

ADASS

Care Bill

Care Cost Modelling Tool

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A user guide for the financial modelling tool developed by Surrey County Council and ADASS for modelling the additional costs of care to Local Authorities arising from the Care and Support Bill

ADASS Care bill modelling tool

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1. Introduction:

The proposed changes in the Care and Support Bill (Care Bill) have a number of financial implications for Local Authorities and self funders.

The tool has been designed to model the impact of the changes in the funding of care for an individual (Workbook 1). This model is then extrapolated across to a care population to derive a pre and post care bill weighted average cost of care (Workbook 2). These weighted average costs of care are applied to a care population to assess an overall change in cost to the LA over time (Workbook 3).

This guidance note seeks to explain the parameters and their use, and to give some ideas on how to use the tool within different scenarios.

2. Principles

The key principle behind the modelling tool is to run two separate calculations

- An assessment of the costs to both the LA and the payer based on current policy
- An assessment of the equivalent costs for both the LA and the payer based on proposed changes

By comparing the results of the second calculation with the first gives the financial changes arising from the changes in the Care Bill.

These principles are applied in the second and third workbooks in order to model the change across a population.

3. Workbook One - standalone individual scenario tool

The purpose of this workbook is to model the impact of the Care Bill changes for an individual.

The workbook consists of 4 tabs:

- Notes
- Parameter Input
- Graphical Output
- Detail Calcs

Notes

TAB - Parameter Input

This tab allows for the data relating to a single scenario/individual to be modelled.

Alter values with a blue background for national / local conditions. Alter values with a yellow background for an individual case.

AVERAGE WEEKLY COSTS OF CARE		Community (low)	Community (medium)	Community (high)	Residential	Nursing	Notes
Private Care Provider Rate	18-64	£146.82	£491.58	£1,503.97	£1,558.86	£1,236.94	Average market rate assumed self funders are paying.
Commissioned LA Care Rate	18-64	£122.35	£409.65	£1,253.31	£1,299.05	£1,030.78	Where it is not believed that LA will be able to move individuals or be able to continue to commission in the market at a better rate, then this should be shown as closer or similar to the Private rate.
Hotel Cost LA Rate	18-64	£0.00	£0.00	£0.00	£230.00	£230.00	
Care Cost LA Rate	18-64	£122.35	£409.65	£1,253.31	£1,069.05	£800.78	
Private Care Provider Rate	65+	£96.14	£306.53	£898.88	£979.57	£599.32	Average market rate assumed self funders are paying.
Commissioned LA Care Rate	65+	£80.12	£255.44	£749.07	£816.31	£499.43	Where it is not believed that LA will be able to move individuals or be able to continue to commission in the market at a better rate, then this should be shown as closer or similar to the Private rate.
Hotel Cost LA Rate	65+	£0.00	£0.00	£0.00	£230.00	£230.00	
Care Cost LA Rate	65+	£80.12	£255.44	£749.07	£586.31	£269.43	
Length of Stay (up to 1,560 weeks)	1,560	0	0	0	1,560	0	Model accomodates 1,560 weeks and will apply episodes in order from left to right. Use zero weeks to exclude an episode.
CRAG or Fairer Charging		FC	FC	FC	CRAG	CRAG	
INDIVIDUALS FINANCIAL SITUATION		Value	Notes				
Adult or Older Person		65+	Denotes which rate tables above are utilised as it is recognised that some areas have material differences for some items.				
Initial Qualifying Assets - Total (inc property)		£250,000	Enter the total assets including property value assumed to be held at the point an individual would be assessed eligible for the care count to begin.				
Initial Qualifying Assets - (of which Property)		£0					
Weekly income (not earnings)		£148.00	State benefits, additional benefits, private income (other than from assets included above).				
ASSESSMENT CRITERIA		CRAG		FAIRER CHARGING		Notes	
		Current	Proposed	Current	Proposed		
Lower Capital Threshold		£14,250	£14,250	£14,250	£14,250	With each LA potentially operating different FC criteria it would not be practical to build a flexible model to accommodate those areas and the	
Upper Capital Threshold		£23,250	£118,000	£24,500	£24,500	Assumed amount of disposable income left available after local FC policies applied.	
PEA (Weekly) / FC income %		£25.00		15%		On going weekly income less personal expenditure allowance	
Minimum Financial Assessment		£123.00		£22.20			
Care Account Cap Trigger		Current	£1,000,000	Proposed	£72,000	Use £1m for no cap. Use £0 for immediate qualification for all care costs.	

The cells are colour coded to allow for certain inputs.

- Light Blue – National or Local conditions
- Yellow – data relating to the individual scenario
- Mid Blue – Data relating to CRAG (Charging for Residential Accommodation Guide)
- Dark Blue – Data relating to Fairer Charging

Light Blue - National or Local conditions

These cells are populated with data relating to the costs of care.

