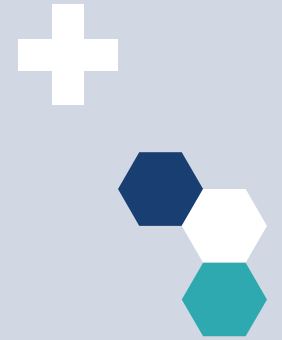
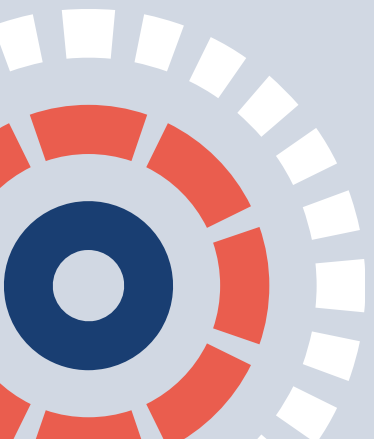


Relative need formula allocation of additional funding to local authorities to meet social care charging reforms



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Acknowledgements – see last slide (22)



Introduction – charging reforms 2021

- The adult social care charging reform as first announced in 2021 (henceforward the *reforms*) introduced:
 - a lifetime cap on the amount anyone in England will need to spend on their personal care; and
 - a changed means test for local authority financial support, which involves an increase in:
 - the upper capital limit (UCL) from £23,250 to £100,000; and
 - the lower capital limit (LCL) from £14,250 to £20,000.
- This study is concerned with how the required additional funding might be allocated to local authorities (LAs) with responsibility for social care.
- As LAs across England differ according to both the level of care need and financial wherewithal of their local populations, the reforms will have a differential impact on the amount of additional expenditure per capita incurred by each LA.
- This study seeks to develop formulas – called *relative need* allocation formulas – that are used to allocate funding to LAs for the additional expenditure requirement (AER) from the extended means test and for additional assessments (AAs) that LAs will need to make, following the reforms.
- Relative need formula allocation seeks to guide the distribution of budgets between LAs on a fair and equitable basis, compensating LAs for externally-caused cost factors
- The study updates our previous analysis of relative need funding allocation which was produced for the reforms that underpin the current new policy (the 2012 Dilnot reforms).

Aims

To estimate the differential impact of the reforms to the means test; and generate allocation formulas for:

- the change in the means-test; and
- the change in the expected need for additional assessments*

* that underpins the operation of the lifetime cap, where people with eligible need will have their cumulative care costs assessed through time – or ‘metered’ – to determine whether they have reached the cap; and/or become eligible for support under the new means-test

Formula allocation

- In formula allocation, variables are used that are (i) good predictors of LA care expenditure requirements (used in combination in a formula), (ii) routinely available at the LA level, but (iii) are not in the control of LAs (or at least not directly)
 - for example, factors such as age structure of the local population, uptake of national benefits, household composition, housing tenure etc.
- When these formulas are populated with future projected values of the variables (e.g. based on independently produced projections) future relative expenditure requirements can be estimated, and budgets/funding allocated accordingly.
- Estimating allocation formulas for the reforms
 - To receive LA-funded support, an individual has to satisfy a *needs* and a *financial* eligibility test. The reforms will change the financial test, but because they are not yet implemented, we simulated the impact using data that is representative of peoples' income, wealth, their care needs and circumstances.
 - We used data for local areas across England to estimate how people's financial position and levels of need differs between LAs. Since more granular data (than LA level) was needed, some was collected for the purpose.
 - We estimate formulas
 - (a) for the AER from the extended means-test using the utilisation approach
 - (b) for additional assessments using both the utilisation and *normative* approaches
 - Details of methods and data are in the Annex below.

Methodologies for estimating allocation formulae:

- **Utilisation:** The first uses data on the actual use of (publicly-funded) care in the care system and the associated level of expenditure on this care, e.g. past number of people in care homes and using community care. Often these data are collected specifically for this purpose.
- **Normative:** The second uses an indicator that should be a good determinant of local expenditure requirements, such as the level of (social care-related) impairment in the population (but which is not tied specifically to care service eligibility).

Most studies to date use the former method, and this is the method used here but with some alternative formulas developed using the second method (for additional assessments).



