REPORT OF THE
JOINT COMMISSION ON HEALTH CARE

Staff Ratios of Assisted Living Facilities

REPORT DOCUMENT NO. 168

COMMONWEALTH OF VIRGINIA
RICHMOND
2018

Code of Virginia § 30-168.

The Joint Commission on Health Care (the Commission) is established in the legislative branch of state government. The purpose of the Commission is to study, report and make recommendations on all areas of health care provision, regulation, insurance, liability, licensing, and delivery of services. In so doing, the Commission shall endeavor to ensure that the Commonwealth as provider, financier, and regulator adopts the most cost-effective and efficacious means of delivery of health care services so that the greatest number of Virginians receive quality health care. Further, the Commission shall encourage the development of uniform policies and services to ensure the availability of quality, affordable and accessible health services and provide a forum for continuing the review and study of programs and services.

The Commission may make recommendations and coordinate the proposals and recommendations of all commissions and agencies as to legislation affecting the provision and delivery of health care.

For the purposes of this chapter, "health care" shall include behavioral health care.

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Michele L. Chesser, Ph.D.
Executive Director

Paula R. Margolis, Ph.D., MPH
Senior Health Policy Analyst

Andrew D. Mitchell, Sc.D.
Senior Health Policy Analyst

Stephen G. Weiss, M.P.A.
Senior Health Policy Analyst

Agnes Dymora
Executive Assistant/Office Manager

Preface

Passed during the 2017 General Assembly session, Senate Joint Resolution 266 (Senator Dance) instructed the Joint Commission on Health Care (JCHC) to study the current staff-to-resident ratio requirements for assisted living facilities and special care units.

Virginia requires that ALFs have a sufficient number of staff on duty to safely operate the facility[1]. ALFs need the flexibility to adjust staffing to meet frequently changing resident needs. Increasing labor costs could result in the closing of beds for individuals with low income who receive the Auxilary Grant (public funds that contribute to ALF care) as ALFs are unable to increase rates charged to these individuals which are established by the Legislature. In addition, the DSS does not have the information technology capability to generate standard reports on ALF inspection results. In February 2018, a new regulation package updating the rules for ALFs took effect, and operators, industry groups and state agency staff expressed the preference for allowing time to implement the new rules before deciding whether or not to set specific staffing ratios.

At the November 2017 JCHC Decision Matrix meeting, members approved an option to introduce a budget amendment to raise Auxiliary Grant rates and an option to request, by letter of the JCHC Chair, that the Secretary of Health and Human Resources direct the DSS to field a Request for Information (RFI) for enhancing data reporting capabilities.

The Joint Commission members and staff would like to acknowledge and thank those who assisted in the study, including: **Tara D. Ragland**, MSA, LNHA, Director of Adult Programs and **Deborah A. Lloyd**, RN, Operations Consultant, Virginia DSS; **Lisa Wooten**, MPH, BSN, RN, Injury and Violence Prevention Program Supervisor, Virginia Department of Health (VDH); **Kate Marshall**, LCSW, Regional Consultant, Adult Community Behavioral Health Services, Department of Behavioral Health and Developmental Services; **Judy Hackler**, Executive Director **and April R. Payne**, LNHA Vice President of Quality Improvement Director, Virginia Association for Assisted Living; **Bryan L. Porter**, Office of the Commonwealth's Attorney; **Derrick Kendall**, Chief Executive Officer, Lucy Corr; **Dana Parsons**, Vice President, LeadingAge Virginia; **Bruch M. Slough**, Executive Director and **Jeffrey J. McInnis**, Administrator, Saint Francis Home; **Ed Corbeil**, Vice President of Operations, Commonwealth Senior Living; **Jennifer G. Fidura**, Virginia Network of Private Providers, Inc.; **Mike Mallon**, MPH, Community Health Program Specialist, Department of Health (VDH); **James Rothrock**, Commissioner, **Paige L. McCleary**, MSW, Director, Adult Protective Services Division, **Tishaun Harris Ugworji**, Program Manager and **Shelley Henley**, Auxiliary Grant Program Consultant, Department of Aging and Rehabilitative Services (DARS); **Terry A. Smith**, Director, Division of Aging and Disability Services, **Cindy Olson**, Director, Eligibility and Enrollment Services Division, and **Steve Ankiel,** Program Manager, Division of Aging and Disability Services, Department of Medical Assistance Services (DMAS); **Matt Mansell**, Vice

[1] The National Center for Assisted Living, Assisted Living 2016 State Regulatory Review; October 2016.

President of Government and Regulatory Affairs, Virginia Health Care Association - Virginia Center for Assisted Living; **Joan Thomas**, Birmingham Green; **Randy Scott**, Saint Mary's Woods; **Julia Ciarlo Hammond**, Eckert Seamans Cherin & Mellott, LLC.

This study and report was assigned to, and completed by, Paula R. Margolis, Ph.D., M.P.H., Senior Health Policy Analyst at the JCHC. She may be contacted at pmargolis@jchc.virginia.gov.

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Executive Summary

Passed during the 2017 General Assembly session, Senate Joint Resolution 266 (Senator Dance) instructed the Joint Commission on Health Care (JCHC) to study the current staff-to-resident ratio requirements for assisted living facilities and special care units. The resolution was passed by indefinitely in Senate Rules committee with the understanding that JCHC would conduct the study.

The JCHC study included site visits to five ALFs in the Central Virginia region which entailed tours of the facilities and interviews with ALF operators, staff members and residents. In addition, input was solicited and received from advocates, industry groups, and employees of several state agencies that are responsible for various ALF licensing, oversight, and payment issues. Lastly, a literature review provided information regarding staffing ratio policies in other states, ALF labor adequacy, salary information, staff turnover rates, and information on the projected cost of ALF care.The literature review revealed that very few states require specific staffing ratios; rather, they have rules that are similar to those in Virginia that require a sufficient number of staff members in order to safely operate the facility[2]. ALF operators, industry groups and state agency staff expressed the view that implementing specific staff-to-resident ratios would be very difficult, due to the variety of facility configurations, the differing and frequently changing mix of resident level-of-need in each facility, and the commitment to provide *person-centered care*, which may result in the need for different staff levels at various times of day (e.g., many residents need assistance bathing and prefer to bathe before breakfast). In addition, both the literature review and ALF operator interviews revealed that there is high turnover of direct care staff [3]. ALF operators reported that after training staff at their expense, staff frequently leave the facility after a few months to work in home-based care.

Persons meeting low income and other eligibility requirements may qualify for funding to pay for ALF stays from the *Auxiliary Grant (AG)*, (which provides state and local funds that contribute to ALF costs). The AG rate is set by the Virginia Legislature, and the current rate covers approximately one-third to one-half of the cost of providing ALF care. Over the last several years, a number of ALFs serving persons who receive the AG have closed or reduced the number of beds allocated to AG recipients. ALF operators expressed concern that increasing labor requirements would be costly and could result in increasing the rates to private-pay residents and/or reducing the number of AG recipients they are able to serve, as they are unable to adjust charges to AG recipients. In February 2018, a new, wide-ranging regulation package updating the rules for ALFs took effect, and operators, industry groups and state agency staff expressed the preference for allowing time to implement the new rules before deciding whether or not to set specific staffing ratios. Also, ALFs are required by the Department of Social Services (DSS) to use a staffing tool when setting staff levels. DSS monitors their use of the tool during inspections. Currently, DSS, in conjunction with facility operators, is developing a new

[2] The National Center for Assisted Living, Assisted Living 2016 State Regulatory Review; October 2016.
[3] The National Center of Assisted Living 2013 Survey

tool that can be used by ALFs to better determine their staffing needs. The new tool will be pilot-tested and should be completed in 2018. Another issue that was highlighted during talks with industry groups and state agency staff was the fact that the DSS does not have the information technology capability to generate standard reports on ALF inspection results. Creating monitoring reports is currently a manual process, requiring data drawn from several different systems, is time consuming and relies upon institutional knowledge and outside industry groups who gather information from their member facilities. JCHC members were presented with four policy options. At the November 2017 JCHC Decision Matrix meeting, members voted to proceed with policy option three: to introduce a budget amendment to raise Auxiliary Grant rates (amount to be determined), and policy option four: by letter of the JCHC Chair, request that the Secretary of Health and Human Resources direct the DSS to field a Request for Information (RFI) for enhancing data reporting capabilities.

STAFFING RATIOS IN ASSISTED LIVING

Passed during the 2017 General Assembly session, Senate Joint Resolution 266 (Senator Dance) instructed the Joint Commission on Health Care (JCHC) to study the current staff-to-resident ratio requirements for assisted living facilities and special care units. Specifically, it was requested that the JCHC:

1. Identify and analyze current staff-to-resident ratio requirements for assisted living facilities (ALF) and special care units
2. Make recommendations for changes to such ratio requirements that would lead to better care and quality of life for residents, including recommendations regarding the total number and type of staff that:
    a. are required to meet the routine and special needs of all residents
    b. must be awake and on duty during night shifts
    c. should accompany residents on trips away from the assisted living facility or special care unit

The resolution was passed by indefinately in Senate Rules committee with the understanding that JCHC would conduct the study.

