

Portland State University

**PDXScholar**

---

Institute on Aging Publications

Institute on Aging

---

2021

# 2021 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

*OHSU-PSU School of Public Health, carderp@pdx.edu*

Sheryl Elliott

*Portland State University, sheryle@pdx.edu*

Jason Z. Kyler-Yano

*Portland State University, jzk2@pdx.edu*

Sarah Dys

*Portland State University, sdys@pdx.edu*

Follow this and additional works at: [https://pdxscholar.library.pdx.edu/aging\\_pub](https://pdxscholar.library.pdx.edu/aging_pub)



Part of the [Gerontology 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., Elliott S., Kyler-Yano, J.Z., Dys, S., Kim, M., Cater, D., and Hews, E. (2021). 2021 Community-Based Care: Resident and Community Characteristics Report on Assisted Living, Residential Care, and Memory Care: 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](mailto:pdxscholar@pdx.edu).

---

**Authors**

Ozcan Tunalilar, Paula Carder, Sheryl Elliott, Jason Z. Kyler-Yano, Sarah Dys, Minju Kim, Diana Cater, and Ellis Jourdan Hews

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

# 2021 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., Sheryl Elliott, M.U.S, Jason Kyler-Yano, M.A., Sarah Dys, M.P.A., Minju Kim, M.S., Diana Cater, M.S.W., M.P.H., & Ellis Hews, M.U.S.

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.



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

[This page is intentionally left blank]

## 2021 Resident and community characteristics report

---

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

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

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

#### IOA/PSU Study Team:

Paula Carder, Ph.D.  
Sarah Dys, M.P.A.  
Ozcan Tunalilar, Ph.D.  
Sheryl Elliott, M.U.S.  
Jason Kyler-Yano, M.A.  
Minju Kim, M.S.  
Ellis Hews, M.U.S.  
Diana Cater, M.P.H., M.S.W.

#### For more information:

Paula Carder, Ph.D. [carderp@pdx.edu](mailto:carderp@pdx.edu)  
503-725-3952  
P.O.Box 751, Portland, OR 97207

#### Additional contributors from Portland State University

Diana Jacoby, Ann Jeline Manabat, Marissa Varimontes, and Riley Wilton

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

### 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:

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

#### Suggested citation:

Tunalilar, O., Carder, P.C., Elliott S., Kyler-Yano, J.Z., Dys, S., Kim, M., Cater, D., and Hews, E. (2021). *2021 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

<b>Introduction .....</b>	<b>1</b>
<b>Study methods.....</b>	<b>3</b>
<b>HIGHLIGHTS .....</b>	<b>4</b>
<b>Community characteristics .....</b>	<b>7</b>
<b>Occupancy rates.....</b>	<b>8</b>
<b>Units and room sharing .....</b>	<b>9</b>
<b>Private pay charges.....</b>	<b>10</b>
<b>Payer sources .....</b>	<b>11</b>
<b>Estimated profession charges .....</b>	<b>12</b>
<b>Facility staff and human resources practices .....</b>	<b>14</b>
<b>Care-related staff employed full-time and part-time .....</b>	<b>14</b>
<b>Staff to resident ratios.....</b>	<b>19</b>
<b>Staffing levels .....</b>	<b>21</b>
<b>Human Resources (HR) Practices.....</b>	<b>25</b>
<b>Policy related to AL/RC/MC staff employed in other workplaces .....</b>	<b>27</b>
<b>Temporary staff hired from a staffing or similar agency.....</b>	<b>28</b>
<b>RESIDENTS.....</b>	<b>29</b>
<b>Resident demographics .....</b>	<b>29</b>
<b>Move-in and move-out locations, and length of stay .....</b>	<b>31</b>
<b>Length of Stay Among Residents Who Moved .....</b>	<b>33</b>
<b>Assistance with personal care .....</b>	<b>34</b>
<b>Health conditions.....</b>	<b>38</b>
<b>Significant change in condition .....</b>	<b>39</b>
<b>Falls &amp; fall-related injuries .....</b>	<b>40</b>
<b>Health service use .....</b>	<b>41</b>
<b>Medication use.....</b>	<b>42</b>
<b>COVID-19 pandemic policies and practices.....</b>	<b>45</b>
<b>Communication with resident families .....</b>	<b>48</b>
<b>Staffing policies relevant to COVID-19 response .....</b>	<b>48</b>
<b>Emergency preparedness needs .....</b>	<b>49</b>
<b>WHAT AL/RC/MC administrators want others to know about operating an AL/RC/MC during the pandemic.....</b>	<b>51</b>

<b>Conclusion.....</b>	<b>53</b>
<b>Appendix A: Methods .....</b>	<b>56</b>
<b>Study population .....</b>	<b>56</b>
<b>Data Collection Instruments .....</b>	<b>57</b>
<b>Staff who completed the resident questionnaire .....</b>	<b>58</b>
<b>Survey (Unit) response .....</b>	<b>58</b>
<b>Item non-response.....</b>	<b>60</b>
<b>Weights.....</b>	<b>61</b>
<b>Data analysis.....</b>	<b>62</b>
<b>Staffing ratio and level calculation.....</b>	<b>63</b>
<b>Profession charges .....</b>	<b>63</b>
<b>Appendix B: Additional tables .....</b>	<b>66</b>
<b>Appendix C: References.....</b>	<b>77</b>
<b>Appendix D: Facility questionnaire .....</b>	<b>83</b>
<b>Appendix E: Resident questionnaire.....</b>	<b>90</b>

## List of Tables

---

- Table 1. Number of all licensed settings and licensed capacity as of November 2020
- Table 2. Licensed capacity and occupancy rates of responding facilities, 2021
- Table 3. Occupancy rates based on number of units, 2021
- Table 4. Distribution of occupancy rates and responding facilities, 2021
- Table 5. Unit sharing among residents by setting, 2021
- Table 6. Average monthly private-pay charges among sampled residents by setting, 2021
- Table 7. Distribution of payer sources among sampled residents by setting, 2021
- Table 8. Percentage of care-related staff employed full- and part-time, within employee categories and by setting, 2021
- Table 9. Percentage of communities that employed at least one full- or part-time care-related staff by employee categories, 2021
- Table 10. Comparison of communities that employed at least one full- or part-time care-related staff by employee categories between 2020 and 2021
- Table 11. Percentile distribution of staff ratios by setting, 2021
- Table 12. Care hours per resident per day among care-related staff by setting, 2020-2021
- Table 13. Percentile distribution of care hours per resident per day by setting, 2021
- Table 14. Share of communities with human resource practices, by setting, 2021
- Table 15. Percentage of communities that had a policy related to staff who work at other places, 2021
- Table 16. Percentage of communities that instituted a policy related to staff who work in other places in response to COVID-19, 2021
- Table 17. Share of facilities hired temporary staff from an agency since the COVID-19 pandemic, 2021
- Table 18. Sex/gender and age distribution of residents by setting, 2021
- Table 19. Resident race/ethnicity by setting, 2021
- Table 20. Move-in locations among sampled residents by setting, 2021
- Table 21. Move-out locations of recent move-outs in the prior 90 days, 2021
- Table 22. Percent of residents who receive staff assistance for behavioral symptoms by setting, 2021



Table 23. Resident health conditions by setting, 2021

Table 24. Fall-related injuries & hospitalizations, 2021

Table 25. Health service use among residents in the last 90 days, 2021

Table 26. Medication assistance and use by setting, 2021

Table 27. Antipsychotic (ap) & opioid (op) administration among residents by setting, 2021

Table 28. Provider agreement or disagreement with statement regarding the coronavirus (COVID-19) pandemic, 2021

## List of Figures

---

Figure 1. Estimated total annual charges for AL/RC and mc facilities in Oregon, 2021

Figure 2. Distribution of all AL/RC/MC care-related staff employed in AL/RC/MC settings, by employee categories, 2021

Figure 3. Staff to resident ratios by setting and staff type, 2020-2021

Figure 4. Care hours per resident per day among care-related staff by setting, 2021

Figure 5. Length of stay among residents who moved out by setting, 2021

Figure 6. Percent of residents who receive regular and ongoing staff assistance with personal care, 2021

Figure 7. Residents by number of ADLS for which they receive staff assistance, 2021

Figure 8. Distribution of number of behavioral symptoms among residents by setting, 2021

## Appendix A

---

Table A1. Percentage of staff completing the resident questionnaire by staff category and setting type, 2021

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

Table A3. Response rates by facility type and rural status, facility and resident questionnaires, 2021

Table A4. Response rates by facility type and profit status, facility and resident questionnaires, 2021

Table A5. Estimated annual profession charges for AL/RC and MC communities in Oregon, 2021

## Appendix B

---

Table B1. Average monthly private-pay charges among sampled residents, excluding bottom and top 1 percentile

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

Table B3. Monthly private-pay charges among sampled residents by region, excluding bottom and top 1 percentile

Table B4. Share of care-related staff employed part-time or full-time, by employee categories and setting, 2021

Table B5. Staff to resident ratios by setting and staff type, 2020-2021

Table B6. Share of communities with human resource practices, 2020-2021

Table B7. Provider agreement or disagreement with statements regarding the coronavirus (covid-19) pandemic, 2021

Table B8. Sex/gender and age distribution of residents by setting, 2020-2021

Table B9. Resident race/ethnicity by setting, 2020-2021

Table B10. Move-in locations among sampled residents by setting, 2020-2021

Table B11. Move-out locations of recent move-outs in the prior 90 days, 2020-2021

## Common Acronyms

---

**ADLs** - Activities of daily living

**ADRD** - Alzheimer's Disease and related dementias

**APD** - Division of Aging and People with Disabilities

**AL** - Assisted living

**CBC** - Community-based care

**CMA** - Certified medication assistant

**CNA** - Certified nursing assistant

**ODHS** - Oregon's Department of Human Services

**MC** - Memory care community

**IOA** - Institute on Aging

**LPN/LVN** - Licensed Practical Nurse/Licensed Vocational Nurse

**OHA** - Oregon Health Authority

**OAR** - Oregon Administrative Rules

**ORS** - Oregon Revised Statutes

**PSU** - Portland State University

**RC** - Residential care

**RN** - Registered nurse

# Introduction

---

This report summarizes findings from the 7th annual study of Oregon community-based care settings. The global outbreak of SARS-CoV-2 (referred to as COVID-19 henceforth), recognized by the World Health Organization as a global pandemic in March 2020, had a disproportionate effect on many assisted living and residential care (AL/RC) residents and their family members as well as AL/RC administrators and staff. On March 8, 2020, Governor Brown declared a state of emergency (which was still in effect as this report was prepared in June 2021). Throughout 2020 and early 2021, OHA and ODHS introduced and enforced multiple regulations and policies related to physical distancing, move-in, infection and outbreak controls, and visitations (Oregon Department of Human Services, 2021). Visitation policies varied considerably, both over time and whether they referred to outdoor or indoor locations. Alongside the COVID-19 pandemic, Oregon's wildfire event during summer and early fall of 2020 exposed AL/RC/MC communities to hazardous conditions (e.g., smoke) and actual or planned evacuations. As such, this report reflects the status of AL/RC/MC residents and communities during these natural disasters and emergency conditions.

The Office of Aging and People with Disabilities (APD) under the Oregon Department of Human Services (ODHS) licenses and monitors all AL/RC/MC settings in Oregon. However, there is no central source of administrative data about all CBC residents, services, staffing, charges, and policies of AL/RC/MC communities. To inform ODHS, stakeholders, providers, and consumers about this sector of long-term services and supports (LTSS) and ensure data-informed policy decisions, ODHS has contracted with The Institute on Aging at Portland State University (IOA/PSU) each year since 2014 to collect and report information about AL/RC/MC residents and communities.

Following a format similar to past years' reports, the current report includes:

- Information about AL/RC/MC, including licensed capacity, occupancy, policies, resident move-in and move-out locations, private pay rates and Medicaid data, and staffing.
- Information about residents, including sociodemographic characteristics (e.g., age, sex, race, ethnicity), measures of health status, and indicators of health service use.
- Comparisons to 2020 data and discussion of similarities and changes in indicators of interest.
- Comparison to national studies, where relevant and data are available.

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

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

Assisted living facilities must provide private apartments that have a living and sleeping space, kitchen area, bathroom, and storage. 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 they must follow, we report findings for these two settings in aggregate (AL/RC) in this report.

Oregon DHS 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 (ADRD). 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 ADRD.

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

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

The report describes similarities and differences between AL/RC and MC settings. A total of 559 AL/RC/MC settings were operating in Oregon as of November 2020. Of these, 217 (39%) were endorsed MC communities. The total licensed capacity for all AL/RC/MC was 28,925 residents.

Based on the responses of AL/RC/MC settings that participated in this study, 51% of residents were ages 85 or older, 68% were female, and 12% were a race/ethnicity other than non-Hispanic White. Most residents (67%) lived in their AL/RC/MC communities for over one year, and the primary reason for departures for residents who left in the prior 90 days was death (68%). Although a large share of AL/RC/MC residents paid using private resources, 44% of residents in the responding facilities were Medicaid recipients. Private pay rates varied widely by setting type and region, with an average of \$5,386 per month.

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.

## **Study methods**

The data summarized in this report were collected using two separate questionnaires. The facility questionnaire included questions about policies, services and rates, staffing, residents who moved out in the prior 90 days, and the impacts of the COVID-19 pandemic. All 559 AL/RC/MC licensed as of November 2020 received both questionnaires. Of these, 35 included multiple facility types in one building or property. As such, there were 594 eligible cases for the purpose of data collection. Of these 594 cases, 349 completed the facility questionnaire for a response rate of 59%, and 355 completed the resident questionnaire, for a response rate of 60%. In this report, resident data are based on 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 559 AL/RC/MC settings as of November 2020.
- The total licensed capacity for all AL/RC/MC settings in Oregon was 28,925 residents.
  - The total licensed capacity for the AL/RC/MC settings that responded to the study was 16,706 residents.
- There were an estimated 20,656 residents living in all 559 AL/RC/MC settings in Oregon.
- 82% of residents lived in a private room/apartment, 12% shared their unit with an unrelated roommate, and 6% lived with a relative or spouse.

## **Memory care**

- 217 of all AL/RC in Oregon had a MC endorsement. Most MC were stand-alone communities with no other license type, and 37 were co-licensed with an AL/RC.
- 27% of all residents living in the responding facilities lived in MC.

## **AL/RC/MC Medicaid use and expenditure**

- 46% of residents were Medicaid beneficiaries.
- In 2019, ODHS was billed a total of \$393,294,505 on behalf of Medicaid-eligible residents in all AL/RC/MC facilities.

## **AL/RC/MC private payers and rates**

- 53% of residents were private pay (e.g., personal sources, long-term care insurance, social security).
- \$5,386 was the average total monthly charge paid by current AL/RC/MC residents.
- \$64,632 is the amount that a single resident would pay for 12 months based on the average total monthly charge.
  - Total monthly charges ranged from \$452 to over \$10,000.

## **AL/RC/MC staffing**

- 13,291 staff were employed by 317 responding facilities.

- 58% of employees' job responsibilities included resident care.
- 83% of employees worked full-time.
- Average care-related staff-to-resident ratios:
  - 0.75 AL/RC.
  - 1.13 MC.
  - 0.88 AL/RC/MC.
- Estimated average care hours per resident per day provided by care staff:
  - 3 hours and 22 minutes in AL/RC.
  - 5 hours and 6 minutes in MC.
  - 3 hours and 58 minutes in AL/RC/MC.

### **AL/RC/MC resident demographics**

- 68% female.
- 78% ages 75 and older.
- 51% ages 85 and older.
- 88% non-Hispanic White.
- Approximately 3% were either Asian, Black or African American, American Indian/Native American or Alaska Native, or Native Hawaiian/ or other Pacific Islander.
- 1% were Hispanic/Latino of any race.

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

- 33% less than 1 year.
- 67% more than 1 year.
- 20% for 4 or more years.
- 68% of move-outs were due to death.

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

- 12% eating.
- 55% dressing.
- 69% bathing and grooming.
- 44% using the bathroom.
- 30% mobility/walking.
- 42% staff assistance during the night.
- 22% assistance from two staff.



## **AL/RC/MC residents who regularly received assistance with behavioral symptoms**

- 52% received staff assistance with at least one of the following three behavioral symptom:
  - 40% due to lack of awareness or ability to orient to surroundings.
  - 10% due to wandering.
  - 7% danger to self or others.

## **Top five most commonly reported AL/RC/MC resident health conditions**

- 62% of residents had high blood pressure/hypertension.
- 47% had Alzheimer's disease or related dementias (ADRD).
- 39% had heart disease.
- 38% had depression.
- 24% 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, 34% went to the hospital due to a fall.

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

- 18% treated in a hospital emergency department.
- 10% hospitalized overnight.
- 8% used hospice services.

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

- 53% took nine or more medications on a regular basis.
- 25% took antipsychotic medications in the last week.
- 21% took opioid medications in the last week.
- 38% took a dementia-specific medication in the last week.
- 13% self-administered their own medications.

## Community characteristics

---

*How many AL/RC/MC communities are there, what is their capacity and occupancy, what are their costs?*

Oregon licenses assisted living and residential care (AL/RC) facilities, also referred to as community-based care. Both AL and RC may additionally receive an “endorsement” to operate as a memory care (MC) community. The state’s MC rules require additional staff training in dementia care, as well as specific building design features, and administrator responsibilities (OAR 411-057).

To provide context, we collected additional relevant information from other sources about the 559 AL/RC/MC licensed in Oregon. According to the Oregon Secretary of State data, 5% of AL/RC/MC owners were non-profit organizations. 38% were located in rural or frontier areas as defined by the Oregon Office of Rural Health. All 36 counties except Curry had at least one AL/RC/MC. One-third (or 209) of the 559 AL/RC/MC were located in Clackamas, Multnomah, and Washington Counties.