Relative need allocation formulae: Means-test additional expenditure requirements

- This table has the estimated relative need allocation formula for the additional expenditure requirement (AER) for the means-test reform, splitting residential and community care.
 - Areas with higher population rates of Attendance Allowance claimants and more people with limiting conditions can expect to need more additional funding – due to the higher baseline number of people with need.
 - Overall, areas with higher proportions of wealthier people (more assets/income) will have a greater AER than other areas - due to the more generous means-test.
 - For residential care the financial effect works through asset holding – areas with greater home ownership will have a greater AER than others – and pension credit – areas with higher PC recipient rates will have a lower AER.
 - For community care, the financial effect is also strongly captured by pension credit. For areas with high proportions of people owning more modest housing assets (CT bands A-E) the formula also predicts a higher AER compared with elsewhere. In other words, areas with a high proportion of high-value homes would be less affected (reflecting that such people are little impacted by the change in the means test).
 - Areas with a higher proportion of couple households will have a smaller AER than others – mainly due to the need effect (more spousal informal care)

AER =		Care homes	Comm. care
Attendance Allowance claimants 65+ per capita 65+	×	2.854	0.911
+			
Limiting (significantly) condition 85+ per capita 65+	×	5.322	2.432
+			
Homeowner households 65+ per HHs 65+ × properties in council tax band ABCDE per all properties	×	1.542	0.366
+			
Home-owner households 65+ per HHs 65+ × properties in council tax (CT) band FGH per all properties	×	0.820	-0.008
+			
Pension Credit (PC) Claimants 65+ per capita 65+	×	-1.876	-0.520
+			
Living arrangements: couple households 65+ per households 65+	×	-0.782	-0.339
+			
Constant		0.757	0.525



Relative need allocation formulae: Means-test additional expenditure requirements

- This table reports the relative need allocation formula for the AER for the means-test reform, combining residential and community care.
- The metrics in the formula (and in the table on the previous page) are expressed as rates per capita 65+ and the corresponding rates for each LA can be plugged into the formulas to give a 'relative need' adjustments for LA funding allocations.

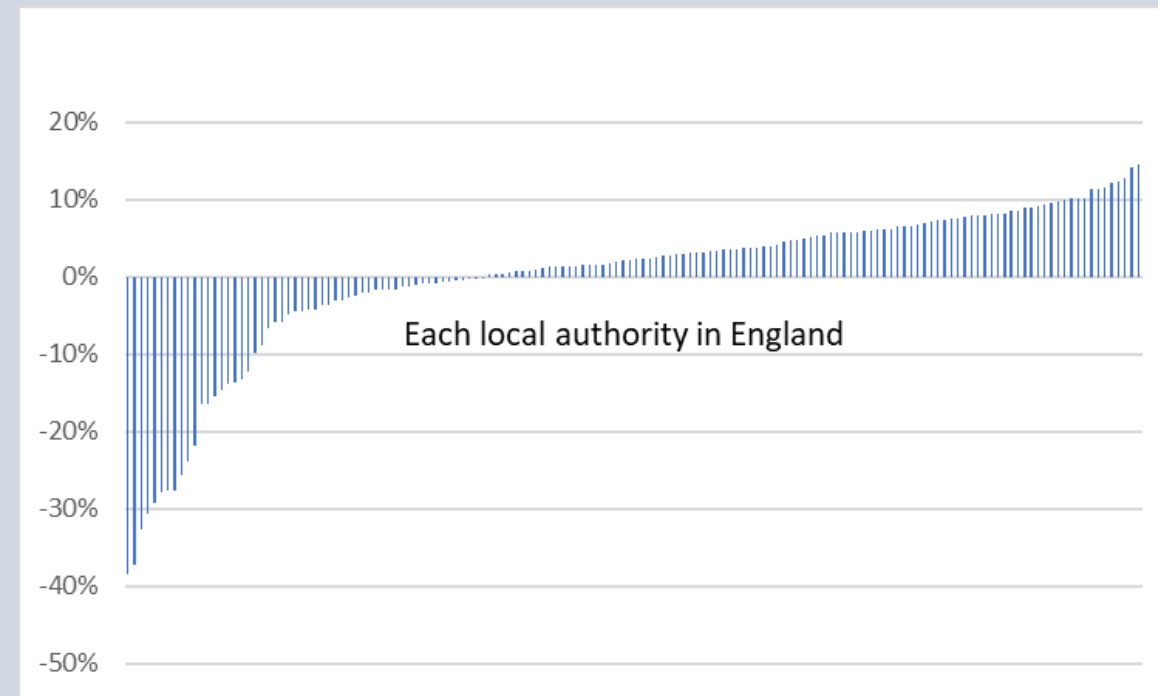
AER =		All care
Attendance Allowance claimants 65+ per capita 65+	×	3.764
+		
Limiting (significantly) condition 85+ per capita 65+	×	7.754
+		
Homeowner households 65+ per HHs 65+ × properties in council tax band ABCDE per all properties	×	1.908
+		
Home-owner households 65+ per HHs 65+ × properties in council tax band FGH per all properties	×	0.812
+		
Pension Credit (PC) Claimants 65+ per capita 65+	×	-2.395
+		
Living arrangements: couple households 65+ per households 65+	×	-1.121
+		
Constant		1.282



