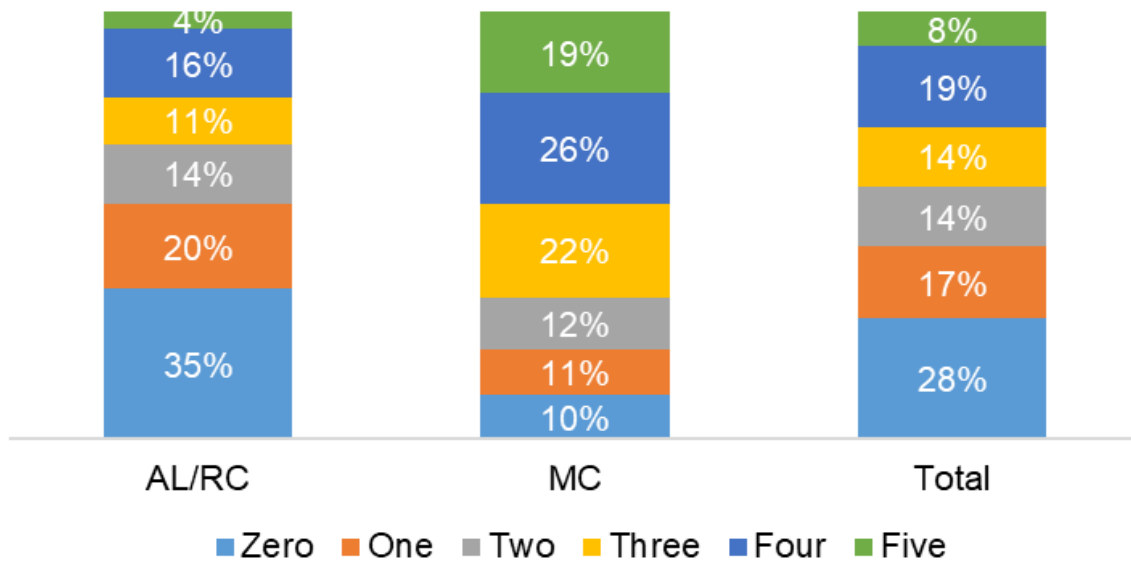


Figure 10 describes the share of residents who received assistance by the number of ADLs, from zero to five. A larger share of MC residents received assistance with all five ADLs 19 percent) compared to AL/RC residents (four percent). Over one-third (35 percent) of AL/RC residents received no assistance with any of these five ADLs.

Figure 10. Residents by number of ADLs for which they receive staff assistance, 2022



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

Night-Time Care.

All AL/RC/MC settings must have a 24-hour a day resident monitoring and reporting system that includes a reporting protocol used by designated staff at all times, including nighttime (OAR 411-054-0040). Staffing levels during nighttime hours are determined according to resident sleep patterns and needs (OAR 411-057-0150). Fewer than half of residents (45 percent) regularly received assistance from NOC/night shift staff during the night. A larger share of MC (69 percent) compared to AL/RC (36 percent) residents received this type of staff assistance.

Mobility Aids and Staff Assistance with Using Mobility Aids.

Almost three-quarters of AL/RC/MC residents used a mobility aid such as a cane, walker, or wheelchair (72 percent), and 36 percent needed staff help to use a mobility aid. More AL/RC (79 percent) used such an aid than MC (54 percent) residents. A much larger share of MC (62 percent) than AL/RC (28 percent) residents needed staff help to use their mobility aid.

Two-Person Staff Assistance.

At least two direct care staff must be scheduled and available at all times for residents requiring assistance from two direct care staff (OAR 411-054-0070). Overall, 22 percent of residents received assistance from two staff for physical and/or cognitive health needs. A greater share of MC (32 percent) compared to AL/RC (18 percent) required this type of assistance.

Outside Personal Care Aides.

Few residents (12 percent) independently employed a paid caregiver outside their community for additional care, assistance, or companionship. More MC (15 percent) than AL/RC (10 percent) residents did so.

Assistance with Behavioral Symptoms

Direct care staff are required to participate in training that includes understanding, identifying, and evaluating residents’ common dementia-related behavior symptoms and implementing recommended interventions (OAR 411-057-0150, 411-054-0070). Table 26 describes three types of behavioral symptoms for which residents receive staff assistance. More residents needed assistance with lack of awareness of safety, judgment, and decision making, or ability to orient to surroundings, followed by the need for assistance with wandering. Fewer needed staff support because they presented a danger to self or others. A larger share of MC than AL/RC residents needed assistance with all three symptoms. More MC residents received assistance due to lack of awareness (85 percent versus 43 percent), wandering (41 percent versus 15 percent), or because they were a danger to self or others (13 percent versus four percent) compared to AL/RC residents.

Table 26. Residents who receive staff assistance for behavioral symptoms by setting, 2022

	AL/RC	MC	Total
	%	%	%
Lack of awareness of safety, judgment, and decision making, or ability to orient to surroundings	27	85	43
Wandering	4	41	15
Danger to self or others	4	13	6

Figure 11. Distribution of number of behavioral symptoms among residents by setting, 2022

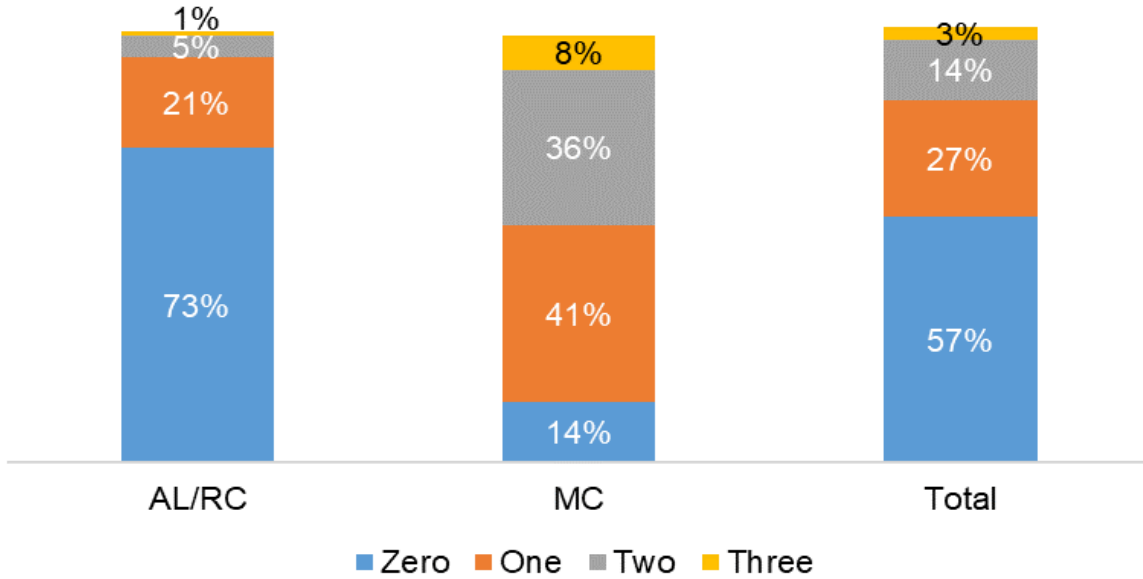


Figure 11 describes the share of residents who exhibited one or more of the behavioral symptoms described above. Among all AL/RC/MC residents, over half (57 percent) did not require staff assistance with any of these three behavioral symptoms. Slightly over one-quarter required assistance with only one, 14 percent with two, and three percent with all three behavioral symptoms. The number of behavioral symptoms among residents varied widely by setting type. Not surprisingly, more AL/RC (73 percent) compared to MC (14 percent) residents did not require staff assistance with any of these three behavioral symptoms.

Health Conditions

Older age is associated with the presence of chronic health conditions. Some of these conditions result in physical and cognitive impairments, and require ongoing treatments, including medications and other therapies. Table 27 below describes the share of 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), depression, heart disease, and arthritis. This rank order mirrors last year’s study findings.

Table 27. Resident health conditions by setting, 2022

	AL/RC	MC	Total
	%	%	%
High blood pressure/hypertension	64	55	60
Alzheimer’s disease and other dementias (ADRD)	31	97	56
Depression	40	45	42
Heart disease	41	26	35
Arthritis	30	22	27
Diabetes	21	17	20
Osteoporosis	20	11	17
COPD and allied conditions	14	6	11
Stroke	15	9	12
Cancer	11	7	9
Serious mental illness	12	9	11
Drug and/or alcohol abuse	10	4	8
Traumatic brain injury	4	1	3

Significant Change in Condition

Oregon Administrative Rules describe a significant change in residents’ condition as a major deviation from the most recent evaluation that may affect multiple areas of functioning or health, is long-term, and presents significant risk (411-054-0040). Overall, nine percent of AL/RC/MC residents experienced a significant change in condition. More MC (11 percent) than AL/RC (eight percent) did so.