- Private Care Provider Rate – this is the *weekly* rate for the cost of care relating to the type of care that a self funding individual is, or is likely to be paying, in the local market.
- Commissioned Local Authority (LA) Care Rate – this is the rate at which the Local Authority can buy that care for within its local market. This is also the cost of care that is used as the starting point for the cost of eligible care costs against an individual’s care account.
- Hotel Cost LA Rate – the element of the LA rate that is deemed to be living expenses (hotel costs)

From these values a ‘Care Cost LA Rate’ is derived. This is the value that is used to populate an individual’s care account to count against their ‘Care Cap’.

These values can be entered for Community (low), (medium) and (high), Residential and Nursing for both Working Aged Adults and Adults aged 65+. Not all parameters will be need depending on the type of analysis being undertaken.

Yellow – data relating to individual scenario

These cells are populated with data relating to the individual scenario.

- Length of stay (up to 1,560 weeks) is the estimated length of stay in the type of care.
- Adult or Older Person – identifies which care cost data is appropriate
- Initial Qualifying Assets – Total (Inc. property) the value of assets held within the scenario. This includes all property, investments, capital etc.
- Initial Qualifying Assets – (of which property) – identifies what value of the qualifying assets are held as property.
- Weekly Income (not earnings). The total weekly income for the individual scenario. Income includes private income such as pensions, state benefits etc.
- Care Account Cap Trigger – the maximum amounts an individual can contribute to the costs of eligible care.

Mid Blue – Data relating to CRAG (Charging for Residential Accommodation Guide)

These elements describe the financial thresholds for the application of capital thresholds under CRAG. The thresholds apply to Residential and Nursing Provision

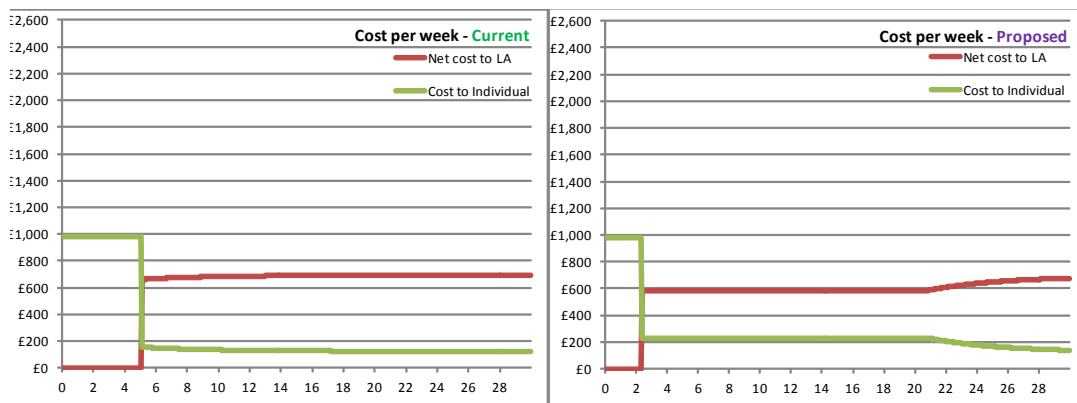
- Lower Capital Threshold – the lower limit under which no tariff income is included
- Upper Capital Threshold - the upper limit above which the tariff income is deemed to be sufficient to meet all of the costs of care.
- PEA Weekly / FC Income % - The minimum allowable for a Personal Expenses allowance

Dark Blue - Data relating to Fairer Charging

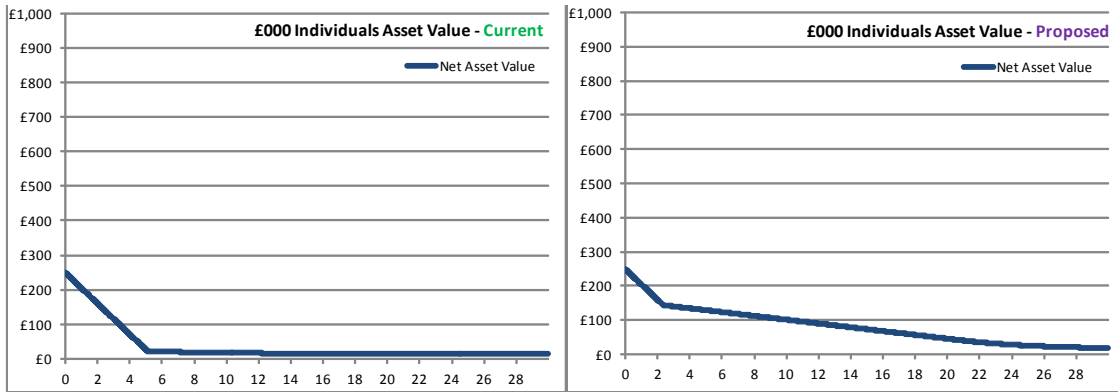
These are the equivalent elements applying to Fairer Charging, rather than CRAG