Relative need allocation formulae: Additional expenditure requirements

- This chart shows the difference the relative needs adjustment makes when compared to an allocation made only on a per capita basis (i.e. a fixed amount per person 65+ in the LA population).
- We also find that the predicted AER is positively correlated with the number of self-payers per capita in a region – see slide 19 in the Annex.

Difference (%) in predicted AER per person per week compared to a simple per capita allocation – by local authority



Relative need allocation formulae: Additional assessments

- This table reports the estimated relative need allocation formula for additional assessments (AAs) (again as rates per capita 65+)
- Areas with high (direct) need rates (Attendance Allowance claimants, limiting conditions) can expect a greater number of AAs – due to a higher in-need population base.
- Wealthier areas (higher home ownership rate and lower PC recipients rate) can also expect more AAs – they have a higher share of self-funders, who are more likely to newly-seek an assessment. We see positive coefficients on homeownership for both approaches.
- Need and income are correlated; in the normative approach we see a *need* effect working through income – i.e. low income areas can have a lower share of self-funders, but a higher baseline population with need. The net effect is that areas with high pension credit rates (i.e. low income) have (slightly) *higher* AAs than others.
- In the utilisation approach, areas with higher rates of couple households will have fewer AAs – again likely due to needs test for care accounting for informal care (e.g. people with carers less likely to seek an assessment).
- This effect is reversed for the normative approach, although this positive effect is very small. In this case, carer input (from spouses) does not affect care need (having 2+ or 3+ ADLs) (and indeed may mean than people with care needs are more likely to stay in the community for longer).*

AA =		Utilisation-based approach	Normative approach (ADL3+)
Attendance Allowance claimants 65+ per capita 65+	×	0.028	0.064
+			
Limiting (significantly) condition 65+ per capita 65+	×	0.009	0.022
+			
Homeowner households 65+ per HHs 65+ × properties in council tax band ABCDE per all properties	×	0.025	0.004
+			
Home-owner households 65+ per HHs 65+ × properties in council tax band FGH per all properties	×	0.020	0.011
+			
Pension Credit (PC) Claimants 65+ per capita 65+	×	-0.022	0.006
+			
Living arrangements: couple households 65+ per households 65+	×	-0.028	0.013
+			
Constant		0.013	-0.004

* Potentially this is also are artefact of using ELSA data which only surveys (in most part) people in the community

Means-test additional expenditure requirements: Extending analysis to under 65s population (1)

- Individual-level data on wealth and needs proxies are not available for adults under 50 as ELSA only samples the population aged 50+. Therefore, we cannot directly simulate financial impacts for younger adult groups.
- An option is to use the estimated relationships between need and wealth effects on AERs from the older people's formula (simplified) to create a formula for younger adults, but with the need and wealth indicators replaced with those that apply for younger age groups:
 - *Home ownership rate for households 65+ and attendance allowance recipients per capita 65+* in the over 65s formula are replaced with *home ownership rate for households 25-64 and Personal Independence Payment (PIP) recipients per capita 16-64* as the wealth and need metrics for an under 65s formula (with the formula coefficients re-weighted accordingly)
- This option requires a number of assumptions, the main ones being that (a) relative wealth and need effects are the same across all ages, i.e. the underlying relationship between wealth/need metrics and AERs is no different between age groups, and (b) the new variables, once the coefficients are reweighted, capture the same underlying wealth and need effects, as the over 65's formula variables.



Means-test additional expenditure requirements: Extending analysis to under 65s population (2)

- This table reports the relative need allocation formula for the additional costs, in all care settings, for the means-test reform for under 65s.
- As with the formulae for over 65s, the corresponding metrics for each LA can be plugged into the formulas to give 'relative need' adjustments for LA funding allocations.