Falls & Fall-Related Injuries

This years’ study asked providers how many residents fell and experienced an injury because of a fall in the last 90 days. The survey described an injury as a bruise, abrasion, or wound requiring simple intervention, or dislocation, fracture, intracranial injury, laceration requiring sutures/stitches, skin tear/avulsion or significant bruising. This description is the same as that used by the Oregon Quality Measurement Council (OHDS, 2022).

Most AL/RC/MC residents (82 percent) did not fall, 12 percent experienced one, and six percent experienced two or more falls that resulted in an injury. More MC (22 percent) than AL/RC (16 percent) residents had one or more falls with an injury. More MC (15 percent) compared to AL/RC (11 percent) residents had one fall, or two or more falls (seven percent and five percent respectively) (not shown in a table).

Overall, one-third of residents who fell went to the hospital because of a fall. More MC than AL/RC residents who fell required a falls-related hospital visit (Table 28).

Table 28. Fall-related injuries & Hospitalizations, 2022

	AL/RC	MC	Total
	%	%	%
Any fall resulting in some kind of injury	16	22	18
If resident fell: any fall resulting in hospital visit	29	40	33

Health Service Use

Health service use includes being treated in a hospital emergency department (ED), overnight hospitalizations, and hospice use. When residents use these services, the AL/RC/MC staff will coordinate with health service providers to follow new or revised treatment plans and manage transitions. It is well documented that transitions between these care settings can result in fragmented care that may lead to increased use of hospital and emergency services (Coleman et al., 2004).

In the prior 90 days, 20 percent of AL/RC/MC residents were treated in an ED, and 10 percent were hospitalized overnight. Among residents hospitalized overnight, a larger share of MC residents returned to the hospital within 30 days (Table 29). Hospice services were received by eight percent of residents, with a larger share of MC residents compared to AL/RC residents using this service in the prior 90 days. These health service use rates have remained consistent since 2019, despite the COVID-19 pandemic.

Table 29. Health service use among residents in the last 90 days, 2022

	AL/RC	MC	Total
	%	%	%
Treated in the hospital ED	18	23	20

Hospitalized overnight	10	9	10
Re-hospitalized within 30 days after hospitalization	6	17	9
Receiving hospice	6	12	8

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

Medication Use

Medication use among older adults is an important public health, clinical practice and policy topic. Specific areas of focus include use of medications that can result in poor health outcomes (e.g., falls, stroke, death), polypharmacy (e.g., use of multiple medications), training and oversight of staff who administer medications, off-label use of antipsychotic medications, and misuse of opioids. In this section, we describe assistance received by residents, polypharmacy, and the share of residents who take cognition-enhancing (e.g., dementia-specific drugs), opioids, and any of three drug types in the psychotropic medication class (anti-anxiety/sedative/hypnotics, antidepressants, and antipsychotics). In addition to being prescribed for individuals with serious mental illness, psychotropic medications can be part of the treatment plan for individuals in hospice care.

Assistance with Medications and Treatments.

Most residents receive assistance from staff to take oral medications. The share of AL/RC/MC residents who received staff assistance increased slightly over time, with 79 percent in 2019 and 2020, 76 percent in 2021 and 82 percent this year. The share of those who take 9 or more medications has remained about the same over this time period.

Table 30. Medication assistance and use by setting, 2022

	AL/RC	MC	Total
	%	%	%
Receive staff assistance to take oral medications	78	93	82
Self-administer most of their medications	14	<1	10
Take 9 or more medications	50	41	48
Take 1-8 medications	48	58	50

Dementia-Specific Medications.

A limited number of medications can treat and manage some symptoms of Alzheimer's disease and related dementias (ADRD). Treating symptoms can provide the individual with comfort and promote their dignity and independence (National Institute on Aging (NIA), 2022). Cholinesterase inhibitors (i.e., donepezil, galantamine, and rivastigmine) are typically prescribed to individuals with mild to moderate dementia, while memantine is intended for individuals with moderate to severe cognitive or behavioral symptoms (NIA, 2022). These drugs, like many other pharmaceuticals, can cause side effects, such as headache, nausea, dizziness, and loss of appetite.

We asked providers to report whether randomly selected residents received dementia-specific medication in the prior seven days. Overall, 38 percent of AL/RC/MC residents with dementia diagnosis took dementia-specific medications. The share of residents prescribed dementia-specific medication was similar to last year.

Based on additional analyses of the 2019-20 study, residents with ADRD, who lived in rural communities, who needed more assistance with ADLs, and those who were Hispanic and/or nonwhite were less likely to receive this medication type (Dys et al., 2021). Residents diagnosed with ADRD and depression were 1.7 times more likely to receive dementia-specific medications compared to those without these diagnoses.

Antipsychotic Medications.

Antipsychotic medication use is one of five quality metrics for Oregon's AL/RC/MC settings (ODHS, 2022b). Similarly, the National Center for Assisted Living promotes reducing antipsychotic medication use (NCAL, 2014). The use of this medication type is associated with adverse effects including falls and mortality (Stephen & Anthony, 2018; Kales et al., 2012; Maust et al., 2015). National studies indicate that antipsychotic medications have been inappropriately prescribed to people living with dementia who do not have a mental illness diagnosis, the population for whom these medications were intended (Gnjidic et al., 2018; Kirkham et al., 2016; Delgado et al., 2020). The CMS National Partnership in nursing homes effectively reduced the rate of antipsychotic medication use (CMS, 2012), although some research indicates that this reduction also occurred among individuals on hospice care who might have benefited from this treatment (Gerlach et al., 2021), and that other psychotropic medications have been substituted when antipsychotic medication policies went into place (Lindsey, 2009).

The share of Oregon AL/RC/MC residents prescribed an antipsychotic medication, including those administered on a scheduled/routine and as-needed (or PRN) has remained relatively consistent over time, at about 25 percent of all residents. The share of MC residents prescribed an antipsychotic medication is more than double the share

of AL/RC residents who use this medication type (45 percent and 19 percent, respectively). Based on additional analyses of the 2019-20 study, residents with serious mental illness diagnosis were more likely to receive an antipsychotic medication compared to residents without this diagnosis (Dys et al., 2021). Other resident characteristics associated with antipsychotic medications included hospice use, ADRD and depression diagnoses, current drug or alcohol abuse, and higher number of behavioral expressions. As with the current study year, MC residents were more than twice as likely to receive this medication type.

Opioid Medications.

Opioid medications can provide effective treatment to people experiencing chronic pain, as well as those receiving active cancer treatment, palliative care, and end-of-life care. While issue of opioid medications has emerged as a public health issue nationally, opioid use in older adults can result in falls, excessive sedation, respiratory depression, and impairment in vision, attention, and coordination (SAMHSA, 2017). Because of this, guidelines for the use of opioids in long-term care settings have been developed, including policies to provide opioids as indicated to relieve extreme discomfort and to monitor and reduce opioid use if treatment goals are not achieved and to prevent adverse events (AMDA, 2018). Sadly, Oregon has the highest rate of people ages 65 and older hospitalized for opioid-related issues like overdose, abuse, and dependence in the country (Oregon Health Authority, 2018).

Approximately one in five AL/RC/MC residents are prescribed opioid medications. These medications are administered routinely/scheduled and on an as-needed (or PRN) basis. Based on the 2019-20 study year, residents on hospice, who had more ADL needs, and who fell in the prior 90 days were significantly more likely to receive an opioid medication in the last week (Dys et al., 2021). In contrast, residents with ADRD were half as likely to receive opioids.

Anti-depressant Medications.

There is considerable evidence suggesting an intersection of cognitive impairment, dementia, and current mental illness or a psychiatric history (Rapp et al., 2011). An estimated 30-50 percent of older adults who experience dementia also experience depression (Zubenko et al., 2003).

Between 2002 and 2013, older adults in AL and similar residential care settings had higher rates of mental illness and depression (23 percent to 36 percent, respectively) compared to their peers in the general community (13 percent to 24 percent, respectively) (Caffrey & Sengupta, 2018). Antidepressant medications are the most

commonly prescribed psychotropic medications for patients with ADRD (Maust et al., 2017).

This year, almost half (47 percent) of all MC residents in Oregon are prescribed antidepressant medications. Comparatively, 38 percent of AL/RC residents are prescribed antidepressant medications.

Anxiolytic/sedative-hypnotic Medications.

This year for the first time the resident questionnaire asked about the use of psychotropic medications other than antipsychotics and antidepressants. Anxiolytic, sedative and hypnotic medications, while distinct, are often grouped together in studies. Anxiolytics (e.g., anti-anxiety drugs) can be used “off label” in persons with Alzheimer’s Disease and related dementias to treat anxiety, restlessness, verbally disruptive behavior and resistance (Alzheimer’s Association, 2022).