TAB - Graphical Output

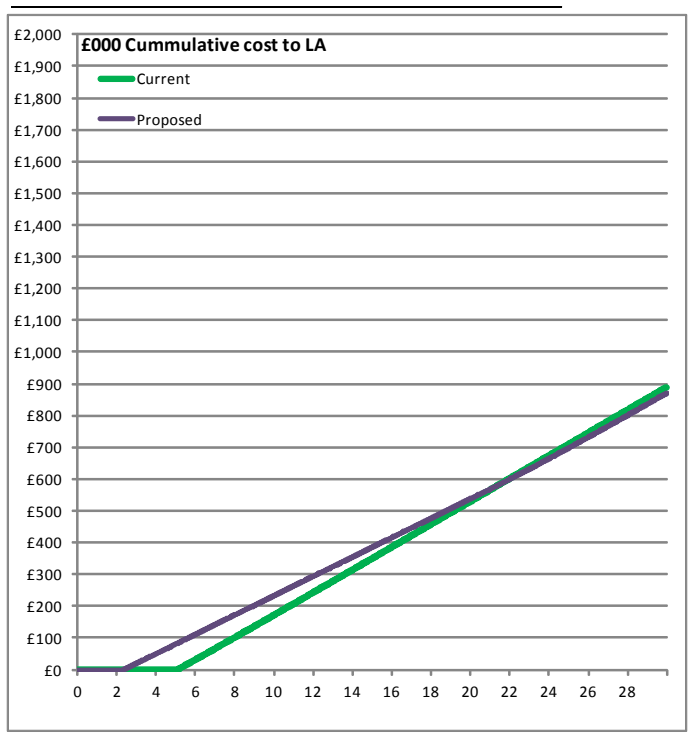
This tab displays the results of the analysis in a graphical and tabular form.



The first two graphs show the calculated costs to both the LA and the individual, both pre and post the changes. Complimentary to these are the changes to the assets of the individual, showing both the existing and post changes forecast position.



A final Graph shows the cumulative cost to the LA



TAB – Detail Calcs

This tab is the ‘engine’ for this workbook, calculating and plotting effect week by week of both the existing parameters and proposed parameters. The maximum number of weeks allowable is 1,560 (30 years).

4. Workbook Two - composite modelling tool

The composite modelling tool extends the principles applied to an individual in workbook one, by applying the same calculations to scenarios within a population model in order to derive a weighted average Local Authority cost of care per individual in a care community. This weighted average cost of care is used as a variable in *Workbook 3 results analysis tool*

The workbook has 5 tabs:

- How to use the model
- Notes on the model
- DATA SOURCES
- PARAMETER INPUT
- Scenario table

TAB – How to use the model

Further instructions on how to use the element of the model. This tab also includes a button for generating the scenario costings derived from the parameter values included on the *Input Weightings and Input Values tabs*.

TAB – Notes on the model

This tab includes useful note. These can be expanded upon by the user to record additional information and/or assumptions used, depending upon the number of data iterations used.

TAB – DATA SOURCES

This tab provides a helpful guide to potential sources of data that can be used in this model.

Data Entry Item	Recommended / Suggested Sources
<p>Population of Local Authority Funded individuals (excluding Full Cost Payers) for base and on-going years. Split between the three age groups. For input in second workbook.</p> <p><i>This must link with the data for average LA rates - (e.g. if the population figures contain clients receiving 'in-touch' type services then the average cost will need to be weighted accordingly).</i></p>	<p>Current local management performance and activity data recording. Or latest available year end position from out-turn or statutory / statistical return workings.</p> <p>Inflate these to the base year and beyond using available POPPI / PANSI demographic data, interpolating where required for years not stated.</p>
<p>Charging Policy <i>(model currently applies the higher CRAG threshold to all cases, not just those with property, as the bulk of wealth at that level is property related).</i></p>	<p>Thresholds to be published by DH.</p> <p>Fairer Charging remaining value from review of local Financial Assessment data.</p>
<p>Care Account Cap</p>	<p>Published by DH.</p>
<p>Asset Value</p>	<p>ELSA data for 65+</p> <p>Adapted ELSA data for 18-64</p> <p>Estimation for Turning 18</p>
<p>Weekly Income Value</p>	<p>ELSA data for 65+</p> <p>Estimated residual income / benefits for 18-64 as assumed the population in question are generally not in work once they have an eligible social care need.</p>