AER =		All care
PIP claimants 16-64 per capita 16-64	×	3.5299
+		
Home-owner households 25-64 per HHs 25-64	×	3.2234
+		
Constant		0.2655



Discussion – validity and variants

- Robustness testing and validity
 - Since the reforms have not yet been implemented, we cannot directly assess the ‘fit’ of our models by comparing them with (historical) real data.
 - Nonetheless, we explored overall validity in two ways.
 - First, we assessed theoretical validity, contrasting the results with the effects we expect to see from the reforms. The results were in line with hypothesised effects (e.g. need and wealth effects). See also slide 19 in the annex.
 - Second, we estimated variant specifications/assumptions, including choices of variables. For example, an alternative was to use house price data rather than council tax bands. Whilst there were naturally some differences, results were similar overall.
- Additional assessments – the choice between the utilisation and normative approaches
 - According to NHS Digital data, around 1.37m new request are made of LA social care by people over 65 in year (significantly greater than the number in receipt of services). Although many additional assessments will be from people who are not currently financially eligible, it is not clear how many will come from people who do not meet the needs-eligibility threshold.
 - We therefore used both approaches – pros and cons are in the box to the right
 - Compared to the utilisation approach, the normative approach is less sensitive to wealth differences and more sensitive to need. See also slide 20 in the annex for further details.
- Potential limitations
 - When using simulation analysis and statistical modelling, some assumptions are required. Also there are limitations on available data. These choices can affect the results.
 - Some potential limitations of this analysis are considered in the annex.

Utilisation	Normative
<i>Pros:</i> Only considers people estimated to pass a needs eligibility assessment	<i>Pros:</i> Definition of need not tied to current assessment practice; more ‘carer blind’
<i>Cons:</i> May underestimate additional assessments from people with lower need	<i>Cons:</i> 3+ ADLs is not a perfect indicator of numbers with potentially eligible need



Discussion – under 65s

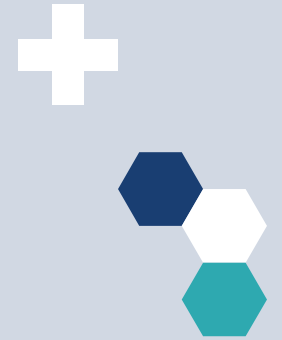
- This study mainly considers care for people 65+. Without being able to use ELSA data for simulating financial eligibility for younger adults with disability, we have a number of more pragmatic options.
 - The first is to use the older people's allocation formula.
 - Second, allocations could be made in proportion to a single need indicator. A lack of data on numbers of working age self-funders precludes use of that metric.
 - A third option – with results above - combines elements of the first and second.
 - Some important assumptions are required (as outlined above) but we suggest this option is better than the first two, addressing some of their limitations.
 - We should note that previous studies – and our own analysis of people aged 50 to 64 in ELSA – suggests financial eligibility rates for younger adults are high in the current system; the reforms are likely to make less difference to allocations between LAs than for over 65s.
 - Although this approach requires a number of assumptions, it is based on results of an empirical analysis of AERs (as they relate to older people). Further consideration is merited for either bespoke data collections or exploration of alternative datasets (recognising their limitations) for direct estimation of a younger adults formula.



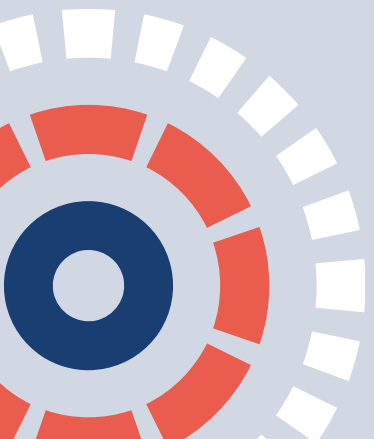
Concluding points

- The reforms are likely to affect LAs in different ways in accordance with their population's levels of need and wealth. We found that expected AERs and AAs are significantly affected by differences in these factors between areas.
- Accordingly the results support the principles of need adjustment in allocating resources to LAs with responsibility for social care. Without such adjustment, LA would have differing financial capacity to meet their care responsibilities potentially creating unmet need, or overfunding areas where budgets could be better used elsewhere.
- Allocation formulas are an established method for making such an allocation.





