

## Considering the new minimum staffing standards for Australian residential aged care

Nicole Sutton <sup>1,4</sup> PhD, Senior Lecturer

Nelson Ma <sup>1</sup> PhD, Senior Lecturer

Jin Sug Yang <sup>1</sup> PhD, Researcher

Olivia Rawlings-Way <sup>1</sup> PhD, Researcher

David Brown <sup>1</sup> PhD, Professor

Gillian McAllister <sup>1</sup> PhD, Senior Researcher

Deborah Parker <sup>2</sup> PhD, Professor

Rachael Lewis <sup>3</sup> PhD, Lecturer

<sup>1</sup>UTS Business School, University of Technology Sydney, Sydney, NSW 2007, Australia.  
Email: Nelson.Ma@uts.edu.au; JinSug.Yang@uts.edu.au; Olivia.Rawlings-Way@uts.edu.au;  
David.Brown@uts.edu.au; Gillian.McAllister@uts.edu.au

<sup>2</sup>Faculty of Health, University of Technology Sydney, Sydney, NSW 2007, Australia.  
Email: Deborah.Parker@uts.edu.au

<sup>3</sup>UNSW Business School, University of New South Wales, Sydney, NSW 1466, Australia.  
Email: R.Lewis@unsw.edu.au

<sup>4</sup>Corresponding author. Email: Nicole.Sutton@uts.edu.au

### Abstract.

**Objective.** To compare the historical staffing patterns and organisational characteristics of Australian residential aged care facilities (RACFs) against the new minimum staffing standards recommended by the Royal Commission into Aged Care Quality and Safety (RCACQS).

**Method.** Retrospective data analysis was used to compare the staffing levels and characteristics of 1705 RACFs (for 4 years, 2016–19) with the three new mandatory staffing requirements. De-identified datasets were provided by the RCACQS, obtained under its legal authority.

**Results.** Only 3.8% of RACFs have staffing levels at or above all three requirements. Although many (79.7%) already meet the requirement to have a registered nurse (RN) on-site for morning and afternoon shifts, few have staffing levels above requirements for total direct care per resident per day (10.4%) or care provided by an RN per resident per day (11.1%). Historical levels of on-site RNs, total direct care, and RN care vary significantly across facilities of different size, location and provider scale.

**Conclusion.** The new staffing standards, to be mandatory by 2023, prescribe minimum requirements significantly higher than existing levels, particularly in care per resident per day. Each of the three requirements will likely have a differential effect for different types of RACFs.

**What is known about the topic?** International evidence suggests that introducing mandatory minimum staffing standards tends to increase the amount of care provided by staff in residential aged care facilities (RACFs). However, the impact of staffing standards is influenced by the stringency of the minimum threshold relative to existing staffing levels, the capacity of organisations to increase their staffing levels, and the specific way the regulation is formulated.

**What does this paper add?** This paper explores the potential implications of the three national minimum staffing standards, to be in force by October 2023, specifying total direct care, care received by a registered nurse (RN), and an RN on-site. By examining the existing staffing levels of Australian RACFs, it identifies the extent to which facilities already meet the new standards and the characteristics of facilities with staffing levels above and below the three requirements (individually and in combination).

**What are the implications for practitioners?** The study informs both policy and practice in relation to the likely effects of implementing the national minimum staffing standards for residential aged care in Australia. It demonstrates that the new minimum thresholds are likely to require substantial increases in staffing across the sector, both in terms of all direct care workers and RNs. It also shows that the three requirements are likely to have a differential effect for RACFs of different size, location and chain affiliation, thereby guiding policy about the future needs for Australia's aged care workforce.

**Keywords:** minimum staffing standards, aged care, registered nurses, direct care, Royal Commission, staffing levels, regulation, residential aged care.