Care Cost - Market Rate	Local market shaping research, or estimation of level above local authority rates.
Care Cost - Local Authority Rate <i>This must link with the data for LA Population - (e.g. if the population figures contain clients receiving low / no cost 'in-touch' type services then the average cost will need to be weighted accordingly).</i>	Current local management performance and activity data recording. Or latest available year end position from out-turn or statutory / statistical return workings. Inflate these to the base year using CPI estimates.
Care Cost - Local Authority Hotel Rate	Zero for community. Use initial £12,000 per annum until published confirmation on this from DH.
Care Pathway Ratio - For split between current care types.	Current local management performance and activity data recording. Or latest available year end position from out-turn or statutory / statistical return workings.
Care Pathway Ratio - For cases where progression is expected through the levels of Community, Residential, Nursing care pathways, the relative proportion that do and do not progress for each age group.	Analysis of local historic closed case data. Or utilise pre loaded ratios from Surrey County Council local analysis.
Care Pathway Ratio - For cases where progression is expected through the levels of Community, Residential, Nursing care pathways, the relative time spent at each of those steps by each of the age groups.	Analysis of local historic closed case data. Or utilise pre loaded ratios from Surrey County Council local analysis.
Length of Stay depletion pattern and average for the seven care pathways modelled for each age group.	Analysis of local historic closed case data over a suitable period of time to ensure longer stay lengths are captured. Or regional data source to alter just the average Length of Stay whilst retaining the depletion pattern pre loaded from Surrey County Council local analysis.

TAB – PARAMETER INPUT

This tab allows for the definition of input parameters.

The parameters are provided for three elements of the care population:

Turning 18

18 – 64

65+

The parameters are the same for each category. The description herein is generic to those three categories.

ASSESSMENT CRITERIA		CRAG		To accommodate different FC criteria apply a % to reflect the average Net Assessable Income left available after all local policies applied.	FAIRER CHARGING	
CHARGING POLICY	Lower Threshold	Current	Proposed		Current	Proposed
	Upper Threshold	£14,250	£17,000		£14,250	£17,000
	PEA (Weekly)	£23,250	£118,000	£24,500	£24,500	
		£25.00		0%		
CARE ACCOUNT CAP		Current	Proposed	Use £9,999,999 to reflect a 'no cap' scenario. Use £0 to reflect instant qualification.		
In base year		£9,999,999	£0			
WEALTH		Ratio	Total Assets Incl Property	Of which property	Total Asset value should be the local average within each banded range.	
Asset Value	£0 to £25,000	0.00%	£0	£0	Average property values should be included, which should also represent jointly	0.00%
	£25,000 £75,000	0.00%	£0	£0		
	£75,000 £125,000	0.00%	£0	£0		
	£125,000 £175,000	0.00%	£0	£0		
	£175,000 upward	0.00%	£0	£0		
Weekly Income		Ratio	£ per week			
	Low	0.00%	£0.00			
	Medium	0.00%	£0.00			
	High	0.00%	£0.00			
CARE COST AND PATHWAYS		Ratio	Private Care £ per week	LA Commission £ per week	LA Hotel £ per week	LA Care £ per week
Care Type Split	Community (low)	0.00%	£0.00	£0.00	£0.00	£0.00
	Community (medium)	0.00%	£0.00	£0.00	£0.00	£0.00
	Community (high)	0.00%	£0.00	£0.00	£0.00	£0.00
	Residential	0.00%	£0.00	£0.00	£0.00	£0.00
	Nursing	0.00%	£0.00	£0.00	£0.00	£0.00
Residential Care Pathways		Residential Only	Residential to Nursing	Of Residential what proportion will progress to Nursing?		100.00%
Ratio		100.00%	0.00%			
				Of those progressing what ratio is spent at each stage?		100.00%
	Residential		100.00%			
	Nursing		0.00%			
Community Care Pathways		Community Only	Community to Residential	Community to Nursing	Community to Res to Nurs	What proportions progress?
Ratio		72.00%	19.53%	7.76%	0.71%	100.00%
	Community (low)	16.35%	Of those in Community Only what proportion have low, medium and high cost packages?			100.00%
	Community (medium)	42.23%				
	Community (high)	41.42%				
	Community		51.79%	58.67%	51.80%	Ratio at each stage?
	Residential		48.21%		34.16%	
	Nursing			41.33%	14.04%	

Section 1 CHARGING POLICY

This table allows flexibility for both local CRAG and Fairer Charging. The parameters are pre populated and may be overtyped with local values as appropriate.

Section 2 CARE ACCOUNT CAP

This parameter allows for individual caps to be applied to the three age groupings. For a 'no cap' scenario a value of £9,999,999 can be used e.g. the cap is set to £10m per individual, thus the model acts as if there is no cap. For instant qualification a value of zero can be used.

Section 3 WEALTH

5 Asset Value bands have been defined within WEALTH. These bands can be set locally, or as defined by ADASS for comparative purposes. A value of £175,000 has been set as the upper banding as at that limit an individual is more likely to hit the cap rather than the asset threshold. LAs will define the proportions of the care population into the 5 bandings. Nationally these proportions can be used to determine the relative wealth within Local Authority Areas.