Annex – methods and data



Methods: Additional expenditure requirements (1)

- To receive LA-funded support, an individual will have to satisfy a *needs* and a *financial* eligibility test. The public expenditure requirement per person over 65 depends on their (i) probability of satisfying both tests and (ii) the net costs of their care, which is the total cost of their care less any charge made by the care system. The *additional* expenditure requirement (AER) from the change in the means-test is the difference in expenditure requirement:

$$AER = P(\text{Needs} + \text{Financially Eligible}^{NEW}) \times \text{Net public cost}^{NEW} - P(\text{Needs} + \text{Financially Eligible}^{OLD}) \times \text{Net public cost}^{OLD}$$

- Since the reforms are not yet implemented, we do not know how many people would satisfy both the new means-test and the existing needs test, so this need to be estimated.
- Noting that the means-test reform affects only *financial eligibility* and that the *needs eligibility* criteria are unchanged, so the AER can be specified in a different way, separating out the need and financial eligibility components:*

$$AER = P(\text{Needs Eligible}) \times [P(\text{Fin Eligible}^{NEW} | \text{Needs Eligible}) \times \text{Net public cost}^{NEW} - P(\text{Fin Eligible}^{OLD} | \text{Needs Eligible}) \times \text{Net public cost}^{OLD}]$$

- Financial eligibility** and the amount of the **charge** (so net public cost) are a rules-based conditions. They can be simulated using data from surveys of older people with potential care needs that collect data (e.g. on wealth and income) on which the old rules and new rule can be applied – for example, whether the person has assessable assets of > £23,250 and now > £100,000.

* This is the case because the joint probability of meeting both tests can be split out:

$$P(\text{Needs} + \text{Financially Eligible}) = P(\text{Fin Eligible} | \text{Needs Eligible}) \times P(\text{Needs Eligible})$$

where $P(\text{Fin Eligible} | \text{Needs Eligible})$ is the (conditional) probability of being financially eligible and having care needs.

Methods: Additional expenditure requirements (2)

- Although there is guidance that LAs follow, the **needs condition** is not directly rules-based. So the total number of people with care needs in the population (i.e. would satisfy $P(\text{Needs})$) cannot be simulated and is also not routinely recorded.
- However, the number who satisfy both conditions *currently* is recorded (being the numbers supported in the current system). And since the *needs eligibility* criteria are unchanged, we can infer need from current publicly-funded service use by dividing out the chance that people with potential care need would be eligible.*
 - e.g. around 150,000 people are publicly supported in care homes and 0.59 of people with care needs are financially eligible. So, there are 254,000 with need (=150,000/0.59).
- We use two sources of data for this analysis:
 - (1) Data on service use and expenditure of people currently supported (i.e. on $P(\text{Needs} + \text{Fin Eligible}^{OLD})$). This is collected from local authorities and we collected this data for ‘small areas’. These data are matched (for the same small area) with other relevant data such as population characteristics, benefits use etc. This is used to establish need – i.e. $P(\text{Needs Eligible})$.
 - (2) Data from the English longitudinal survey of ageing (ELSA) used to simulate financial eligibility (i.e. to estimate the probability of being financial eligible for people with care needs $P(\text{Fin Eligible}^{OLD} | \text{Needs Eligible})$ and the *Net public cost*)

* Using the probability relationship from above: $P(\text{Needs Eligible}) = \frac{P(\text{Needs} + \text{Fin Eligible}^{OLD})}{P(\text{Fin Eligible}^{OLD} | \text{Needs Eligible})}$ and where we have data on number supported = $P(\text{Needs} + \text{Fin Eligible}^{OLD}) \times \text{population}$

Methods: Additional assessments

- Additional assessments (AA) are calculated to be the difference between the total number of people seeking assessments post-reform and the number already assessed. We take the latter to equal the current number of LA-supported care users. We use two approaches:

(1) **Utilisation-based approach:** $AA = Population \times P(\text{Needs Eligible}) - \#(\text{Current LA-supported})$

- In this option the total demand for assessments is equal to the number with eligible care needs (as calculated for the AER for the means-test reform, as above). It is a ‘utilisation-based’ approach because need is based on the number of people that satisfy the current needs-test for social care. We estimate that there are around 577,000 people with eligible (long-term care) needs.

(2) **Normative (proxy) approach:** $AA = Population \times P(\text{Potential Eligible Need}) - \#(\text{Current LA-supported})$

- ‘Potential eligible need’ in this case is measured by the number of people in the population with 3 or more activities of daily living difficulties (ADLs) such as washing, dressing, feeding etc. It is a ‘normative’ approach because it does not draw on the needs test that is currently used to determine eligibility for social care.
 - Population ADL data is not routinely available and so this is estimated using the ELSA data. The proportion of people over 65 with 3+ ADLs is predicted using a number of metrics that are available nationally, including population age structure, numbers of benefit claimants (attendance allowance and pension credit), Census data on rate of people reporting poor health, and who live alone.