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## Introduction

In contrast to several other countries, Australia does not currently have national standards regulating the minimum staffing levels in residential aged care facilities (RACFs).<sup>1,2</sup> Under the *Aged Care Act 1997*, approved providers are expected to have 'a workforce that is sufficient, and is skilled and qualified, to provide safe, respectful and quality care and services'.<sup>3</sup> However, except for state-based regulations for government facilities in Victoria and Queensland and legacy requirements for older facilities in New South Wales, there are no requirements specifying what 'sufficient' means. This is set to change, as the Federal Government has committed to implementing Recommendation 86 of the Royal Commission into Aged Care Quality and Safety (RCACQS).<sup>4</sup> By 1 October 2023, providers will be required to comply with three national minimum staffing standards, ensuring that residents receive, on average: (1) at least 200 min of direct care per day; (2) with at least 40 min of that provided by a registered nurse (RN); and (3) for an RN to be on-site at least 16 h a day.<sup>5</sup>

The new minimum staffing standards are motivated by an understanding that mandatory requirements are needed to ensure RACFs have adequate staffing, which, in turn, ensures aged care residents receive an adequate quality of care.<sup>6,7</sup> The RCACQS heard evidence that more than half of all Australian residents in aged care (57.6%) are living in facilities with unacceptable staffing levels,<sup>1</sup> and that critically low staffing levels are placing excessive work demands on workers and causing deficiencies in basic standards of care.<sup>8,9</sup> These pressures have been worsened by a decline in the professional expertise of Australia's aged care workforce, coinciding with the increasing complexity of residents' care needs.<sup>10–13</sup>

Prior research from other countries indicates that, in general, minimum standards tend to improve aged care staffing levels.<sup>14–29</sup> However, their impact is influenced by two overarching considerations. First is the extent to which a standard mandates a sufficiently high threshold to motivate facilities to increase staffing. Comparatively low standards tend to have negligible effects on staffing levels,<sup>20</sup> as do standards set at or below existing staffing levels.<sup>16,25,30</sup> In contrast, minimum standards have the strongest effects for facilities that are the most deficient before regulation.<sup>17</sup> Second is the varying capacity of organisations to increase their staffing levels to meet the regulation. Some facilities may not have easy access to relevant labour markets, such as those in non-metropolitan locations<sup>31</sup> or

single facility providers that lack a pool of qualified candidates to draw upon.<sup>13</sup> Also, minimum staffing standards can impose substantial labour costs that providers may struggle to absorb, particularly those smaller in size.<sup>11,29</sup> Facility-level differences may explain why researchers have observed substantial variation in compliance rates, even across facilities subject to the same standard.<sup>20</sup>

The influence of these two considerations will also depend on how a standard is formulated. Minimum staffing regulations can take various forms, using different allocation bases (e.g. number of staff, staff-to-resident ratios, hours per resident per day (HRPD)), and targeting different staff categories (e.g. all care staff, licenced nurses, RNs).<sup>2,25,32</sup> For example, United States (US) facilities in different states are subject to varying requirements regulating the on-duty presence of an RN, the minimum total care received by residents, and/or the minimum care provided by licenced nurses, which produce varying patterns in actual staffing levels.<sup>20,26,28</sup> Furthermore, certain requirements may be more or less difficult for facilities to achieve. For example, for a small facility with few residents, the requirement for a 24-h RN can be more onerous than a minimum RN HRPD requirement, and vice versa for a large facility.<sup>28</sup>

At this point, there is little available evidence about the extent to which Australian RACFs are likely to meet the new mandatory requirements. This study uses retrospective data about the existing staffing characteristics of Australian RACFs to inform policy about the likely impact of the minimum staffing standards. The analysis first examines the extent to which facilities already meet the three staffing requirements (individually and in combination) before comparing the characteristics of facilities with historical staffing above and below the minimum standards.

## Methods

### *Data sources and sample*

Datasets for the study were acquired by the RCACQS under its legal authority and provided to the research team in a de-identified form linked at the facility level. Data on staffing characteristics for 4 years (2016–19) were obtained from industry benchmarking surveys administered by Stewart–Brown, a private consultancy firm that collects, verifies and reports self-reported staffing hours and expenses from participating aged care providers each quarter.<sup>33</sup> As Stewart–Brown does not survey the entire sector, the RCACQS administered a

