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ARC Funding Analysis Allocation Tool for RNs and Caregivers

RN and Caregiver Cost and Hours Allocation Guidance by Care Level

Purpose of the Tool

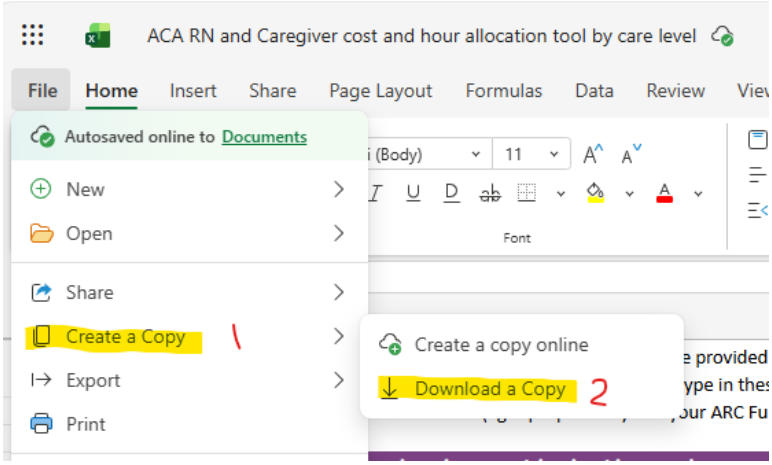
StewartBrown and the Aged Care Association (ACA) of New Zealand preference is to collect detailed data across the care levels of rest home, hospital, dementia and psychogeriatric. This is referred to as **Option A** in the Aged Residential Care (ARC) Funding Analysis data collection workbook. This allows a more robust analysis on the adequacy of the funding levels across the four care levels and is critically important to inform and lobby government on funding reform initiatives that will make the sector financially sustainable and investible.

It has been observed that the sector reporting practises do not commonly distinguish the breakdown of costs across the four care levels because the aged residential care operations are typically operated as single business units across a mix of the four care levels. Revenue can easily be identified across the care levels but splitting of costs requires defensible business assumptions to determine equitable costs and hour allocations across the four care levels.

The ACA RN and Caregiver cost and hour allocation tool has been developed by the ACA with support and feedback from StewartBrown and the Key Provider Working Group. The Key Provider Working Group consists of representative ACA member organisations. It was established to work with StewartBrown and the ACA to provide clarification on data collection definitions and methodologies, including provision of supplementary resources to assist ARC Funding Participants with their data collection.

How to obtain the RN and Caregiver Cost and Hours Allocation Tool

A copy of the ACA Registered Nurse (RN) and Caregiver cost and hour allocation tool can be downloaded for the StewartBrown ARC Funding Analysis resource library here. Then download a copy selecting the *File> Create a Copy> Download a Copy*



Alternatively contact ACANZ.fundinganalysis@stewartbrown.com.au to email a copy of the tool.

The tool uses the methodology described in the Annexe to this document and provides the options for providers to enter in their own rostering ratio practices, for example a provider can use their safe staffing ratio as an input if this is largely reflectively of their actual rostering practises.

Where a provider does not have a safe staffing ratio or a substitute ratio by the four care levels then they can substitute one of the sector average ratios that is most reflective of their rostering practises.

Using the RN and Caregiver Cost and Hours Allocation Tool

In this section we briefly outline how to use the RN and Caregiver Cost and Hours allocation tool. If you need detail on the logic of the tool, please turn to the Annexe on page 3 of this document.

The primary driver of the allocation percentages across the four care levels is the number of residents in each care level. However, because utilisation of care labour resources is not uniform across all levels of care, resource utilisation rates must be factored in. Studies show that hospital level residents utilise more care labour resources than rest home residents. The difference is more marked for RN care labour than Healthcare Assistants (HCA) care labour.