Three weekly income values have been defined within WEALTH – Low, Medium and High. Presently it is for LAs to determine both the value and proportion of the care population that fit within these bandings. ADASS may release additional best practice guidance.

Section 4 CARE COST AND PATHWAYS

5 care types have been defined:

- Community (low)
- Community (medium)
- Community (high)
- Residential
- Nursing

Within these Care Types, LAs will determine the ratios of the care population within the Care Type and the cost rates per Care Type

Ratio	Private Care	LA Commission	LA Hotel	LA Care	0.00%
	£ per week	£ per week	£ per week	£ per week	
0.00%	£0.00	£0.00	£0.00	£0.00	
0.00%	£0.00	£0.00	£0.00	£0.00	
0.00%	£0.00	£0.00	£0.00	£0.00	
0.00%	£0.00	£0.00	£0.00	£0.00	

The rates will be the expected cost for Private Care, LA Commission and the LA Hotel rate. The LA care is derived from the LA Commission less the LA Hotel costs. This is the eligible care cost used in the modelling.

Residential Care Pathways

Residential Only	Residential to Nursing	Of Residential what proportion will progress to Nursing?	100.00%
100.00%	0.00%		
	100.00%	Of those progressing what ratio is spent at each stage?	100.00%
	0.00%		

This parameter allows for the proportion of care users who progress from residential to nursing care

Community Care Pathways

Community Only	Community to Residential	Community to Nursing	Community to Res to Nurs	What proportions progress?	100.00%
72.00%	19.53%	7.76%	0.71%		
16.35%	Of those in Community Only what proportion have low, medium and high cost packages?				100.00%
42.23%					
41.42%					
	51.79%	58.67%	51.80%	Ratio at each stage?	100.00%
	48.21%		34.16%		
		41.33%	14.04%		

This allows for a proportion of the care population that progress from types of community care into other higher intensity care

LENGTH OF STAY

The model uses length of stay curves to determine the duration of a cohort stay within elements of the care pathway.

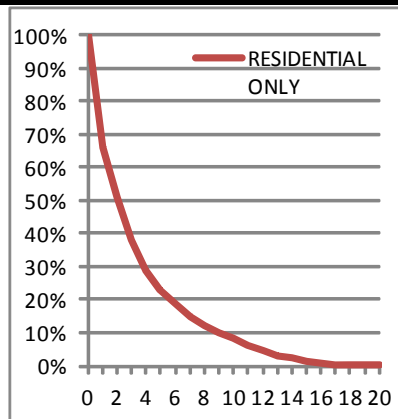
The model allows for local determination of the Length of Stay curves through changing the attrition rate, and/or the average Length of Stay.

1 of 7 Residential Only

1 of 7			
RESIDENTIAL ONLY			
RESIDENTIAL ONLY			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%	3.25	100%
1	66%		66%
2	51%		51%
3	38%		38%
4	29%		29%
5	23%		23%
6	19%		19%
7	15%		15%
8	12%		12%
9	10%		10%
10	8%		8%
11	6%		6%
12	4%		4%
13	3%		3%
14	2%		2%
15	2%		2%
16	1%		1%
17	0%		0%
18	0%		0%
19	0%		0%
20	0%	0%	
Av LoS	3.25		

Residential Only determines the length of stay to be used within the financial model. The length of stay can be defined using either a pre-defined curve by changing the average length of stay (the value in yellow in years), reprofiling the percentage remaining by year by changing the initial % remaining (values in blue), or both.

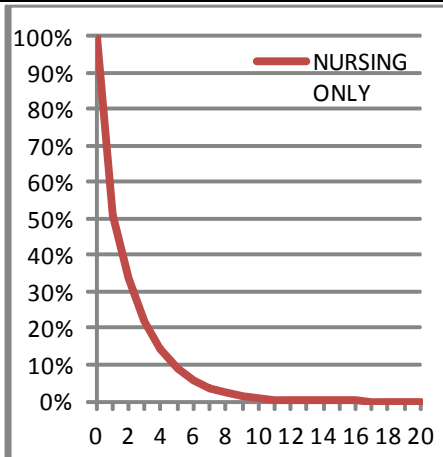
This will give a revised profile for use in the detailed calculation



2 of 7			
NURSING ONLY			
NURSING ONLY			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%	1.77	100%
1	51%		51%
2	34%		34%
3	22%		22%
4	14%		14%
5	9%		9%
6	5%		5%
7	4%		4%
8	2%		2%
9	2%		2%
10	1%		1%
11	1%		1%
12	0%		0%
13	0%		0%
14	0%		0%
15	0%		0%
16	0%		0%
17	0%		0%
18	0%		0%
19	0%		0%
20	0%	0%	
Av LoS	1.77		