Eleven percent of AL/RC/MC residents took an anxiolytic/sedative-hypnotic medication. AL/RC and MC residents had similar rates of use (10 and 13 percent, respectively).

Table 31. Medication as scheduled/routine or as needed/PRN among residents by setting, 2022

	AL/RC	MC	Total
	%	%	%
Antipsychotic	19	45	26
Dementia-specific	38	38	38
Opioid	18	16	17
Anti-depressant	38	47	41
Anxiolytic/sedative-hypnotic	10	13	11

Note: Dementia-specific medication use calculated only for residents diagnosed with Alzheimer’s disease or other dementias.

IMPACT OF COVID-19 PANDEMIC

Community Experiences during the COVID-19 Pandemic

For last year’s study, we developed a set of 11 statements concerning the impact of the COVID-19 pandemic on AL/RC/MC and the supports and challenges that these settings experienced during the pandemic. This year, we asked the same set of questions again to compare provider experiences over time. Table 32 below shows the share of responding AL/RC/MC who agreed or strongly agreed with each of these 11 statements in 2021 and 2022.

In most areas, providers continued to report positive responses, though there were significant decreases in agreement with some statements. In terms of supports and resources, most AL/RC/MC reported continued use of technology for social visits (86 percent) and for telemedicine or telehealth (85 percent), though both declined significantly. Similarly, 77 percent reported having been able to get accurate information about COVID-19 pandemic, though it was slightly lower than last year (83 percent).

The greatest challenge was related to staffing, with 90 percent of providers reporting having difficulty hiring, retaining, and scheduling staff - a significant increase from 77 percent of last year. In contrast, the challenge of finding new residents may have eased, with only 43 percent reporting this challenge compared to 67 percent last year.

Table 32. Provider agreement with statements regarding the Coronavirus (COVID-19) pandemic, 2021-2022

In the past 12 months...	2021	2022
	%	%
a. We have been able to get accurate information about COVID-19.	83	77*
b. We have been given enough support from county/state agencies to deal with issues/problems due to the pandemic.	71	63*
c. We have been satisfied with the communication about rules and regulations from the county/state agencies.	67	65

d. We have been able to access personal protective equipment (PPE) (such as eye protection, gloves, N95 respirator masks).	83	88
e. We have been able to address concerns of my residents' families related to the pandemic.	89	85
f. We have been able to address concerns of my staff related to the pandemic.	86	83
g. We have had a harder time finding new residents.	67	43*
h. We have had a harder time with staffing (such as hiring, retaining, and scheduling).	77	90*
i. Our residents have used virtual visits (e.g., iPad, computer, smart phone) with their family members and friends.	94	86*
j. Our residents have used telemedicine or telehealth for purposes of assessments, monitoring, diagnosis, or treatment.	94	85*
k. We have found the COVID-19 visitor restrictions enacted by county/state agencies to be reasonable.	61	57

Note: Percentages refer to the share of respondents that agreed or strongly agreed with each statement, out of the six possible options ranging from strongly disagree to strongly agree, including “not applicable” responses. In 2021, the look-back period was defined as “As of March 2020, since the COVID-19 pandemic started...” instead of “In the past 12 months...” Asterisk indicates statistically significant differences between 2021 and 2022 responses based on chi-squared tests.

What AL/RC/MC Administrators Want Others to Know About Operating an AL/RC/MC During the Pandemic

The questionnaire asked one open-ended question, “Is there anything you would like us or ODHS to know about operating/managing an assisted living, residential care, or memory care community during the pandemic?” While very few operators provided a response, 89 people provided insights into the following topics: 1) challenges related to staffing and workforce, 2) concern for resident well-being, and 3) challenges with implementing rules and regulations. Comments have been lightly edited for clarity.

Challenges related to staffing and workforce. Most comments described challenges related to AL/RC/MC workforce and staffing. Some comments expressed deep exhaustion and tiredness. One respondent stated,

“Staffing has been such a challenge. The extra reporting has been a burden to manage. Some rules about various trainings for staff should

have been relaxed- we can barely get people to show up to work- expecting/requiring hours of monotonous trainings has been almost impossible. Some compassion for those of us who have been on the ground and [have] not quit would have been nice.”

Some respondents specifically described challenges related to staffing retention and the choice of whether or not to hire agency staff. One person said,

“I am deeply worried about staffing retention directly related to Covid outbreaks. We are using agency to supplement which has resulted in large bills to our facility (we spent 100,000 in one month). Agency continues to raise their rates + 'suggest' additional bonuses on top of that rate in order to fill shifts as the competition in our area is crazy. We are a smaller facility and I don't believe we can sustain a reasonable budget if this continues year after year.”

Concern for resident well-being. Residents’ well-being was a concern for many respondents. One respondent stated,

“My heart breaks for my residents. The world outside is still turning but theirs have been stopped with regulations. They no longer know the beauty of a smile with everyone masked up, with their dementia/alz, they think they are in a hospital. The sick ones and gonna die there versus [in] the home environment.”

Another respondent explained how residents’ quality of life impacted staff as well. This person wrote,

“Quality of life has been extremely difficult to maintain during COVID-19. Resident and employee satisfaction has decreased due to wearing PPE and limited service options. Many staff have questioned their continued career paths.”

Challenges with implementing rules and regulations. Respondents also described difficulty complying with various levels of regulations. For example, one respondent stated,

“County and state will provide all the rules and regs and expect us to be able to follow no matter what. When we are physically unable due to Covid restrictions, being short staffed, we get penalties and fines. We are on the front line every day trying to still do business and take care of people with no support offered or assistance from county or state levels just continually being told to figure it out and do better.”

Some respondents specifically mentioned that they had difficulty procuring Covid testing kits and PPE necessary to adhere to some policies. Lastly, some respondents explained how changing regulations is challenging to navigate. One person wrote, “It’s been rough. Lots of changing information rules changing very fast. Conflicting information from different places makes it hard for families to understand rules, policies and procedures.”

One respondent describes how these three categories of responses may intersect with one another and impact some people living and working in these settings:

“Challenges with executive orders affect residents’ quality of life and changes medical challenges. Now [we are] having a hard time getting residents out of their apartments for dining and activities prompting challenges requiring more staff. Staffing challenges with retention, over-worked constantly, nagged to wear PPE that is hard to breathe in, especially for those whose apartments are 80 degrees. Staffing challenges with retention also related to the changes in residents who are more nursing home appropriate. Long time caregivers who have left stated, ‘I didn’t want to work in a nursing home. If I did, I’d be a CNA. Assisted living is no longer the same’.”

Lastly, in addition to these three general categories, there were some respondents who noted positive experiences with state agencies. Some respondents expressed gratitude and appreciation to ODHS and policy analysts. One respondent said, “Our policy analyst has been very helpful and responsive to our questions and concerns.”

CONCLUSION

This study describes AL/RC/MC setting and resident characteristics based on data collected in January - March 2022, making this the second year the study took place during the pandemic. The number of AL/RC has increased from 559 (217 MC) to 570 (224 MC) between fall of 2020 and 2021. The licensed capacity also increased during that time, to 29,563 for AL/RC and 7,926 for MC. Memory care communities now account for just over one-quarter of the total AL/RC licensed capacity in Oregon.

We observed a few changes compared to recent years. Occupancy rates for AL/RC and MC were 70 percent and 75 percent, which are lower than early 2020 right before the pandemic when the rates were 77 percent and 85 percent, respectively. In terms of private pay charges, since last year's report, private pay rates have increased by 11.5 percent for a single AL/RC resident and four percent for a single MC resident. And the share of residents who moved out due to death increased between 2019 and 2021 (53 percent, 62 percent and 68 percent, respectively) and appears to have leveled off this year, with 66 percent of residents who moved out in the prior 90 days doing so due to death.

Below we summarize several current policy and practice topics, including the impacts of the COVID-19 pandemic, staffing, and financing of long-term care in AL/RC/MC settings.

Impacts of the COVID-19 Pandemic. The open-ended comments from AL/RC/MC operators described several, ongoing challenges related to staffing and workforce, concern for resident well-being, and challenges with implementing rules and regulations. While providers became less likely to report difficulties finding new residents, they also reported greater difficulties finding accurate information as well as support from local, state, and federal agencies. Considering telehealth can be beneficial for some AL/RC/MC residents, the observed significant, albeit modest, declines in use of technology for care provision is of interest to policymakers. Overall, it remains to be seen what the third year of the pandemic will bring about in this care setting.

Staffing and Workforce. The coronavirus pandemic placed additional stresses on the LTSS workforce, including caregivers and licensed nurses employed in CBC settings. The majority of AL/RC/MC operators (90 percent) indicated that they had a more difficult time with staffing, including hiring, retaining and training in the past 12 months. This figure was significantly higher than the 77 percent who reported this difficulty last year.

The pandemic placed additional pressure on an already stressed system, in Oregon and nationally.