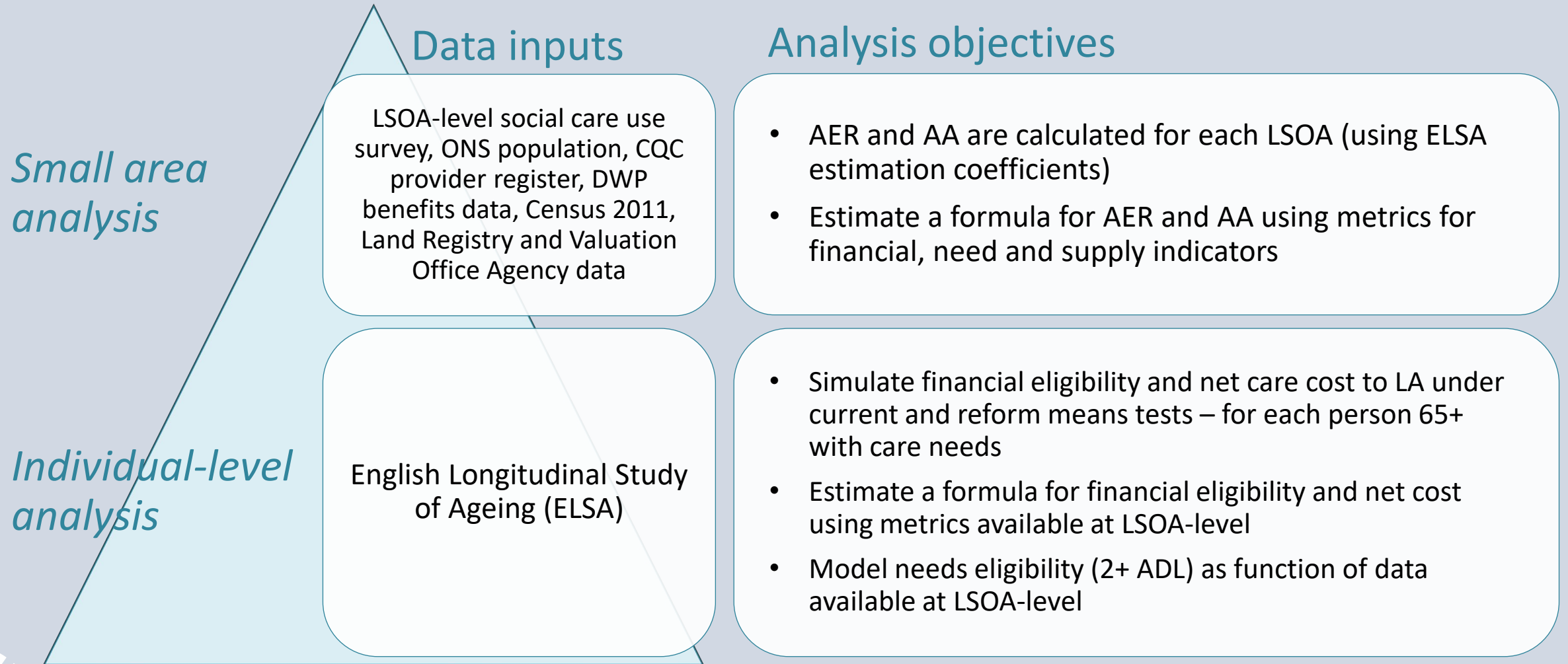


Methods: Estimating formulae

- AER and AA are calculated (as above) using a range of data (some purposively collected) and simulation results not routinely available for each local authority
- In other words, we cannot routinely calculate AERs and AAs for each local authority. Rather we start with our bespoke calculations of AER and AA and use statistical analysis and routinely-available metrics to estimate formulae for these expenditure requirements.
- We calculate AER and AA for each 'small area' in England giving many 'observations' (32,844 LSOAs small areas) for robust statistical analysis (regression)
- Statistical analysis is used to establish a corresponding formula: AER_i (or AA_i) = $\beta_{need} \times needs_i + \beta_{inc} \times income_i + \beta_{wth} \times wealth_i + \beta_{sup} \times supply_i + other_i$ for each LSOA (where the subscript i is each LSOA)
- We use metrics (needs, income, wealth factors) that are available for each LA (with future projected values). Supply and other factors are removed (subtracted out) to give the final *relative need* (RN) allocation formula at the LA level: $RN_k = \pi_{need} \times needs_k + \pi_{inc} \times income_k + \pi_{wth} \times wealth_k$ for each LA (denoted k). The coefficients π are derived from the β s.
- The relative need formula can be applied for each local authority using the estimated coefficients as above to calculate the relative size of their AER or AA due to differences in need (where *need here* means both care needs and income/wealth differences), following the reforms.