Background

Assisted living facilities (ALF) are congregate home-like settings housing four or more adults who are aged, infirmed or disabled. They Provide 24/7 supervision and oversight of the physical and mental well-being of an individual, housekeeping, meals, medication management, transportation, and other services. ALFs may not admit individuals whose care needs are greater than the ALF's ability to safely serve. No ALF in Virginia may admit individuals who are ventilator dependent, have some stage III and IV dermal ulcers, pose an imminent physical threat to themselves or to others, need continuous licensed nursing care, or have physical/mental health needs that cannot be met, as determined by the facility.

ALFs are varied in type and may be for-profit or not-for-profit; have various numbers of beds; may be affiliated with a faith-based organization; may be small, stand-alone operations, or they may be part of a local or national chain. ALFs may serve mixed populations (needing different levels of care) in the same unit, or they may be *continuing care communities* having several separate units providing different levels of care that residents may move through as their needs change (e.g., independent living, residential care, assisted living, memory care and skilled nursing).

Federal regulations prohibit Medicare and Medicaid from paying for ALF room and board costs. Most of the ALFs in Virginia serve residents who are private pay, while some also serve individuals who receive Auxiliary Grant (AG) funds. The AG is a state- and locally-funded grant program (80% state and 20% local funds) that contributes to room and board costs for individuals who meet income and other eligibility criteria. In addition to the AG, Virginia Medicaid pays a per diem rate of $49.50 (approximately $1,485 per month) to help pay for direct care services for

persons living in ALFs who are enrolled in the Medicaid Alzheimer's Assisted Living Waiver. The Waiver will expire the end of June 2018 with no plans for renewal.

Individuals in the Alzheimer's Assisted Living Waiver will be moved to other Medicaid Home and Community-Based Services Waivers (such as the Elderly and Disabled with Consumer Direction Waiver), but ALFs will no longer receive the Medicaid direct care services per diem payment for these individuals. According to DMAS, this change effects approximately twenty individuals. DMAS staff reports that some ALFs have agreed to continue to serve Medicaid recipients with Alzheimer's Disease, despite the cessation of the per diem payment.

Current Virginia ALF Regulation

The Department of Social Services (DSS) inspects and licenses ALFs, and inspections occur at least annually. Licenses may be granted for one to three years based on inspection results, and there is also a provisional, six-month license for ALFs with significant issues which need to be addressed immediately.

Each ALF resident must have an individualized service plan that is based on their needs and must be updated at least every 12 months. Current Virginia law does not mandate a staff-to-resident ratio in most instances, but it does specify the minimum number of staff that must be on duty overnight and in units that serve residents with special needs, such as memory care. In addition:

- facilities must have a written staffing plan that specifies the number and type of staff required to meet the direct care needs of their residents
- ALFs must have written back-up plans for when regular staffing plans cannot be met
- ALFs must report safety incidents to DSS within a day of occurrence
- Virginia regulations specify the training required of individuals who provide direct care services
- Virginia regulations require that each room have a call signal system for residents to use when they need immediate attention
- Residents may wear remote signaling devices when they are not in their rooms in ALFs without call buttons, staff must check on each resident at least once per hour overnight and keep a log documenting when checks were made

Virginia requires that ALFs specify a method to determine and document staffing needs but does not specify the method – each ALF may develop their own method for determining and documenting staffing needs. Documentation based on the method is reviewed when DSS performs inspections and responds to complaints. Several ALF administrators expressed that staffing needs in ALFs can change frequently, depending on changing resident needs and turnover in resident populations. They stressed that requiring a fixed staff-to-resident ratio would be inefficient, result in over-staffing and under-staffing at times due to needs based on *patient-centered care plans* (e.g., many residents need assistance with bathing and desire to bathe around the same time of day) and could lack the flexibility needed to provide adequate care.

Staffing and Salaries

The 2013 National Center of Assisted Living survey reported that over half of ALF employees consisted of nursing staff. Certified Nurse Assistants (CNAs) represented a third of all nursing staff, and 27% were resident caregivers or non-certified nursing assistants. The turnover rate among nursing staff was 24% overall, and 206 of the responding ALFs reported that they had a combined total of over 1,000 nursing staff vacancies [iv].

According to the Bureau of Labor Statistics, the nationwide mean hourly wage for nursing assistants in 2016 was $13.29. In Virginia, the mean hourly wage was $12.52 ($0.77 below national mean), and in the District of Columbia it was $16.05. Staff turnover is a constant challenge. One Virginia ALF administrator reported that, although they provide free on-site CNA training, many CNA staff members leave the facility after several months to work for individuals in their homes. Another Virginia ALF administrator reported that adding 3 more staff would raise costs by $2,490 per resident per year.

Monitoring Limitations

DSS does not currently have automated reporting capabilities to track inspection results and violations. Creating reports to monitor performance is currently a manual process that draws on data from several separate files, is time consuming and dependent on institutional knowledge. In fact, LeadingAge (a statewide organization representing not-for-profit ALFs) creates summary reports of their member facilities' inspection findings which they provide to DSS. Additional resources for DSS are needed in order to create reports that can be easily produced on a regular basis to help identify problems and track trends over time and persist despite agency staff turnover.

Costs and Reimbursement

Genworth Financial estimated that in 2019, the median cost of assisted living in Virginia will be approximately $4,300 per month[v]. The current AG monthly rate (approximately $1,220) covers about 28% of the projected 2019 monthly cost. Resident SSI income (except for a small monthly personal needs allowance) goes towards the monthly ALF payment, and the AG pays the difference between the amount that the resident pays and the AG rate. ALF administrators report that they must carefully manage their mix of AG to private paid residents, mix of level of need, and mix of unit types, in order to ensure adequate cash flow to remain viable. One non-profit ALF that serves a majority of residents whose fee is paid through the AG reported that they generally end each year with an operating deficit of approximately $400,000 to $500,000. The religious organization with which they are affiliated fills the funding gap. According to DSS staff, ALFs serving AG recipients have closed due to inadequate funding, and small ALFs are particularly vulnerable. Further, they report that placing individuals receiving the AG has become increasingly difficult, resulting in individuals being placed further away from their families.

[iv] Ibid.

[v] https://www.genworth.com/about-us/industry-expertise/cost-of-care.html.

Recent Developments

An ALF stakeholder workgroup led by DSS is in the process of developing a new tool to help ALFs better determine staffing requirements. The tool is modeled on one used in Oregon modified to reflect Virginia needs. The tool will be pilot-tested in Virginia facilities that range in size, acuity mix, affiliation status and region. Results from the pilot tool will be compared to those determined by the current tools to help determine efficacy. It is expected that the new tool will be available in 2018 but its use will be voluntary; ALFs may still choose their current method to determine and document staffing needs.

In addition, DSS led a multi-year effort of stakeholders to update Virginia regulations dealing with ALFs. The new regulation package was signed by Governor McAuliffe in the summer of 2017 and included revised language increasing staff training on cognitive impairment, increased supervision of medication aides, increased administrator staffing, fall risk ratings for all residents, increased incentives for employment of full-time licensed health care professionals, and additional requirements for signaling devices and awake overnight staff. DSS staff and ALF administrators expressed the preference for allowing time for the new regulations to be implemented and their results evaluated before considering changes mandating staffing ratios.

Review of Literature and Other States

According to the 2016 National Center for Assisted Living Regulatory Review, ten states specify staff-to-resident ratios in ALFs (Georgia, Idaho, Indiana, Maine, Mississippi, Missouri, Michigan, New Mexico, North Carolina, and South Carolina). Two of these states (Nevada and North Carolina) only specify ratios in special care units. In states that do not specify staff ratios, staff levels must be sufficient to meet resident needs and ensure safety, and the ALF must have a written staffing plan and demonstrate how their staffing system works. This is similar to Virginia's requirements.

The literature review findings suggest that specifying staffing ratios may result in a loss of staffing flexibility with increased costs but little or no gain in quality, due to the frequent changes in need at facilities. As noted above, resident turnover results in differing staffing needs, based upon the current mix of resident's needs and their desire for the timing of activities requiring assistance during the day. Some hours may be more staff-intensive (e.g., due to the need for assistance with bathing, toileting, dressing) than other times of the day despite the same number of residents. Set staff-to-resident ratios could result in both overstaffing and understaffing at times. Findings also included that increasing direct care staff may result in a reduction of other categories of staff (e.g., housekeeping) with no increase in quality.

Policy Options

The JCHC policy analyst staff offered four policy options to the JCHC members:

Option I	Take no action
Option 2	Direct the Department of Social Services to further determine explicit minimum staffing ratio requirements for day, evening and overnight shifts
Option 3	Raise Auxiliary Grant rates
Option 4	Request that the Secretary of Health and Human Services direct DSS to field a Request for Information for enhancing data reporting capabilities

Public Comments

The JCHC received comments from the following stakeholders: The Virginia Assisted Living Association, The Virginia Health Care Association – Virginia Center for Assisted Living, LeadingAge Virginia, and a member of the Arlington County Commission of Aging/Long-Term Care Residences Committee. None of the commenters were in support of Option 1. Three commenters were in support of Options 2 – 4. One commenter was opposed to Option 2.