Oregon DHS implemented the Enhanced Wage Add-On Program to raise wages for caregivers employed in CBC and in-home agencies that accept Medicaid payments. The wage add-on is applied if HCBS providers pay a starting wage of \$15.00 per hour for all caregivers, with an increase to \$15.50 per hour by the second year of the 2021-2023 biennium (OAR 411-027-0160).

In addition to a nursing shortage, Oregon has a shortfall of 6,000 care workers for the estimated 34,461 individuals who will receive LTSS during the 2021-23 biennium (Oregon Senate Majority Office, 2022). We found that current unfilled job openings were as large as about 12 percent of the current workforce in AL/RC/MC settings. The legislature adopted SB1556 to create a new certification process for care workers in both in-home and CBC settings that establishes a career ladder to support job mobility and advancement for this sector. In addition, HB 4003 creates a nurse internship license for student nurses who meet eligibility standards (Oregon Senate Majority Office, 2022).

The additional workforce issues exacerbated by the pandemic may threaten the quality of care provided in these settings as well their financial stability. Two-thirds of facilities in our study reported having experienced staff absences. Covering such unplanned staff absences using contract or other service providers may introduce additional costs. Finding, hiring, and training staff who can deliver high quality care is costly; these costs can be exacerbated by high staff turnover. Overall, our study shows that about one-third of RNs and other care-related staff leave their positions every six months.

Paying for AL/RC/MC. In the United States, almost half of older adults turning 65 will require paid long-term care at some point in their lives, the majority of which will be provided in residential settings such as assisted living and residential care (Office of the Assistant Secretary for Planning and Evaluation, 2019). Paying for this type of care presents a challenge for many older adults and families, and for some, a significant financial hardship. While some older adults have private sources (e.g., savings, annuities, long-term care insurance) to pay for long-term costs, others need assistance. Private health plans and Medicare do not pay for long-term services (e.g., those that continue for more than three months). Most states, including Oregon, use Medicaid to pay for long-term care in nursing homes as well as AL/RC/MC settings.

This study collected information about the average total monthly private pay charges, including base costs (if any) and services for a resident living in a private unit. In

addition, ODHS provided the total costs paid by Medicaid for AL/RC/MC residents. The total industry charges (estimated), including private pay and Medicaid, were over 1.2 billion for 2021, with 66 percent of this amount paid by private sources and the remaining 34 percent by Medicaid. The majority of responding facilities (78 percent) had a Medicaid contract, and fewer than half (46 percent) of current residents were Medicaid beneficiaries. The annual average private pay charge increased since last year by 11.5 percent for AL/RC and four percent for MC. A national study estimated that the monthly charge for assisted living increased by 4.65 percent between 2021 and 2022 (Genworth, 2022).

Finally, the IOA/PSU team would like to extend our greatest appreciation for the AL/RC/MC staff who provide valuable and hard care, and stakeholders and policymakers who work and advocate for older adults and people with disabilities.

APPENDIX A: METHODS

This is the eighth round of data collection conducted by IOA at PSU from AL/RC/MC licensed by the Oregon Department of Human Services. Every year, IOA develops and revises questionnaires and study methods in collaboration and consultation with many stakeholders, including APD/ODHS, Oregon Health Care Association (OHCA), LeadingAge Oregon, and AL/RC/MC providers.

Study Population

The study population included all 570 assisted living (AL) and residential care (RC) facilities that were licensed by ODHS as of fall 2021. Of 570 AL/RC, 224 held a memory care (MC) endorsement for all (n=187) or some (n=37) of their licensed beds. Because one of the aims of the project is to compare results by MC status, we asked the latter group of 37 facilities to complete two separate questionnaires; one for their AL or RC units and one for their units endorsed for MC. Therefore, the total number of eligible cases (n=607) were greater than the total number of licensed AL/RC facilities (n=570).

Data Collection Instruments

IOA sent out one facility questionnaire, three resident questionnaires, and a sampling tool via mail to each of the 607 eligible AL/RC/MC. The sampling tool has been previously designed and developed by IOA to assist respondents to randomly select three of their current residents from their facility roster.

Facility questionnaire. This year's facility-level questionnaire included questions about the following topics:

- Resident demographics: gender, race/ethnicity, age
- Primary method of payment
- Move-in and move-out information, including length of stay
- Staffing information: number and type of care-related staff, turnover, tenure
- Room/unit structure and occupancy
- Impact of COVID-19 pandemic

We also asked an open-ended question inquiring about anything else providers would like to share about operating an AL/RC/MC during the pandemic (see facility-level questionnaire in [Appendix D](#)).

Resident questionnaires. All eligible AL/RC/MC were sent three questionnaires and a sampling tool that explained how to select and report information about three of their randomly selected residents (see attached resident-level questionnaire in [Appendix E](#)). To ensure comparison across years, this year's resident-level questionnaire included most of the questions we asked last year:

- Resident demographic information (i.e., gender, race/ethnicity, and age)
- Room/apartment sharing
- Move-in characteristics (month/year and place of residence in which the resident lived prior to move-in)
- Resident health services use (e.g., hospitalization, hospice care)
- Information about falls with injury
- Staff assistance with activities of daily living and behavioral expressions (e.g., wandering)
- Resident diagnosed conditions (e.g., hypertension, traumatic brain injury)
- Medication use
- Payer type and charges for private residents

This year, for the first time, the Medicaid use section included specific questions about use of antidepressant and anxiolytic/sedative-hypnotic medications alongside the other questions that we asked in the past.

Response Rates

Of the 607 eligible AL/RC/MC, 333 completed the facility questionnaire and 340 completed the resident questionnaires for a response rate of 55 percent and 56 percent, respectively. A majority of providers returned both facility- and resident-level questionnaires (n=326), though a few returned only their facility questionnaire (n=seven) or resident questionnaires (n=14). These response rates compare favorably to most recent national surveys collecting information from similar settings. For instance, the response rate for the National Post-Acute and Long-Term Care Study (NPALS) was 30 percent in 2018 (NPALS, 2021).

Response rates were similar across setting types for both questionnaires (Table A1). For the facility questionnaire, 54 percent of AL/RC and 56 percent of MC responded while 55 percent of AL/RC and 58 percent of MC responded for the resident questionnaire. For both facility and resident questionnaires, facilities located in Eastern Oregon were most likely to respond, followed by those located in Southern Oregon, Willamette Valley, and Portland Metro (Table A1).

Facility size and having a Medicaid contract were not significantly associated with probability of responding (not shown). Additional analyses conducted by IOA (not shown) indicate that facilities differed in their likelihood of responding by rural status and profit status, with rural and nonprofit facilities showing disproportionately high rates of responding to both questionnaire types (facility and resident). To account for these differences in response rates, we created and used sampling weights in all analyses (see details below).

Table A1. Response rates by facility type and region, facility and resident questionnaires, 2022

	Facility Questionnaire			Resident Questionnaire		
	AL/RC	MC	Total	AL/RC	MC	Total
	%	%	%	%	%	%
Portland Metro	48	43	46	49	46	48
Willamette Valley	55	57	56	54	55	55
Southern Oregon	53	76	62	57	82	66
Eastern Oregon	68	71	69	67	75	69
Total	54	56	55	55	58	56

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

In answering the questions, providers were encouraged to give their best estimate following a practice adopted by a national study of residential care communities (CDC, 2016). As typical in survey research, some returned questionnaires had questions unanswered by respondents. For the facility questionnaire, we made multiple attempts, via phone and/or email, to request missing information and the overall reception for collecting missing responses was positive. However, we were unable to retrieve all missing information as some providers did not answer or return our phone calls, some were busy, and others reported that they did not record or track that specific

information. For the resident questionnaire, we did not attempt to collect missing data due to the random selection of residents and the study design choice of not retaining any information identifying individual residents.

Depending on the question, the share of missing information ranged from less than one to 16 percent for facility questionnaires and from less than one to 12 percent for resident questionnaires. Similar to last year, the questions most often missed were diagnosed medical conditions (resident questionnaire) and staffing (facility questionnaire). The reasons for high item missing for staffing data we noted in the past reports remain relevant. First, these staffing questions ask about the number and type of staff, which may require significant time for some administrators to collect and report. Second, about one-third of facilities (Carder et al., forthcoming) share staff across multiple wings, units, or buildings, making it difficult to count and report separately. These rates are similar to those reported by a recent national survey of long-term care settings at 10 percent or less (CDC, 2021).

Weights

In terms of calculating and using design and sampling weights, we followed practices developed in previous rounds of this study. The average probability of selection for each resident into the study sample was calculated by dividing the number of randomly selected residents (one, two, or three depending on whether each AL/RC/MC returned a questionnaire for one, 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 as design weights to account for the fact that residents have unequal probabilities of being selected randomly due to the differences in the size of settings in which they live.