Analysis outline – datasets used

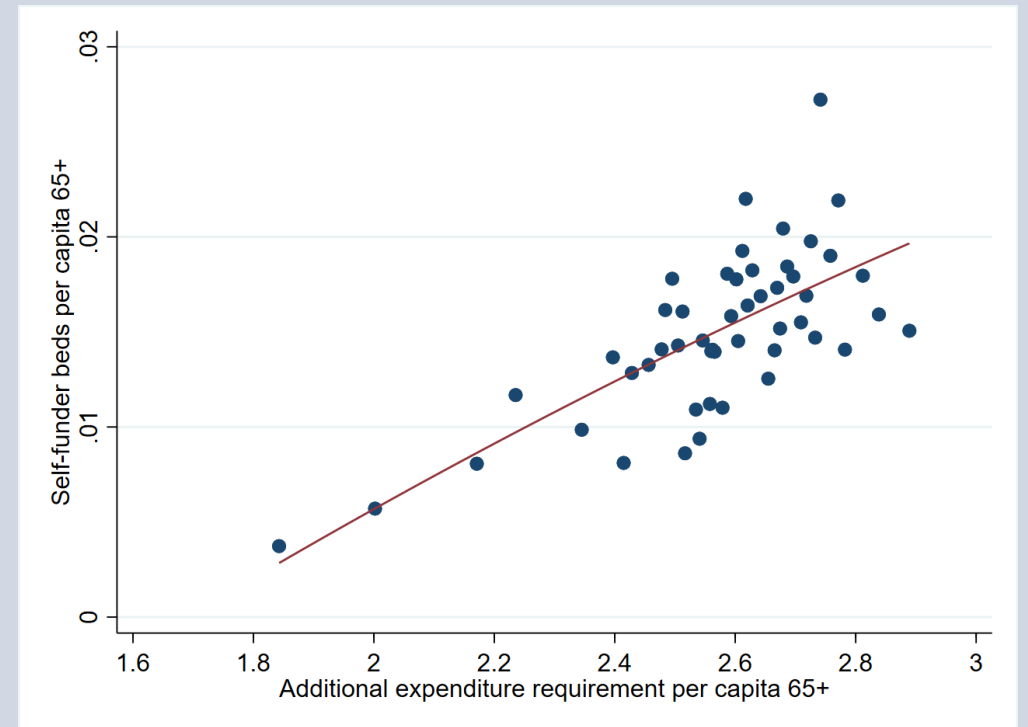


Allocation formulae: Additional expenditure requirements

- As the extension of the means-test will help current self-funders (particularly those people just above the current thresholds), we expect the AER predicted by the formula to (positively) correlate with the number of self-funders (per capita) in an area.
- This chart shows the positive correlation between the predicted AER and share of self-funder care home beds at the local authority level.*
- The results also show that formula AERs are not fully in-line with the (care homes) self-funder rate – due to differences in self-funders need levels (relative to the public needs test); differences in need versus supply; and because self-funder rates for residential care may not directly correspond to (un-recorded) self-funder rates in non-residential care.

* We apply ONS/CQC survey data on rates of self-funders in care homes for older people and those with dementia, and apply those to numbers of care home beds per capita 65+. Numbers of self-funders aged 65+ for non-residential care is not routinely recorded at LA-level.