Public Comment Excerpts

"The Virginia Assisted Living Association (VALA) - highly recommends the JCHC support the policy options 3 and 4 that were recommended in the report to introduce a budget amendment to raise the Auxiliary Grant (AG) rate and to request the Secretary of Health and Human Resources to direct the Department of Social Services (VDSS) to field a Request for Information (RFI) for enhancing data reporting capabilities. VALA has been informed by several assisted living (AL) providers they would be able to admit and to retain residents who qualify for the AG rate if the AG rate were increased. Many AL communities do not accept new admissions of residents who qualify for the AG rate due to it being significantly underfunded, which then forces many of those residents to acquire housing at nursing home facilities at a significantly higher rate to the government…Increase of the AG rate helps to stabilize accurate placement of residents into long term care communities based on their acuity needs instead of on their financial resources. VALA does not support option 2 of requesting VDSS to determine explicit minimum staffing ratio requirements for day, evening and overnight shifts. VDSS is currently in the process of completing the Comprehensive Revision of the Standards for Licensed Assisted Living Facilities that is expected to have an effective date of February 1, 2018. This comprehensive revision is the result of many years of thoroughly reviewing the current requirements and taking into considerations current resident populations, service practices, available and pending technology, and comments from many stakeholders including VALA, the Alzheimer's Association, local Ombudsmen, family members, several Virginia agencies, and several other industry specific associations."

Virginia Health Care Association – Virginia Center for Assisted Living: "…Option 2: We believe that this option is duplicative and unnecessary in light of the pending overhaul of assisted living regulations that have a target effective date of February 1, 2018…We think these regulations and their more stringent approach to staffing should be allowed to move forward and take effect before consideration of additional requirements is considered. Option 3: We strongly support additional funding for Auxiliary Grants (AG)…the current rate is not sufficient to allow for facilities to serve

many AG recipients if any at all. A higher rate that is closer to the cost of care for these individuals would serve as a strong incentive to get them the best care possible. Option 4: We support providing additional resources to DSS to better track and provide data to policymakers and providers across the Commonwealth. Better data will lead to better health care outcomes and help guide all assisted living providers across the Commonwealth to embrace best practices and approaches to the provision of resident-centered care."

LeadingAge Virginia: "New comprehensive assisted living regulations will become effective on February 1, 2018, and they provide for increased levels of staffing within special care units and overall enhanced resident care. Generally, we feel that the best approach is to allow these regulations to be implemented to determine their effectiveness before moving forward with the development of staffing standards…We strongly support the introduction of a budget amendment to increase the auxiliary grant rate because the current rate is too low and does not provide adequate funding to care for many of the complex medical needs of residents…We strongly support the ability for DSS to have enhanced reporting capabilities."

Arlington County Commission of Aging/Long-Term Care Residences Committee: "We recommend Option 2: By letter of JCHC Chair request that the Department of Social Services (DSS) determine explicit minimum staffing ratio requirements for day, evening and overnight shifts. We must ensure safe staff to resident ratios."

Joint Commission on Health Care Actions

At the JCHC *Decision Matrix* meeting held in November 2017, the members voted to support Policy Option 3 – Raise Auxiliary Grant Rates, and Policy Option 4 - Request that the Secretary of Health and Human Resources direct the Department of Social Services to field a request for information to enhance data reporting capabilities. The Deputy Commissioner of Health and Human Resources was present at the meeting, and the JCHC Chair obtained his agreement to act on this request.

Legislative Action

During the 2018 General Assembly session, Senator Rosalyn Dance introduced a budget amendment, Senate Bill 30 Item 343 #1s, to increase the Auxiliary Grant rate by $50 per month (for a total request of $2,280,000) in the first year of the biennium and an additional $100 per month in the second year (for a total request of $4,560,000), and Delegate Roslyn C. Tyler introduced a companion bill (House Bill 30 Item 343 #1h). The Senate Committee and Floor approved $0 in the first year and $1,000,000 in the second year of the Budget. At the time of the writing of this report, a final budget has not been passed. The Legislature failed to pass a Budget at the end of the regular 2018 session and a special session was scheduled for April 8, 2018 and the reconvened session was scheduled for April 18, 2018.

JCHC Staff for this Report

Paula R. Margolis, Ph.D., M.P.H.
Senior Health Policy Analyst

STAFFING RATIOS IN ASSISTED LIVING

JOINT COMMISSION ON HEALTH CARE
SEPTEMBER 19, 2017 MEETING

Paula Margolis, MPH, PhD
Senior Health Policy Analyst
Joint Commission on Health Care
pmargolis@jchc.Virginia.gov

With contributions from Martinson O. Owusu

Study Mandate SJR 266 - Senator Dance

- Identify and analyze current staff-to-resident ratio requirements for assisted living facilities (ALF) and special care units
- Make recommendations for changes to such ratio requirements that would lead to better care and quality of life for residents, including recommendations regarding the total number and type of staff that:
  - *Are required to meet the routine and special needs of all residents*
  - *Must be awake and on duty during night shifts*
  - *Should accompany residents on trips away from the assisted living facility or special care unit*

Virginia Assisted Living

- **A congregate home-like setting housing four or more adults who are aged, infirm or disabled**
- **Provide 24/7 supervision and oversight of the physical and mental well-being of an individual, housekeeping, meals, medication management, transportation, and other services**

- ALFs may be:
  - *For-profit and not-for-profit*
  - *Affiliated with a faith-based organization*
  - *Small, stand alone or part of a large, national chain*
  - *Serve mixed populations in the same unit (with additional staffing and training; security monitoring system; secured outdoor area or close staff supervision)*

- Continuing care retirement communities (CCRC), (sometimes referred to as *life plan communities*) that can serve individuals in various levels of care as their needs change (independent living, residential care, assisted living, skilled nursing)
- May serve residents who are private pay, Auxiliary Grant paid, or a mix (the majority serve predominantly or solely private pay)

Assisted Living Facilities May Not Admit Individuals Whose Level of Need is Beyond their Capability to Serve

No individual may be admitted or retained:

- Who requires a level of care/service, or type of service, the facility does not provide
- If the facility does not have appropriate type and numbers of staff

Individuals who may not be admitted include those:

- Who are ventilator dependent
- Have some stage III and stage IV dermal ulcers
- Pose an imminent physical threat to self or others
- Need continuous licensed nursing care
- Have physical/mental health needs that cannot be met as determined by the facility

The Uniform Assessment Instrument (UAI) is Used to Determine Levels of Service

Residential living:

- Minimal assistance with ADLs/medication administration
- And/or dependent in one ADL or one or more instrumental activities of daily living (IADL) and are able to maintain themselves independently

Assisted Living:

- Moderate assistance - dependent in two or more activities of daily living (ADL)
- And/or dependent in behavior patterns (abusive, aggressive, disruptive)

Nursing Facility:

- Dependent in two to four ADLs
- Or semi-dependent or dependent in behavior pattern and orientation
- And semi-dependent in joint motion
- Or dependent in medication administration

ADLs:

- Bathing
- Dressing
- Toileting
- Transferring
- Eating
- Ambulating

IADLs:

- Managing finances
- Handling transportation (driving/public transit)
- Shopping
- Preparing meals
- Using the phone and other communication devices
- Managing medications
- Housework and basic home maintenance

ALs can house residents with various levels of need within one building or section, and the levels of need can frequently change, based on changes in residents' condition and/or turnover

Virginia Assisted Living Regulation Summary[1]

- The Department of Social Services licenses and inspects ALFs at least annually
- Licenses may be for one to three years based on inspection results, and there is a provisional, six-month license for those with significant issues which need to be addressed immediately
- Each resident must have an individualized service plan that is based on their needs which must be updated at least every 12 months
- Current Virginia law does not mandate a staff to resident ratio in most instances
- It does specify the minimum number of staff that must be on duty over night and for units that serve residents with special needs, such as memory care
- Facilities must have a written staffing plan that specifies the number and staff required to meet the direct care needs of their residents

- They must have written back up plans for when regular staffing plans cannot be met
- They must report safety incidents to DSS within a day of occurrence
- Virginia specifies the training required of individuals who provide direct care
- Virginia regulations require that each room have a call signal system for residents to use when they need immediate attention
- Residents may also wear remote signaling devices to use when needed when they are not in their rooms
- In ALFs without call buttons, staff must check on each resident at least once per hour overnight and keep a log documenting when checks were made

[1] See Appendix IV for details

Virginia Auxiliary Grant Program (AG) Administered by the Department of Aging and Rehabilitation Services

- The AG program is an outgrowth of the federally-mandated State SSI Supplementation Program when SSI replaced Old Age Assistance
- States were required to supplement the SSI payments of those who would have been negatively impacted by the change or the states would lose Federal Medicaid funding

AG covered services include:

- Room and board (furnished room, meals, housekeeping and linen service)
- Maintenance and care, including:
  - Minimal assistance with personal hygiene
  - Medication administration
  - Provision of personal toiletries

• AG covered services include minimal assistance with:

- Care of personal possessions
- Care of funds
- Use of the telephone
- Arranging transportation
- Obtaining necessary personal items and clothing
- Making/keeping appointments, assisting with correspondence
- Securing health care and transportation for treatment
- Providing appropriate social and recreational activities
- General supervision for safety

http://www.dss.virginia.gov/family/as/auxgrant.cgi

Auxiliary Grants (AG) Eligibility Criteria and Payment

AG eligibility criteria require that individuals:

- Receive Supplemental Security Income (SSI) and/or are aged, blind or disabled and meet income limits
- Must be a US citizen or a non-citizen who meets specified criteria*
- Have countable income less than the combined AG rate plus the personal needs allowance (PNA) of $81 per month
- Have non-exempt resources of less than $2,000 for one person or $3,000 for a couple

The current AG AL rate is set at $1,221 per month outside of NVA and $1,402 per month in NVA

- *AG rates are set by the General Assembly and adjusted based on Social Security cost of living adjustments*
- *The maximum monthly SSI payment is $735 and depends on how much the person earned while working*
- *The AG pays the difference between residents' SSI payment (minus the PNA) and the AG AL rate*

Example: Current AG Rate = $1,221 per month

Resident payment: ($735 SSI – $81 PNA) = **$656**

Auxiliary Grant payment: ($1,221 - $656) = **$565**

*Eligibility for non-citizens is limited to those defined by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act

Auxiliary Grant Spending in Virginia and Monthly Payment Rates Compared to Costs

State General Funds Allocated for Auxiliary Grants

SFY 2011 = $23,152,956; SFY 2012 = $20,739,804

SFY 2016 = $21,898,969; SFY 2017 = $21,398,969

Monthly Auxiliary Grant Rate

SFY 2012 = $1,112 SFY 2017 = $1,221

Average Monthly Enrollment

SFY 2013 = 4,669[2] SFY 2016 = 4,138[1]

Genworth Financial Median Monthly Assisted Living Costs[3]

2016 = $3,950 2019 Projected = $4,316

The current AG monthly rate equals about 28% of the Genworth projected 2019 median monthly cost

- **ALFs must carefully manage their mix of AG to private pay residents and levels of needs**
- **Several ALFs serving AG recipients have closed due to inadequate funding - small ALFS are particularly vulnerable**
- **DSS has had difficulty placing individuals receiving the AG resulting in individuals being placed further away from their families**

[1] Department for Aging and Rehabilitation Services Annual Report 2016
[2] Department for Aging and Rehabilitation Services Annual Report 2013
[3] https://www.genworth.com/about-us/industry-expertise/cost-of-care.html

Medicaid Recipients in Assisted Living in Virginia

- *Virginia Medicaid pays $49.50 per day for Medicaid recipients enrolled in the Alzheimer's Assisted Living Waiver (AAL) living in ALFs*
  - This is in addition to the AG payment and does not pay for room and board
  - There are also individuals who in Medicaid that are not in the AAL waiver who receive assisted living
    - *ALFs do not receive the per diem Medicaid payment for individuals who receive Medicaid but are not enrolled in the AAL Waiver*
- The AAL Waiver will expire this year; DMAS' current plans are to not renew the waiver; although, DMAS staff has indicated that plans may not yet be final
- Other Payer sources: savings, long term care insurance and employee sponsored benefits
  - *About 8% of the U.S. population has private long term care insurance*
  - *Individuals using their own funds may "spend down" to meet Auxiliary Grant financial eligibility*

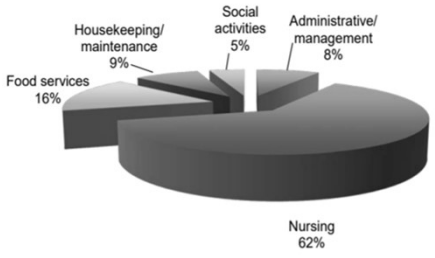
Primarily Private and Auxiliary Grant Paid Assisted Living – Observations from Site Visits

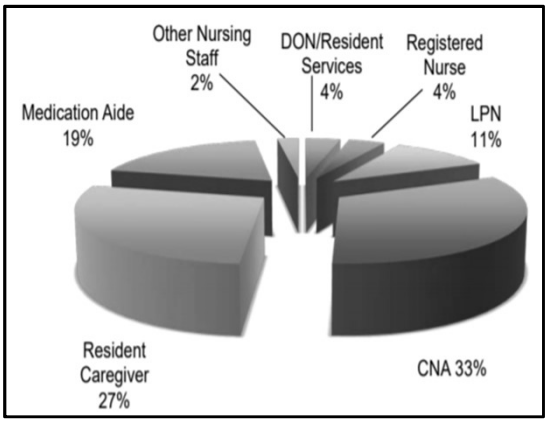
- Staff members at all sites were very dedicated to their residents, and residents expressed high levels of satisfaction
- Administrators at ALFs with all or mostly privately paid residents reported slim but positive operating margins
- An administrator at an ALF with a majority of AG paid residents reported operating losses of about $500K per year; the gap is filled by an affiliated religious organization
- Majority AG-funded AL characteristics included:
  - AG funded residents lived in double-occupancy rooms with a shared water closet (private pay residents had private rooms and bathrooms)
  - Showers are in halls and shared by multiple residents
  - Most food is donated from local grocers – food is near its '*use by*' date and must be culled prior to use; $1.71 per resident per day is spent on non-donated foodstuffs
  - Fewer observed organized activities
  - Does not accept residents with high needs due to staffing limitations

Findings from the National Center of Assisted Living 2013 Survey

Respondents
Nursing had the highest percentage of staff at over half of all staff (Figure 2). Of the nursing staff, certified nursing assistants (CNAs) and resident caregivers were the most common positions (Figure 3).

Figure 2. Percentage breakdown of staff by job category.





In 2013, the median turnover rate among nursing staff was 24.2%

206 facilities reported they had a total of 1,021 vacant positions

Median Turnover Rates	Turnover
Overall	24.2%
Nursing	25.0%
CNAs	13.6%
Resident Caregivers	36.4%

Vacant Positions	Number	Percent of Total
Total	1,021	100%
Nursing	615	60%
CNAs	213	21%
Resident Caregivers	193	19%

2016 National Center for Assisted Living
Regulatory Review of Assisted Living Requirements

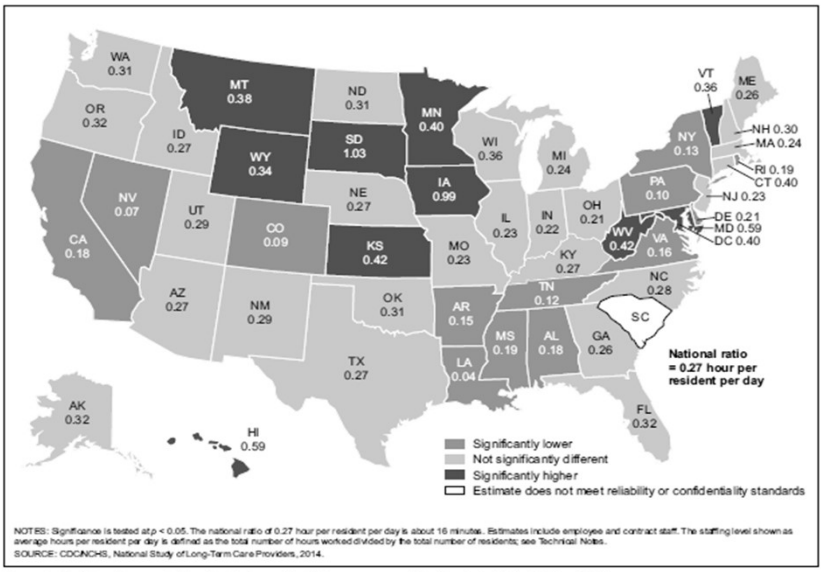
- Ten states mandate specific staffing ratios
- In states that do not, staff levels must be sufficient to meet resident needs and ensure safety
- And/or the ALF must have a written staffing plan and demonstrate how their staffing system works
- States that do mandate ratios include: Georgia, Idaho, Indiana, Maine, Mississippi, Missouri, Michigan, New Mexico, North Carolina, and South Carolina[1]

- One Virginia ALF reported that their direct care staff compensation equals $14.54 (wages and benefits) per hour with total staffing costs of $465,745 per year
- Adding 3 more staff would raise costs by $2,490 per resident per year
- They opined that increased ratios may put smaller companies and those serving a high proportion of residents receiving AG funding out of business

[1] See Appendix I for details

Residential Care Communities Staffing Levels
National Health Statistics Report 2016 (2014 Data)

National Health Statistics Reports ■ Number 91 ■ February 19, 2016 Page 5



NOTES: Significance is tested at $p < 0.05$. The national ratio of 0.27 hour per resident per day is about 16 minutes. Estimates include employee and contract staff. The staffing level shown as average hours per resident per day is defined as the total number of hours worked divided by the total number of residents; see Technical Notes.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2014.