The IOA conducted additional analyses examining the association between several facility-level characteristics (facility type, region, size, Medicaid contract, and profit status) and responses to each questionnaire type (facility and resident). Because results showed that facilities differed by some of these characteristics (see the Response Rates section above), we decided to create and use non-response weights for both facility and resident data. We estimated a logistic regression model that included facility type, region, size, Medicaid contract, and profit status. Based on this model, we estimated the predicted probability of responding for each facility. We used the inverse of predicted probabilities as non-response weights. For facility data, we only used these non-response weights. For resident data, we created and used a composite weight by multiplying the non-response rates with design weights to account for the study design and differential response.

Data Analysis

Data cleaning procedures from previous years were followed. First, all data were entered into Stata. We then proceeded with data cleaning, which involved three main steps. First were checks to ensure that the skip logic was correctly followed by respondents. Skip logic applies 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, settings were not expected to answer follow-up questions related to that resident's fall. Second were checks to ensure that all numbers were within valid ranges for each facility. For example, if the setting 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, and finally, we cross-checked the summation with the total when there were multiple categories that were supposed to add up to an independent total value. For instance, for the payment type question, we asked settings 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 memory care status (AL/RC or MC). 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).

Staffing Ratio and Level Calculation

We calculated staffing ratio and staffing level similar to previous rounds. We calculated staffing ratios by dividing the number of all employees reported by facilities to all current residents. We started calculating staffing levels 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. We then summed these two quantities and divided the resulting total staff hours by total number of residents, which was further divided by seven to provide average staff hours per resident per day. Therefore, the equation for average hours per resident per day was

$$\frac{((FT\ staff\ type * 35) + (PT\ staff\ type * 17.5))}{total\ number\ of\ residents * 7}$$

Oregon rules allow for licensed nurses to be employed on a contract basis; however, few AL/RC/MC facilities contract with RNs. We therefore did not include contract RNs in staffing levels to ensure comparability with the national study and our previous studies.

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 A2 below). We first calculated the number of residents who were private pay residents among responding settings. We multiplied the resulting number by average total monthly charges calculated using resident-level data. We used estimates from responding settings to impute values about non-respondent settings. First, we used occupancy rates among responding settings to calculate the number of residents in non-respondent settings using licensed capacity. Second, we used Medicaid rates among responding settings and prevalence of having a Medicaid contract among non-responding settings to calculate percent of Medicaid and private residents living in non-respondent settings. 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 settings assume that the responding and non-respondent settings 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 A2. Estimated annual profession charges for AL/RC and MC communities in Oregon, 2022

		AL/RC	MC	Total
Responding Communities (Facility Data, Unweighted)				
Private Pay				
	Total current residents	7,810	3,222	11,032
-	Total current Medicaid beneficiaries	3,397	1,509	4,906
=	Total current private pay residents	4,413	1,713	6,126
x	Average total monthly charge incl. services (Resident Data)	\$5,498	\$7,142	
=	Total private pay charges	\$24,242,674	\$12,234,246	\$36,494,920

AS ACCEPTED BY ODHS ON AUGUST 23, 2022
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

Non-Respondent Communities				
Private Pay				
	Licensed capacity	10,442	3,619	
x	Occupancy rate*	70%	75%	
=	Estimated total current residents	7,309	2,714	10,024
x	Estimated % of Medicaid residents*	43%	47%	
=	Estimated total Medicaid beneficiaries	3,179	1,271	4,450
	Estimated total current residents	7,309	2,714	10,024
-	Estimated total Medicaid beneficiaries*	3,179	1,271	4,450
=	Estimated total private pay residents	4,130	1,443	5,573
x	Average total monthly charge incl. services (Resident Data)	\$5,498	\$7,142	
=	Total est. charges for private pay residents	\$22,707,502	\$10,306,270	\$33,013,772
	Estimated Total Annual Private Pay Charges			\$834,128,303
	Total Annual Medicaid Charges Billed (Data from ODHS)			\$425,547,195
	Total Annual Profession Charges			\$1,259,675,498

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

* Estimates based on respondents to the facility-level study applied to residents of communities that did not respond.

APPENDIX B: ADDITIONAL TABLES

Table B1. Unit sharing among residents by setting, 2020-2022

	2020			2021			2022		
	AL/RC	MC	All	AL/RC	MC	All	AL/RC	MC	All
	%	%	%	%	%	%	%	%	%
Does not share a room/apartment	88	57	80	89	62	82	89	63	82
Shares a room/apartment with spouse/relative	10	2	8	9	<1	6	9	2	7
Shares room/apartment with unrelated roommate	2	42	13	2	37	12	1	34	11
Total	100	100	100	100	100	100	100	100	100

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

Table B2. Licensed capacity and occupancy rates of responding facilities, 2022

	Licensed Capacity	# of Current Residents	Occupancy Rate
AL/RC	12,486	8,704	70%
MC	4,220	3,201	75%
Total	15,859	11,287	71%

Note: Based on 333 cases with non-missing information.

Table B3. Average monthly private-pay charges among sampled residents, excluding Bottom and Top 1 percentile

	AL/RC		MC		Total	
Monthly Charge	Base	Total	Base	Total	Base	Total
Minimum	\$1,075	\$3,033	\$1,400	\$3,520	\$1,075	\$3,036
Median	\$4,280	\$5,305	\$5,995	\$6,920	\$4,912	\$5,900
Maximum	\$8,688	\$9,495	\$8,534	\$9,500	\$8,688	\$9,500
Average	\$4,465	\$5,480	\$6,017	\$6,887	\$5,050	\$6,026

Table B4. Monthly private-pay charges among sampled residents by region

	Portland Metro	Willamette Valley	Southern Oregon	East of Cascades
Average base monthly charge	\$5,565	\$4,795	\$5,163	\$4,591
Minimum	\$654	\$700	\$654	\$981
Median	\$5,325	\$4,625	\$5,195	\$4,503
Maximum	\$11,200	\$14,563	\$10,500	\$10,920
Average total monthly charge	\$6,933	\$5,643	\$6,044	\$5,362
Minimum	\$654	\$850	\$1,000	\$981
Median	\$6,500	\$5,570	\$6,000	\$5,338
Maximum	\$20,861	\$14,563	\$12,673	\$10,920

Table B5. Monthly private-pay charges among sampled residents by region, excluding Bottom and Top 1 Percentile

	Portland Metro	Willamette Valley	Southern Oregon	East of Cascades
Average base monthly charge	\$5,462	\$4,774	\$5,209	\$4,605
Minimum	\$1,075	\$1,400	\$2,310	\$2,156
Median	\$5,288	\$4,675	\$5,298	\$4,538
Maximum	\$8,688	\$7,590	\$8,534	\$8,451
Average total monthly charge	\$6,523	\$5,732	\$6,030	\$5,565
Minimum	\$3,036	\$3,293	\$3,043	\$3,080
Median	\$6,365	\$5,675	\$5,925	\$5,432
Maximum	\$9,500	\$9,446	\$9,495	\$8,815

Table B6. Comparison of communities that employed at least one full- or part-time care-related staff by employee categories, 2020-2022

	2020			2021			2022		
	FT	PT	Any	FT	PT	Any	FT	PT	Any
	%	%	%	%	%	%	%	%	%
RNs	66	34	94	69	28	91	55	37	87
LPNs/LVNs	28	7	33	31	7	36	32	6	37
CNAs	22	8	25	26	10	29	19	8	23
CMAs	10	3	10	10	2	10	10	3	10
Personal care staff	94	63	98	92	57	97	91	54	98
Social workers	4	1	5	4	2	6	3	2	4
Activity directors or staff	76	29	87	72	23	81	76	24	86

Note: Abbreviations: “FT”= full time; “PT”= part time; “RNs”= registered nurses; “LPNs/LVNs”= licensed professional/vocational nurses; “CMAs”= certified medication assistants; “CNAs”= certified nursing assistants.”