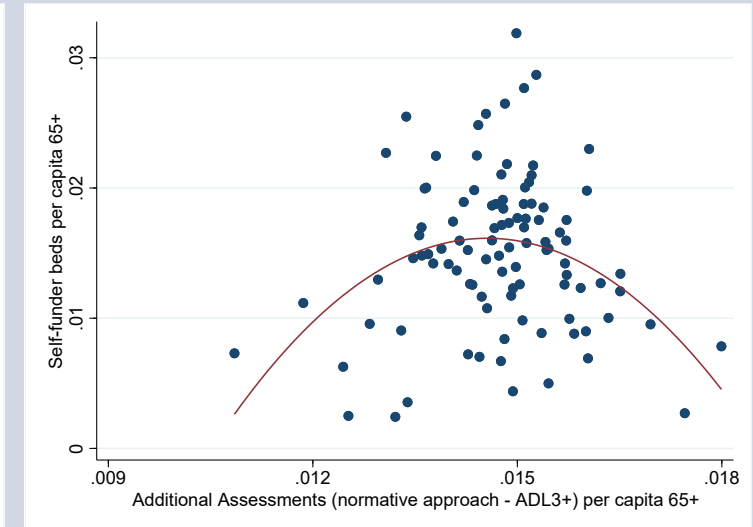
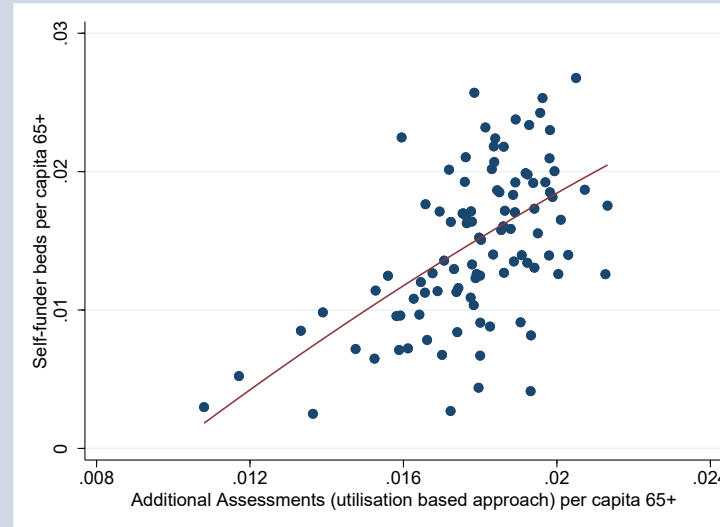
Number of 'self-funder beds' per capita 65+ compared to predicted AER – by local authority



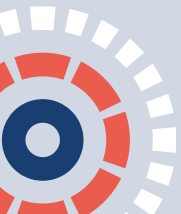
Allocation formulae: Additional assessments

Number of 'self-funder beds' per capita 65+ compared to predicted AA – by local authority

- The utilisation based approach would give larger allocations to more affluent LAs (i.e. with a larger share of self-funders)
- The normative approach will be less favourable to affluent LAs, giving larger allocations to LAs with relatively more (baseline) care needs.



* We apply ONS/CQC survey data on rates of self-funders in care homes for older people and those with dementia, and apply those to numbers of care home beds per capita 65+. Numbers of self-funders aged 65+ for non-residential care is not routinely recorded at LA-level.



Potential limitations

- We used 2012/13 care utilisation data (a substantial bespoke collection at the time). These data were reweighted to 2019/20 situation at LA level and should reflect changes in patterns of care between LAs to date. We were not able to re-weight at small area because these data are not collated – this is only an issue if the distribution of care use within each local authority has changed systematically.
- Financial eligibility simulations should be made for those with eligible care needs but, as this data is not comprehensively collected over previous waves of ELSA, we instead used proxy ADL need (2+ ADLs)*. Estimations with alternatives 1+ ADLs and 3+ ADLs produced rather similar results.
- Simulations (of financial eligibility) do not fully reflect real-world practice. Nonetheless, the use of ELSA data allowed a highly granular approach. Any limitations are only important for relative need formulas if their implications affect LAs in a systematically different way.

* Using 2+ ADLs gives a good number of observations for modelling complex changes in the means-test whilst being sufficiently representative of people with high level of need. For modelling additional assessments we use 3+ ADLs which might be closer to the needs criteria in use, and where we only need to estimate whether this condition is met or not in the whole population.

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- Data from the English Longitudinal Study of Ageing (ELSA) were made available through the UK Data Service. The English Longitudinal Study of Ageing was developed by a team of researchers based at University College London, NatCen Social Research, the Institute for Fiscal Studies, the University of Manchester and the University of East Anglia. The data were collected by NatCen Social Research. The funding is currently provided by the National Institute on Aging (Ref: R01AG017644) and by a consortium of UK government departments: Department for Health and Social Care; Department for Transport; Department for Work and Pensions, which is coordinated by the National Institute for Health Research (NIHR, Ref: 198-1074). Funding has also been provided by the Economic and Social Research Council (ESRC). The developers and funders of ELSA and the UK Data Service do not bear any responsibility for the analyses or interpretations presented in this report.
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