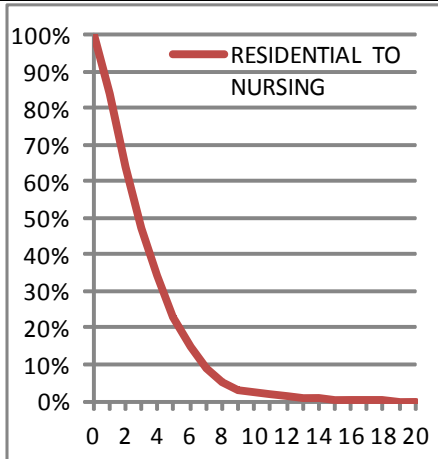
Nursing Only determines the length of stay to be used within the financial model.

As with Residential Only, the length of stay can be defined using either a pre-defined curve by changing the average length of stay (the value in yellow in years), reprofiling the percentage remaining by year by changing the initial % remaining (values in blue), or both. This will give a revised profile for use in the detailed calculation



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RESIDENTIAL TO NURSING			
Ratio of each step in the pathway			
Residential		65.85%	
Nursing		34.15%	
Total		100.00%	
RESIDENTIAL TO NURSING			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%	3.31	100%
1	84%		84%
2	64%		64%
3	47%		47%
4	34%		34%
5	23%		23%
6	15%		15%
7	9%		9%
8	5%		5%
9	3%		3%
10	2%		2%
11	2%		2%
12	1%		1%
13	1%		1%
14	1%		1%
15	0%		0%
16	0%		0%
17	0%		0%
18	0%		0%
19	0%		0%
20	0%		0%
Av LoS	3.31		

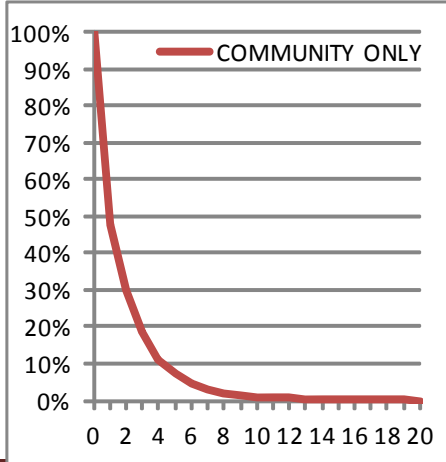
Residential to Nursing defines the ratio of the care population who would transfer from residential to nursing. The data is the same for Residential Only and Nursing only except that the proportion transitioning from Residential to Nursing is input. This factor is used alongside the overall proportion of residential care users progressing to nursing care at some stage in their care journey. This parameter defines the frequency e.g. a nursing proportion of 33.33% would identify 1/3 of those who transit from nursery to residential would do so in a twelve month period.



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COMMUNITY ONLY			
Ratio of each step in the pathway			
Low			33.33%
Medium			33.34%
High			33.33%
Total			100.00%
COMMUNITY ONLY			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%	1.58	100%
1	48%		48%
2	30%		30%
3	18%		18%
4	11%		11%
5	7%		7%
6	5%		5%
7	3%		3%
8	2%		2%
9	1%		1%
10	1%		1%
11	1%		1%
12	1%		1%
13	0%		0%
14	0%		0%
15	0%		0%
16	0%		0%
17	0%		0%
18	0%		0%
19	1%		0%
20	0%		0%
Av LoS	1.58		
COMMUNITY ONLY			

Community Only defines the data relating to the proportion of the care population that remains in community only and does not escalate to residential or nursing care.

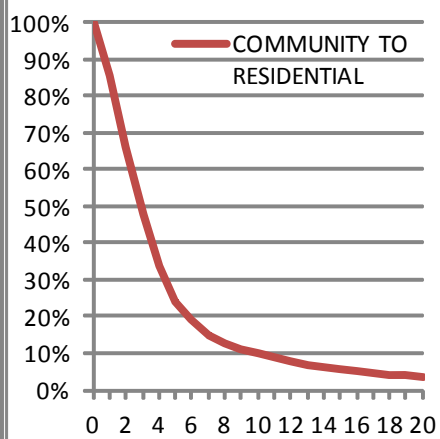
The proportions relate to the proportions of care recipients moving from one community care level to the next e.g. from Low to Medium, or from Medium to High. A proportion of 33.33% would identify 1/3 moving from one care level to the next in a twelve month period.