**Table 1. Variables and sample descriptive statistics,  $n = 5666$  facility year observations**

Variable	Description	Above (%)	Below (%)
<b>Staffing requirements</b>			
Requirement 1	Binary indicator, 1 = Total HRPD >3.33	10.4	89.6
Requirement 2	Binary indicator, 1 = RN HRPD >0.67	11.1	88.9
Requirement 3	Binary indicator, 1 = RN hours >16	79.7	20.3
All Requirements	Binary indicator, 1 = Above Requirement 1, 2 and 3	3.8	96.2
<b>Staffing levels</b>			
Total HRPD	Average direct care provided by an RN, Enrolled Nurse or Personal Care Worker, per resident per day	Mean 2.738	s.d. 0.542
RN HRPD	Average direct care provided by an RN, per resident per day	0.430	0.234
RN hours	Average total care hours provided by RNs, per day	31.929	19.574
<b>Organisational characteristics</b>			
Metropolitan	Binary indicator, 1 = located in metropolitan area	Mean 0.686	s.d.
Occupied beds	Natural log of the average occupied beds per facility per year	10.105	0.544
Large chain	Binary indicator, 1 = facility belongs to provider with 7+ sites	0.764	
<b>Controls</b>			
Casemix index	The average cost of care per resident day <sup>33</sup>	Mean 1.042	s.d. 0.160
Dementia %	Proportion of facility residents with dementia	0.522	0.141
Government	Binary indicator, 1 = government owned	0.060	

similar survey to a further 50 large providers in 2019.<sup>34</sup> Data about facilities' casemix were obtained from the Australian Health Services Research Institute (AHSRI), based on their mapping of the Aged Care Funding Instrument to the Australian National Aged Care Classification (AN-ACC).<sup>35,36</sup> All remaining information about the facility characteristics was obtained from the Department of Health.

The datasets were reviewed and verified against sector-level statistics<sup>37</sup> and studies using the same datasets.<sup>34</sup> To eliminate erroneous outliers, the study excluded facilities that reported <0.5 total HRPD or >12 HRPD, or zero residents.<sup>25</sup> The final sample comprised a total of 5666 facility year observations from 1705 RACFs, which represents ~51% of the sector during this period.

### Research design and variables

The analysis comprised two stages. The first stage used descriptive analysis to examine the extent to which the sample facilities' historical staffing profiles were above or below the minimum requirements prescribed in Recommendation 86.<sup>4</sup> The three requirements are: (1) that residents receive 200 min of total direct care per day (>3.33 Total HRPD); (2) with at least 40 min of direct care from RNs (>0.67 RN HRPD); and (3) for an RN to be on-site for at least the morning and afternoon shifts (16 RN hours) per day.

The second stage used univariate and multiple logistical regression analyses to examine the characteristics of facilities with staffing levels above or below each of the minimum requirements. The regression model was specified, at the facility ( $i$ ) and year ( $t$ ) level, as follows:

$$\text{Requirement}_{i,t} = \alpha + \beta_{1-3} \text{Organisational Characteristics}_{i,t} + \beta_{4-6} \text{Controls}_{i,t} + \beta_{7-x} \text{YearEffects}_{i,t} + \varepsilon$$

The dependent variable (*Requirement*) refers to one of four binary indicators of whether a facility, in a given year, had staffing

levels above each of the three minimum requirements or all three requirements simultaneously. In the univariate analysis and robustness checks, we measured staffing levels using continuous variables relevant to each staffing requirement (i.e. Total HRPD, RN HRPD, RN hours). *Organisational characteristics* included three variables to measure the historical effects of facility location, size and chain affiliation on the staffing parameters targeted by the minimum requirements, indicating the relative ease of compliance for different types of aged care organisations. Facility location was measured using the Australian Bureau of Statistics description, indicating whether a RACF operates in a metropolitan area. Facility size was measured using the natural log of the annual average of occupied beds. Chain affiliation was measured using an indicator showing whether a facility belongs to a large chain provider that operates seven or more facilities. In terms of *Controls*, we included an indicator if the facility was government-owned, recognising that Victorian state-run facilities were subject to minimum staff-to-resident ratios during the sample period.<sup>1</sup> We controlled for resident acuity using the AN-ACC casemix index (which measures the relative individual care needs of each facility's residents, scaled so as 1 represents the national average, weighted by bed days),<sup>36</sup> and the proportion of residents with dementia. Finally, we controlled for staffing changes over time with year-fixed effects.