Each AL/RC and MC is licensed to accommodate a specific number of residents, referred to as the capacity. The number of units (e.g., a room or apartment) is smaller than or equal to the capacity because some units have a capacity for two residents, the maximum permitted per unit in Oregon AL/RC/MC communities.

Table 1 describes the total number of all licensed settings and their capacity based on information provided by ODHS. The number of AL/RC increased by 9 from 550 (209 MC) to 559 (217 MC) between the 2020 and the current report (Table 1). This increase is accounted for by 35 AL/RC and 18 MC opening, and 34 AL/RC and 10 MC closing during this period. During that time, the licensed capacity of AL/RC increased from 28,376 to 28,925 and the capacity of MC increased from 7,221 to 7,597 — an increase of 2% and 5%, respectively. Because the MC designation may be applied to either an AL or RC license, the number of settings with an MC endorsement is included within the total number of AL/RC.

In this report, we use the terms *facility* to refer to AL/RC and *community* to refer to MC, in keeping with Oregon Administrative Rules. We sometimes use the word *setting* to generally describe all AL/RC/MC.

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

	# of Settings	Licensed Capacity	# of Units
<b>All Facilities (AL/RC)<sup>1</sup></b>	559	28,925	23,361
<b>MC Endorsed AL/RC</b>	217	7,597	6,864

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

### Occupancy rates

Table 2 below reports information from the 349 responding AL/RC/MC. The occupancy rate is calculated by dividing the number of current residents by the capacity, for each license type. The occupancy rates are lower compared to prior years of this study. For example, the occupancy rate reported in 2020 among 388 respondents was 77% for AL/RC compared to 70% this year, and 85% for MC compared to 76% this year.

Based on the current residents, 27% of residents (3,201 out of 11,905) lived in MC compared to 26% in 2020 (not shown in Table 2).

**Table 2. Licensed capacity and occupancy rates of responding facilities, 2021**

	Capacity	# of Current Residents	Occupancy Rate
<b>AL/RC</b>	12,486	8,704	70%
<b>MC</b>	4,220	3,201	76%
<b>Total</b>	16,706	11,905	71%

Note: Based on 345 cases with non-missing information.

Some senior housing professionals, such as the National Investment Center (NIC, 2021), calculate occupancy rates as a percentage of occupied units rather than total number of residents, as we did. Using the NIC method for calculating occupancy based

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

on units, the occupancy rates for AL/RC/MC is 78% (Table 3). The occupancy rate reported in 2020 was 88% for both AL/RC and MC.

**Table 3. Occupancy rates based on number of units, 2021**

	Units	Number of Occupied Units	Occupancy Rate
<b>AL/RC</b>	10,024	7,843	78%
<b>MC</b>	3,606	2,828	78%
<b>Total</b>	13,630	10,671	78%

The below table shows the range of occupancy rates among responding facilities organized by five specific cut points (bottom 10th and 25th; middle; top 25th and 10th). The occupancy rate was below 50% among facilities in the bottom 10th percentile, compared to 97% for those in the top 10th percentile. The occupancy rate for facilities in the middle percentile ranged from 73% for AL/RC to 80% for MC. Across all percentiles, MC had a higher occupancy rate compared to AL/RC.

**Table 4. Distribution of occupancy rates of responding facilities, 2021**

Percentile	Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
<b>AL/RC</b>	47%	61%	73%	81%	91%
<b>MC</b>	48%	65%	80%	92%	100%
<b>Total</b>	48%	61%	75%	86%	97%

Note: Based on 345 cases with non-missing information.

### Units and room sharing

AL and RC units may be designated for up to two residents. Based on Oregon rules, when two people share a unit in an AL, the individuals must be known to each other, such as married couples, relatives or friends. RC may have either private units or units shared by roommates who did not previously know each other (OAR 411-054-0200).

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

Residents have the right to choose a roommate when sharing a unit (OAR 411-054-0027).

Most AL/RC/MC residents (82%) did not live in a shared unit. This varied by setting type. More AL/RC (89%) than MC (62%) residents did not share a unit. Nine percent of AL/RC residents and less than 1% of MC residents shared a room with a partner, spouse, or relative. A much larger proportion of MC (37%) versus AL/RC (2%) residents shared with an unrelated roommate (Table 5). These rates are similar to last year's figures.

**Table 5. Unit sharing among residents by setting, 2021**

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

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

### Private pay charges

Providers were asked about each resident's base and total monthly charges for the prior month (Table 6). Facilities have different ways of assessing a base rate, which might include rent as well as basic services. The total monthly charge is typically higher than the base rate because it includes the base as well as additional charges for services received by the resident.

The average *base* monthly charge for AL/RC was \$4,101 and the average *total* monthly charge including services received by the resident was \$4,932. This means additional service charges of approximately \$831 per month were added to the base charge for AL/RC facilities. Based on the average *total* monthly charge, a year-long stay for a

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

single resident would amount to \$59,184. In comparison, in 2020 the average base monthly charge for AL/RC was \$4,056 and the average total monthly charge including services received by the resident was \$4,791.

Compared to AL/RC, MC communities had higher average base and total (base plus additional services) monthly charges, at \$5,923 and \$6,867, respectively. This difference amounts to an average service charge of \$944 added per month to the base charge for additional services among MC communities. The average total monthly charge for MC was about \$1,935 more than the AL/RC average total monthly charge. A year-long stay in MC based on the average total monthly charge would amount to \$82,404, which is about \$23,220 more than the average annual charge for AL/RC. In 2020, a year-long stay in MC was \$79,512, about \$22,000 more than the average annual charge for AL/RC of \$57,492.

**Table 6. Average monthly private-pay charges among sampled residents by setting, 2021**

Monthly Charge	AL/RC		MC		Total	
	Base	Total	Base	Total	Base	Total
Minimum	\$617	\$849	\$452	\$452	\$452	\$452
Maximum	\$11,880	\$11,880	\$12,036	\$12,036	\$12,036	\$12,036
Average	\$4,101	\$4,932	\$5,923	\$6,867	\$4,529	\$5,386

### Payer sources

The study asked whether current residents primarily paid using private sources (e.g., savings, pensions, long-term care insurance), through Medicaid, a public insurance program available to individuals who meet both income and medical eligibility criteria, or another source. The state establishes the medical eligibility criteria, which include needing assistance from another person due to physical and cognitive impairments.

While the majority of residents (53%) paid privately, 46% of current residents were Medicaid beneficiaries. A lower share of AL/RC than MC residents used Medicaid (44% and 52%, respectively).

**Table 7. Distribution of payer sources among sampled residents by setting, 2021**

	AL/RC	MC	Total
	%	%	%
<b>Medicaid</b>	44	52	46
<b>Private Sources</b>	55	48	53
<b>Other</b>	1	<1	1

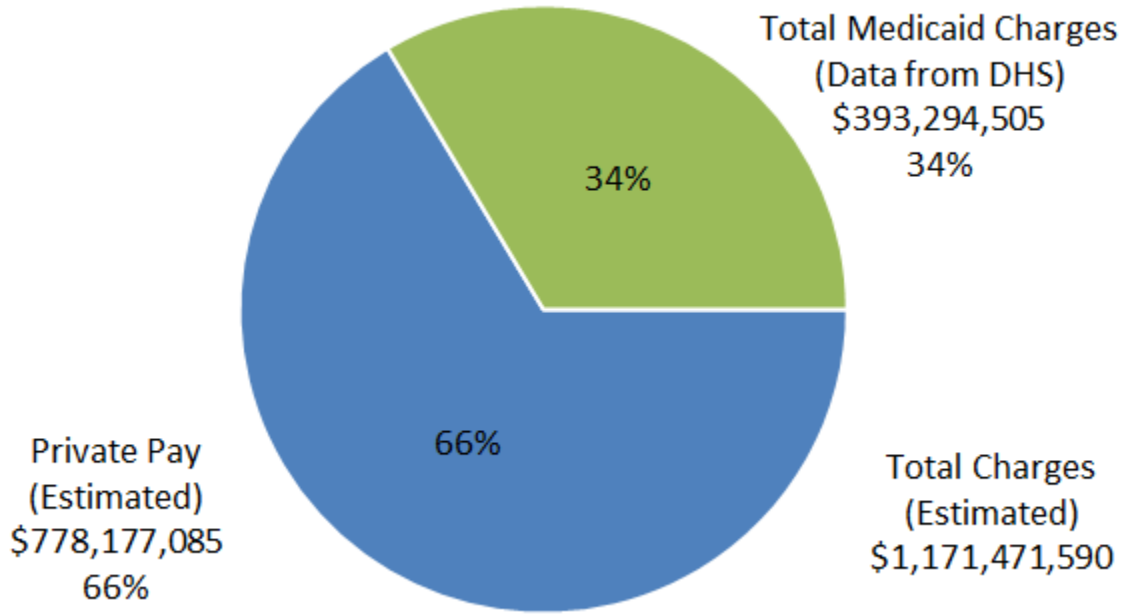
Note: Other payer sources (1%) included Providence ElderPlace, a Program of All-Inclusive Care for the Elderly (PACE), some of whose recipients may actually be eligible for or actively using Medicaid, even though Medicaid was not reported as their primary source of payment for services.

### Estimated profession charges

Based on the average total monthly charge for private pay residents reported by providers and the amount billed to ODHS for Medicaid services, we estimated total annual charges for all AL/RC/MC settings (see [Table A5, Appendix A](#) for a description of the calculations). As Figure 1 shows, the total estimated industry charges were over 1.1 billion dollars, at \$1,171,471,590 -- a small decline of about \$17,000,000 (or 1.4%) from last year's estimates. This can be attributed to lower occupancy rates that accompanied the COVID-19 pandemic as well as the slightly lower charges reported by communities this year.

Of the total charges, 66% were from private sources and 34% from Medicaid charges (including room and board charges) billed to ODHS on behalf of Medicaid-eligible residents. This is a slight increase from 30% from Medicaid charges we estimated last year -- attributable potentially to a slight increase in share of Medicaid residents since last year, the slight decrease in private pay charges, and the improvements in Medicaid reimbursement since 2019-20.

**Figure 1. Estimated total annual charges for AL/RC and MC facilities in Oregon, 2021**





# Facility staff and human resources practices

---

*How many and what type of staff provide service to residents?*

This section describes:

- The care-related staff employed full-time and part-time
- The staff to resident ratios
- Staffing levels
- Human resources practices

## Care-related staff employed full-time and part-time

Licensing rules require AL/RC/MC to employ sufficient numbers of qualified staff based on resident acuity, total number of residents, the scheduled and unscheduled needs of residents, the building's physical structure, and fire and life safety evacuation plans (OAR 411-054-0070). There is no specific staffing ratio or staffing level requirement. In this section, we describe three aspects of staffing in AL/RC/MC. First, we enumerate the number of staff employed either full- or part-time, including all staff and care-related staff, among responding communities. We also examine the share of communities 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).

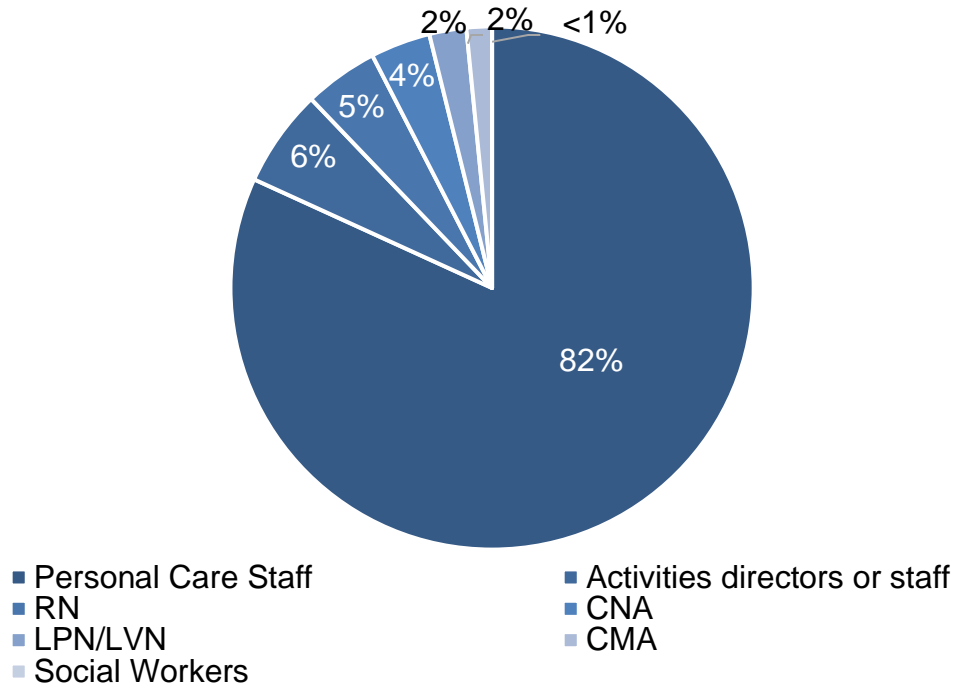
While staffing ratios and staffing levels are two common methods of calculating the number of staff relative to the number of residents, they constitute averages that cannot reflect the actual amount of time that staff spend with residents or the differential care needs of residents at any given AL/RC/MC community. 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.

Similar to last year, we asked communities to report the total number of their employees, and to separately report the number of care-related staff, including registered nurses (RNs), licensed professional/vocational nurses (LPNs/LVNs), certified nursing or medical assistants (CNAs/CMAs), personal care staff, social workers, and activities directors or staff. Oregon rules require AL/RC/MC facilities to employ personal care staff and to have a registered nurse regularly scheduled for onsite duties at the facility and available for telephone consultation (OAR 411-054-0045).

For this study, we asked administrators for the number of staff currently employed. However, 29 facilities did not respond or responded in ways that could not be used (e.g., incomplete, combined staff from multiple licenses; see [Appendix A](#) for details). The 317 settings that reported staffing data employed 13,291 individuals, and of these, 58% had care-related jobs (not shown in Table). In comparison, in 2020, 317 facilities employed 11,650 staff, with 67% having care-related jobs. One possible explanation for this 9% reduction in the share of care-related jobs among all AL/RC/MC employees might be due to the stronger link between care-related employees and the number of current residents. As noted above, occupancy rates declined in the past year. Some positions, such as administrator and other administrative staff, might not be as responsive to changes in the number of residents.

Figure 2 depicts the share of staff belonging to each care-related employee category across the 320 responding AL/RC/MC facilities. Personal care staff (sometimes called direct care workers, caregivers, and care aides, among other terms) account for the largest share of staff employed in AL/RC/MC, at 82%. These staff are not required to be licensed or certified, but they must complete required training. In addition to assisting residents with personal care, these employees might also lead social and recreational activities, administer medications, serve meals and do laundry and housekeeping. Not surprisingly, a smaller share of care-related staff employed by facilities are licensed nurses (RNs and LPNs), at 7%. In contrast to personal care staff, licensed nurses are not required to be on staff 24 hours daily and their job duties might include assessment and oversight rather than hands-on personal care (see [Appendix B](#), Table B4 for more information about the share of care-related staff employed full- or part-time).

**Figure 2. Distribution of All AL/RC/MC care-related staff employed in AL/RC/MC settings, by employee categories, 2021**



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

The below table shows the share of staff employed full- or part-time within the seven care-related employee categories. In general, staff in each employee category are more likely to be employed full-time rather than part-time. In comparison to AL/RC, MC communities have a smaller share of full-time staff in some categories. Most personal care staff are employed full-time staff in both AL/RC and MC. In AL/RC, a larger share of RNs and CNAs are employed full-time compared to their counterparts in MC. Only among LPNs/LVNs did MC employ more full-time care staff compared to AL/RC.

It is important to note the percentage of staff types (Figure 2 above and Table 8 below) when comparing staff categories. For example, the share of care-related staff who are CMAs is small compared to other categories (Figure 2) and only 10% of AL/RC/MC reported employing at least one CMA (Table 9). However, when CMAs are employed, it is most often on a full-time basis (Table 8 below). Similarly, few facilities employ social workers (Table 9), but those that do employ them full-time.

**Table 8. Percentage of care-related staff employed full- and part-time, within employee categories and by setting, 2021**

	AL/RC		MC		Total	
	PT	FT	PT	FT	PT	FT
	%	%	%	%	%	%
<b>RNs</b>	26	74	35	65	29	71
<b>LPNs/LVNs</b>	24	76	13	87	20	80
<b>CNAs</b>	22	78	29	71	24	76
<b>CMAAs</b>	6	94	8	92	7	93
<b>Personal Care Staff</b>	16	84	16	84	16	84
<b>Social Workers</b>	20	80	50	50	23	77
<b>Activity directors or staff</b>	19	81	24	76	21	79
<b>All Care- Related Staff</b>	17	83	18	82	17	83

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

Table 9 (below) shows the share of AL/RC/MC that employed at least one of each care-related staff category, and whether they were employed full- or part-time. Nearly all (97%) AL/RC/MC employed at least one personal care staff, nearly identical to the figure reported in 2020 (98%). While the share of facilities that employed full-time personal care staff remained nearly unchanged between 2021 and 2020 (92% and 94%, respectively) the current share of facilities that employed part-time personal care employees was 57% compared to 63% in 2020.

In terms of other care-related staff, the share of AL/RC/MC that employed full-time RNs was high (91%). Compared to MC, AL/RC had a greater share of at least one full-time RN (60% and 73%, respectively).