Table B7. Staff to resident ratios by setting and staff type, 2020-2022

	2020			2021			2022		
	AL/RC	MC	Total	AL/RC	MC	Total	AL/RC	MC	Total
Care Staff Only	0.69	0.99	0.79	0.75	1.13	0.88	0.75	0.83	0.81
All Staff	1.03	1.25	1.11	1.36	1.78	1.51	1.12	1.18	1.14

Table B8. Sex/Gender and Age distribution of residents by setting, 2020-2022

	AL/RC			MC			Total		
	%			%			%		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Gender									
Male	30	33	32	29	28	28	30	32	31
Female	70	67	68	71	72	72	70	68	69
Transgender	<1	0	0	0	0	0	<1	0	0
Age Categories									
18-49	<1	1	1	0	0	0	<1	1	1
50-64	6	6	6	3	2	4	5	5	5
65-74	15	17	18	13	15	20	15	16	18
75-84	29	26	24	30	31	37	29	27	28
85 and over	49	50	51	54	52	40	51	51	48

Table B9. Resident Race/Ethnicity by setting, 2020-2022

	AL/RC			MC			Total		
	%	%	%	%	%	%	%	%	%
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Hispanic/Latino of any race	1	1	2	1	1	2	1	1	2
Non-Hispanic	99	99	98	99	99	98	99	99	98
American Indian/Native American or Alaska Native	1	<1	<1	0	1	<1	1	<1	<1
Asian	1	1	2	1	1	1	1	1	1
Black/African American	1	1	1	1	<1	1	1	1	1
Native Hawaiian/Other Pacific Islander	0	0	<1	0	0	1	<1	0	<1
White	91	88	89	90	89	90	91	88	89
Two or more races	0	1	<1	0	<1	0	<1	1	<1
Other or unknown	5	9	6	7	7	5	5	8	6

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

Table B10. Move-In locations among sampled residents by setting, 2020-2022

	2020			2021			2022		
	AL/ RC	MC	Total	AL/ RC	MC	Total	AL/ RC	MC	Total
	%	%	%	%	%	%	%	%	%
Home (alone or with spouse/partner)	45	30	41	47	31	42	48	27	43
Another assisted living/residential care	10	27	15	7	22	12	11	23	14
Nursing or Skilled Nursing Facility	10	8	9	9	6	9	7	7	7
Independent living apartment in senior housing	13	5	11	13	6	11	13	2	10
Home of child or other relative	6	11	7	7	10	8	7	17	9
Another memory care community	1	6	2	<1	6	2	1	6	2
Adult foster care	3	3	3	2	3	2	2	4	3
Hospital	X	X	X	2	6	3	3	5	3
Psychiatric hospital	X	X	X	1	1	1	<1	1	<1
Houseless/homelless	X	X	X	1	2	1	1	<1	1
Criminal justice system (e.g., prison)	X	X	X	<1	<1	<1	<1	0	<1
Don't know	7	9	8	9	7	9	5	8	6
Other	4	1	3	1	<1	1	1	<1	1

Note: X indicates that the response category was not available in that year. This question was included only in the "Resident Questionnaire" (see [Appendix E](#)).

Table B11. Move-Out locations of recent Move-Outs in the prior 90 days, 2020-2022

	2020	2021			2022		
	Total	AL/RC	MC	Total	AL/RC	MC	Total
	%	%	%	%	%	%	%
Resident died	62	59	84	68	58	81	66
Another memory care community	9	9	5	7	11	5	9
Nursing or Skilled Nursing Facility	7	7	2	5	7	4	6
Home of child or other relative	3	6	2	5	4	2	3
Another assisted living/residential care	6	5	1	4	6	2	5
Home (alone or with spouse/partner)	4	4	2	3	6	2	5
Adult foster care	4	3	2	3	3	2	3
Hospital	2	2	1	2	2	<1	2
Independent living apartment in senior housing	2	2	0	1	2	<1	1
Don't know	0	2	<1	1	1	1	1
Other (including psychiatric hospital, motel, houseless, prison)	1	1	1	1	1	<1	1

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

APPENDIX C: REFERENCES

Alzheimer's Association. (2021). Dementia-related behaviors.

<https://www.alz.org/media/Documents/alzheimers-dementia-related-behaviors-ts.pdf>

AMDA-The Society for Post-Acute and Long-Term Care Medicine. (2018). Opioids in Nursing Homes. <https://paltc.org/?q=opioids%20in%20nursing%20homes>

Bucy, T., Tunalilar, O., & Carder, P.C. (2021). Dying in Place: Factors Associated with Hospice Use in Oregon Assisted Living and Residential Care Communities. *Journal of Aging and Environment*. <https://doi.org/10.1080/26892618.2021.1942382>

Caffrey, C., Cairns, C., & Rome, V. (2020, March 3). Trends in Electronic Health Record Use Among Residential Care Communities: United States, 2012, 2014, and 2016. National Health Statistics Reports; no. 140. Hyattsville, MD: National Center for Health Statistics, 2020. <https://www.cdc.gov/nchs/data/nhsr/nhsr140-508.pdf>

Caffrey, C., & Sengupta, M. (2018). Variation in Residential Care Community Resident Characteristics, by Size of Community: United States, 2016. Hyattsville, MD: National Center for Health Statistics Data Brief. 2018 Feb;(299):1-8. <https://pubmed.ncbi.nlm.nih.gov/29442991/>

Carder, P.C., Kohon, J.N., Limburg, A., West, M., Zimam, A., & Neal, K.G. (2014). *Resident and Community Characteristics Report 2014: Assisted Living, Residential Care, Memory Care*. Institute on Aging Publications. 19. https://pdxscholar.library.pdx.edu/aging_pub/19?utm_source=pdxscholar.library.pdx.edu%2Faging_pub%2F19&utm_medium=PDF&utm_campaign=PDFCoverPages

Carder, P.C., Tunalilar, O., Elliott, S., & Dys, S. (2018). *2018 Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care*. Portland, OR: Portland State University. Institute on Aging. <https://www.pdx.edu/ioa/oregon-community-based-care-project>

Carder, P.C., Tunalilar, O., Elliott, S., & Dys, S. (2020). *2020 Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care Communities*. Portland, OR: Portland State University. Institute on Aging. (forthcoming)

Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS). (2021). 2018 National study of Long-Term Care Providers Residential Care Community (RCC) Restricted Data File, Data Description and Usage.

https://www.cdc.gov/nchs/data/npals/2018NSLTCP-RCC-PUF-ReadMeFile_provider.pdf.

Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System. <https://www.cdc.gov/brfss/brfssprevalence/index.html>

Centers for Medicare and Medicaid Services. (2022). National Partnership to Improve Dementia Care in Nursing Homes. <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/National-Partnership-to-Improve-Dementia-Care-in-Nursing-Homes>

Coleman, E.A., Smith, J.D., Frank, J.C., Min, S.J., Parry, C., & Kramer, A.M. (2004). Preparing Patients and Caregivers to Participate in Care Delivered Across Settings: The Care Transitions Intervention. *Journal of the American Geriatrics Society*, 52(11), 1817-1825. <https://doi.org/10.1111/j.1532-5415.2004.52504.x>

Costlow, K., & Parmelee, P. A. (2020). The impact of relocation stress on cognitively impaired and cognitively unimpaired long-term care residents. *Aging & Mental Health*, 24(10), 1589-1595. <https://doi.org/10.1080/13607863.2019.1660855>

Delgado, J., Bowman, K., & Clare, L. (2020). Potentially inappropriate prescribing in dementia: a state-of-the-art review since 2007. *BMJ Open*, 10, Article e029172. <https://doi.10.1136/bmjopen-2019-029172>

Dys, S., Tunalilar, O, & Carder, P.C. (2021). Antipsychotic, Dementia, and Opioid Medication Use among Assisted Living/Residential Care Residents in Oregon. *JAMDA*, 22(7), 1548-1552. <https://doi.org/10.1016/j.jamda.2020.12.030>

Edemekong, P.F., Bomgaars, D.L., Sukumaran, S., & Levy, S.B. (2022). Activities of Daily Living. National Institute on Health. National Library of Medicine, National Center for Biotechnology Information. <https://www.ncbi.nlm.nih.gov/books/NBK470404/>

Genworth. (2022). Cost of Care Trends & Insights. <https://www.genworth.com/aging-and-you/finances/cost-of-care/cost-of-care-trends-and-insights.html>

Gerlach, L.B., Fashaw, S., Strominger, J., Ogarek, J., Zullo, A.R., Daiello, L.A., Teno, J., Shireman, T.I., & Bynum, J.P. (2021). Trends in antipsychotic prescribing among long-term care residents receiving hospice care. *Journal of the American Geriatrics Society*, 69(8), 2152-2162. <https://doi.org/10.1111/jgs.17172>

Gnjidic, D., Agogo, G.O., Ramsey, C.M., Moga, D.C., & Allore, H. (2018). The Impact of Dementia Diagnosis on Patterns of Potentially Inappropriate Medication Use Among Older Adults. *The Journals of Gerontology: Series A*, 73(10), 1410–1417. <https://doi.org/10.1093/gerona/gly078>

Harris-Kojetin, L., Sengupta, M., Park-Lee, E., Valverde, R., Caffrey, C., Rome, V., & Lendon, J. (2016). Long-term care providers and services users in the United States: data from the National Study of Long-Term Care Providers, 2013-2014. *Vital Health Statistics*, 3(38), 1-105. <https://pubmed.ncbi.nlm.nih.gov/27023287/>

Harris-Kojetin, L., Sengupta, M., Lendon, J.P., Rome, V., Valverde, R., & Caffrey, C. (2019). Long-Term Care Providers and Services Users in the United States, 2015–2016. National Center for Health Statistics. *Vital Health Statistics*, 3(43). https://www.cdc.gov/nchs/data/series/sr_03/sr03_43-508.pdf