Step 1 – Enter average resident numbers by care level in cells C12:F12

1 Estimated allocation of costs and hours based on unweighted resident numbers

Residents

	Rest Home	Hospital	Dementia	Psychogeriatric	Total
Enter your residents by care level:	60	20	15	5	100
Share of costs and staff hours based on unweighted residents numbers	**60.0%**	**20.0%**	**15.0%**	**5.0%**	**100.0%**

Step 2 – If you have them, enter your actual rostering ratios/safe care hour ratios for caregivers/HCA by care level in cells C19:F19. If you don't have them, please leave cells C19:F19 blank.

2 Estimated allocation of costs and hours based on non-clinical care - residents weighted by HCA+AC hours per resident per day

Standard hours per resident per day - Caregivers/HCA + activities coordinators

	Rest H	Hospital	Dementia	Psychogeriatric
Sector average hours HCA & AC hours per resident per day	2.09	2.92	2.95	3.06
Provider HCA + AC safe care hours per resident per day (if you have them)	2.12	3	2.5	3

If you have your own safe care ratio to use for caregivers, then you can select to these ratios by clicking the drop-down filter in cell B24. **The calculated cost and hour allocation splits for caregivers are provided in row 27.**

Estimate split of costs based on caregiving costs

	Rest Home	Hospital	Dementia	Psychogeriatric	Total
Provider HCA + AC safe care hours per resident per day (if you have them)	2.12	3	2.5	3	
Ratio to rest home HCA hours	*1.00*	*1.42*	*1.18*	*1.42*	
Rest home equivalent residents based on HCA hours	*60*	*28*	*18*	*7*	*113*
Share of costs and staff hours based on HCA+AC costs	**53.1%**	**25.0%**	**15.6%**	**6.3%**	**100.0%**

If you do not have your own safe care ratio to use for caregivers, then you can select to use the sector average ratio from the 2017 ACA survey by clicking the drop-down filter in cell B24. **Again, the calculated cost and hour allocation splits for caregivers are provided in row 27.**

Estimate split of costs based on caregiving costs

	Rest Home	Hospital	Dementia	Psychogeriatric	Total
Sector average hours HCA & AC hours per resident per day	2.09	2.92	2.95	3.06	
Ratio to rest home HCA hours	*1.00*	*1.40*	*1.41*	*1.46*	
Rest home equivalent residents based on HCA hours	*60*	*28*	*21*	*7*	*116*
Share of costs and staff hours based on HCA+AC costs	**51.5%**	**24.0%**	**18.2%**	**6.3%**	**100.0%**

Alternatively, you can use alternative sector estimates of caregiver hours per resident per day if they better reflect your rostering practises. These other estimates are available on the "Estimates of hrs per res day" tab of the RN and Caregiver Cost and Hours Allocation Tool. If you wish, enter your preferred ratios into cells C19:F19 and select "Provider HCA +AC safe care hours per resident per day" in the drop-down filter in cell B24.

Step 3 – Enter your actual rostering ratios/safe care hour ratios for registered nursing by care level if you have them in cells C33:F33. If you don't have them, leave cells C33:F33 blank.

3 Estimated allocation of costs and hours based on clinical care - residents weighted by RN

Standard hours per resident per day - Registered Nurses

	Rest Home	Hospital	Dementia	Psychogeriatric
Sector average hours RN hours per resident per day	0.36	1	0.38	1.04
Provider RN safe care hours per resident per day (if you have them)	0.4	1	0.4	1

If you have your own safe care ratio to use for RNs, then you can select to these ratios by clicking the drop-down filter in cell B37. **The calculated cost and hour allocation splits for registered nursing staff are provided in row 40.**

Estimate split of costs based on Registered Nurse costs

	Rest Home	Hospital	Dementia	Psychogeriatric	Total
Provider RN safe care hours per resident per day (if you have them)	0.4	1	0.4	1	
Ratio to rest home RN hours per resident per day	*1.00*	*2.50*	*1.00*	*2.50*	
Rest home equivalent residents based on RN hours	*60*	*50*	*15*	*13*	*138*
Share of costs and staff hours based on RN costs	**43.6%**	**36.4%**	**10.9%**	**9.1%**	**100.0%**

If you do not have safe care ratio to use for registered nurses, then you can select by clicking the drop-down filter in cell B37 to use the sector average ratio from the 2017 ACA survey. Again, the calculated cost and hour allocation splits for registered nursing staff are provided in row 40.