**Table 9. Percentage of communities that employed at least one full- or part-time care-related staff by employee categories, 2021**

	AL/RC			MC			Total		
	PT	FT	Any	PT	FT	Any	PT	FT	Any
	%	%	%	%	%	%	%	%	%
<b>RNs</b>	27	73	94	32	60	86	28	69	91
<b>LPNs/LVNs</b>	8	30	35	5	34	38	7	31	36
<b>CNAs</b>	9	28	30	13	22	27	10	26	29
<b>CMAs</b>	2	12	12	1	6	6	2	10	10
<b>Personal care staff</b>	56	93	97	60	90	96	57	92	97
<b>Social workers</b>	2	6	8	1	1	2	2	4	6
<b>Activity directors or staff</b>	20	75	82	28	67	78	23	72	81

Note: The estimates in this table represent whether facilities (n=320) had at least one care-related staff person in each category currently employed.

Table 10 below compares the current share of communities that employed at least one of the care-related staff categories to those reported in 2020. Notably, facilities report similar percentages for each staff category, and by employment status (e.g., full- or part-time). Slightly higher shares of communities employed LPN/VNs and CNAs, and somewhat fewer employed RNs in 2021 compared to 2020. During this time, a 6% decline in the share of communities that employed activities staff was observed, possibly due to fewer planned group activities scheduled due to physical distancing guidelines.

**Table 10. Comparison of communities that employed at least one full- or part-time care-related staff by employee categories between 2020 and 2021**

	2020			2021		
	PT	FT	Any	PT	FT	Any
	%	%	%	%	%	%
<b>RNs</b>	34	66	94	28	69	91
<b>LPNs/LVNs</b>	7	28	33	7	31	36
<b>CNAs</b>	8	22	25	10	26	29
<b>CMAAs</b>	3	10	10	2	10	10
<b>Personal care staff</b>	63	94	98	57	92	97
<b>Social workers</b>	1	4	5	2	4	6
<b>Activity directors or staff</b>	29	76	87	23	72	81

### Staff to resident ratios

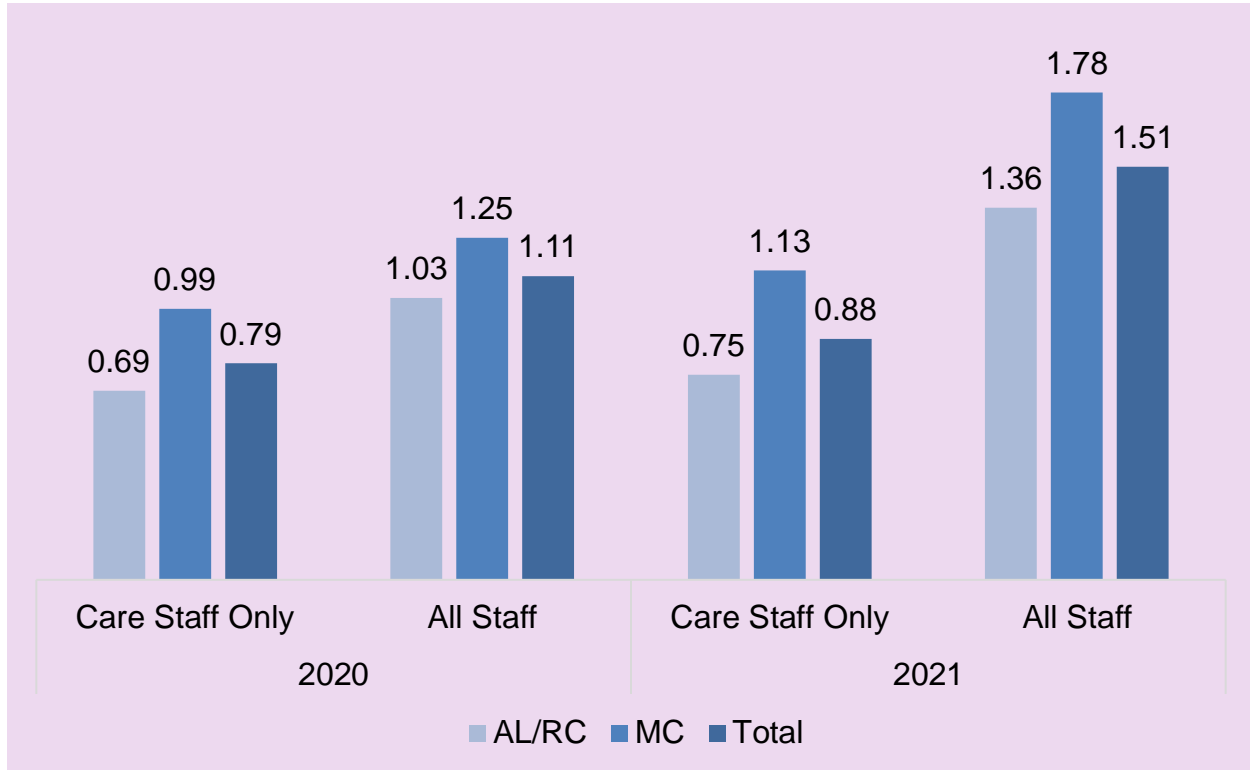
Although Oregon does not require staff ratios for AL/RC/MC, each community must provide sufficient and qualified staff to meet residents’ 24-hour scheduled and unscheduled needs. We present staff to resident ratios for the purpose of comparing setting types and changes over time. This ratio was calculated by dividing the number of all employees to all current residents reported by facilities. Of the 349 questionnaires received, 314 included valid information for calculating the ratio.

The ratio of all staff (both care-related and other employees) to residents is 1.51, (Figure 3). Not surprisingly, the staff to resident ratio in MC was higher compared to AL/RC (1.78 and 1.36), a pattern that held for care-related staff (1.13 and .75, respectively).

The current staffing ratios are slightly higher than those reported in 2020 for both care-related staff and all staff. Notably, the current ratio of all staff to residents was 1.78 for MC, compared to 1.25 in MC in 2020 (Figure 3). As noted above, it is possible that

these staffing ratios are associated with the lower occupancy rates reported in the [Occupancy Rates](#) section on page two, though we cannot know whether facilities chose to maintain current staff even as they had fewer residents in the building.

**Figure 3. Staff to resident ratios by setting and staff type, 2020-2021**



Note: Included cases with no missing data on staffing items and valid staffing for AL/RC/MC (n=317 in 2020, n=314 in 2021), with 206 AL/RC and 108 MC facilities with valid data.

The above information provides average rates across all respondents. The below table compares the range of staff ratios, by setting, organized by five percentiles. Focusing first on care-related staff, facilities in the top 10th percentile had ratios of 1.38 in AL/RC and 2.08 in MC. Regardless of percentile and staff type, staff ratio in MC is higher compared to AL/RC.

Among both AL/RC and MC facilities in the top 10th percentile, ratios for all staff are nearly four 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 facility-level characteristics such as staffing policies. Possibly, newly opened facilities had fewer residents and therefore fewer staff, and as noted above, some facilities had lower occupancy rates in 2020, which could be associated with staffing.

**Table 11. Percentile distribution of staff ratios by setting, 2021**

Percentile		Bottom 10th	Bottom 25th	Middle	Top 25th	Top 10th
AL/RC	Care staff	0.33	0.43	0.61	0.84	1.38
	all staff	0.63	0.73	0.95	1.4	2.32
MC	Care staff	0.59	0.74	0.9	1.25	2.08
	All staff	0.79	0.92	1.14	1.74	3.06
Total	Care staff	0.37	0.49	0.72	1	1.58
	All staff	0.67	0.78	1.03	1.47	2.83

## Staffing levels

To understand the availability of staff in licensed care settings, this research used the method developed by the National Center for Health Statistics (NCHS) (Harris-Kojetin et al., 2016). Staffing levels were 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 staffing hours per resident per day (HPRD), and it is commonly used as an indicator of long-term care facility quality (Rome et al., 2019). This approach provides an estimate of staff time spent with residents rather than an actual accounting of staff time.

The staffing levels in all facilities provided an average of 3 hours and 58 minutes to residents. Care-related staff provided approximately 1.5 more care hours per resident per day in MC compared to AL/RC. The average care hours per resident per day for MC were 5 hours and 6 minutes, while the care hours per resident per day for AL/RC were 3 hours and 22 minutes (Figure 4).

In 2020, staffing levels across all facilities were a half hour lower with an average of 3 hours and 28 minutes per resident per day (Figure 4 and Table 12). As in 2021, MC



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

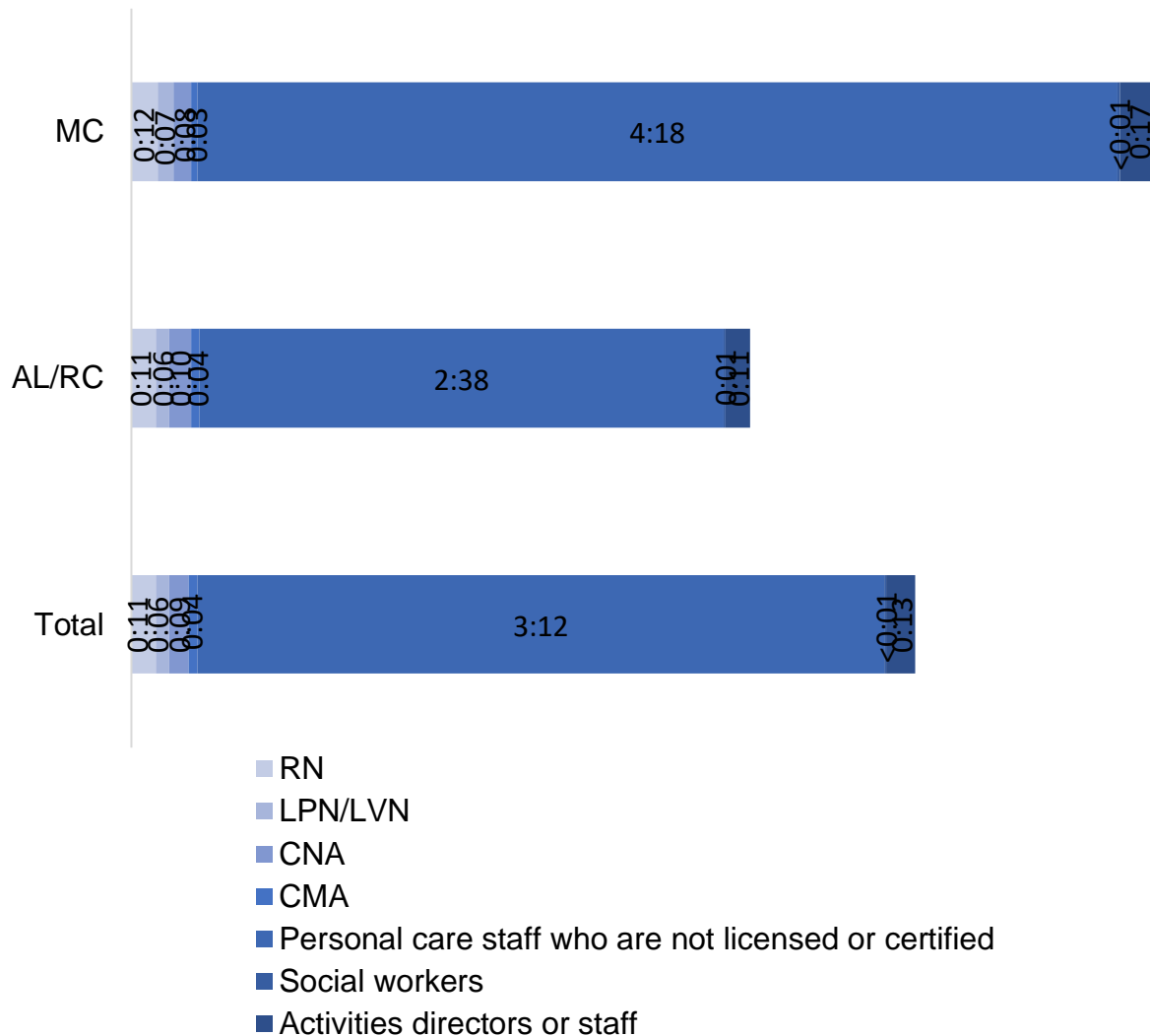
care staff provided 1.5 more care hours per resident per day compared to AL/RC. In 2020, care hours were 39 minutes lower for MC residents at 4 hours and 27 minutes, and AL/RC residents were 23 minutes lower at 2 hours and 59 minutes, compared to current findings.

Among all care-related staff, personal care staff had the largest staffing levels at 3 hours and 12 minutes per resident per day. The second-largest number of staffing levels was activities directors or staff (13 minutes). The staffing level for RNs was 11 minutes and 6 minutes for LPN/LVNs. For CNAs and CMAs, the staffing levels were 9 minutes and 4 minutes, respectively, and the least staffing levels were less than 1 minute for social workers (Figure 4). The staffing levels for all care-related staff were higher in MC than AL/RC, except CNAs and CMAs.

**Figure 4. Care hours per resident per day among care-related staff by setting, 2021**

Table 12 compares care-related staff hours per resident per day from 2020 and 2021. This year, all care-related staff resident care hours per day increased by 30 minutes, from 3:28 to 3:58. Notably, personal care staff hours increased by 23 minutes (Table 12). There were differences in care hours between facility types. From 2020 to 2021, personal care staff hours in MC increased :31, and by :18 in AL/RC. Staffing hours for all other staff types remained approximately the same across both years.

**Table 12. Care hours per resident per day among care-related staff by setting, 2020-2021**



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

	2020			2021		
	AL/RC	MC	Total	AL/RC	MC	Total
<b>RNs</b>	0:10	0:11	0:10	0:11	0:12	0:11
<b>LPNs/LVNs</b>	0:03	0:04	0:03	0:06	0:07	0:06
<b>CNAs</b>	0:09	0:09	0:09	0:10	0:08	0:09
<b>CMAAs</b>	0:04	0:03	0:03	0:04	0:03	0:04
<b>Personal care staff</b>	2:20	3:47	2:49	2:38	4:18	3:12
<b>Social workers</b>	0:01	<0:01	<0:01	0:01	<0:01	<0:01
<b>Activity directors or staff</b>	0:11	0:14	0:13	0:11	0:17	0:13
<b>Total</b>	2:59	4:27	3:28	3:22	5:06	3:58

Similar to staffing ratios discussed above, staffing levels in any given facility vary widely (Table 13). AL/RC/MC communities in the top tenth percentile have 4.4 times as many care hours per resident per day compared to the bottom tenth, and 2.2 times as many as the median community. Among AL/RC, the top tenth percentile have 4.3 times as many care hours per resident per day compared to the bottom tenth percentile. Among MC, the top tenth percentile have 3.8 times as many care hours as MC in the bottom tenth percentile. These observed differences are likely due to residents' care needs and preferences, ability of AL/RC/MC communities to find, attract, and retain staff, as well as other unknown factors.

**Table 13. Percentile distribution of care hours per resident per day by setting, 2021**

Percentile	Bottom 10 <sup>th</sup>	Bottom 25 <sup>th</sup>	Middle	Top 25 <sup>th</sup>	Top 10 <sup>th</sup>
<b>AL/RC</b>	1:32	1:55	2:42	3:55	6:34

<b>MC</b>	2:21	3:28	4:12	5:33	8:56
<b>Total</b>	1:38	2:16	3:16	4:28	7:16

Note: Based on the 314 AL/RC/MC that responded with valid data. The numbers reflect Hours:Minutes.

## Human Resources (HR) Practices

For the first time last year, the study included questions about the availability of several human resources (HR) practices that are potentially beneficial to AL/RC/MC employees. These practices can increase employee satisfaction and improve retention by providing flexibility (Chou, 2009; Chou, 2012). In generating these questions, we covered three types of HR practices discussed in the literature and found to be associated with lower nurse turnover: technical, quality of work life, and high involvement (Rondeau & Wagar, 2016). Technical human resource practices regulate the relationship between employees and employers (e.g., orientation, performance evaluations). Quality of work life practices emphasize employee and family friendly policies (e.g., flexible scheduling, job sharing). Finally, high involvement human resources practices are intended to increase involvement and engagement among employees (e.g., merit pay, suggestion systems, and attitude surveys).

Of the 9 HR practices listed in Table 14, four were always provided by at least 57% of AL/RC/MC settings. These were formal job evaluations, employee recognition systems, employee suggestion systems, and internal promotion policy. The share of facilities that sometimes or always offered these four HR practices is at least 90%.

At least 30% of the facilities always provided employee attitude surveys and flexible work hours, and the share that sometimes or always used these HR practices was over 70%. Among four HR practices, employee attitude surveys, flexible work hours, job sharing and self-scheduling systems, a smaller share of communities said they always used these practices, compared to those that sometimes used them.

AL/RC/MC settings reported changes since 2020 in the use of three HR practices. The share that always used an internal promotion policy increased from 49% to 57%, and the share that always used incentive-based or merit pay increased from 39% to 45% between 2020 and 2021 (see [Table B6, Appendix B](#)). The share that never used incentive or merit pay decreased from 25% to 18% during the last year. In addition, the share of AL/RC/MC that always used employee attitude surveys decreased slightly, from 37% to 33% between 2020 and 2021. Possibly these changes were due to pressures associated with the pandemic and other staffing challenges described in

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

written comments [Emergency Preparedness](#) and [What AL/RC/MC Administrators Want Others To Know](#) in the section below.