### Ethics approval

The University of Technology Sydney (UTS) Human Research Ethics Committee approved this study.

## Results

### Descriptive statistics

Table 1 shows the proportion of RACFs (3.8%) with historical staffing levels at or above all minimum requirements (*All Requirements*). It appears that the two requirements relating to minimum care per resident pose the most significant regulatory challenge. Although many RACFs (79.7%) already meet the



**Table 3. Regression analysis of facilities with historical staffing levels that meet minimum requirements**

Data are presented as logistic regression estimate (z-value) unless stated otherwise. \*, 10%; \*\*, 5%; \*\*\*, 1%

Variables	Requirement 1 >3.33 Total HPRD	Requirement 2 >0.67 RN HPRD	Requirement 3 >16 RN hours	All Requirements 1, 2 and 3
Metropolitan	-0.148 (-1.315)	0.552*** (4.635)	-0.007 (-0.068)	0.403* (1.671)
Occupied beds	-0.923*** (-8.697)	-1.243*** (-12.263)	2.850*** (25.556)	-0.522*** (-3.370)
Large chain	-0.446*** (-3.868)	0.249** (2.035)	-0.126 (-1.178)	0.522* (1.943)
Casemix index	1.686*** (5.278)	2.939*** (9.288)	6.692*** (20.404)	2.231*** (4.138)
Dementia %	1.353*** (3.883)	0.942*** (3.004)	-0.173 (-0.562)	1.158** (2.208)
Government	2.392*** (15.060)	2.271*** (13.301)	1.771*** (7.805)	4.032*** (14.420)
Constant	4.661*** (4.224)	5.819*** (6.010)	-33.831*** (-28.194)	-3.006* (-1.779)
Observations ( <i>n</i> )	5666	5666	5666	5666
Number of facilities	1705	1705	1705	1705
Year fixed effects	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.174	0.170	0.380	0.330

to have an RN on-site around the clock, this is much more difficult for smaller facilities, even those that provide more RN minutes per resident.<sup>28</sup>

Finally, Column (4) indicates the characteristics of the facilities with staffing profiles sufficient to meet all minimum requirements. These are metropolitan location, small facility size and large chain affiliation. Like Requirement 2, the facilities least likely to meet the minimum standards are larger, based outside major cities and not run by a large chain provider. The results for the control variables are as expected, with government-run facilities and those with higher resident acuity having higher staffing levels across each and all requirements.

## Discussion

Our key findings can be summarised as follows. First, only a small minority of RACFs have historical staffing levels above all three requirements of the new incoming minimum staffing standards. Second, at a sector level, the three requirements appear to vary in their likely regulatory impact, relative to existing staffing levels. Although most facilities already meet the requirement to have an RN on-site, few have staffing levels above minimum care requirements per resident per day. Third, complying with the new standards will require different staffing changes across different types of aged care providers. Whereas large chain, provider-run facilities will need to increase total direct care per resident, large and non-metropolitan-based facilities will need more care provided by RNs, and small facilities will require an increase in shifts of RNs on-site.

Overall, the study suggests that the new standards are sufficiently high above existing staffing levels to motivate increases in staffing across the sector. Furthermore, the positive association between staffing and resident acuity also supports linking minimum staffing standards to casemix-based funding

models.<sup>9,38</sup> However, the levels proposed for 2023 are still below those recommended by scholars in Australia<sup>9</sup> and the US,<sup>6,7</sup> and the government has not committed to more stringent requirements in the future.

As each of the new standards is likely to have a differential regulatory impact, certain providers may lobby for exemptions from some of the requirements. However, the new standards can ensure that almost all RACFs increase their staffing, but only if the requirements are enforced in full. Nonetheless, our results indicate where government support may help ensure a fair and equitable transition towards compliance within the sector. For example, the effect of location on RN HPRD supports transition provisions proposed by the RCACQS, allowing for temporary exceptions to Requirement 2 for rural, regional and remote facilities.<sup>4</sup> In addition, similar measures may be required to support smaller facilities in complying with the RN on-site requirements.