Figure 3. Registered nurse staffing levels for residential care communities, by state: United States, 2014

Registered Nurses (RN)

- RN staffing levels ranged from 2 minutes (0.04 of 1 hour per resident per day) in Louisiana to 1.03 hours in South Dakota
- RN staffing levels were significantly higher than the national ratio (16 minutes or 0.27 of 1 hour) in 10 states (Hawaii, Iowa, Kansas, Maryland, Minnesota, Montana, **South Dakota**, Vermont, West Virginia, and Wyoming)
- RN staffing levels were significantly lower than the national ratio (16 minutes or 0.27 of 1 hour) in 13 states (Alabama, **Arkansas**, California, Colorado, Delaware, Louisiana, Mississippi, Nevada, New York, Pennsylvania, Rhode Island, Tennessee, and Virginia)

Residential Care Communities Staffing Levels National Health Statistics Report 2016 (2014 Data)

Aides

- Aide staffing levels ranged from 1.18 hours per resident per day (1 hour 11 minutes) in Indiana to 3.94 hours (3 hours 56 minutes) in Wisconsin
- Aide staffing levels were significantly higher than the national ratio (2.37 hours or 2 hours 22 minutes) in 7 states (Alaska, Kansas, Minnesota, New Mexico, **South Dakota**, West Virginia, and Wisconsin)
- The Virginia ratio of 1.94 was lower than the national average of 2.37 hours per day

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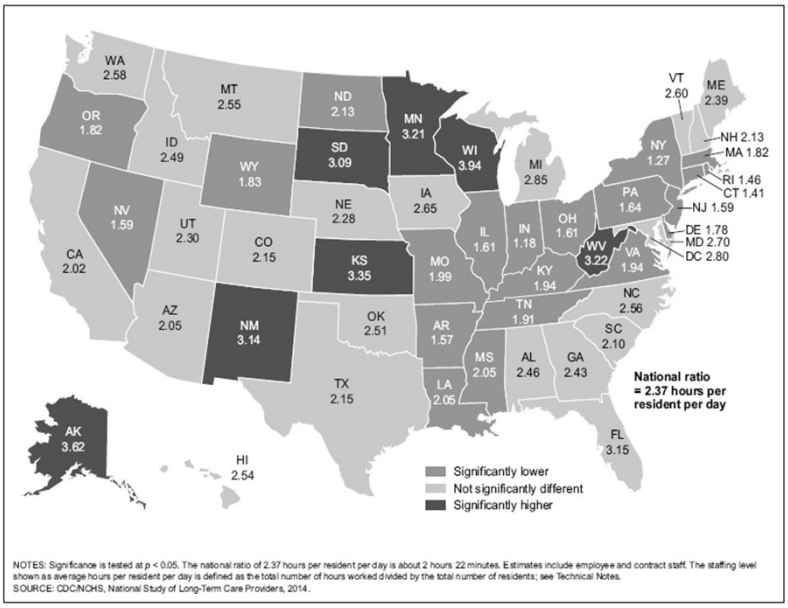


NOTES: Significance is tested at $p < 0.05$. The national ratio of 2.37 hours per resident per day is about 2 hours 22 minutes. Estimates include employee and contract staff. The staffing level shown as average hours per resident per day is defined as the total number of hours worked divided by the total number of residents; see Technical Notes.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2014.

Figure 5. Aide staffing levels for residential care communities, by state: United States, 2014

Residential Care Communities Staffing Levels
National Health Statistics Report 2016 (2014 Data)

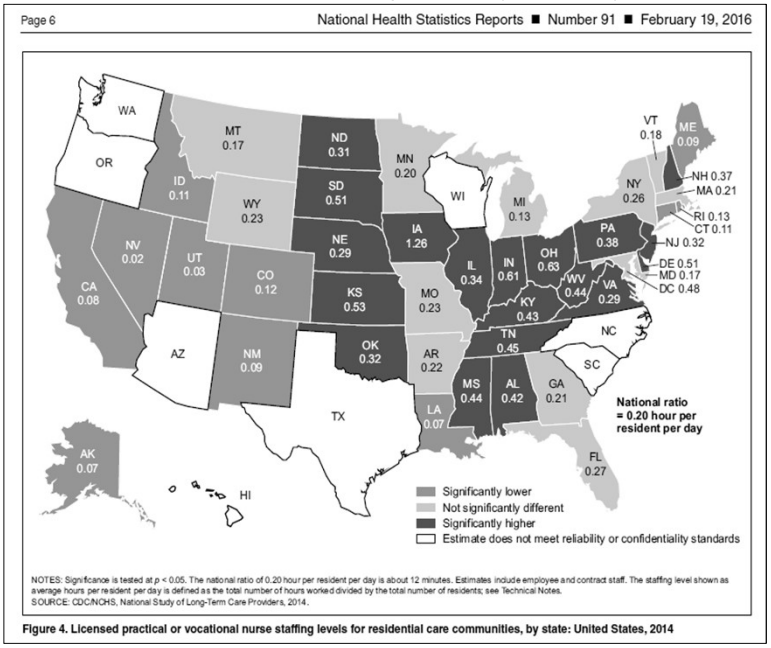
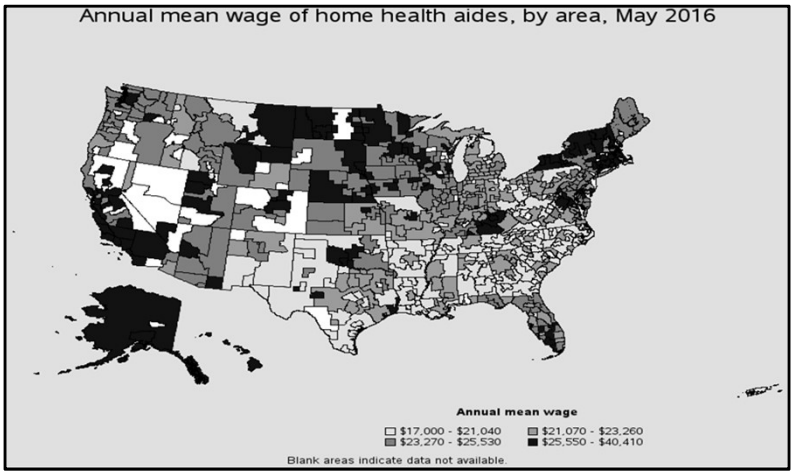


Figure 4. Licensed practical or vocational nurse staffing levels for residential care communities, by state: United States, 2014

Licensed Practical (LPN) or Vocational Nurses (VN)

- LPN/VN staffing levels ranged from 1 minute (0.02 of 1 hour per resident per day) in Nevada to 1.26 hours in Iowa
- LPN/VN staffing levels were significantly higher than the national ratio (12 minutes or 0.20 of 1 hour) in 20 states (Alabama, Delaware, D.C., Illinois, Indiana, Iowa, Kansas, Kentucky, Mississippi, Nebraska, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Pennsylvania, **South Dakota**, Tennessee, Virginia, and West Virginia)
- LPN/VN staffing levels were significantly lower than the national ratio (12 minutes or 0.20 of 1 hour) in 11 states (Alaska, California, Colorado, Connecticut, Idaho, Louisiana, **Maine**, New Mexico, Nevada, Rhode Island, and Utah)

Bureau of Labor Statistics - May 2016 State Employment and Wage Estimates for Nursing Assistants



Area	Number Employed	Mean Hourly Wage	Mean Annual Wage
US	1,443,150	$13.29	$27,650
Virginia	37,170	$12.52	$26,040
DC	2,970	$16.05	$33,380

- CNAs are often trained by ALFs
- As people live longer in their homes, CNAs are migrating to home health after several months
- They can earn higher wages that are paid directly by consumers

Policy implications from Literature Review[1]

- There is a heightened need for training, as the mix of physically frail and cognitively impaired elderly and residents with mental illness and developmental disabilities increase
- Minimum direct care staff requirements may lead to the substitution of indirect care staff (e.g., food workers, janitors) for direct care staff (nurses, nurse assistants and medication aides)
- All types of healthcare professionals are needed in the right proportion for better outcomes

[1] See Appendix II for details

The Department of Social Services is Leading the Effort to Create a New Staffing Tool

- Virginia requires a method to determine and document staffing needs
- Documentation based on the method is used when DSS performs inspections and responds to complaints
- A workgroup lead by DSS is developing a new tool to help better determine staffing needs
- The tool is modeled on one used in Oregon modified to reflect Virginia needs
- The tool will be pilot tested in Virginia facilities that range in size, acuity mix, affiliation status and regions
- Results will be compared to those determined by use of the current form

Use of this tool will be voluntary (regulations do not mandate the use of a specific tool)

- Once complete DSS will:
  - Make the tool available on its website for download
  - Update its presentation for training
  - Explore contracting for webinar training of the revised tool
  - Consider options for creating online data entry capacity

The Department of Social Services Must Manually Create Reports

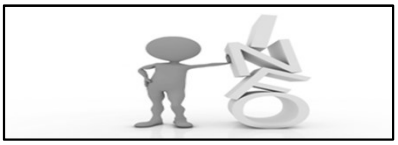
- Data compilation for monitoring currently requires that DSS staff manually combine data from several system components which is time-consuming and dependent on institutional knowledge
- DSS does not have staff to write programs to create standardized, automated reports on measures and trends
- DSS is receiving reports compiled by LeadingAge Virginia (a statewide organization representing not-for-profit ALFs) which include data on their members only