	Estimate split of costs based on Registered Nurse costs					
36		Rest Home	Hospital	Dementia	Psychogeriatric	Total
37	Sector average hours RN hours per resident per day	0.36	1	0.38	1.04	
38	*Ratio to rest home RN hours per resident per day*	*1.00*	*2.78*	*1.06*	*2.89*	
39	*Rest home equivalent residents based on RN hours*	*60*	*56*	*16*	*14*	*146*
40	**Share of costs and staff hours based on RN costs**	**41.1%**	**38.1%**	**10.9%**	**9.9%**	**100.0%**
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Alternatively, you can use alternative sector estimates of RN house per resident per day, if they better reflect your rostering practises. These other estimates are available on the "Estimates of hrs per res day" tab of the RN and Caregiver Cost and Hours Allocation Tool. If you wish, enter your preferred ratios into cells C33:F33 and select "Provider HCA +AC safe care hours per resident per day" in the drop-down filter in cell B37.

.**Step 4 –** Use the allocation splits calculated by the tool to allocate caregiver (row 27) and nursing (row 40) costs and hours across the care level domains of rest home, hospital, dementia and psychogeriatric care.

For further information and guidance material for cost allocation methodology for other line items please keep an eye on the ARC Funding Analysis Resource Library. Alternatively you can directly contact both the StewartBrown Team at ACANZ.fundinganalysis@stewartbrown.com.au or ACA Data Analyst Insight Specialist John McDougall at john.mcdougall@aca.org.nz

If you require further details on the calculations, please refer below to the *Annexe: Explanation of allocation methodologies for Caregiver and Nursing Staff* below.

Annexe: Calculating allocation methodologies for Caregiver and Nursing Staff

Data in *Table 1, Table 2 and Table 3* show industry estimates of caregiver and registered nursing time per resident day by care level. They are the same as the tables on the "Estimates of hrs per res day" tab of the RN and Caregiver Cost and Hours Allocation Tool.

Table 1: ACA Survey-based estimates 2017 – Average hours of care per resident day.

Carer Position	Rest home	Hospital	Dementia	Psychogeriatric
Caregiver, HCA	2.09	2.92	2.95	3.06
Registered Nurse	0.36	1.00	0.38	1.04

Table 2: Recommended by Standards NZ in 2005 – Average hours of care per resident day (withdrawn but not replaced)

Carer Position	Rest home	Hospital	Dementia	Psychogeriatric
Caregiver, HCA	1.72	2.35	2.07	2.35
Registered Nurse	0.28	1.15	0.50	1.28

Table 3: Case-mix validation study 2018 – re-analysis for HNZ (2025) by Mathew Parson and Paul Rouse with input from John McDougall – Average hours of care per resident day

Carer Position	Rest home	Hospital	Dementia	Psychogeriatric
Caregiver, HCA	1.88	2.52	2.27	2.59
Registered Nurse	0.29	1.16	0.50	1.36

The tables show variations in hours per resident day ratios between the studies, but on balance the results are similar.

Some aged residential care providers build their rosters based on their own resident acuity mix using their internal "safe staffing ratios". Whie these may be similar to ratios in tables 1 to 3 there may be variations, depending on how the provider operate their business. For example, use of technologies such as virtual nursing, building design and operational layout

such as distance between resident rooms may result in higher or lower safe staffing ratios than the estimated averages shown in the above tables.

In determining cost and hour allocations for caregiver and nursing staff, providers should use the care staffing ratios that best reflect their rostering practise. If a provider does not use their own safe staffing ratios, or considers their safe staffing ratios are not reflective of how they are actually rostering, they can select from the averages and (former) standards in Tables 1 to 3.

Worked Example of the Allocation Methodology.

Ngahere Gardens home has 100 aged residential care residents. The average resident mix across the care levels is shown in *Table 4*

Table 4: Resident Care Level mix % for Ngahere Gardens

	Rest home	Hospital	Dementia	Psychogeriatric	Total
Residents	60	20	15	5	100
Resident care mix %	60%	20%	15%	5%	100%

Step 1 - of the calculations is to determine the total resident mix weighting by care level. Divide the average number of residents at each care level by the total number of residents as seen in table 4 above.