Hua, C. L., Cornell, P. Y., Zimmerman, S., Winfree, J., & Thomas, K. S. (2021). Trends in Serious Mental Illness in US Assisted Living Compared to Nursing Homes and the Community: 2007-2017. *The American Journal of Geriatric Psychiatry*, 29(5), 434-444. <https://doi.org/10.1016/j.jagp.2020.09.011>

Kales, H. C., Kim, H. C., Zivin, K., Valenstein, M., Seyfried, L. S., Chiang, C., Cunningham, F., Schneider, L. S., & Blow, F. C. (2012). Risk of mortality among individual antipsychotics in patients with dementia. *The American Journal of Psychiatry*, 161(1), 71-79. <https://doi.org/10.1176/appi.ajp.2011.11030347>

Kirkham, J., Sherman, C., Velkers, C., Maxwell, C., Gill, S., Rochon, P., & Seitz, D. (2016). Antipsychotic Use in Dementia: Is There a Problem and Are There Solutions? *The Canadian Journal of Psychiatry*, 62(3), 170-181. <https://doi.org/10.1177/0706743716673321>

Lin, S.C., & Tunalilar, O. (2022). Rapid adoption of electronic health record and health information exchange among assisted living communities, 2010-2018. *Journal of the American Medical Informatics Association*, 29(5), 953-957. <https://doi.org/10.1093/jamia/ocac021>

Lindsey, P.L. (2009). Psychotropic Medication Use Among Older Adults: What All Nurses Need to Know. *Journal of Gerontological Nursing*, 35(9), 28-38. <https://doi.org/10.3928/00989134-20090731-01>

Maust, D.T., Kim, H.M., Seyfried, L.S., Chiang, C., Kavanagh, J., Schneider, L., & Kales, H.C. (2015). Antipsychotics, Other Psychotropics, and the Risk of Death in Patients With Dementia: Number Needed to Harm. *JAMA Psychiatry* 72(5):438. <https://doi.10.1001/jamapsychiatry.2014.3018>
<https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2203833>

Maust, D.T., Langa, K.M., Blow, F.C., & Kales, H.C. (2017). Psychotropic use and associated neuropsychiatric symptoms among patients with dementia in the USA. *Int J Geriatric Psychiatry*, 32, 164-174. <https://doi.10.1002/gps.4452>

Medicare. (2022). *Hospice care*. <https://www.medicare.gov/coverage/hospice-care>

National Center for Assisted Living (NCAL). (2014). Guiding principles for quality in assisted living. <https://www.ahcancal.org/Assisted-Living/About-NCAL/Documents/GPQualityinAssistedLiving.pdf>

National Institute on Aging (NIA). (2022). How is Alzheimer's Disease Treated? <https://www.nia.nih.gov/health/how-alzheimers-disease-treated#:~:text=Galantamine%2C%20rivastigmine%2C%20and%20donepezil%20are,some%20cognitive%20and%20behavioral%20symptoms>

Office of the Assistant Secretary for Planning and Evaluation. (2019, April 3). What is the Lifetime Risk of Needing and Receiving Long-Term Services and Supports? <https://aspe.hhs.gov/reports/what-lifetime-risk-needing-receiving-long-term-services-supports-0#table3>

Oregon Department of Human Services (ODHS) (2021a). COVID -19 Guidance for Long Term Care Settings in Oregon. Retrieved from: https://www.oregon.gov/dhs/PROVIDERS-PARTNERS/LICENSING/Covid%20Documents/COVID-19GuideforLTCF_2_9_2021.pdf

ODHS (2021b). Provider Alert. COVID-19 Guidance on Vaccination, Visitation, and Congregate Dining and Activities ****UPDATED****. Retrieved from: <https://www.oregon.gov/dhs/PROVIDERS-PARTNERS/LICENSING/AdminAlerts/NF-21-070%20-%20UPDATED%20COVID-19%20Guidance.pdf>

ODHS (2022a). COVID-19 Information for Long-Term Care Facilities. <https://www.oregon.gov/dhs/COVID-19/Pages/LTC-Facilities.aspx>

ODHS (2022b). Residential Care Quality Measurement Program. <https://www.oregon.gov/DHS/PROVIDERS-PARTNERS/LICENSING/CBC/Pages/Quality-Metrics.aspx>

Oregon DHS, Aging and People with Disabilities (APD). (2022). Medicare Waivers and K Plan. [State of Oregon: K Plan - Medicaid Waivers and K Plan](#)

Oregon Health Authority. (2018). Constraints on Oregon's Prescription Drug Monitoring Program Limit the State's Ability to Help Address Opioid Misuse and Abuse. <https://sos.oregon.gov/audits/Documents/2018-40.pdf>

Oregon Secretary of State, Department of Human Services Aging and People with Disabilities and Developmental Disabilities - Chapter 411. Division 27. PAYMENT LIMITATIONS IN HOME AND COMMUNITY-BASED SERVICES. Enhanced Wage Add-on Program. Retrieved from:

<https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=287166>

Oregon Office of Economic Analysis. (2019). Oregon's Demographic Trends.

https://www.oregon.gov/das/OEA/Documents/OR_pop_trend2019.pdf

Oregon Senate Majority Office (2022). 2022 Session Accomplishments.

<https://www.oregonlegislature.gov/senatedemocrats/Documents/OSD-2022-Session-Accomplishments.pdf>

Phillips, L., Leary, E., Blankenship, J., & Zimmerman, S. (2017). Physical Function, Relocation, and Mortality Outcomes in Residential Care and Assisted Living Residents. *Journal of Aging and Health*. 31(6); 903-924.

<https://doi.org/10.1177/0898264317740047>

Rapp, M.A., Schnaider-Beeri, H., Wysocki, M., Grossman, H.T., Heinz, A., & Haroutunian, V. (2011). Cognitive Decline in Patients With Dementia as a Function of Depression. *The American Journal of Geriatric Psychiatry*, 19(4), 357-363.

<https://doi.org/10.1097/JGP.0b013e3181e898d0>

Rome, V., Harris-Kojetin, L., & Carder, P. (2019). Variation in Licensed Nurse Staffing Characteristics by State Requirements in Residential Care. *Research in Gerontological Nursing*, 12(1), 27–33. <https://doi.org/10.3928/19404921-20181212-03>

Substance Abuse and Mental Health Services Administration (SAMHSA). (2017, July 26). Opioid Misuse Increases Among Older Adults.

<https://www.samhsa.gov/data/report/opioid-misuse-increases-among-older-adults>

Sengupta M., Lendon J.P., Caffrey C., Melekin A., & Singh P. (2022). Post-acute and Long-term Care Providers and Services Users in the United States, 2017–2018. National Center for Health Statistics. *Vital Health Stat* 3(47). 2022.

<https://dx.doi.org/10.15620/cdc:115346>.

Stephen, R.J., & Anthony, E.J. (2018). Increased All-Cause Mortality by Antipsychotic Drugs: Updated Review and Meta-Analysis in Dementia and General Mental Health

Care. *Journal of Alzheimer's Disease Reports*, 2(1), 1-26. <https://doi.10.3233/ADR-170042>

Thomas, K.S., Zhang, W., Dosa, D.M., Carder, P., Sloane, P., & Zimmerman, S. (2021). Estimation of Excess Mortality Rates Among US Assisted Living Residents During the COVID-19 Pandemic. *JAMA Open Network*. 2021;4(6):e2113411. <https://doi.10.1001/jamanetworkopen.2021.13411>.

Thomas, K. S., Belanger, E., Zhang, W., & Carder, P. (2019). State Variability in Assisted Living Residents' End-of-Life Care Trajectories. *Journal of the American Medical Directors Association*, 21(3), 415-419. <https://doi.org/10.1016/j.jamda.2019.09.013>

Wiles, K., Leibing, A., Guberman, N., Reeve, J., & Allen, R.E.S. (2012). The meaning of "aging in place" to older people. *The Gerontologist*. 52(3), 357-366. <https://doi.org/10.1093/geront/gnr098>

Zubenko, G.S., Zubenko, W.N., McPherson, S., Spoor, E., Marin, D.B., Farlow, M.R., Smith, G.E., Genda, Y.E., Cummings, J.L., Petersen, R.C., & Sunderland, T. (2003). A Collaborative Study of the Emergence and Clinical Features of the Major Depressive Syndrome of Alzheimer's Disease. *The American Journal of Psychiatry*, 160(5). <https://doi.org/10.1176/appi.ajp.160.5.857>

APPENDIX D: FACILITY QUESTIONNAIRE



Oregon Community-Based Care 2021-22 Community Questionnaire

Please only fill out information for your Residential Care community

CCMU/Provider #:

Capacity:

Name of Community:

Address of Community:

Administrator:

Community Phone:

1. Person Completing Report _____ Title _____ Phone _____

2. Person Completing Report _____ Title _____ Phone _____

3. Person Completing Report _____ Title _____ Phone _____

Email _____ Web address _____

If you have questions about completing this questionnaire, please contact:
Diana Jacoby at 503.208.6195 or Jaelyn Winfree at 503.725.6563 or cbcor@pdx.edu

DHS requires communities to complete this questionnaire by February 22, 2022.