LeadingAge Virginia

Top 10 Assisted Living Violations - Statewide
April 2017 – June 2017

Regulation	Number of Violations	Number of Inspections
#1: 22VAC40-72-440-C Individualized service plans	58	355
#2: 22VAC40-72-670-C Administration of Medications and Related Provisions	46	355
#3: 22VAC40-72-290-C Staff records and health requirements	40	355
#4: 22VAC40-72-670-H Administration of medications and related Provisions	35	355
#5: 22VAC40-72-850-A Maintenance of buildings and grounds.	34	355
#6: 22VAC40-72-550-F Resident rights	26	355
#7: 22VAC40-72-630-A Medication management plan and reference materials	26	355
#8: 22VAC40-72-440-E Individualized service plans	20	355
#9: 22VAC40-72-840-I General requirements	20	355
#10: 22VAC40-72-850-F Maintenance of buildings and grounds	18	355

Upgrading DSS Data Reporting and Monitoring Capabilities



A Request For Information (RFI) process could be used, at no expense, to collect information from vendors on possible solutions and costs for upgrading data reporting capabilities

- *DSS could then:*
  - Identify funds and/or seek a budget request
  - Publish a Request for Proposals (RFP) in order to contract with a vendor to create a solution

The Department of Social Services has Lead a Multiple-Year Effort to Update Virginia Assisted Living Regulations[1]

Updating regulations involved a multiple-year effort that included stakeholders from all aspects of the senior living industry, including: assisted living providers, Alzheimer's Association representatives, the long-term care ombudsman, resident advocacy groups and various State Departments and Agencies

New regulations recently signed by the Governor include requirements for:

- Increased training of direct care staff on cognitive impairment
- Increased supervision of medication aides
- Increased administrator staffing
- Fall risk ratings for all residents
- Increased incentives for employment of full-time licensed health care professionals
- Requirements for signaling devices and awake overnight staff

[1]See Appendix V

Policy Options

Option I	Take no action
Option 2	By letter of the JCHC chair, request that the Department of Social Services determine explicit minimum staffing ratio requirements for day, evening and overnight shifts
Option 3	Introduce a budget amendment to raise Auxiliary Grant rates (amount to be determined)
Option 4	By letter of the JCHC Chair, request that the Secretary of Health and Human Resources direct the Department of Social Services to field a Request for Information (RFI) for enhancing data reporting capabilities

Written public comments on the proposed options may be submitted to JCHC by close of business on Thursday October 12, 2017.

Comments may be submitted via:

- ❖E-mail: jchcpubliccomments@jchc.virginia.gov
- ❖Fax:804-786-5538
- ❖Mail: Joint Commission on Health Care
  P.O. Box 1322
  Richmond, Virginia 23218

Full comments will be provided to Commission members and summarized during the JCHC's November 21st decision matrix meeting.

(All public comments are subject to FOIA release of records)

Appendix I

States that Specify Staffing Levels in AL
NCAL 2016 Assisted Living State Regulatory Review

Georgia

- Staff ratios of 1:15 during the day and 1:25 during night
- At least one administrator, on-site manager, or responsible staff person, all of whom must be at least 21 years of age, and must be on the premises 24 hours a day
- There should be a minimum of one on-site staff person per 15 residents during awake hours and one staff person per 25 residents during sleeping hours
- Additionally, there must be sufficient staff to meet residents' needs
- The ALF must develop and maintain accurate staffing plans that take into account the specific needs of the residents

States That Specify Staffing Levels in AL
NCAL 2016 Assisted Living State Regulatory Review

Maine

- An on-site administrator must be employed by the facility
- There are no staffing ratios, except as described below for Level IV residential care facilities
- Level IV ratio requirements - 1 staff to 12 residents

Missouri

- ALFs must have an adequate number and type of personnel for the proper care of residents, the residents' social well being, protective oversight of residents, and upkeep of the facility
- At a minimum, the staffing pattern for fire safety and care of residents shall be:
  - One staff person for every 15 residents or major fraction of 15 during the day shift
  - One person for every 20 residents or major fraction of 20 during the evening shift
  - One person for every 25 residents or major fraction of 25 during the night shift

States That Specify Staffing Levels in AL
NCAL 2016 Assisted Living State Regulatory Review

North Carolina

- At all times there must be one supervisor /administrator-in-charge who is directly responsible for ensuring that required duties are carried out and residents are never left alone
- The facility must have a designated activity director
- Regulations specify staffing requirements, qualifications for various positions, and detailed staffing ratios for the type of staff (aide, supervisor, and administrator or administrator in charge), first, second or third shift, and the number of residents
- Regulations specify different management requirements for facilities based on size from 7-30 residents, 31-80 residents, and 81 or more residents
- Staffing ratios in special care units = 1:8 during the day; 1:10 during the night; 0.8 for each resident over 10

South Dakota

- Each facility must have a designated administrator responsible for the daily overall management of the facility
- There must be a sufficient number of qualified personnel to provide effective care, with a minimum of 0.8 hours of direct resident care for each resident for each 24-hour period
- At least one staff person must be on duty at all times, and those staff on duty must be awake at all times
- South Dakota legislation has additional staffing ratio requirements for health care facilities, from which assisted living centers may request an exception by completing a state form

Assisted Living Staffing Requirements in Select States

Arkansas: On-site staff/resident ratios

No. Residents	Day	Evening	Night
1 - 16	1	1	1
17 - 32	2	2	1
33 - 49	2	2	2
50 – 66	3	2	2
67 – 83	4	2	2
84 Plus	5	3	2

Florida: Minimum staff hours per week

No. Residents	Hours/Week
0 – 5	168
6 – 15	212
16 – 25	253
26 – 35	294
36 – 45	335
46 - 55	375
56 – 65	416
66 – 75	457
76 – 85	498
86 – 95	539
For each additional 20	Add 42

Appendix II: Literature Review Details

- Literature search from 1990 to 2017 using PubMed, ProQuest, Ovid Medline, and CINAHL
- Searched citations of final articles
- Search strategy – "building block", MeSH associated with keywords that reflected Assisted Living Staffing Ratios and Quality of Care
- Keywords included – "nursing staffing ratios" AND "quality"; "nursing homes" AND "staffing"; "assisted living staffing ratios" AND "staffing" and "quality"
- Inclusion criteria – English language, peer reviewed articles, quantitative and qualitative articles, date range 1990-2017
- Exclusion criteria – case studies, non-English language, conceptual papers, editorials and reviews

Appendix II: Literature Review Details

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
1995, USA	Phillips, C., et al	Report on the Effects of Regulation on Quality of Care : Analysis of the Effect of Regulation on the Quality of Care in Board and Care Homes	U.S. DHHS Assistant Secretary for Planning and Evaluation Office of Disability, Aging and Long-Term Care Policy	To document the characteristics of board and care homes and residents, to assess the quality of care received by board and care residents and examine the effects of State regulation on the quality of that care.	**Data source**: Survey **Methodology**: 10 States were sampled and within them a stratified, three-stage, cluster design implemented to select residents and staff in homes based on whether they operated under extensive or limited regulatory system, by licensure status, and by size. The relationship between regulation, licensure, and quality care was studied using multivariate modeling techniques. OLS and logistic regressions were used to fit regression models.	512 board and care facilities in 10 states. Interviews in 386 licensed homes and 126 unlicensed homes with 512 operators, 1,138 facility staff, and 3,257 facility residents.	Positive effects of regulation on quality of care and life in board and care homes. States with extensive regulatory systems had a significantly smaller proportion of unlicensed facilities. **Extensive regulatory systems** were associated with better quality of care and coped better with frail and disabled residents. **Licensed homes** made wider array of key supportive services available to residents. Neither extensive regulation nor licensure had a positive effect on staff training and medication management.	Residents were considerable older and more frail and disabled than in the previous decade. The mix of physically frail elderly, cognitively impaired elderly, and residents with mental illness and developmental disabilities created caregiving challenges. A wide range of services, staffing patterns, staff training and knowledge were needed to meet residents' needs. The need for training requirements to be clearly specified. Highlighted the need for board and home care industry to work closely with the state government to improve quality of care.

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2011, USA	Bowblis, J.R.	Staffing Ratios and Quality: An Analysis of Minimum Direct Care Staffing Requirements for Nursing Homes	Health Services Research	To identify the impact of minimum direct care staffing requirements on nurse staff levels, nurse skill mix, and quality.	**Data source**: Online Survey Certification and Reporting System (OSCAR) System **Methodology**: Facility-level outcomes of nurse staffing levels, nurse skill mix, and quality measures were regressed on the level of nurse staffing required by Minimum Direct Care (MDC) requirements in the prior year and other controls using fixed effect panel regression. Quality measures were care practices, residents outcomes, and regulatory deficiencies.	17,552 nursing facilities	**First analysis** - relationship between MDCS requirements and staffing level (overall reliance - reliance on Medicaid not considered): Higher MDCS increased the total number of staff. **Second analysis** (assume reliance on Medicaid): Total staffing increased for all nursing homes but nursing homes with more reliance on nursing homes had larger increases. MDCS have mixed effects on care practices but are generally associated with improved resident outcomes and meeting regulatory standards.	Higher MDCS requirements increase the total number of staff employed in nursing homes. The effect is larger the higher the level of staffing mandated by the MDCS requirement and for nursing homes that are more reliant on Medicaid. High Medicaid reliant nursing homes did not change licensed staff composition but hired more RNs instead of LPNs to keep skill mix similar to levels before the increase in MDCS requirements. Non-Medicaid reliant nursing homes hired CNAs to keep the proportion of RN staff constant. Higher staffing is associated with higher quality, but skill mix of staffing matters (Bowblis, J.R., p. 1514). Nursing homes choose labor and material intensive care practices in response to MDCS requirements and the substitution effect resulting from MDCS requirements leads to mix results for increases in quality measures (Bowblis, J.R., 2011,p.1514).