Step 2 - is to identify a defensible resident care level resource utilisation weighting for both Caregiver staff and Nursing staff.

For example, Ngahere Garden rosters are based on its safe staffing ratios which are is as follows:

Table 5: Average staff hours per resident day by care level for Ngahere Gardens – Staff staffing ratio has been used as the defensible assumption.

	Rest home	Hospital	Dementia	Psychogeriatric
Caregiver	2.12	3.00	2.50	3.00
Registered Nursing	0.40	1.00	0.40	1

Step 3 - use rest home hours per resident day as the baseline equivalent to determine the hourly ratio equivalent for Hospital, Dementia and Psychogeriatric care. This means for every hour of rest home care what is the ratio of equivalent time required to service Hospital, Dementia and Psychogeriatric residents.

For example, the hospital care resident ratio of hours per resident day for Ngahere Gardens is calculated as 3 hours per resident day of hospital caregiver time divided by 2.12 hours per resident day of rest home caregiver time. This equates to a ratio 1.42 hours of hospital care time required for every hour of rest home care.

This ratio indicates that a Hospital Care resident in Ngahere Garden requires 1.42x more caregiver time than a rest home resident. Hence, the variation in resource utilisation rates across the care levels will have an influence on the overall weighting on the care cost and hour allocations for caregiver and nursing staff.

Table 6: Calculating Ngahere Gardens Caregiver hourly ratio to Rest home hours.

	Rest home	Hospital	Dementia	Psychogeriatric
Ngahere Gardens Average Caregiver hours per resident day	2.12 **Baseline RH**	3 **H**	2.5 **D**	3 **P**
Ratio to rest home caregiver hours per resident day	1 **Baseline Equivalent**	1.42 **H/Baseline RH**	1.18 **D/Baseline RH**	1.12 **P/Baseline RH**

Table 7: Calculating Ngahere Gardens Registered Nursing hourly ratio to Rest home hours.

	Rest home	Hospital	Dementia	Psychogeriatric
Ngahere Gardens Average Registered Nursing hours per resident day	0.40 **Baseline RH**	1 **H**	0.38 **D**	3 **P**
Ratio to rest home caregiver hours per resident day	1 **Baseline Equivalent**	1.42 **H/Baseline A**	1.18 **D/Baseline A**	1.12 **P/Baseline A**

Step 4 - the final calculation to determine the cost and hour allocations for caregiver time and nursing time will need to factor in the number residents across each care level and the average care labour resource utilisation per resident across each of the care levels. This involves re-weighting the hours based on the ratios calculated in step three.

Table 8: Calculating Ngahere Gardens share of Caregiver cost and hours across the four care levels.

	Rest home	Hospital	Dementia	Psychogeriatric	Total
Number of residents	60	20	15	5	100
Rest home equivalent caregiver hours per resident day ratio	1	1.42	1.18	1.12	
Re-weighted Rest home equivalent residents	60 **RH**	28 **H**	18 **D**	7 **P**	113 **Total RH Equivalents**
Share of Caregiver cost and staff hours % allocation	53.1% **RH/Total RH Equivalents**	25.0% **H/Total RH Equivalents**	15.6% **D/Total RH Equivalents**	6.3% **P/Total RH Equivalents**	100%

Table 9: Calculating Ngahere Gardens share of Registered Nursing cost and hours across the four care levels.

	Rest home	Hospital	Dementia	Psychogeriatric	Total
Number of residents	60	20	15	5	100
Rest home equivalent Registered nursing hours per resident day ratio	1	2.50	1	2.5	
Re-weighted Rest home equivalent residents	60 **RH**	50 **H**	15 **D**	13 **P**	138 **Total RH Equivalents**
Share of Registered Nursing cost and staff hours % allocation	43.6% **RH/Total RH Equivalents**	36.4% **H/Total RH Equivalents**	10.9% **D/Total RH Equivalents**	9.1% **P/Total RH Equivalents**	100%