**Table 14. Share of facilities with human resource practices, by setting, 2021**

	AL/RC			MC			Total		
	A	S	N	A	S	N	A	S	N
	%	%	%	%	%	%	%	%	%
<b>Formal job evaluations</b>	83	14	2	84	15	1	84	15	2
<b>Employee recognition system</b>	78	19	3	85	15	0	81	17	2
<b>Employee suggestion system</b>	63	33	4	65	31	4	64	32	4
<b>Internal promotion policy</b>	54	41	5	63	33	4	57	38	4
<b>Employee attitude surveys</b>	32	38	30	34	35	31	33	37	30
<b>Incentive- based or merit pay</b>	46	37	17	45	35	20	45	36	18
<b>Flexible work hours</b>	27	64	10	36	58	7	30	62	8
<b>Job sharing</b>	10	53	38	13	49	38	11	51	38
<b>Self- scheduling system</b>	5	21	74	4	24	72	5	22	73

Note: A=Always, S=Sometimes, N=Never

### Policy related to AL/RC/MC staff employed in other workplaces

We asked if communities had a policy that applied to staff who work at other places, and if that policy was instituted in response to the COVID-19 pandemic. Of 348 cases with valid data, just 3% of communities had a policy that restricts staff from working in other workplaces. Based on the 348 cases with valid data, most AL/RC/MC do not have such policies. Among those that did, a larger share of communities had a policy restricting staff from working in other care settings (14%) compared to those with a policy regarding any other workplace (3%).

**Table 15. Percentage of facilities with policies regarding staff employed in other workplaces, 2021**

	AL/RC	MC	Total
	%	%	%
<b>Has no policy</b>	86	84	85
<b>Has a policy that:</b>			
<b>Restricts staff from working in another residential or healthcare setting</b>	13	15	14
<b>Restricts staff from working for any other type of employer</b>	3	2	3

Of the 15% of communities (52 communities in total) that had a written policy regarding staff employed at other workplaces, a larger share instituted the policy in response to the COVID-19 pandemic (Table 16). Slightly more MC than AL/RC added this policy.

**Table 16. Percentage of Facilities that Instituted a Policy Related to Staff Who Work in Other Places in Response to COVID-19, 2021**

	AL/RC	MC	Total
	%	%	%
<b>Instituted a policy about staff working in other places</b>	59	65	62
<b>Did not institute a policy about staff working in other places</b>	41	35	38
<b>Total</b>	100	100	100

## Temporary staff hired from a staffing or similar agency

We asked whether communities hired temporary staff from a staffing or similar agency. Temporary staff includes individuals or organization staff under contract with and working at a community but are not directly employed by the community. A larger share did not employ temporary staff. Among the 38% of AL/RC/MC communities that employed temporary staff, a slightly larger share of MC facilities (40%) than AL/RC facilities (36%) hired this staff type since the COVID-19 pandemic. These results might reflect the greater need for staff assistance among mc residents (Table 17).

**Table 17. percentage of facilities that hired temporary staff from an agency since the COVID-19 pandemicb, 2021**

	AL/RC	MC	Total
	%	%	%
<b>Hired temporary staff</b>	36	40	38
<b>Did not hire temporary staff</b>	64	60	62
<b>Total</b>	100	100	100

Nationally, policymakers and advocates raised concerns that AL/RC/MC staff who were also employed in other workplaces, as well as the use of temporary agency staff, might create challenges in terms of infection control (Dys et al., 2021). We cannot in this report assess the impact of these staffing practices on infection control rates. Future research could link these staffing data to facility-level COVID-19 cases information released by OHA to examine whether infection rates depend on whether AL/RC/MC policies allow staff to work in other settings or hire temporary contract staff during the pandemic.

# RESIDENTS

---

## *Who lives in Assisted Living, Residential Care, and Memory Care Communities?*

The following section describes information about residents including:

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

### **Resident demographics**

The population of adults ages 65 and older continues to increase steadily. Since the year 2011, the growth rate of Oregonians in this age group has exceeded 4% each year. In 1980, 11.6 % of the population were ages 65 and over. This percentage has increased to 17.5% in 2018 and is projected to approach 22% by 2030 (U.S Census Bureau, 2019; State of Oregon, 2019).

Tables 18 and 19 describe residents' sex/gender, age ranges, and race/ethnicity by setting type. As in previous years of this study, most residents were female, ages 85 and older, and White. A larger share of MC versus AL/RC residents were ages 75-84, and the share of those 85 and older was similar in both setting types (Table 18) ([see Appendix B](#), Table B8 for resident demographics from last year).



**Table 18. Sex/gender and age distribution among sampled residents by setting, 2021**

		AL/RC	MC	Total
		%	%	%
<b>Sex/Gender</b>				
	<b>Male</b>	33	28	32
	<b>Female</b>	67	72	68
	<b>Transgender</b>	0	0	0
<b>Age categories</b>				
	<b>18-49</b>	1	0	1
	<b>50-64</b>	6	2	5
	<b>65-74</b>	17	15	16
	<b>75-84</b>	26	31	27
	<b>85 and over</b>	50	52	51

As in previous CBC study years, most residents in AL/RC/MC were identified as non-Hispanic White (88%). Fewer than 12% of residents were identified as any other race or ethnicity (Table 19) (see [Appendix B](#), Table B9 for resident race/ethnicity from last year).

**Table 19. Race/Ethnicity among sampled residents by setting, 2021**

	AL/RC	MC	Total
	%	%	%
Hispanic/Latino of any race	1	1	1
non-Hispanic	99	99	99
American Indian/Native American or Alaska Native	<1	1	<1
Asian	1	1	1
Black/African American	1	<1	1
Native Hawaiian/Other Pacific Islander	0	0	0
White	88	89	88
Two or more races	1	<1	1
Other or unknown	9	7	8

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

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

In each study year, we have collected information about residents' residence before moving into an AL/RC/MC, the move-out locations for those who left the community in the prior 90 days, and length of stay among those who moved out or died. Half of all residents moved to their AL/RC/MC from their home (42%) or the home of a child or relative (8%), and one-quarter moved from another type of long-term care setting (i.e., another AL/RC/MC, nursing home, adult foster home). There were variations by setting type. More AL/RC residents (54%) moved in from their own home or home of a child or relative compared to MC residents (41%). A larger share of MC (37%) than AL/RC (18%) residents moved in from another type of long-term care facility. Few moved in from a hospital, psychiatric hospital, or had been houseless (Table 20).

**Table 20. Move-in locations among sampled residents by setting, 2021**

	<b>AL/RC</b>	<b>MC</b>	<b>Total</b>
	<b>%</b>	<b>%</b>	<b>%</b>
<b>Home (alone or with spouse/partner)</b>	47	31	42
<b>Another assisted living/residential care</b>	7	22	12
<b>Nursing or Skilled Nursing Facility</b>	9	6	9
<b>Independent living apartment in senior housing</b>	13	6	11
<b>Home of child or other relative</b>	7	10	8
<b>Another memory care community</b>	<1	6	2
<b>Adult foster care</b>	2	3	2
<b>Hospital</b>	2	6	3
<b>Psychiatric hospital</b>	1	1	1
<b>Houseless/homeless</b>	1	2	1
<b>Criminal justice system (e.g., prison)</b>	<1	<1	<1
<b>Don't know</b>	9	7	9
<b>Other</b>	1	<1	1

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

As in previous years, death was the primary reason residents left their AL/RC/MC community. A much larger share of MC residents who left their community did so due to their death (84%) compared to their AL/RC counterparts (59%). Among the residents who moved to another location, a larger share moved to another care setting compared to those who moved home or to senior housing (Table 21).

**Table 21. Move-out locations of recent move-outs in the prior 90 days, 2021**

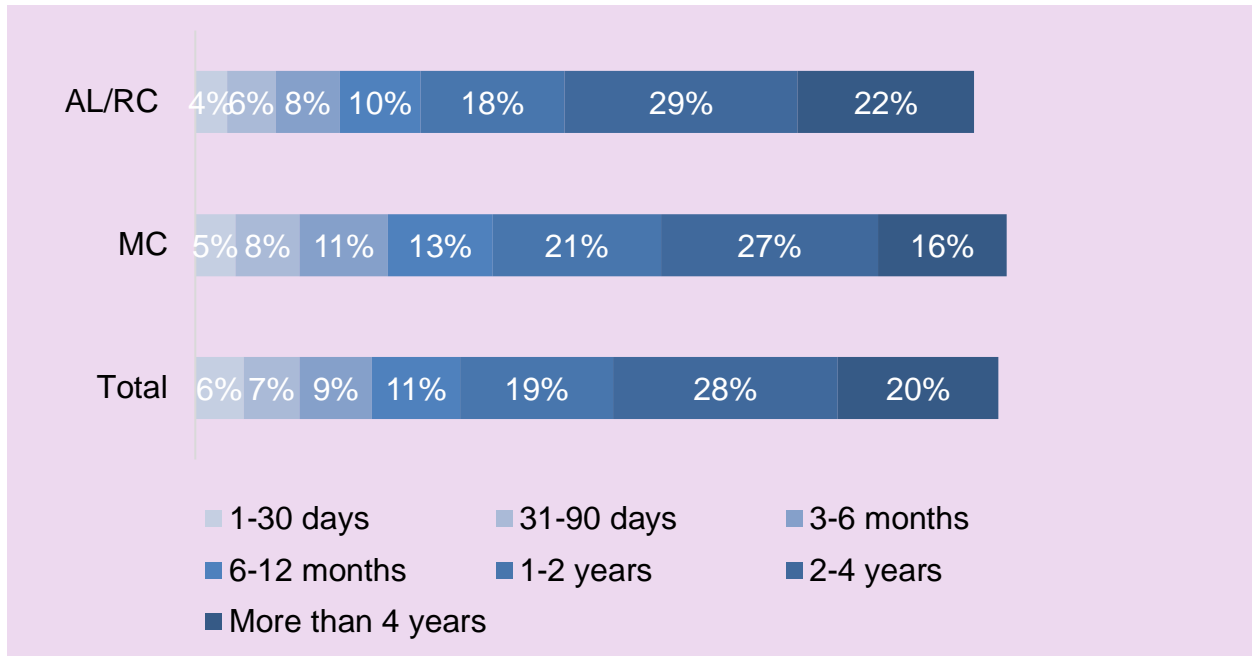
	AL/RC	MC	Total
	%	%	%
<b>Resident died</b>	59	84	68
<b>Another memory care community</b>	9	5	7
<b>Nursing or Skilled Nursing Facility</b>	7	2	5
<b>Home of child or other relative</b>	6	2	5
<b>Another assisted living/residential care</b>	5	1	4
<b>Home (alone or with spouse/partner)</b>	4	2	3
<b>Adult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

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

### **Length of Stay Among Residents Who Moved**

Most residents (48%) had lived in their community for 2 to 4 years when they moved out or died. Fewer stayed one year or less (33%), or more than 4 years (20%), and 13% stayed 3 months or less. There was some variation among setting types. A larger share of AL/RC than MC (51% and 43%, respectively) residents lived in their community for 2 to 4 years, or more than 4 years. More MC (36%) than AL/RC (31%) residents stayed one year or less (Figure 5).

**Figure 5. Length of Stay among Residents who Moved Out by Setting, 2021**



### Assistance with personal care

Many AL/RC/MC residents receive assistance with personal care. Figure 6 describes the percentage of residents who receive regular and ongoing staff assistance with eating, dressing, bathing/grooming, using the bathroom and walking or mobility. Of these five activities of daily living (ADLs), the largest share of AL/RC/MC residents received assistance with bathing and grooming (69%), and assistance with eating was the least reported need (12%). The share of MC compared to AL/RC residents who received ADL assistance was higher for all five ADLs (Figure 6).

**Figure 6. Residents who receive staff assistance with personal care, 2021**

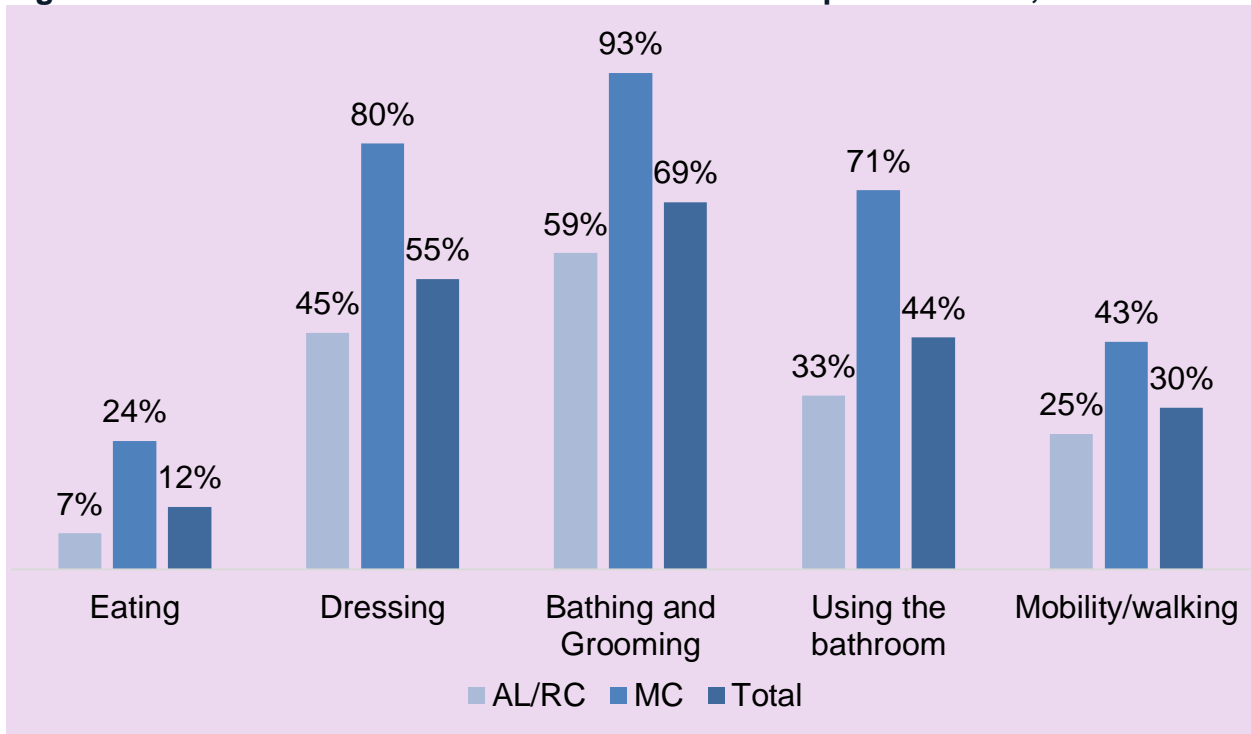
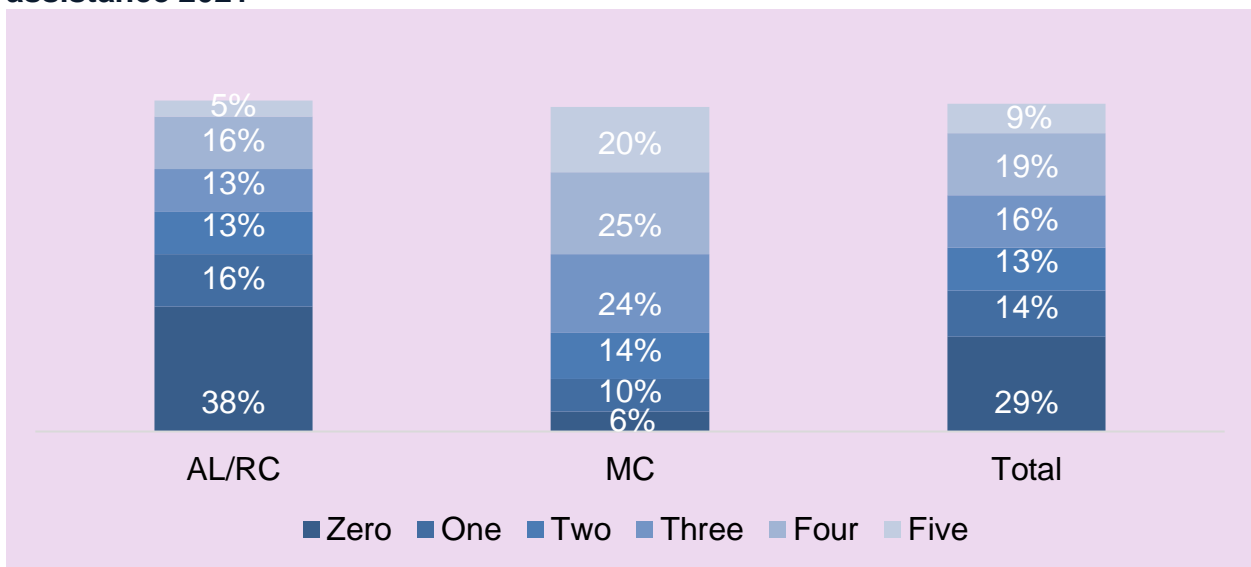


Figure 7 describes the share of residents who received assistance by the number of ADLs, from 0 to 5. A larger share of MC residents received assistance with all five ADLs (20%) compared to AL/RC residents (5%). Notably, 38% of AL/RC residents received no assistance with any of these five ADLs.

**Figure 7. Residents by the number of ADLs for which they receive staff assistance 2021**



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

The need for staff assistance and two-person staff assistance with mobility, night-time care, and behavioral symptoms is an important reason that older adults and people with disabilities use AL/RC/MC communities (National Institute on Aging, 2021; Simmons, et al., 2018). This section describes residents' need for staff assistance that can require additional care or specialized staff training, as well as the percent of residents who hire personal care aides (not shown in Table).

**Night-time care.** To respond to residents' nighttime needs AL/RC are required to provide staff to meet the 24-hour needs of residents (OAR 411-054-0030), and MC requires adequate staffing levels during the nighttime hours that address the sleep patterns and needs of residents (OAR-057-0150). Fewer than half of residents (42%) regularly received assistance from NOC/ night shift staff during the night. Almost three-quarters (72%) of MC compared to AL/RC (30%) residents received this type of staff assistance.