When considering the policy impact of implementing minimum staffing standards, international evidence describes several important caveats. First is the cost that complying with a minimum staffing standard imposes on aged care organisations.<sup>1,22,23</sup> These costs include both the additional staffing costs required to meet the threshold and additional administration and reporting activities to assure that staffing levels are compliant. Although the government has committed to funding the additional staffing costs,<sup>39</sup> if RACFs must still incur substantial compliance costs, they may decide to operate below the minimum standards and willingly bear the penalties of non-compliance.<sup>25</sup>

The second is input substitution, which occurs when the regulation of one type of staff is offset by reducing the number of other types.<sup>40</sup> For example, standards prescribing minimum total direct care can lead to a lower skill mix, as facilities substitute licenced staff with less costly personal care workers.<sup>16,17</sup>

Alternatively, standards that focus on specific roles (e.g. RNs) may cause facilities to divert resources away from others, which may have negative implications for both quality of care and the workload of RNs.<sup>26,41</sup> This may be mitigated by enforcing the minimum standard in full, which would reduce the scope whereby facilities can offset mandated increases with reductions elsewhere. Nonetheless, by focusing exclusively on direct care staff, the new regulation may inadvertently cause reductions in support staff (e.g. social services, housekeeping and food service).<sup>30,42</sup> There may also be other substitution effects, whereby financially constrained facilities may be unwilling or unable to invest in equipment, technology or capital infrastructure necessary in delivering quality care.<sup>43</sup>

A third consideration is the adequacy of local labour markets to fulfil aged care organisations' staffing requirements to meet the new standards. In Australia, workforce shortages have been a persistent challenge,<sup>13,31</sup> aggravated by the disruptions and additional staffing demands created by the current COVID-19 pandemic.<sup>44</sup> The new minimum standards could further exacerbate these pressures. The two requirements relating directly to RNs are likely to increase domestic demand for RNs, particularly outside the major cities. Given the recent decline of RNs as a proportion of the Australian aged care workforce,<sup>13</sup> it would seem prudent for regulation to be accompanied by initiatives that ensure the adequate supply, training and retention of licenced nurses.<sup>45</sup>

The current study is one of few recent studies to examine cross-sectional patterns in staffing levels across Australian RACFs.<sup>1</sup> In interpreting the findings, there are, however, several limitations worth noting. First, as it was not possible to measure staffing across the entire sector or staffing levels since 2019, there may be differences in the current staffing characteristics of the sector, particularly if RACFs have made changes anticipating regulation. Also, although the staffing measures are collected quarterly by Stewart–Brown, they were provided to the research team as annual averages, which may underestimate the variation in the actual staffing characteristics, both at a resident and facility level. Although we have controlled for resident acuity, we have not adjusted each facility's staffing outcomes for the relative casemix. This means our results indicate whether facilities' staffing levels would be above the average requirements for the sector. Further, our measure of Requirement 3 does not capture the number of RNs simultaneously on-site. Thus, it can only definitively identify those facilities not meeting the requirement. Finally, as the minimum standards will only be enforced in 2023, the study has not examined the actual degree of compliance or the effect of regulation on staffing and quality. Such effects may be explored only after the implementation of the new standards in Australia.

## Conclusion

By committing to Recommendation 86 of the RCACQS, Australia will soon have national minimum staffing standards for residential aged care for the first time, adding further support to the *Aged Care Act 1997* and bringing Australia in line with similar regulations already in force in other countries.<sup>1,2,34</sup> Our retrospective analysis of existing staffing levels shows that the minimum thresholds will likely require substantial increases in staffing across the sector, both in terms of total direct care and

care provided by RNs. Similar to studies in other countries,<sup>20,26,28</sup> we also find that the precise way the staffing requirements are formulated will likely have a differential effect across facilities within the sector, which should guide policy around how facilities may be supported in ensuring compliance.

## Data availability

The data that supports this study cannot be shared due to ethical or privacy reasons.

## Competing interests

The authors declare no competing interests.

## Declaration of funding

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