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COMMUNITY TO RESIDENTIAL			
Ratio of each step in the pathway			
Community			51.79%
Residential			48.21%
Total			100.00%
COMMUNITY TO RESIDENTIAL			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%		100%
1	86%		86%
2	66%		66%
3	48%		48%
4	34%		34%
5	24%		24%
6	19%		19%
7	15%		15%
8	12%		12%
9	11%		11%
10	10%	4.34	10%
11	9%		9%
12	8%		8%
13	7%		7%
14	6%		6%
15	6%		6%
16	5%		5%
17	4%		4%
18	4%		4%
19	4%		4%
20	3%		3%
Av LoS	4.34		
COMMUNITY TO RESIDENTIAL			

Community to Residential determines the modelled proportion of transit from *Community Based Care to Residential Care*.

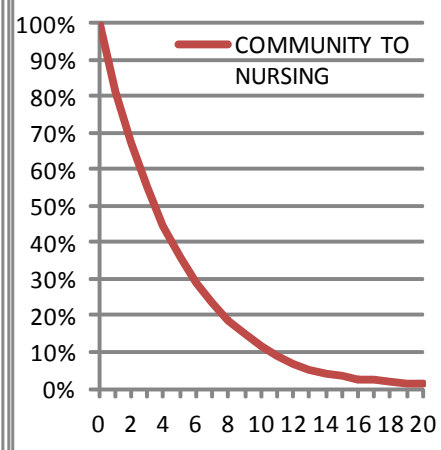
The same parameters apply to the length of stay.



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COMMUNITY TO NURSING			
Ratio of each step in the pathway			
Community		58.86%	
Nursing		41.14%	
Total		100.00%	
COMMUNITY TO NURSING			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%	4.58	100%
1	81%		81%
2	67%		67%
3	55%		55%
4	44%		44%
5	36%		36%
6	29%		29%
7	23%		23%
8	18%		18%
9	15%		15%
10	12%		12%
11	9%		9%
12	7%		7%
13	5%		5%
14	4%		4%
15	3%		3%
16	3%		3%
17	2%		2%
18	2%		2%
19	2%		2%
20	1%		1%
Av LoS	4.58		
COMMUNITY TO NURSING			

Community to Nursing defines the parameters relating to those who transit directly from *Community to Nursing* care.

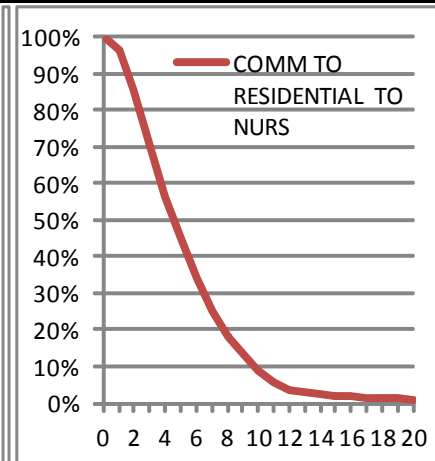
These are the relative proportions applied to the community to nursing population at any one time.



7 of 7			
COMM TO RESIDENTIAL TO NURS			
Ratio of each step in the pathway			
Community		36.35%	
Residential		41.91%	
Nursing		21.74%	
Total		100.00%	
COMM TO RESIDENTIAL TO NURS			
Year	Initial % Remaining	Average Years Length of Stay	Revised % Remaining
0	100%	5.15	100%
1	96%		96%
2	86%		86%
3	71%		71%
4	57%		57%
5	45%		45%
6	34%		34%
7	25%		25%
8	18%		18%
9	14%		14%
10	9%		9%
11	6%		6%
12	3%		3%
13	3%		3%
14	2%		2%
15	2%		2%
16	2%		2%
17	2%		2%
18	1%		1%
19	1%		1%
20	1%		1%
Av LoS	5.15		
COMM TO RESIDENTIAL TO NURS			

Community to Residential to Nursing identifies the relative proportions of the population previously identified at transiting from community to residential to nursing at any one time.

The Length of stay data can be modified as with other length of stay curves, but applies to the Community to Residential to Care population only.



TAB – Scenario Table

This tab uses the data defined in the Input Weightings and Input Values tabs in order to calculate a value and weighting to the individual scenario. It is an extension of the calculation model used in *Workbook 1 – standalone individual scenario tool*

The relative weightings are calculated independently of the financial information and length of stay. The proportions can be changed without the need to re-run the scenario calculator.

This is explored further within *Workbook 3 – results analysis tool*

5. Workbook 3 – results analysis tool

This workbook is the companion to *Workbook Two - composite modelling tool*, allowing the composite results from workbook to be analysed across the care population.

This Workbook initially consists of a number tabs:

- Input Flat Data
- Cohort Output
- Population Model

Together with a range of analysis graphs and reports, key of which is the Total Additional Cost tab

TAB Input Flat Data

The data from the scenarios generated from *Workbook Two - composite modelling tool*, *TAB Scenario Table* should be copied and pasted to the TAB as values.