**Mobility aid and staff assistance with using mobility aids.** A majority of AL/RC/MC residents used a mobility aid such as a cane, walker, or wheelchair (77%), and 36% needed staff help to use a mobility aid. Slightly more AL/RC (79%) used such an aid than MC (70%) residents. A much larger share of MC (57%) than AL/RC (29%) residents needed staff help to use their mobility aid.

**Two-person staff assistance.** Overall, 22% of residents received assistance from two staff for physical and/or cognitive health needs. Not surprisingly, a greater share of MC (39%) compared to AL/RC (16%) required this type of assistance.

**Outside personal care aides.** Some residents independently hire a care aide from outside of their community to provide additional care, assistance, or companionship. Providers reported that few residents (11%) employ an outside aide, and more MC (16%) than AL/RC (9%) residents did so.

### **Assistance with behavioral symptoms**

Residents experiencing ADRD often exhibit dementia-related behaviors, such as lack of awareness to surroundings that are often a response to their environment (Fazio et al., 2020). Some residents' behaviors may present a real or perceived danger to other residents and to staff, and AL/RC/MC staff may assist in managing these behaviors (Austrom et al., 2018).

In this study, we asked about three specific behavioral symptoms described in Table 22. The most frequently reported behavioral symptom for which residents received staff

assistance was lack of awareness of safety, decision making, or ability to orient to surroundings (40%). However, a larger share of MC residents received staff assistance with all three behavioral symptoms compared to their AL/RC counterparts. Most MC residents (83%) received staff assistance due to lack of awareness, and far more MC residents received assistance due to wandering (31%) or because they were considered a danger to themselves or others (15%) compared to AL/RC residents (Table 22).

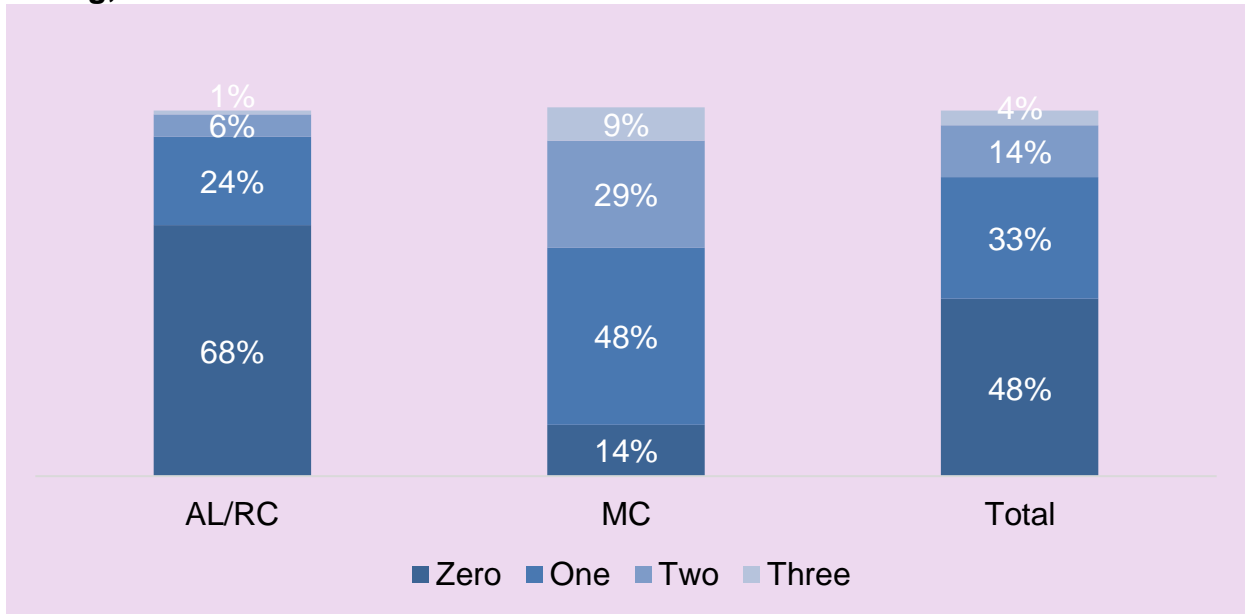
**Table 22. Residents who receive staff assistance for behavioral symptoms by setting, 2021**

	<b>AL/RC</b>	<b>MC</b>	<b>Total</b>
	<b>%</b>	<b>%</b>	<b>%</b>
<b>Lack of awareness of safety, judgement, and decision making, or ability to orient to surroundings</b>	24	83	40
<b>Wandering</b>	2	31	10
<b>Danger to self or others</b>	4	15	7

Figure 8 describes the share of residents who exhibited one or more of the behavioral symptoms described above. Among all AL/RC/MC residents, almost half (48%) did not require staff assistance with any of these three behavioral symptoms. One-third required assistance with only one, 14% with two, and 4% with all three behavioral symptoms. The number of behavioral symptoms among residents varied widely by setting type. Most AL/RC residents (68%) did not require staff assistance with any of these three behavioral symptoms compared to only 14% among MC residents



**Figure 8. Distribution of number of behavioral symptoms among residents by setting, 2021**



## Health conditions

Residents with chronic health conditions might receive assistance from AL/RC/MC staff to manage their health condition and to coordinate care with physicians and other health professionals, as well as pharmacies (Mollica & Ujvari, 2021). We asked whether current residents had been diagnosed with any of several common health conditions.

As shown in Table 23, the five most diagnosed medical conditions among AL/RC/MC residents were high blood pressure or hypertension, ADRD, heart disease, depression, and arthritis. Not surprisingly, nearly all MC residents, compared to 27% of AL/RC residents had an ADRD diagnosis. A slightly larger share of MC (41%) than AL/RC (37%) residents had a diagnosis of depression. However, more AL/RC than MC residents had a diagnosis of high blood pressure/hypertension, heart disease, arthritis, and diabetes.

**Table 23. Resident health conditions by setting, 2021**

	%	%	%
High blood pressure/hypertension	64	56	62
Alzheimer’s disease and other dementias (ADRD)	27	99	47
Heart disease	42	31	39
Depression	37	41	38
Arthritis	25	20	24
Diabetes	24	15	22
Osteoporosis	17	16	17
COPD and allied conditions	14	9	13
Stroke	14	9	12
Cancer	7	10	8
Serious mental illness	8	7	7
Drug and/or alcohol abuse	6	4	5
Traumatic brain injury	3	2	2

### Significant change in condition

Each resident initial screening and move-in evaluations informs that resident’s service needs and identifies personal preferences. Evaluations are reviewed and updated when a resident has a significant change in condition, such as broken bones, acute illness or condition onset, uncontrolled pain, or fast decline in the ability to perform ADLs (OAR 411-054-0034; OAR 411-054-0005).

Overall, 13% of AL/RC/MC residents had a significant change in a health-related condition (not shown in table). More MC (18%) compared to AL/RC residents (11%)

experienced such a change. In response to an open-ended question about reasons for significant changes in condition, diseases such as heart disease, cancer, and COVID-19 were the most frequently reported reasons for a change in condition, followed by a weight change, the need for hospice care, and a decline in ambulatory ability. Other reasons include cognitive decline and decline in the ability to perform ADLs. Of 138 responses, 12% of providers described COVID-19 as residents’ significant change condition.

### **Falls & fall-related injuries**

Falls remain the leading cause of injury among adults ages 65 and older in the United States (Moreland et al., 2021). An estimated 3 million emergency department visits, approximately 950,000 hospitalizations, and approximately 32,000 deaths resulted from fall-related injuries among older adults (Moreland et al., 2021). Nationally, 22% of RC residents had a fall in the prior 90 days, and among residents with a fall, 15% had an injury, and 19% went to the hospital because of the fall (Harris-Kojetin & Sengupta, 2018).

For this study, to ensure comparability to the ODHS quality measurement program (Oregon Department of Human Services, 2020), we used the following definition of a fall: “an unintended descent to the floor or other object (e.g., sink, table, surrounding furniture).” The definition of injury included “bruise, abrasion or wound requiring simple intervention such as dressing, ice, limb elevation, topical medications, oral pain medications; dislocation, fracture, intracranial injury, laceration requiring sutures/stitches, skin tear/avulsion or significant bruising.”

Most residents in Oregon AL/RC/MC did not fall (82%). A slightly larger share of MC than AL/RC residents experienced one or more falls (22% and 17%, respectively), and more MC (8%) than AL/RC (4%) residents had 2 or more falls in the last 90 days (not shown). Approximately one-third of residents were hospitalized because of the fall, which was similar by setting type (Table 24).

**Table 24. Fall-related injuries & hospitalizations, 2021**

	<b>AL/RC</b>	<b>MC</b>	<b>Total</b>
	<b>%</b>	<b>%</b>	<b>%</b>
<b>Any fall resulting in some kind of injury</b>	17	22	18
<b>Falls resulting in hospital visit</b>			
<b>Falls among people who had a fall that resulted in an injury</b>	33	35	34

## Health service use

The study asked questions about three types of health service use in the prior 90 days: emergency department (ED) use, hospitalization, and hospice care. Transitions between these care settings can be disruptive, especially for those living with ADRD.

Among AL/RC/MC residents, 18% were treated in an ED, and 10% were hospitalized overnight in the prior 90 days. Among residents hospitalized overnight, a larger share of MC residents returned to the hospital within 30 days (Table 25).

Hospice programs coordinate end of life, and palliative and supportive services to residents experiencing a terminal illness. AL/RC/MC facilities coordinate with hospice providers to deliver on-site care to residents who qualify for services through their medical insurance (OAR-054-0045). Overall, 8% of residents received hospice care in the last 90 days. A larger share of MC residents compared to AL/RC residents used such services in the prior 90 days.

**Table 25. Health service use among residents in the last 90 Days, 2020**

	AL/RC	MC	Total
	%	%	%
<b>Treated in the hospital ED</b>	18	19	18
<b>Hospitalized overnight</b>	11	7	10
<b>30-day rehospitalization</b>	11	27	14
<b>Receiving hospice</b>	5	15	8

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

## Medication use

### Assistance with medications and treatments

One of the main instrumental activities of daily living residents receiving assistance within AL/RC/MC settings is medication management. Older adults living with a combination of physical and mental health conditions are prone to polypharmacy, or the concurrent use of multiple medications. Aging changes how the body processes medications, which has implications for the types, dosages, and number of medications used to manage older adults' health conditions (Fick et al., 2019; McLachlan et al., 2012). Several definitions exist to describe polypharmacy (Masnoon et al., 2017). In this study, we define polypharmacy as the use of nine or more medications. Over half of residents (53%) reportedly took 9 or more medications, regardless of setting type.

OAR 411-054-0055-5 stipulates that residents who wish to administer their own medications must be assessed for the ability to do so upon move-in and at least quarterly thereafter. Overall, 13% of AL/RC/MC residents self-administer most of their own medications (Table 26). A greater share of AL/RC residents (17%) do so compared to MC residents (2%). Most residents receive assistance to take oral medications across settings (76%) at a higher rate among MC residents (94%) compared to AL/RC residents (70%). Overall, these figures indicate more medication assistance in MC settings.

**Table 26. Medication assistance and use by setting, 2021**

	AL/RC	MC	Total
	%	%	%
<b>Receive staff assistance to take oral medications</b>	70	94	76
<b>Self-administer most of their medications</b>	17	2	13
<b>Take 9 or more medications</b>	53	53	53
<b>Take 1-8 medications</b>	45	46	45

### Dementia-specific medications

Though there is currently no cure for Alzheimer's disease or related dementias, two classes of medications exist to treat and manage symptoms associated with these conditions (Alzheimer's Association, 2019). The first type of medication are called cholinesterase inhibitors (i.e., donepezil, galantamine, and rivastigmine) and the second is memantine. Each medication class and the prescriptions associated with them are designed to manage different stages of ADRD (e.g., mild to moderate, more severe). We asked providers to report whether randomly selected residents received dementia-specific medication. In the last seven-day period, 37% of AL/RC and 38% of MC residents with an ADRD diagnosis took dementia-specific medication.

### **Antipsychotic medications**

Antipsychotic medications are a subtype of the psychotropic medication class, which includes anti-anxiety, antidepressant, mood stabilizing, hypnotic, and sedative medications. Any psychotropic medication use in older adults is especially concerning due to the increased risk of falls, adverse drug events, and hospitalizations (Hampton et al., 2014; Hill et al., 2012; Sepassi et al., 2019). In this study, we focus on antipsychotic medication use because of associated adverse effects, including mortality (Kales et al., 2012; Maust et al., 2015; Stephen & Anthony, 2018) and potentially inappropriate use in older adults with dementia (Delgado et al., 2020; Gnjidic et al., 2018; Kirkham et al., 2016).

Just over one quarter of AL/RC/MC residents received an antipsychotic medication on a scheduled or as needed basis in the prior seven-day period (Table 27). The rate of as needed use of antipsychotic medications is similar between AL/RC and MC residents, though a larger share of MC residents (38%) received as-scheduled antipsychotic medications in the last week compared to the share of AL/RC residents (15%).

**Table 27. Antipsychotic (AP) & Opioid (OP) Administration among Residents by Setting 2021**

	AL/RC		MC		Total	
	AP	OP	AP	OP	AP	OP
	%	%	%	%	%	%
<b>Did not receive</b>	81	78	56	80	74	78
<b>As scheduled/ routine, only</b>	15	10	38	13	21	11
<b>Only as needed/PRN</b>	2	10	3	5	2	8
<b>Both scheduled and PRN</b>	2	2	3	2	2	2

Note: AP=antipsychotic; OP=opioid.

### Opioid medications

Effective pain management in older adults is a persistent, challenging issue. There are several approaches to manage pain, including nonpharmaceutical interventions, over the counter analgesic medication (e.g., acetaminophen), and controlled substances such as opioid medications (American Geriatrics Society, 2009). Because residents living with dementia or cognitive impairment may communicate pain symptoms different to residents living without these conditions, there is concern of undertreatment (Achterberg et al., 2021). A recent study of assisted living residents found that about one in five reported pain, though not every resident was receiving medication to treat their pain (Resnick et al., 2019). Pain and symptom management may also be addressed with psychotropic and opioid medications as part of a hospice care plan; national estimates indicate over two-thirds of older adults receive these types of medications at end-of-life (Gerlach et al., 2021). An estimated 22% of Oregon AL/RC/MC residents received opioid medication in the prior seven days (Table 27). The rate of scheduled opioid medication use between MC and AL/RC residents was similar (13% vs.10%).

# COVID-19 pandemic policies and practices

---

The COVID-19 pandemic disproportionately affected residents and staff in congregate care settings, including AL/RC/MC. Nationally, 5% of coronavirus cases and nearly one-third of deaths were attributable to long-term care settings (i.e., nursing facilities and assisted living) (Kaiser Family Foundation, 2021). Facilities were required to implement new infection control measures, including restricting visits from residents' family members and friends. In addition, many facilities experienced challenges maintaining adequate staff, as direct care employees managed their own or family members' needs.

In March 2020, Governor Brown instituted statewide restrictions on visitation in long-term care settings in an effort to protect residents from exposure to coronavirus. However, essential caregiving staff in nursing facilities, assisted living, and residential care were a source of exposure to the coronavirus (Oregon Department of Human Services, 2021). The Centers for Disease Control encouraged facilities to regularly communicate with residents, families, and healthcare providers about COVID-19 pandemic-related policies (Centers for Disease Control and Prevention, 2021). Connection to family promotes the health and wellbeing of residents (Hado & Feinberg, 2020; Kemp, 2021). National senior housing associations suggested that AL/RC providers help with alternatives in-person visits, such as phone and video (American Healthcare Association/National Center for Assisted Living, 2021).

Below, we summarize responses to questions about AL/RC/MC experiences during the pandemic, how they communicated with families, and whether they had policies concerning their staff who might have other jobs.

## **Community experiences during the COVID-19 pandemic**

We asked AL/RC/MC about their experiences during the COVID-19 pandemic. To that end, the study questionnaire included eleven statements that communities responded using a five-category response set ranging from Strongly Disagree to Strongly Agree. We organized the distribution of responses to these eleven statements by the level of the AL/RC/MC communities' control over the issue (Table 28 below).

Overall, most AL/RC/MC experienced some adverse impact due to COVID-19. This was more the case regarding issues outside of their control compared to those within their control. In more detail, the first set of questions include several activities largely within



the control of communities. The share of respondents who agreed or strongly agreed with the four issues mostly under their control ranged from 87% to 94%. For instance, almost all communities reported that their residents used virtual communication technologies and tools for telemedicine/telehealth (94%) or virtual visits with friends or families (93%). The second set of questions were largely outside the control of AL/RC/MC. On average, the share who agreed or strongly agreed with these statements was lower compared to the first set, ranging from 60% to 83%. While most AL/RC/MC reported having been able to get accurate information about COVID-19 (82%), a smaller share (though still over half at 67%) had been satisfied with the communication about rules and regulations from the county/state agencies. Finally, the last two statements described challenges faced by AL/RC/MC communities. Two-thirds of communities (68%) agreed or strongly agreed that they had a more difficult time finding new residents, and an even greater share (77%) agreed or strongly agreed that they experienced staffing difficulties (Table 28).