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2010, USA	Thomas, K.S., Hyer, K., Andel, R., & Weech-Maldonado, R,.	The Unintended Consequences of Staffing Mandates in **Florida Nursing Homes**: Impacts on Indirect-Care Staff	Medical Care Research and Review	To explore whether staffing mandates aimed at improving nursing home quality of care had unintended consequences.	**Data source**: OSCAR **Methodology**: Piecewise regression growth curve models were investigated to test whether the percentage of Medicaid residents was associated with changes in indirect-care staffing levels in Florida. A comparative analysis was made with Tennessee which had no mandate to ensure that the changes were not due to other possibilities.	3,905 observations (annual surveys) from 714 Florida nursing homes and 1,690 observations from 316 Tennessee nursing homes.	Nursing homes were compliant with the mandated increases required by SB1202 and 91% met the 2.6 Certified Nursing Assistant hours per resident day in 2003. Indirect-care staff levels declined, particularly with nursing homes required to increase their direct-care staff levels to be compliant with the policy. Nursing homes with lower proportion of Medicaid residents saw the highest decline in indirect-care staff. No measurable changes in indirect-care staffing levels were found in Tennessee in the time period the study was conducted.	Decline in indirect-care staff affected the quality of life of residents. Indirect-care staff (housekeeping & activities) maintain cleanliness to reduce the spread of infections. Decline in residents' quality of life affects their quality of care. Unintended consequences of staffing mandate may occur since mandate impose costs which must be managed by nursing homes. Study failed to measure the substitution effect of CNA for indirect-care staff, changes in job description of CNAs and total time spent with residents. Study did not address the possibility of passing the increased costs to private pay residents.

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2007,USA	Stearns, S.C., et al	Determinants and Effect of Nurse Staffing Intensity and Skill Mix in Residential Care/Assisted Living Settings	The Gerontologist	To provide an analysis of the intensity and skill mix of nursing staff using data from a four-state study and their relationship to outcomes.	**Data source**: Longitudinal data from the Collaborative Studies of Long-Term Care (CS-LTC) **Methodology**: Descriptive statistics used to assessed the levels of direct care staff (RNs, LPNs, and personal care aides) and regression analyses to evaluate the relationship between intensity, measured as care hours per resident, and skill mix, measured as the percentage of total care hours by licensed nurses, facility characteristics, and four health outcomes.	1,894 residents of 170 residential care/assisted living facilities	For very small facilities, care hours per resident decreased with facility size and increased with dementia prevalence (case-mixed effect). Licensed staff accounted for a greater proportion of total hours in nonprofit settings. Health outcomes did not vary by total care hours per resident, but hospitalization rates were significantly lower in facilities with higher proportions of skilled staff hours. The effect was stronger as dementia case mix increased. The health outcomes measured included mortality, nursing home transfer, hospitalization, and incident morbidity.	RC/AL facilities have lower staffing needs compared to nursing homes due to the residents high level of functional ability. However, the need for ageing in place may increase demand to nursing home levels. Analyses showed no evidence of benefits from increased hours of care per resident. Study found RNs and LPNs to be close substitutes in RC/AL settings. Greater proportion of direct care hours was protective against hospitalization, though effect varied with facility case mix as measured by percentage of residents with dementia. Relationship between low hospitalization and high skill mix not explained. Nonprofit facilities had greater levels of skill mix than for-profit facilities.

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2008, USA	Alexander, G. L.	An Analysis of Nursing Home Quality Measures and Staffing	Quality Management in Health Care	The objective was to determine whether differences in quality measure (QM) scores occurred with changing staffing-level mix.	**Data source**: Nursing Home Compare (February, 2004) **Methodology**: The study used analyses of variance to examine differences in the dependent QM scores and the independent range of staffing levels for 3 disciplines, CNA, LPN, and RN on the basis of their number of hours per resident per day worked in nursing home. It further used residents as a covariate to determine effects on significant analyses of variance.	Missouri nursing homes (N=510)	Statistical measures in nearly half of the nursing QM evaluated revealed significant differences between the mean percentages of residents with a quality concern in facilities with contrasting staffing levels. QMs most sensitive to staffing levels included long stay, low-risk residents who had become incontinent (with constant RN levels, as CNA levels increased, the percentage of residents who became incontinent increased about 5%), residents who needed help with ADLs increased, short-stay residents with moderate to severe pain (those with severe pain increased dramatically within facilities that had constantly lower levels of RN staffing), short-stay residents with pressure ulcers (45 minutes or less RN time per resident led to failure to detect pressure ulcers).	All types of health care professionals are needed in the right staff-resident ratio to meet the needs of frail elders in nursing homes. Strategies for quality improvement must go beyond the basic regulatory approach.

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2009, USA	Kim, H., et al	A Panel Data Analysis of the Relationships of **Nursing Home** Staffing Levels and Standards to Regulatory Deficiencies	Journal of Gerontology: Social Sciences	To examine the extent to which nursing staffing levels and compliance with a state's minimum staffing standard are associated with total deficiencies, QoC deficiencies, and severe deficiencies	**Data source**: Annual cost report data submitted to the California Office of Statewide Health Planning and Development (COSHPD), OSCAR, Automated Certification and Licensing Administrative Information and Management System, US Bureau of Economic Analysis. **Methodology**: Panel data analysis of random-effect models. Dependent variable: nursing home deficiencies categorized into total deficiencies, QoC deficiencies, and severe deficiencies. Explanatory variables: three sets of nursing staffing levels-total nursing hours per resident day (HPRD), meeting the state minimum nursing home staffing standard, and nursing HPRD by type of personnel(RN, LPN, CNA). Control variables such as number of beds measured by categorical groups, profit status, three payer mix, and occupancy rate.	4,933 yearly observations of 1,099 Medicare and/or Medicaid-certified, freestanding, skilled nursing homes in California between 1999 and 2003.	Higher total nursing staffing level were negatively related to deficiencies. Higher RN staffing levels were negatively related to deficiencies. RN staffing was negatively related to total and QoC deficiencies and also marginally related to serious deficiencies. LPN staffing was positively related to total and QoC deficiencies but not related serious deficiencies. Meeting California's nursing staffing standard was negatively related to deficiencies partially. Meeting staffing standard was associated with a lower number of total deficiencies and QoC deficiencies but not with the probability of receiving serious deficiencies.	Even though California nursing home staffing standard of 3.2 total nursing HPRD is more than several other states' requirements, it is below CMS recommendation of 4.1 total nursing HPRD that can decrease serious harm or jeopardy to residents. Nursing homes with higher RN staffing levels received significantly fewer total and QoC deficiencies. Higher RN LPN levels had no relationship with or a positive relationship with the deficiencies. The effect of LPN staffing on quality were inconclusive. Substitution of LPN for RN staffing may decrease quality rather than increase quality. RN and NA staffing levels were negatively associated with all the three types of deficiencies.

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2014, USA	Beeber, A.S., et al	Licensed Nurse Staffing and Health Service Availability in Residential Care and Assisted Living	Journal of the American Geriatrics Society	To create a data-driven typologies of licensed nurse staffing and health services in residential care and assisted living facilities	**Data source**: Convenient sampling of administrators and supervisors from 89 RC/AL communities in 22 states. **Methodology**: Cluster analysis was used to describe the patterns of licensed nurse staffing and 47 services and the extent to which these clusters were related. The 47 services were grouped into 5 cluster-basic service, technically complex services, assessments, wound care, and therapies, gastrostomy and intravenous medication, and testing and specialty services. To examine the relationship between service availability and nurse staffing, the five service cluster scores were examined for their association with the four staffing clusters.	89 RC/AL communities	The analysis showed staff clusters of (i) no or minimal hours worked by licensed nurses (ii)low hours, primarily LPNs or RNs (iii) high hours (iv)and mix of RN and LPN. Basic services were performed by 89% of own staff, 7% of contract staff, and not available in 4%. Technically complex services were performed by 64% of own staff, 18% of contract staff, and not available in 18%. Assessment, wound care, and therapies were performed by 43% of own staff, 37% of contract staff, and not available in 19%. Gastrostomy and intravenous medications were performed by 18% of own staff, 27% of contract staff, and were not available in 55%. Testing and specialty services were performed by 12% of own staff, 73% of contract staff, and not available in 15%. The no or minimal hours staffing cluster had s significantly lower service availability score. Testing and specialty services were high in the mix of RNs and LPNs. Basic services; Technically complex Services; Assessment, Wound Care, and Therapies availability were related to the presence or absence of licensed nurses rather than the type or number of nurses on staff.	Majority had licensed nurses in some capacity with implications for care outcomes. 24% of communities had no or minimal hours worked by licensed nurses. Stearns SC, et al (2007) found an negative association between RN staffing and hospitalization rates and explained that RNs could better identify and manage acute medical problems and decreased hospitalization rates. Communities with high hours and a mix of RN and LPN provided testing and specialty services, implying that larger communities may attempt to manage residents with complex healthcare needs by employing more nurses and providing more overall services to support aging in place (Stone & Reinhard, 2007). The study did not directly relate nursing presence to outcomes and did not cover CNAs who constitute the bulk of the RC/AL workforce.