Click in Cell B4 and Paste Special Values the highlighted area from the Scenario Calculation workbook										
Scenario	Total	CURRENT MODEL ANNUAL LA COST								
Number	Weight	1	2	3	4	5	6	7	8	9
1	0.13194%	29,318	0	0	0	0	0	0	0	0
2	0.08222%	10,192	48,832	1,231	0	0	0	0	0	0
3	0.05073%	5,308	20,147	64,018	0	0	0	0	0	0
4	0.03105%	5,308	15,263	35,333	62,787	0	0	0	0	0
5	0.01965%	5,308	10,092	20,147	48,832	64,018	1,231	0	0	0
6	0.01241%	5,308	5,208	20,147	20,147	64,018	64,018	0	0	0
7	0.00776%	5,308	5,208	15,263	20,147	35,333	64,018	62,787	0	0
8	0.00520%	5,308	5,208	10,092	20,147	20,147	48,832	64,018	64,018	1,231
9	0.00355%	5,308	5,208	5,208	20,147	20,147	20,147	64,018	64,018	64,018
10	0.00270%	5,308	5,208	5,208	15,263	20,147	20,147	35,333	64,018	64,018
11	0.00220%	5,308	5,208	5,208	10,092	20,147	20,147	20,147	48,832	64,018
12	0.00176%	5,308	5,208	5,208	5,208	20,147	20,147	20,147	20,147	64,018
13	0.00129%	5,308	5,208	5,208	5,208	15,263	20,147	20,147	20,147	35,333
14	0.00091%	5,308	5,208	5,208	5,208	10,092	20,147	20,147	20,147	20,147
15	0.00063%	5,308	5,208	5,208	5,208	5,208	20,147	20,147	20,147	20,147
16	0.00041%	5,308	5,208	5,208	5,208	5,208	15,263	20,147	20,147	20,147
17	0.00022%	5,308	5,208	5,208	5,208	5,208	10,092	20,147	20,147	20,147
18	0.00008%	5,308	5,208	5,208	5,208	5,208	5,208	20,147	20,147	20,147
19	0.00008%	5,308	5,208	5,208	5,208	5,208	5,208	15,263	20,147	20,147
20	0.00003%	5,308	5,208	5,208	5,208	5,208	5,208	10,092	20,147	20,147

The data values change over time as the cohort size decreases

TAB Cohort Output

This allows the proportional quantum of the care population to be detailed.

Ratio of Self Funders : LA Supported - A new cohort of people become eligible at a point in time. Over time Self Funders may eventually become LA Supported. Over time the population of this cohort will reduce, however new cohorts will arrive each year with a similar starting point and progression.															
Current Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Self Funder	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Local Authority	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Proposed Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Self Funder	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Local Authority	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Reduction in new Cohort - Over time the original cohort will decrease.															
Current Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
% Cohort Remain	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Movement	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Weighted Average Cost to Authorities per individual															
Current Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proposed Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Variance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

These values are derived from the calculations undertaken in the composite modelling tool.

TAB – Population Model

This tab is used to extrapolate the weighted average per car user by the number of care users in any individual year:

TOTAL Population forecast excluding potential impact due to the Care Bill (demographic) - can either be entered split by LA / SF or these can be removed and the Total overted:												
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
LA Funded (excl Full Cost)	0	0	0	0	0	0	0	0	0	0	0	0
Self Funders + Full Cost	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Population	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% Self Funders Current	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Previous Cost	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Proposed Cost	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Change in Cost	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Impact on population split due to Care Bill - calculated from cohort data entered												
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
LA Funded	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Self Funders + Full Cost	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Population	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% Self Funders Proposed	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Additional picked up	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Of which due to care cap	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

For each year the LA should enter their projected numbers for both LA funded and Self Funders **UNDER THE EXISTING RULES**

Based on this data a population matrix and cost matrix are calculated based on the flat data imported into **INPUT FLAT DATA** tab:

Initial population row each year will decrease over time across columns based on

Population Matrix	2015	2016	2017	2018	2019
2015	9,664	7,299	5,091	3,406	2,600
2016		2,720	2,054	1,433	958
2017			3,229	2,439	1,701
2018				3,452	2,607
2019					3,217
2020					
2021					
2022					
2023					
2024					
2025					
2026					
2027					
2028					
2029					
2030					
2031					
2032					
2033					
2034					
Total	9,664	10,019	10,374	10,729	11,084
Cost Matrix	2015	2016	2017	2018	2019
2015					
2016		5,761,595	2,198,256	5,598,202	5,298,903
2017			6,841,216	2,610,171	6,647,206
2018				7,312,617	2,790,027
2019					6,815,839
2020					
2021					
2022					
2023					
2024					
2025					
2026					
2027					
2028					
2029					
2030					
2031					
2032					
2033					
2034					
Total	0	5,761,595	9,039,472	15,520,989	21,551,976

TAB – Additional Cost

This final tab graphically presents the change in costs over time. This will be the modelled cost of the effect of the changes in the care bill only.