**Table 28. Provider agreement or disagreement with statements regarding the coronavirus (covid-19) pandemic, 2021**

	<b>SD</b>	<b>D</b>	<b>NA ND</b>	<b>A</b>	<b>SA</b>
<b>Since March 2020, when the COVID-19 pandemic started...</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Activities largely within the AL/RC/MC communities' control</b>					
<b>Our residents have used telemedicine or telehealth for purposes of assessments, monitoring, diagnosis, or treatment.</b>	2	2	2	42	52
<b>Our residents have used virtual visits (e.g., iPad, computer, smart phone) with their family members and friends.</b>	2	1	3	41	52
<b>We have been able to address concerns of staff related to the pandemic.</b>	2	2	10	53	34
<b>We have been able to address concerns of residents' families related to the pandemic.</b>	2	3	7	51	37
<b>Activities largely outside the AL/RC/MC communities' control</b>					
<b>We have been satisfied with the communication about rules and regulations from the county/state agencies.</b>	5	10	18	41	26
<b>We have found the COVID-19 visitor restrictions enacted by county/state agencies to be reasonable.</b>	5	14	21	37	23
<b>We have been able to get accurate information about COVID-19.</b>	2	4	11	43	39
<b>We have been given enough support from county/state agencies to deal with issues/problems due to the pandemic.</b>	3	12	15	41	30
<b>We have been able to access personal protective equipment (PPE) (such as eye protection, gloves, N95 respirators).</b>	3	6	8	49	34
<b>Challenges faced by AL/RC/MC communities</b>					
<b>We have had a harder time finding new residents.</b>	3	14	14	30	38
<b>We have had a harder time with staffing (such as hiring, retaining, and scheduling).</b>	2	7	14	29	48

Note: Depending on the statement, data are presented using responses from 337 to 346 AL/RC/MC (out of 349). SD = strongly disagree, D = disagree, NAND = neither agree nor disagree, A = agree, and SA = strongly agree.

## **Communication with resident families**

In addition, we asked if providers routinely sent updates to residents' families about COVID-19 preparedness and response in their community, and if so, the type of communication. Almost all AL/RC/MC communities (99%) updated residents' families about COVID-19 pandemic preparedness as needed (59%), at least once per month (21%), or at least once per week (17%). Updates from some facilities (17%) were done quarterly, or if someone became infected.

A large share of facilities (79%) used multiple methods to communicate with families, and fewer (21%) used just one method. Formats that facilities primarily used to update families included email (83%) and phone (68%). Approximately one-quarter used social media or websites to inform families. Respondents (37%) identified other formats including mail, letters, texts, and print material used to update families about their community's COVID 19-pandemic preparedness and response.

## **Staffing policies relevant to COVID-19 response**

Direct care staff commonly have multiple sources of employment, working two and sometimes three jobs at a time (Duan et al., 2020; Van Houtven et al., 2020). We asked respondents whether they implement a policy related to staff working at other places. Of 348 cases, the majority did not have such a policy in place (85%). For the share of AL/RC/MC that had a policy, it addressed staff working at other AL/RC settings (14%); only four facilities had a policy that restricted staff from working at any other place. Of the 52 facilities who reported having a written policy related to staff working at other locations, the majority (62%) were instituted in response to the COVID-19 pandemic. See also Table 16 on page 26 for more about this topic.

# Emergency preparedness needs

---

In light of the wildfires that adversely affected Oregon and its residents during the summer of 2020, coupled with the COVID-19 pandemic, we asked AL/RC/MC about their emergency preparedness needs. The facility-level questionnaire included two open-ended questions about this issue. The first asked about resources needed for future disasters and emergencies.

Of the 349 facilities that returned a questionnaire, 164 (47%) provided one or more written responses to the question about emergency preparedness needs. Most comments described the need for more support and communication from ODHS and local agencies, more and better information, and help with supply needs. Fewer were related to transportation, AL/RC/MC regulations and transportation. We describe the four most common response categories: 1) support, 2) accurate, timely, agency communication, 3) supply needs, and 4) the need for accurate and timely information.

Respondents most often discussed the need for support from ODHS and local agencies to be prepared for emergencies, have adequate evacuation resources, receive thorough disaster preparedness training, and access back-up staff. One respondent believed “that we are in general unprepared for these situations” and the “state should assure that plans are updated and realistic.” Another suggested providing “support to meet policies and regulations.” Yet another described needing “DHS and OHS individuals [to] come and provide perspective on how to keep individuals safe.” Some facilities described “internal struggles with staffing,” and support “during these times, assistance with staffing, and additional bodies.” Another reported that “our biggest problem during the pandemic was not enough manpower.”

The next most frequently reported need was to receive accurate, ongoing, and timely communication. One respondent described the need for “a more coordinated effort with communication about what resources are at ODHS disposal and what are not,” and the need for “coordinated communication among agencies.” Another described the need for “better communication of what we need to have done, not so many last-minute changes that require us to change plans.” Another described “the amount of confusion from differing [sources] makes it difficult to instruct residents and families.”

Supplies were the next most commonly described resource need. “Easier access to PPE,” or personal protective equipment, was frequently described. One respondent reported “there were several months when we really struggled to acquire PPE for our staff” and another difficulty finding “dependable vendors for PPE.” Several respondents

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

felt that “the state should have a stockpile of PPE” for emergency situations. Respondents identified other emergency supply needs including “shelter, emergency food supply, blankets, emergency transportation,” as well as “generators,” “water tanks,” and “medications.”

Finally, respondents identified accurate and timely information as a key resource needed for future emergencies. Similar to comments made about communication, respondents reported needing “more consistent standard and flow of information” and “more up to date information across the board.” Respondents also voiced a need for “practical information,” or “knowledge of what resources are,” especially evacuation sites, transportation resources, and accurate contact information for vendors and state agencies.

## **WHAT AL/RC/MC administrators want others to know about operating an AL/RC/MC during the pandemic**

---

Of the 349 facilities that returned a questionnaire, 185 (53%) provided one or more written responses when asked if there was anything else they would like PSU or ODHS to know about being an AL/RC/MC administrator during the pandemic. Here we describe the four most common response categories: 1) administrator challenges, 2) residents' physical and mental health and well-being, 3) positive comments about support from state agencies and their community, and 4) difficulty complying with regulations.

Most comments described administrator duties as challenging, overwhelming, and stressful. They discussed increased workload and burnout related to role expectations and residents' and staff safety. One person who had been an administrator for 19 years described "pressure from all sides (state/county requirements, staff, families, and residents) has been overwhelming" and "I've thought so many times of looking into something different." Another described "care was extremely traumatic for all of us" and "I felt like the captain of a ship and if the ship was going down, I was going down with it." Another was "working multiple departments" and "working double and triple shifts." Still another described "spending more time with other peoples' family members than we do our own," and "being "spread thin." Another, who was "confident in my ability to do my job" found "many days that I couldn't possibly keep up and found myself questioning my abilities."

The next most common response category discussed was about residents' physical and mental health and well-being. For many respondents, one of the most "heartbreaking" aspects of the previous year was the "rise in depression and psychosis from the social isolation" among residents due to COVID-19 restrictions. Some observed that "residents are not dwindling from COVID but...from depression, isolation, and sadness," and this contributed to "both mental and physical changes," including progression "in dementia" and "more admits to hospice." Several respondents believed that "the isolation has been more detrimental to seniors in CBC than the virus," and that residents passed away "due to the COVID-19 protocols." Others reported that "keeping families apart has been awful," and that the "anger" and "stress" of residents' family members and friends were "taken out" on community staff. These family members and friends and some of the respondents "felt the COVID restrictions were unreasonable." Several respondents argued that "as long as proper infection control is followed" the "community is safe to be

internally open,” and that being able “to gather in dining rooms and activities” might have ameliorated some of the harms of isolation.

Respondents described positive experiences with support they received from state agencies. Some described gratitude for specific types of support, like “PPE from Washington county”, the “continued updates,” and “the increase in monies paid for Medicaid residents.” Most, however, described a more general sense of support from state agencies. One reported that “DHS personnel and county LHA offered tremendous support,” and “they were part of our team in fighting with the virus and support [*sic*] residents and facility.” Several respondents stated that they specifically “felt supported by my policy analyst.” Others described the support they received within their organizations. “Our biggest support was our management company,” one respondent stated. Many respondents described the resilience and commitment of their staff. One wrote, “I have never seen such creativity or commitment among long-term care staff.” Another shared, “Our team was amazing, pitching in, holding each other up...working ridiculous hours, doing whatever was needed to care for our residents.”

Finally, the fourth most common response category comprised comments about difficulty complying with regulations. Many respondents described that the main challenge was “keeping on top of all the moving variables and changes of policies.” One respondent described “a constant rapid fire of ever-changing recommendations...nearly impossible to keep up with or implement in the recommended time frame.” For others, regulations were inconsistent and burdensome, described as “unreasonable,” “confusing,” and “constantly changing.” One respondent “read that we had to have copies of outside service provider visitors’ proof of negative covid tests,” and “after several months we were told...that that wasn't necessary.” Another reported that “regulations themselves were out of touch with the daily realities in facilities.” Another described “isolation precautions are not reasonable for a memory care community.” Yet another found “requirements to move residents infected with COVID-19 may have contributed to more infections” and concluded, “maybe trust the people that is [*sic*] on the front lines.”

## Conclusion

---

This report describes findings from a study based on data submitted by AL/RC/MC settings that participated in a study sponsored by ODHS and conducted by IOA/PSU. To conclude this report, we discuss several topics that merit additional attention to improve care, wellbeing, and lived experiences of Oregon AL/RC/MC residents and staff.

The results presented here indicate a resident population with considerable care needs and high acuity. For instance, 44% had received staff assistance for three or more ADLs, 53% took nine or more medications on a regular basis, 47% had a dementia diagnosis, and half of residents received staff assistance with at least one behavioral symptom. Against this background, AL/RC/MC settings were founded on a social model of care (Brown-Wilson, 2007) coupled with a largely personal care workforce that is primarily made up of women ages 18 to 44 with a high school education (Zuckerbraun et al., 2015). Despite their differences from nursing homes in terms of facility, resident, and staffing characteristics (Harris-Kojetin et al., 2019), AL/RC/MC communities were not provided distinct policy considerations at the national level, especially during the initial stages of the COVID-19 pandemic (Dobbs et al., 2020; Dys et al., 2021). In this context, responding to infectious disease outbreaks for AL/RC/MC communities may have been particularly challenging.

In 2020-21, the COVID-19 pandemic presented significant challenges to AL/RC/MC communities, their residents, and families of residents. Most communities reported that they were able to address staff and residents' families' concerns, and that they used technology to support telemedicine and virtual visits with families. Communities also reported that they were satisfied with information received from state agencies and with visitor restriction policies, though the share who agreed with these statements was lower on average when compared to the issues that lie mostly within their control. In contrast, most communities reported challenges recruiting and retaining staff. Nationally, women, especially those with young children, left the workforce as the pandemic led to school and daycare closures (Collins et al., 2021).

Both AL/RC and MC experienced significant declines in occupancy rates, of seven percent and nine percent, respectively. Considering that most AL/RC/MC reported challenges finding residents, these declines are not surprising and were likely the result of a combination of demand and supply factors such as reluctance of new residents (and their families) moving in, higher mortality among long-term care residents, and



admission restrictions set by the state licensing agency due to COVID-19 outbreaks. As an important indicator of financial wellbeing of AL/RC/MC communities, the short- and long-term trends in occupancy rates as well as potential differences in occupancy rates by facility characteristics remain relevant to policy discussions.

The open-ended comments from AL/RC/MC operators described several staffing challenges. While the current staffing ratios are slightly higher than those reported in 2020 for both care-related and all staff, these ratios are calculated based on the number of current residents, and occupancy rates were lower this year compared to 2020. Possibly, facilities chose to maintain current staff even as they had fewer residents in the building.

In light of the wildfires that swept through parts of Oregon and affected AL/RC/MC communities, we asked for the first time what resources they need from the ODHS and other government agencies to feel prepared for future local disasters or state-wide emergencies. Providing adequate evacuation resources, disaster preparedness training, and prompt access to back-up staff during emergencies are a few resources that can improve preparedness. Communities also emphasized the importance of receiving accurate, ongoing, and timely communication - indicating that investments to create and sustain pre-disaster communication mechanisms might merit attention.

Oregon rules define five quality metrics that providers must report annually to ODHS (Oregon Department of Human Services, Office of Aging and People with Disabilities, 2020), two of which are addressed in this study: antipsychotic medication use and resident falls with injury. It will be possible to compare the information reported by facilities to this report with the results of the state's quality metrics program when they are made available to the public, with the following cautions. First, this report presents aggregate findings rather than facility-specific findings. Second, this report includes information from 60% of communities that completed a questionnaire, and might not be representative of all AL/RC/MC residents and communities.

The staffing questions included in the facility questionnaire may inform the states' quality metrics program. Specifically, ODHS will require providers to report information on facility compliance with required staff training. As described in the methods section in Appendix A, questions about staffing were reportedly among those most often missed by AL/RC/MC providers. Although the number of questions missed was relatively low and does not affect data quality, it indicates that some providers might need assistance tracking information about staff, including numbers of staff employed full- or part-time, and how to count staff who work in more than one building or facility under the same owner or management company.

Finally, the IOA/PSU team extends our greatest appreciation for the hard work done by AL/RC/MC community staff and stakeholders as well as our sympathies to those most negatively impacted by the pandemic and wildfires.

## Appendix A: Methods

---

This is the seventh annual study of community-based care settings conducted by the Institute on Aging at PSU. As in previous years (see the 2015-2020 reports), study methods and content of questionnaires used in the study were developed in partnership with the following agency, industry, and facility stakeholders:

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

### Study population

The total population for both studies included all 559 assisted living (AL), residential care (RC), and memory care (MC) communities in Oregon that were licensed as of fall 2020. Of 559 AL/RC, 217 held a memory care endorsement. Because AL/RC receive an “endorsement” to offer MC in addition to their AL or RC license, there are two types of MC communities: stand-alone or combination. Stand-alone MC settings offer solely memory care. Combination MC settings have units designated for memory care as well as additional AL or RC units under their primary licensure type (AL or RC). For example, a combination type MC community can be licensed to provide 45 RC units and receive an endorsement for an additional 30 memory care units.

For the purpose of data collection, we asked combination facilities to complete two separate questionnaires; one for their AL or RC units and one for their MC endorsed units. MC questionnaires were counted separately from the AL and RC totals because of the licensing overlap. Therefore, the total number of eligible cases (n=594) were greater than the total number of licensed facilities (n=559). Overall, this strategy allows us to separate data from MC communities when there are multiple license types (e.g., AL and MC, RC and MC) associated with the same license number.

## Data Collection Instruments

Each of the 594 eligible facilities/cases received one facility questionnaire, three resident questionnaires, and a sampling tool. The sampling tool is designed to guide respondents to randomly select three of their current residents from their facility roster. Details about the development of this tool and the sampling strategy can be found in the 2019 report.

*Facility questionnaire.* Questionnaire topics for the facility-level study included resident demographics (gender, race/ethnicity, age) and primary payment method, move-in and move-out information, staffing (e.g., number and type of care-related staff), human resource practices, and room/unit structure and occupancy. Additionally, we asked several COVID-19 pandemic questions about staffing policies (e.g., hiring contract staff, having policies that restrict staff from working at other care facilities) and the frequency and format of communication with families around COVID-19. We also asked 11 questions about the degree to which facilities responded to the pandemic in the areas of managing information, receiving support, accessing supplies including PPE, and supporting residents, families, and staff. We also asked providers two open-ended questions about what resources facilities would need from ODHS or government agencies to feel prepared for a future local or statewide emergency, and if there is anything else they would like to share about operating an AL/RC/MC during the pandemic (see attached questionnaire in [Appendix D](#)).

To support providers and decrease response burden, PSU sent a tracking tool in October 2020 to assist them in collecting relevant data three months prior to receiving the questionnaire. The tool was offered as an option to log residents' move-in and move-out dates, where they lived prior to moving in, where they moved to, reason for the move, and length of stay before moving out.

*Resident questionnaires.* All providers received three questionnaires and a sampling tool that explained how to select and report information about three of their randomly selected residents (see attached questionnaire in [Appendix E](#)). Similar to the 2020 resident questionnaire, topics included resident demographics (gender, age, race/ethnicity), room/apartment sharing, move-in characteristics (month/year, residence prior to move-in), resident health and service use (e.g., hospital emergency room visit, hospice care), information about recent falls with injury, staff assistance with ADLs and behavioral symptoms, significant changes in condition, resident conditions (e.g., heart disease, depression, diabetes), medication use, pay type and charges.

## Staff who completed the resident questionnaire

We asked which of several employee categories (e.g., administrator, RN) completed the resident questionnaire. Of the 984 valid resident questionnaires returned to PSU, 67% were completed by administrators. The distribution of who completed the questionnaire is similar across AL/RC and MC community types.

**Table A1. Percentage of staff completing the resident questionnaire by staff category and setting type, 2021**

	AL/RC	MC	Total
	%	%	%
<b>Administrator</b>	66	67	67
<b>Nurse</b>	8	10	9
<b>Resident care coordinator</b>	9	12	10
<b>Direct care staff</b>	1	1	1
<b>Office staff/receptionist</b>	6	6	6
<b>Other</b>	9	4	7

## Survey (Unit) response

Of the 594 eligible cases, 349 completed the facility questionnaire and 355 completed the resident questionnaires for a response rate of 59% and 60% respectively. Virtually all providers who returned their facility questionnaire also returned their resident questionnaires, and vice versa. Only five facilities submitted facility questionnaires but not resident questionnaires, and 11 facilities submitted resident questionnaires but not a facility questionnaire. Response rates were similar across setting types (Table A2, A3, and A4 below). For facility questionnaires, 59% of eligible AL/RC and 58% of eligible MC responded, and for residential questionnaires, 60% of eligible AL/RC and 59% of eligible MC responded. Response rates differed somewhat by region, rural status, and profit status (Table A2 below). For both questionnaire types (facility and resident), facilities located in Eastern Oregon were more likely to respond compared to Portland Metro, Willamette Valley, and Southern Oregon regions, rural facilities were more likely

to respond than urban facilities, and not-for-profit facilities were more likely to respond than for profit facilities.