Literature Review – ALF Staffing Ratios and Quality of Care

Year of Publication and Country	Author	Title	Journal	Objective	Data source & Methodology	Sample Size	Results	Policy Implications
2017, USA	Han, K., et al	Variations Across U.S. Assisted Living Facilities: Admissions, Resident Care Needs, and Staffing	Journal of Nursing Scholarship	To examine ALFs admission policies, resident care needs, and staffing characteristics.	**Data source**: 2010 National Survey of Residential Care Facilities **Methodology**: Used a cross-sectional secondary data analysis from 2010 National Survey of Residential Care Facilities to measure nine admission policy items, seven items on the proportion of residents with selected conditions or care needs, and six staffing characteristics. ALF were classified into small, medium, and large. The measurements were then projected to the national US estimates.	2,301	ALF admitted residents with considerable healthcare needs and served populations requiring nursing care. Staffing was mostly composed of patient care aides, with fewer than half of ALFs using licensed care providers (RNs and LPNs). Smaller facilities had more inclusive admission policies and residents with more complex care needs and less access to licensed nurses than larger facilities.	Potential overlap with nursing home populations. However, ALF's regulations lag far behind those in effect for nursing homes. Measurement criteria of care outcomes critically needed to ensure appropriate ALF care quality, for oversight and monitoring of care quality.

Appendix III: The Ten Top Safety Hazards in Assisted Living

- Lack of Safety Alert System
- Poor Lighting in Living Areas
- Improper Administration of Medications
- Obstructed Walkways
- Chairs Without Armrests
- Carpets/Floors in Poor Condition
- Resident Abuse
- Infections
- Poor Security

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- A study involving over US 2,000 ALFs found:
  - Residents in smaller ALFs had greater complex care needs, fewer licensed nursing staff and less in-service training for personal care aides compared to mid-sized or large facilities
  - Residents in these ALFs were more likely to be minority, male and younger than in large ALFs

Han, RN, PhD, Trinkoff, RN, ScD, FAAN, et. al. Variation Across U.S. Assisted Living Facilities: Admissions, Resident Care Needs, and Staffing. Journal of Nursing Scholarship. 2017; 49:1, 24-32

Appendix IV

22 VAC 40-80-100 - Duration of Licensure

- The Virginia Department of Social Services (DSS) licenses AL
- Each license and renewal may be issued for up to three successive years
- The criteria for determining the periods of licensure are based on the activities, services, management, and compliance history of the facility and are the same for both for-and not-for-profit facilities
  - A three-year license may be issued when a facility routinely substantially exceeds the minimum standards
  - A two-year license may be issued when a facility maintains compliance with minimum standards and may exceed on a sustained basis in some areas
  - An annual license may be issued when a facility demonstrates an inconsistent level of compliance but substantial compliance is reached. Some reinforcement and guidance are needed in order for the facility to meet or maintain minimum requirements
  - Provisional license may be issued (for up to six months) when a regular license expires and the applicant is temporarily unable to comply with the requirements of the regulations
  - ALFs are inspected at least one time per twelve-month period

Appendix IV

22 VAC 40-72-440 - Individualized service plans (ISP)

- The Individualized service plan must address the immediate needs of the resident
- The comprehensive plan shall include a description of identified needs based upon the,
  - *Uniform Assessment Instrument*
  - *Admission physical examination*
  - *Interview with resident*
  - *Assessment of psychological, behavioral and emotional functioning,*
  - *A written description of what services will be provided and by whom*
  - *When and where the services will be provided*
  - *The expected outcome and date of attaining the expected outcome*
- ISPs shall be reviewed and updated at least every 12 months and as needed as the condition of the resident changes

Appendix IV

Virginia Regulations
22 VAC40-72-320 Part IV Staffing and Supervision *§62.2.217 and §63.2-1756 of the Code of Virginia*

A. The AFL shall have staff adequate in knowledge, skills, and abilities and sufficient in numbers to provide services to attain and maintain the physical, mental and psychosocial well-being, as determined assessments and individualized service plans…

B. The ALF shall maintain a written plan that specifies the number and type of direct care staff required to meet the day-to-day, routine direct care needs and any identified special needs for the residents in care…directly related to actual resident acuity levels and individualized care needs

C. There shall be an adequate number of staff persons on the premises at all times to implement the approved fire and emergency evacuation plan

D. There shall be at least one direct care staff member awake and on duty at all times in each building when at least one resident is present

EXCEPTION: In buildings that house 19 or fewer residents, the staff member on duty does not have to be awake during the night if none of the residents require a staff member awake and on duty at night

E. Written work schedules shall be maintained and shall indicate the names and job classifications of all staff working each shift

Appendix IV

Virginia Regulations

22 VAC 40-72-460 - Health care services:

- The facility shall have a written back-up plan to ensure that a person who is qualified is available if the direct care staff member who usually provides the care is absent

22 VAC 40-72-100 - Incident reports:

- Each facility shall report to the regional licensing office by the next working day any major incident that has negatively affected or that threatens the life, health, safety or welfare of any resident

22 VAC 40-72-250 - Direct care staff qualifications:

- Graduation from a Virginia Board of Nursing-approved educational curriculum from a Virginia Board of Nursing accredited institution for nursing assistant, geriatric assistant or home health aide
- Graduation from a personal care aide training program approved by the Virginia Department of Medical Assistance Services
- Graduation from a educational curriculum for nursing assistant, geriatric assistant or home health aide approved by the Board of Nursing

Appendix IV

Virginia Regulations
22 VAC 40-72-910 - provisions for signaling/call systems

- Signaling/call systems permit staff to determine the origin of the signal or is audible and visible in a manner that permits staff to determine the origin of the signal
  - In buildings licensed to care for 20 or more residents under one roof, there shall be a signaling device that terminates at a central location that is continuously staffed
- In buildings licensed to care for 19 or fewer residents under one roof, if the signaling device does not permit staff to determine the origin of the signal as specified, direct care staff shall make rounds at least once each hour
  - *Rounds shall begin when the majority of the residents have gone to bed and shall terminate when the majority of the residents have arisen*
  - *A written log shall be maintained showing the date and time rounds were made - logs for the past two years shall be retained*

Appendix V: Select Updated Virginia Regulations

- 22VAC40-73-160 – Adds to administrator training requirements that administrators who supervise medication aides, but are not registered medication aides themselves, must have annual training in medication administration
- 22VAC40-73-170 - Adds that an unlicensed shared administrator for smaller residential living care facilities must be at each facility for six hours during the day shift of the 10 required hours a week
- 22VAC40-73-210 – Increases the annual training hours for direct care staff
- 22VAC40-73-220 – Adds requirements regarding private duty personnel
- 22VAC40-73-260 – Adds requirement that at least one person with first aid certification and at least one person with cardiopulmonary resuscitation (CPR) certification must be in each building, rather than on the premises
- 22VAC40-73-280 – Changes an exception (allowing staff to sleep at night under certain circumstances) to one of the staffing requirements to limit its application to facilities licensed for residential living care only
- 22VAC40-73-325 – Adds a requirement for a fall risk rating for residents who meet the criteria for assisted living care

Appendix V: Select Updated Virginia Regulations

- 22VAC40-73-490 – Reduces the number of times annually required for health care oversight when a facility employs a full-time licensed health care professional; adds a requirement that all residents be included annually in the health care oversight, adds to the oversight evaluating the ability of residents who self-administer medications to continue to safely do so, adds additional requirements for oversight of restrained residents
- 22VAC40-73-930 – Adds to the provision for signaling/call systems that for a resident with an inability to use the signaling device, this must be included on his individualized service plan with frequency of rounds indicated, with a minimum of rounds every two hours when the resident has gone to bed at night, with an exception permitted under specific circumstances
- 22VAC40-73- 1010 – Removes the exception (for facilities licensed for 10 or fewer with no more than three with serious cognitive impairment) that applied to all requirements for mixed population
- 22VAC40-73-1030 – Increases the training required in cognitive impairment for direct care staff, and except for administrator, other staff
- 22VAC40-73-1130 – Adds requirement that when there are 20 or fewer residents present in a special care unit, there must be at least two direct care staff members awake and on duty in the unit, and for every additional 10 residents, or portion thereof, there must be at least one more direct care staff member awake and on duty in the unit, rather than two direct care staff in each unit
- 22VAC40-73-1140 - Increases the number of hours of training in cognitive impairment for the administrator and changes the time period in which the training must be received for both the administrator and for direct care staff who work in a special care unit, also increases training in cognitive impairment for others who have contact with residents in a special care unit