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:
Use the Self Addressed, Stamped Envelope and Mail to:	CBC Project - Institute on Aging Portland State University PO BOX 751 Portland, Oregon 97207

We greatly appreciate your time and the work that you do on behalf of older adults and people 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/ia/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.

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)

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

AS ACCEPTED BY ODHS ON AUGUST 23, 2022
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

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)

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
	Psychiatric hospital
	Adult foster care
	Nursing facility (NF) or Skilled nursing facility (SNF)
	Homeless/houseless
	Motel/hotel/hostel
	Criminal justice system (e.g., prison)
	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
	Psychiatric hospital
	Adult foster care
	Nursing facility (NF) or Skilled nursing facility (SNF)
	Motel/hotel/hostel
	Criminal justice system (e.g., prison)
	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)

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

CCMU/Provider Number:

8. Of your residents who died in the last 90 days, how many were receiving hospice services when they died?

TOTAL NUMBER OF RESIDENTS

Section C. Staffing

9. How many job openings do you currently have?

TOTAL NUMBER OF JOB OPENINGS

10. In the last 7 days, due to staff absences, did you hire outside service providers (such as agency/contract staff) to cover these staff absences? Please do not include ongoing or regular contract staff, such as a nurse. **Please CIRCLE all that apply.**

1. Yes, for planned staff absences
2. Yes, for unplanned staff absences
3. Yes, for both planned and unplanned absences
4. No, we did not hire any outside service providers such as contract or agency care staff

11. In the last 7 days, have you had any unplanned care-related staff absences? **Please CIRCLE ONLY ONE.**

Yes 2. No

12. How many staff does your community currently employ?

An individual is a staff member (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

13. 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

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

CCMU/Provider Number:

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

Less than 6 months

More than 6 months

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

Number of RNs that left employment

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

Less than 6 months

More than 6 months

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

Number of care-related staff

Section D. Community Characteristics & Policies

18. Does this community share a building or campus with any of the following settings? *Please mark yes or no in each row.*

	Yes	No
Independent living		
Another assisted living or residential care community		
Another memory care community		
(Skilled) nursing facility		

19. What is the type of ownership of this community? *Please choose one answer.*

1. Private - Nonprofit
2. Private - For profit
3. Publicly traded company or limited liability company (LLC)
4. Government (federal, state, county, or local)

20. Is this community owned by a person, group, or organization that owns or manages two or more assisted living, residential care, or memory care communities? This may include a corporate chain. *Please choose one answer.*

1. Yes
2. No

21. An electronic health record is a computerized version of the resident's health and personal information used in the management of the resident's health care. Other than for accounting or billing purposes, does this community use electronic health records? *Please choose one answer.*

1. Yes
2. No

All answers are kept private and confidential. None of your individual information is reported to ODHS. 4

AS ACCEPTED BY ODHS ON AUGUST 23, 2022
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

- 22.** Does this community use computerized systems or processes to do any of the following? *Please mark yes or no in each row.*

	Yes	No	Don't Know
Record resident demographics			
Record clinical notes			
Record resident medications and allergies			
Record individual service plans			
View lab or imaging reports			
Order prescriptions			

- 23.** Does this community's computerized system support electronic health information exchange with each of the following providers? Do not include faxing. *Please mark yes or no in each row.*

	Yes	No	Don't Know
Physician			
Pharmacy			
Hospital			
Behavioral health provider			
(Skilled) nursing facility			
Other long-term care provider			

- 24.** How many total rooms/units are in this community, and how many of them are occupied or unoccupied? *Please write the number of rooms/units, using the first two rows as examples.*

	Total # Rooms/Units	# Occupied	# Unoccupied
<i>Example 1: Studio/Alcove</i>	20	18	2
<i>Example 2: One bedroom</i>	80	79	1
Studio/Alcove			
One bedroom			
Two bedroom			
Other, specify: _____			

All answers are kept private and confidential. None of your individual information is reported to ODHS. 5

AS ACCEPTED BY ODHS ON AUGUST 23, 2022
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

25. How much do you agree or disagree with the following statements regarding the coronavirus (COVID-19) pandemic? **Please put an "X" in the column that best describes your experiences.**

In the past 12 months...	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Applicable
a. We have been able to get accurate information about COVID-19.						
b. We have been given enough support from county/state agencies to deal with issues/problems due to the pandemic.						
c. We have been satisfied with the communication about rules and regulations from the county/state agencies.						
d. We have been able to access personal protective equipment (PPE) (such as eye protection, gloves, N95 respirators).						
e. We have been able to address concerns of <u>residents' families</u> related to the pandemic.						
f. We have been able to address concerns of <u>staff</u> related to the pandemic.						
g. We have had a harder time finding new residents.						
h. We have had a harder time with staffing (such as hiring, retaining, and scheduling).						
i. Our residents have used virtual visits (e.g., iPad, computer, smart phone) with their family members and friends.						
j. Our residents have used telemedicine or telehealth for purposes of assessments, monitoring, diagnosis, or treatment.						
k. We have found the COVID-19 visitor restrictions enacted by county/state agencies to be reasonable.						

All answers are kept private and confidential. None of your individual information is reported to ODHS. 6

AS ACCEPTED BY ODHS ON AUGUST 23, 2022
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

- 26.** This question asks whether your community provides, arranges, or refers to different health services. For each service listed below, mark all that apply in each row:

Type of Service	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	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				

All answers are kept private and confidential. None of your individual information is reported to ODHS. 7

AS ACCEPTED BY ODHS ON AUGUST 23, 2022
FINAL VERSION PENDING TO BE PUBLISHED BY ODHS

CCMU/Provider Number:

- 27.** Is there anything you would like us or ODHS to know about operating/managing an assisted living, residential care, or memory care community during the pandemic?

Thank you for taking the time to complete this questionnaire!

All answers are kept private and confidential. None of your individual information is reported to ODHS. 8

APPENDIX E: RESIDENT QUESTIONNAIRE

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

A-1

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
- Hospital
- Psychiatric hospital
- Houseless/homeless
- Criminal justice system (e.g., prison)
- 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 because they... **Mark Yes or No for each activity.**

	Yes	No
Lack awareness to safety, judgment, and decision-making, or ability to orient to their surroundings	<input type="checkbox"/>	<input type="checkbox"/>
Wander	<input type="checkbox"/>	<input type="checkbox"/>
Are a danger to themselves or others	<input type="checkbox"/>	<input type="checkbox"/>

23. 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.

24. 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

If yes, please describe this resident's significant change in condition.

25. 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"/>
Anxiety disorder	<input type="checkbox"/>	<input type="checkbox"/>
Serious mental illness (such as bipolar disorder, schizophrenia). Excludes anxiety disorder and depression.	<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.

26. 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

Questions 27 to 31 ask about types of medications that this resident uses. We provide examples of common medication names; the lists do not include all possible medications for each medication type.

27. In the last 7 days, did this resident receive any antipsychotic medications? Examples include aripiprazole (Abilify), haloperidol (Haldol), olanzapine (Zyprexa), quetiapine (Seroquel), risperidone (Risperdal). **Mark only one answer.**

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

28. In the last 7 days, did this resident receive any dementia-specific medications? Examples include donepezil (Aricept), rivastigmine (Exelon), galantamine (Razadyne), memantine (Namenda or Namzaric). **Mark only one answer.**

- Yes
- No
- Don't know

29. In the last 7 days, did this resident receive any opioid medications? Examples include hydrocodone (Vicodin/Norco/Lortab), oxycodone (Percocet/Endocet), fentanyl, codeine, morphine, hydromorphone, methadone, tramadol. **Mark only one answer.**

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

30. In the last 7 days, did this resident receive any anti-depressant medications? Examples include sertraline (Zoloft), duloxetine (Cymbalta), venlafaxine (Effexor), bupropion (Wellbutrin), trazodone, citalopram (Celexa), escitalopram (Lexapro), mirtazapine (Remeron), fluvoxamine (Luvox), paroxetine (Paxil). **Mark only one answer.**

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

31. In the last 7 days, did this resident receive any anxiolytic/sedative-hypnotic medications? Examples include lorazepam (Ativan), alprazolam (Xanax), clonazepam (Klonopin), diazepam (Valium), zoldipem (Ambien). **Mark only one answer.**

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

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

- Yes
- No
- Don't know

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

- Yes
- No
- Don't know

COMMUNITY RATES, FEES, AND SERVICE USE

34. 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 resident uses private sources as primary payment method:

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

Write dollar amount

36. 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

Thank you for completing the questionnaire!