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

	Facility questionnaire			Resident questionnaire		
	AL/RC	MC	Total	AL/RC	MC	Total
	%	%	%	%	%	%
<b>Portland Metro</b>	55	60	57	57	61	59
<b>Willamette Valley</b>	56	55	56	58	58	58
<b>Southern Oregon</b>	59	50	56	57	50	54
<b>Eastern Oregon</b>	72	72	72	71	72	71
<b>Total</b>	59	58	59	60	59	60

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.

**Table A3. Response rates by facility type and rural status, facility and resident questionnaires, 2021**

	Facility questionnaire			Resident questionnaire		
	AL/RC	MC	Total	AL/RC	MC	Total
	%	%	%	%	%	%
<b>Urban</b>	56	55	56	58	57	57
<b>Rural</b>	64	64	64	64	64	64
<b>Total</b>	59	58	59	60	59	60

**Table A4. Response rates by facility type and profit status, facility and resident questionnaires, 2021**

	Facility questionnaire			Resident questionnaire		
	AL/RC	MC	Total	AL/RC	MC	Total
	%	%	%	%	%	%
<b>For profit</b>	58	56	58	59	58	58
<b>Not-for-profit</b>	73	100	81	77	100	84
<b>Total</b>	59	58	59	60	59	60

### Item non-response

Providers sometimes returned their questionnaires incomplete (e.g., some questions unanswered). While all providers were called multiple times to request missing information for the facility questionnaire, we were not able to retrieve all missing

information for all facilities. Some providers reported difficulty with reporting some of the resident data requested because they did not regularly track those items. Due to the random selection of residents and our choice for not retaining any information identifying individual residents, we did not collect missing data for the resident questionnaires. When data availability was a challenge, providers were encouraged to give their best estimate following a similar practice adopted by a national study of residential care communities (CDC, 2016).

The percentage of missing information ranged from <1 to 8% (facility questionnaires) and from 1% to 13% (resident questionnaires) depending on the question. For the resident questionnaires, the questions most often missed were those related to diagnosed medical conditions. For the facility questionnaire, the questions most often missed related to staffing. Our conversations with providers suggest multiple reasons. These are detailed questions (number and type of staff) that may require significant time for some facility administrators to collect. Some facilities share staffing across multiple units or buildings that might make it harder to report separately (38% according to the 2019 study). Overall, these item nonresponse rates are comparable to most recent national surveys collecting information from similar settings (e.g., National Study of Long-Term Care Providers 2016) (Harris-Kojetin et al., 2019). In the 2014 wave of the national study, when staffing questions were asked, the highest item non-response was related to full-time staff information at over 30% item non-response (Harris-Kojetin et al., 2016).

## **Weights**

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

The IOA conducted a series of bivariate analyses examining the relationship between facility-level characteristics (facility type, region, size, Medicaid contract, profit status,



and urban/rural) and responses to the facility questionnaires (since responding facilities to both questionnaires were nearly identical, we did not repeat this analysis for the resident questionnaire). Results showed that facilities differed in their likelihood of responding by region, urban/rural, and profit status. Specifically, facilities located east of the Cascades compared to all other regions, rural/frontier facilities, and not-for-profit facilities were significantly more likely to return the questionnaire compared to their counterparts.

We estimated a binomial logistic regression model with facility type, region, size, Medicaid contract, profit status, and urban/rural as predictors of whether or not facilities responded, to assess the combined impact of these variables on responding. The amount of variance in responding that the model explained was only 2% (*pseudo*  $R^2 = .023$ ,  $p = .053$ ) suggesting very little predictive ability. To assess how small of an impact of differential respond by these facility-level characteristics had on point estimates, we calculated non-response weights (i.e., the inverse of predicted probabilities of the logistic model) and compared weighted point estimates with unweighted point estimates for the three resident demographic characteristics (i.e., gender, age, and race/ethnicity). Virtually no differences between weighted and unweighted point-estimates were found (less than 1% at most and no difference in most cases), leading us to proceed without the use of response-weights in our analysis. As such, the report presents unweighted percentages for facility questionnaires and design-weighted percentages for resident questionnaires unless noted otherwise.

## Data analysis

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

- First, we ensured that the skip logic was correctly followed. Skip logic is used when a specific response to a question directs the respondent to skip a follow-up question that is applicable only to those with relevant characteristics. For instance, if a resident did not have a fall with injury in the last 90 days, facilities were not expected to answer follow-up questions related to that resident's fall.
- Second, we checked if all numbers were within valid ranges for each facility. For example, if the facility reported having 30 current residents, they should not have reported having 35 current residents with heart disease. When such erroneous instances occurred, we went back to the original questionnaire to correct errors in data entry.
- Third, when there were multiple categories that were supposed to add up to a total (e.g., number of current residents), we cross-checked the summation with the total. For instance, for the payment type question, we asked facilities to report

the number of residents who paid primarily using Medicaid, private sources or other resources. The total of three of these categories were expected to add up to the total number of current residents.

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

Answers to open-ended questions (i.e., types of resident chronic conditions, community needs for state-wide emergencies, administrators' experience during the COVID-19 pandemic, and responses to "other" payment types from move-in and move-out locations, room units, and community updates for residents' families) were read and coded by members of the study team. Among 389 facility questionnaires received, 309 indicated some type of ongoing fee and 353 described at least one type of one-time fee. Responses were organized in Excel alphabetically and the most common descriptions are reported in text.

### **Staffing ratio and level calculation**

Staffing ratio and staffing level calculations were comparable to past years. Staffing ratio was calculated by dividing the number of all employees reported by facilities to all current residents. Staffing level (i.e., average staff hours per resident per day) were computed by multiplying the number of FTE employees for each type of staff by 35 hours, and then multiplying the number of part-time employees for each type of staff by 17.5. These two quantities were summed and the total staff hours were then divided by total number of residents which was further divided by seven to provide average staff hours per resident per day. That is, average hours per resident per day =  $((\text{FT staff type} * 35) + (\text{PT staff type} * 17.5)) / \text{total number of residents} / 7$ . While Oregon rules allow for licensed nurses to be employed on a contract basis, we did not include contract RNs in staffing levels to ensure comparability with the national study and our previous studies. Based on our 2017 study, only a small number of facilities (n=33) reported they contracted with RNs.

### **Profession charges**

We calculated estimated industry charges and share of total industry charges paid by Medicaid and private sources following the same formula as previous years (Table A5 below). We first calculated the number of residents who were private pay residents

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

among responding facilities. We multiplied the resulting number by average total monthly charges calculated using resident-level data. We used estimates from responding facilities to impute values about non-respondent facilities. First, we used occupancy rates among responding facilities to calculate the number of residents in non-respondent facilities using licensed capacity. Second, we used Medicaid rates among responding facilities and prevalence of having a Medicaid contract among non-responding facilities to calculate percent of Medicaid and private residents living in non-respondent facilities. Finally, we calculated total monthly charges by multiplying the estimated total number of private pay residents with average total monthly charges calculated using data from the resident-level study. Since all three estimates (occupancy rates, Medicaid rates, and average total monthly charges) for non-respondent facilities assume that the responding and non-respondent facilities are similar to each other in terms of these characteristics (an assumption that cannot be tested using available data), the results should be interpreted with caution.

**Table A5. Estimated annual profession charges for AL/RC and MC communities in Oregon, 2021**

		AL/RC	MC	Total
<b>Responding communities (facility data, unweighted)</b>				
<b>Private Pay</b>				
	<b>Total current residents</b>	8,678	3,227	11,905
-	<b>Total current Medicaid beneficiaries</b>	3,733	1,454	5,187
=	<b>Total current private pay residents</b>	4,945	1,773	6,718
x	<b>Average total monthly charge incl. services (resident data)</b>	\$4,932	\$6,867	
=	<b>Total private pay charges</b>	\$24,388,740	\$12,175,191	\$36,563,931
<b>Non-respondent communities</b>				
<b>Private Pay</b>				
	<b>Licensed capacity</b>	8,877	3,338	
x	<b>Occupancy rate*</b>	70%	76%	
=	<b>Estimated total current residents</b>	6,214	2,537	8,751
x	<b>Estimated % of Medicaid residents</b>	39%	45%	
=	<b>Estimated total Medicaid beneficiaries</b>	2,418	1,145	3,562

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

	<b>Estimated total current residents</b>	6,214	2,537	8,751
-	<b>Estimated total Medicaid beneficiaries**</b>	2,418	1,145	3,562
=	<b>Estimated total private pay residents</b>	3,796	1,392	5,189
x	<b>Average total monthly charge incl. services (Resident Data)</b>	\$4,932	\$6,867	
=	<b>Total est. charges for private pay residents</b>	\$18,723,059	\$9,561,100	\$28,284,159
	<b>Estimates Total Annual Private Pay Charges</b>			\$778,177,085
	<b>Total Annual Medicaid Charges Billed (Data from ODHS)</b>			\$393,294,505
	<b>Total Annual Profession Charges</b>			\$1,171,471,590

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.

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

## Appendix B: Additional tables

**Table B1. 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	\$825	\$1,860	\$1,370	\$1,370	\$825	\$1,370
Median	\$4,000	\$4,840	\$5,800	\$6,550	\$4,540	\$5,482
Maximum	\$9,517	\$9,524	\$9,363	\$10,442	\$9,517	\$10,442
Average (95% CI)	\$4,152 (\$3,968 - \$4,337)	\$4,983 (\$4,744 - \$5,222)	\$5,867 (\$5,614 - \$6,120)	\$6,786 (\$6,484 - \$7,087)	\$4,556 (\$4,374 - \$4,738)	\$5,408 (\$5,184 - \$5,632)

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

	<b>Portland Metro</b>	<b>Willamette Valley</b>	<b>Southern Oregon</b>	<b>East of Cascades</b>
<b>Average base monthly charge (95% CI)</b>	\$5,083 (\$4,715 - \$5,451)	\$4,083 (\$3,814 - \$4,352)	\$4,304 (\$3,638 - \$4,970)	\$3,980 (\$3,680 - \$4,280)
<b>Minimum</b>	\$650	\$682	\$452	\$2,139
<b>Median</b>	\$5,204	\$4,073	\$4,560	\$4,118
<b>Maximum</b>	\$12,036	\$7,388	\$8,295	\$7,931
<b>Average total monthly charge</b>	\$5,944 (\$5,532 - \$6,356)	\$4,877 (\$4,533 - \$5,220)	\$5,373 (\$4,637 - \$6,109)	\$4,774 (\$4,351 - \$5,197)
<b>Minimum</b>	\$863	\$849	\$452	\$2,238
<b>Median</b>	\$6,044	\$4,894	\$5,460	\$4,700
<b>Maximum</b>	\$12,036	\$9,600	\$8,949	\$8,299

**Table B3. Monthly private-pay charges among sampled residents by region, excluding bottom and top 1 percentile**

	<b>Portland Metro</b>	<b>Willamette Valley</b>	<b>Southern Oregon</b>	<b>East of Cascades</b>
<b>Average base monthly charge (95% CI)</b>	\$5,066 (\$4,783 - \$5,349)	\$4,125 (\$3,864 - \$4,387)	\$4,542 (\$3,991 - \$5,094)	\$3,980 (\$3,680 - \$4,280)
<b>Minimum</b>	\$863	\$825	\$1,260	\$2,139
<b>Median</b>	\$5,200	\$4,080	\$4,593	\$4,118
<b>Maximum</b>	\$9,517	\$7,388	\$8,295	\$7,931
<b>Average total monthly charge</b>	\$5,931 (\$5,594 - \$6,267)	\$4,928 (\$4,584 - \$5,272)	\$5,539 (\$4,881 - \$6,197)	\$4,774 (\$4,351 - \$5,197)
<b>Minimum</b>	\$1,875	\$2,290	\$1,370	\$2,238
<b>Median</b>	\$6,016	\$4,936	\$5,483	\$4,700
<b>Maximum</b>	\$10,442	\$9,600	\$8,949	\$8,299

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

**Table B4. Share of care-related staff employed part-time or full-time, by employee categories and setting, 2021**

	PT	FT	All	PT	FT	All	PT	FT	All
	%	%	%	%	%	%	%	%	%
<b>RNs</b>	8	4	5	8	3	4	8	4	5
<b>LPNs/LVNs</b>	3	2	2	1	2	2	3	2	2
<b>CNAs</b>	6	4	4	5	2	3	5	3	4
<b>CMAs</b>	1	2	2	<1	1	1	1	2	2
<b>Personal care staff</b>	75	81	80	78	86	84	76	83	82
<b>Social workers</b>	<1	<1	<1	<1	<1	<1	<1	<1	<1
<b>Activities directors or staff</b>	7	6	6	8	5	6	7	6	6
<b>Total</b>	100	100	100	100	100	100	100	100	100

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 B5. Staff to resident ratios by setting and staff type, 2020-2021**

	2020			2021		
	AL/RC	MC	Total	AL/RC	MC	Total
<b>Care Staff Only</b>	0.69	0.99	0.79	0.75	1.13	0.88
<b>All Staff</b>	1.03	1.25	1.11	1.36	1.78	1.51

**Table B6. Percentage of facilities with human resource practices, 2020-2021**

	2020			2021		
	Always	Some times	Never	Always	Some times	Never
	%	%	%	%	%	%
<b>Formal job evaluations</b>	81	16	4	84	15	2
<b>Employee recognition system</b>	79	17	4	81	17	2
<b>Employee suggestion system</b>	66	29	6	64	32	4
<b>Internal promotion policy</b>	49	45	7	57	38	4
<b>Employee attitude surveys</b>	37	31	32	33	37	30
<b>Incentive- based or merit pay</b>	39	37	24	45	36	18
<b>Flexible work hours</b>	32	59	9	30	62	8
<b>Job sharing</b>	8	49	43	11	51	38
<b>Self- scheduling system</b>	3	18	78	5	22	73

**Table B7. Provider agreement or disagreement with statements regarding the Coronavirus (COVID-19) pandemic, 2021**

	SD		D		NAND		A		SA	
	AL/RC	MC	AL/RC	MC	AL/RC	M C	AL/RC	MC	AL/RC	MC
<b>Since March 2020, when the COVID-19 pandemic started...</b>	%	%	%	%	%	%	%	%	%	%
<b>Activities largely within the AL/RC/MC communities' control</b>										
<b>Our residents have used telemedicine or telehealth for purposes of assessments, monitoring, diagnosis, or treatment.</b>	2	2	2	1	1	4	46	33	48	61
<b>Our residents have used virtual visits (e.g., iPad, computer, smart phone) with their family members and friends.</b>	2	2	1	1	4	2	47	30	45	65
<b>We have been able to address concerns of staff related to the pandemic.</b>	1	2	2	1	9	1 2	52	54	36	31
<b>We have been able to address concerns of residents' families related to the pandemic.</b>	1	2	2	4	6	8	53	49	37	38
<b>Activities largely outside the AL/RC/MC communities' control</b>										
<b>We have been satisfied with the communication about rules and regulations from the county/state agencies.</b>	6	4	11	7	18	1 9	41	41	24	29
<b>We have found the COVID-19 visitor restrictions enacted by county/state agencies to be reasonable.</b>	7	1	14	15	20	2 4	37	37	23	23
<b>We have been able to get accurate information about COVID-19.</b>	3	2	5	4	10	1 3	45	40	37	42

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

<b>We have been given enough support from county/state agencies to deal with issues/problems due to the pandemic.</b>	4	2	14	8	14	15	40	41	27	34
<b>Enough PPE. We have been able to access personal protective equipment (PPE) (such as eye protection, gloves, N95 respirators).</b>	4	1	7	4	7	9	50	48	32	38
<b>Challenges faced by AL/RC/MC communities</b>										
<b>We have had a harder time finding new residents.</b>	3	4	11	21	11	9	29	32	45	25
<b>We have had a harder time with staffing (such as hiring, retaining, and scheduling).</b>	2	3	6	7	14	15	26	35	52	40

Note: Depending on the statement, data are presented using responses from 337 to 346 AL/RC/MC (out of 349). SD = strongly disagree, D = disagree, NAND = neither agree nor disagree, A = agree, and SA = strongly agree

**Table B8. Sex/gender and age distribution of residents by setting, 2020-2021**

	%		%		%	
	2020	2021	2020	2021	2020	2021
<b>Gender</b>						
<b>Male</b>	30	33	29	28	30	32
<b>Female</b>	70	67	71	72	70	68
<b>Transgender</b>	<1	0	0	0	<1	0
<b>Age categories</b>						
<b>18-49</b>	<1	1	0	0	<1	1
<b>50-64</b>	6	6	3	2	5	5
<b>65-74</b>	15	17	13	15	15	16
<b>75-84</b>	29	26	30	31	29	27
<b>85 and over</b>	49	50	54	52	51	51

**Table B9. Resident race/ethnicity by setting, 2020-2021**

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

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

**Table B10. Move-in locations among sampled residents by setting, 2020-2021**

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

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

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

## Appendix C: References

---

Achterberg, W.P., Erdal, A., Husebo, B.S., Kunz, M., & Lautenbacher, S. (2021). Are Chronic Pain Patients with Dementia Being Undermedicated?. *Journal of Pain Research*, 14, 431-439. [10.2147/JPR.S239321](https://doi.org/10.2147/JPR.S239321)

Alzheimer's Association. (2019). *FDA-approved treatments for Alzheimer's*. <https://www.alz.org/media/documents/fda-approved-treatments-alzheimers-ts.pdf>

American Geriatrics Society. (2009). Pharmacological Management of Persistent Pain in Older Persons. *Journal of the American Geriatrics Society*, 57(8), 1331-46. <https://doi.org/10.1111/j.1532-5415.2009.02376.x>

American Healthcare Association/National Center for Assisted Living. (2021). *Coronavirus*. <https://www.ahcancal.org/Survey-Regulatory-Legal/Emergency-Preparedness/pages/coronavirus.aspx>

Austrom, M.G, Boustani, M., & LaMantia, M.A. (2018). Ongoing Medical Management to Maximize Health and Well-being for Persons Living With Dementia. *Gerontologist*, 58(1), S48-S57. [10.1093/geront/gnx147](https://doi.org/10.1093/geront/gnx147)

Brown-Wilson, K. (2007). Historical evolution of assisted living in the United States, 1979 to the present. *The Gerontologist*, 47(Suppl.1):8–22. [https://doi.org/10.1093/geront/47.Supplement\\_1.8](https://doi.org/10.1093/geront/47.Supplement_1.8)

Centers for Disease Control and Prevention. (2016). National Post-acute and Long-term Care Study. <https://www.cdc.gov/nchs/npals/reports.html>

Centers for Disease Control and Prevention. (2021). *Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes, Nursing Homes & Long-Term Care Facilities*. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html>

Chou, R.J. (2009). Organizational Justice and Turnover Intention: A Study of Direct Care Workers in Assisted Living Facilities for Older Adults in the United States. *Social Development Issues*, 31(1), 69-85.

Chou, R.J. (2012). Resident-Centered Job Satisfaction and Turnover Intent Among Direct Care Workers in Assisted Living: A Mixed-Methods Study. *Research in Aging*, 34(3), 337-364. <https://doi.org/10.1177/0164027511428456>



Collins, C., Ruppner, L., Landivar, L.C., & Scarborough, W. (2021). The Gendered Consequences of a Weak Infrastructure of Care: School Reopening Plans and Parents' Employment During the COVID-19 Pandemic. *Gender & Society*, 35(2),180-193. doi:[10.1177/08912432211001300](https://doi.org/10.1177/08912432211001300)

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. doi:[10.1136/bmjopen-2019-029172](https://doi.org/10.1136/bmjopen-2019-029172)

Dobbs, D., Peterson, L., & Hyer, K. (2020). The unique challenges faced by assisted living communities to meet federal guidelines for COVID-19. *Journal of Aging & Social Policy*, 32; 334–42. doi:[10.1080/08959420.2020.1770037](https://doi.org/10.1080/08959420.2020.1770037)

Duan, Y., Iaconi, A., Song, Y., Norton, P.G., Squires, J.E., Keefe, J. Cummings, G.G., & C.A., Estabrooks. (2020). Care Aides Working Multiple Jobs: Considerations for Staffing Policies in Long-Term Care Homes During and After the COVID-19 Pandemic. *Journal of the American Medical Directors Association*, 21(10), 1390-91. <https://doi.org/10.1016/j.jamda.2020.07.036>

Dys, S., Winfree, J., Carder, P., Zimmerman, S., & Thomas, K. (2021). Coronavirus Disease 2019 Regulatory Response in U.S. Assisted Living Communities: Lessons Learned. *Frontiers in Public Health*. doi: [10.3389/fpubh.2021.661042](https://doi.org/10.3389/fpubh.2021.661042)

Fazio, S., Zimmerman, S., Doyle, P.J., Kallmyer, B., Pike, J. (2020). What Is Really Needed to Provide Effective, Person-Centered Care for Behavioral Expressions of Dementia? Guidance from The Alzheimer's Association Dementia Care Provider Roundtable. *The Journal of Post-Acute and Long-Term Care Medicine*, 21(11), 1582-86. <https://doi.org/10.1016/j.jamda.2020.05.017>

Fick, D.M., Semla, T.P, Steinman, M., Beizer, J., Brandt, N., Dombrowski, R., DuBeau, C. E., Pezzullo, L., Epplin, J. J., Flanagan, N., Morden, E., Hanlon, J., Hollmann, P., Laird, R., Linnebur, S., & Sandhu, S. (2019). American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. *Journal of the American Geriatrics Society (JAGS)*, 67(4), 674–694. <https://doi.org/10.1111/jgs.15767>

Gerlach, L.B., Kales, H.C., Hyungjin, M.K., Zhang, L., Strominger, J., Covinsky, K., Teno, J., Bynum, J.P.W., & Maust, D.T. (2021). Prevalence of psychotropic and opioid prescribing among hospice beneficiaries in the United States, 2014–2016. *Journal of the American Geriatrics Society*, 69(6), 1479-89. <https://doi.org/10.1111/jgs.17085>

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>

Hado, E., & Feinberg, L.F. (2020). Amid the COVID-19 Pandemic, Meaningful Communication between Family Caregivers and Residents of Long-Term Care Facilities is Imperative. *Journal of Aging & Social Policy*, 32(4-5), 410-415.

<https://doi.org/10.1080/08959420.2020.1765684>

Hampton, L.M., Daubresse, M., Chang, H.Y., Alexander, G.C., & Budnitz, D.S. (2014). Emergency department visits by adults for psychiatric medication adverse events.

*JAMA Psychiatry*, 71(9), 1006-14. [10.1001/jamapsychiatry.2014.436](https://doi.org/10.1001/jamapsychiatry.2014.436)

Harris-Kojetin, L., & Sengupta, M. (2018). Falls Among Assisted Living Residents: Results From the 2016 National Study of Long-Term Care Providers. *Innovation in Aging*, 2(1),766. <https://doi.org/10.1093/geroni/igy023.2833>

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.

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](https://www.cdc.gov/nchs/data/series/sr_03/sr03_43-508.pdf)

Hill, K.D & Wee, R. (2012). Psychotropic Drug-Induced Falls in Older People. *Drugs Aging* 29,15–30. <https://doi.org/10.2165/11598420-000000000-00000>

Kaiser Family Foundation. (2021). *State COVID-19 Data and Policy Actions*.

<https://www.kff.org/coronavirus-covid-19/issue-brief/state-covid-19-data-and-policy-actions/#longtermcare>

Kales, H.C., Hyungjin, M.K., 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*, 169, 71-79. <https://doi.org/10.1176/appi.ajp.2011.11030347>

Kemp, C.L. (2021). More Than A Visitor: Families as “Essential” Care Partners During COVID-19. *The Gerontologist*, 61(2), 145–151. <https://doi.org/10.1093/geront/gnaa161>

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>

Masnoon, N., Shakib, S., Kalisch-Ellett, L., & Caughey, G.E. (2017). What is polypharmacy? A systematic review of definitions. *BMC Geriatrics*, 17(230).

[10.1186/s12877-017-0621-2](https://doi.org/10.1186/s12877-017-0621-2)

Maust, D.T., Hyungjin, M.K., & Seyfried, L.S. (2015). Antipsychotics, Other Psychotropics, and the Risk of Death in Patients with Dementia. *JAMA Psychiatry*, 72(5), 438-445. [10.1001/jamapsychiatry.2014.3018](https://doi.org/10.1001/jamapsychiatry.2014.3018)

McLachlan, A.J. & Pont, L.G. (2012). Drug Metabolism in Older People—A Key Consideration in Achieving Optimal Outcomes with Medicines. *The Journals of Gerontology: Series A*, 67A(2), 175–180. <https://doi.org/10.1093/gerona/qlr118>

Mollica, R. & Ujvari, K. (2021). *LTSS Choices: Adult Family Care - A Viable Alternative to Nursing Homes*. AARP Public Policy Institute. <https://www.aarp.org/ppi/info-2021/adult-family-care.html>

Moreland, B.L., Burns, E.R., & Haddad, Y.K. (2021). National rates of non-fatal emergency department visits and hospitalisations due to fall-related injuries in older adults 2010-2014 and 2016: transitioning from ICD-9-CM to ICD-10-CM. *Injury Prevention*, 27, 175-178. [10.1136/injuryprev-2019-043516](https://doi.org/10.1136/injuryprev-2019-043516)

National Investment Center. (2021). NCI Glossary, Key Terms Explained. Retrieved from: <https://www.nic.org/nic-map/resource-center/senior-housing-investment-glossary/#:~:text=The%20sum%20of%20occupied%20inventory,inventor%20of%20the%20care%20segment.>

National Institute on Aging. (2021). *Residential Facilities, Assisted Living, and Nursing Homes*. National Institutes of Health. <https://www.nia.nih.gov/health/residential-facilities-assisted-living-and-nursing-homes>

Oregon Department of Human Services. (2021). *COVID-19 Information for Long-Term Care Facilities*. <https://www.oregon.gov/dhs/COVID-19/Pages/LTC-Facilities.aspx>

Oregon Department of Human Services, Aging and People with Disabilities. (2020). *Oregon Residential Care and Assisted Living Quality Measurement Program Provider Instruction Guide for 2020 & 2021*. <https://www.oregon.gov/DHS/PROVIDERS-PARTNERS/LICENSING/CBC/Documents/QMProviderInstructions.pdf>

Oregon Department of Human Services, Aging and People with Disabilities, Oregon Administrative Rules. (2020). *Chapter 411, Division 57, Endorsed Memory Care Communities*. <https://www.oregon.gov/DHS/SENIORS-DISABILITIES/SPPD/APDRules/411-057.pdf>

Oregon Department of Human Services, Aging and People with Disabilities, Oregon Administrative Rules. (2021). *Chapter 411, Division 54, Residential Care and Assisted Living Facilities*. <https://www.oregon.gov/dhs/SENIORS-DISABILITIES/SPPD/APDRules/411-054.pdf>

Resnick, B., Boltz, M., Galik, E., Holmes, S., Vigne, E., Fix, S., & Zhu, S. (2019). Pain Assessment, Management, and Impact Among Older Adults in Assisted Living. *Pain Management Nursing*, 20(3), 192-197. <https://doi.org/10.1016/j.pmn.2019.02.008>

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>

Rondeau, K., & Wagar, T. (2016). Human resources management practices and nursing turnover. *Journal of Nursing Education and Practice*, 6(10), 101-109. <https://doi.org/10.5430/jnep.v6n10p101>

Sepassi, A., & Watanabe, J.H. (2019). Emergency Department Visits for Psychotropic-Related Adverse Drug Events in Older Adults with Alzheimer Disease, 2013-2014. *Annals of Pharmacotherapy*, 53(12), 1173-1183. [10.1177/1060028019866927](https://doi.org/10.1177/1060028019866927)

Simmons, S.F., Coelho, C.S., Sandler, A., Shah, A.S., & Schnelle, J.F. (2018). Managing Person-Centered Dementia Care in an Assisted Living Facility: Staffing and Time Considerations. *The Gerontologist*, 58(4), 251-259. [doi.org/10.1093/geront/gnx089](https://doi.org/10.1093/geront/gnx089)

State of Oregon. (2019). *Oregon's Demographic Trends*. Office of Economic Analysis, Department of Administrative Services. [https://www.oregon.gov/das/OEA/Documents/OR\\_pop\\_trend2019.pdf](https://www.oregon.gov/das/OEA/Documents/OR_pop_trend2019.pdf)

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. [10.3233/ADR-170042](https://doi.org/10.3233/ADR-170042)

U.S Census Bureau. (2019). American Community Survey (ACS) Demographic and Housing Estimates. Retrieved from: <https://data.census.gov/cedsci/table?q=older%20adults&tid=ACSDP1Y2019.DP05>

Van Houtven, C.H., DePasquale, N., & Coe, N.B. (2020). Essential Long-Term Care Workers Commonly Hold Second Jobs and Double- or Triple-Duty Caregiving Roles. *Journal of the American Geriatrics Society*, 68(8), 1657-60.

<https://doi.org/10.1111/jgs.16509>

Zuckerbraun, S., Eicheldinger, C., McGinn-Shapiro, M., Porter, K., Dai, Lanting, & Kruger, H. (2015). Wages, Fringe Benefits, and Turnover for Direct Care Workers Working for Long-Term Care Providers in Oregon. Oregon Department of Human Services.

<https://www.oregon.gov/dhs/aboutdhs/dhsbudget/20152017%20Budget/Oregon%20Financial%20Direct%20Care%20Wage%20Report%20to%20DHS.pdf>

# Appendix D: Facility questionnaire



## Oregon Community-Based Care 2021 Community Questionnaire

**Please only fill out information for your «FacType» community**

<p><b>CCMU/Provider #:</b> «CCMU Number» <b>Capacity:</b> «Capacity» <b>Name of Community:</b> «Facility Name» <b>Address of Community:</b> «Address1» «Address2» <b>Management Company:</b> «Management» <b>Administrator:</b> «Administrator» <b>Community Phone:</b> «CommunityPhone»</p> <p>1. Person Completing Report _____ Title _____ Phone _____ 2. Person Completing Report _____ Title _____ Phone _____ 3. Person Completing Report _____ Title _____ Phone _____ Email _____ Web address _____</p>	<p><b>Please update any incorrect/outdated information.</b></p> <p>Name of Community: _____ Administrator Name: _____ Community Phone #: _____ Capacity: _____ Management Company: _____</p>
---	--

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

**DHS requires communities to complete this questionnaire by February 22, 2021.**  
Once complete, please choose **ONE** of the following to return your questionnaire:

Scan and email to:	<a href="mailto:cbcor@pdx.edu">cbcor@pdx.edu</a> <b>OR:</b>
Fax to:	503.725.9927 <b>OR:</b>
Mail to:	CBC Project - Institute on Aging Portland State University PO BOX 751 Portland, Oregon 97207

If you used the optional **PSU tracking sheet** emailed in October 2020, please use it for Questions #5-7.

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

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

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

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

CCMU/Provider Number: «CCMU Number» («FactType»)

**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 DHS. 2



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

CCMU/Provider Number: «CCMU Number» («FactType»)

**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
	<b>TOTAL – New residents, last 90 days</b>

**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
	<b>TOTAL – Residents who moved out or died last 90 days</b>

**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
	<b>TOTAL – Residents who moved out or died, last 90 days</b> (should match total in question #6 above)

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



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

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

**Section C. Staffing**

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

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

9. How many staff does your community currently employ?

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

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

**TOTAL NUMBER OF ALL STAFF**

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

**TOTAL NUMBER CARE-RELATED STAFF**

11. 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
		<b>TOTAL # CARE-RELATED STAFF</b> (total of full-time and part-time staff should match total in question #10)

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

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

**Section D. Community Characteristics & Policies**

**12.** 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: _____			

**13.** Does your community have a written policy related to staff who work at other places? This does not include staff who work at multiple buildings in the same community. *Please select ALL that apply.*

- We do NOT have a policy related to staff working for multiple employers. **Please skip to #15.**
- Yes, we have a policy that restricts staff from working at other residential or health care settings.
- Yes, we have a policy that restricts staff from working for any other type of employer.

**14.** If you currently have a written policy related to staff who work at other places, was it instituted in response to the Covid-19 pandemic?

1. Yes      2. No      3. Not applicable

**15.** Since the COVID-19 pandemic started, has your community hired temporary staff of any type from a staffing or similar agency?

*Temporary (e.g., contract, agency staff) refer to individuals or organization staff under contract with and working at this community but are not directly employed by the community.*

1. Yes      2. No

**16.** Do you routinely send updates to residents' families about COVID-19 preparedness and response in your community? *Please select one.*

- No, never. **Please skip to #16.**
- Yes, as needed only (not routinely)
- Yes, at least once per week
- Yes, at least once per month
- Other: \_\_\_\_\_

**a.** Which format(s) do you use for these updates? *Select all that apply.*

- Website
- Phone calls
- Email
- Social media
- Other: \_\_\_\_\_

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

17. 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.

Since March 2020, when the COVID-19 pandemic started...	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'</u> <u>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 DHS. 6

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

**18.** What resources do you need from the DHS or government agencies to feel prepared for a future local disasters or state-wide emergencies, such as wildfires, earthquakes, tsunamis, or others?

---

---

---

---

---

---

---

---

**19.** Is there anything you would like us or Oregon DHS to know about being an AL/RC/MC administrator 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 DHS. 7

# Appendix E: Resident questionnaire

---

## Oregon Community-Based Care Resident Characteristics

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

RESIDENT: \_\_\_\_\_

**FOR COMMUNITY USE ONLY**

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

**SEE NEXT PAGE FOR INSTRUCTIONS**



**2021 Profile of Assisted Living, Residential Care, and  
Memory Care Resident Study**

**Please answer these questions for 1 resident**

See the blue sheet for instructions for randomly choosing the resident

**DHS requires communities to complete this form by February 22, 2021.**

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

Scan and email to:	cbcor@pdx.edu <b>OR:</b>
Fax to:	503.725.9927 <b>OR:</b>
Use the pre-paid envelope. Mail to:	CBC Project - Institute on Aging Portland State University PO BOX 751 Portland, Oregon 97207

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

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

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

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

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

**COMMUNITY CENSUS**

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

Number of residents

**RESIDENT INFORMATION**

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

- Yes
- No

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

- Male
- Female
- Transgender

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

Age of resident

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

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

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

- Yes
- No
- Don't know

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

Month and Year

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

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

[CCMU Number]

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)

[CCMU Number]

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.

A-2



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

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 lack awareness to safety, judgment, and decision-making, or ability to orient to their surroundings? **Mark only one answer.**

- Yes
- No
- Don't know

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

- Yes
- No
- Don't know

[CCMU Number]

A-3

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

- Yes
- No
- Don't know

**25.** 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.**

**26.** 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

[CCMU Number]

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

---



---



---



---

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

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

A-4

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

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.

**28.** 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

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

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

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

- Yes
- No
- Don't know

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

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

**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

[CCMU Number]

A-5

**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 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!**