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Public preferences for paying for social care in later life in England: A latent class analysis

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ABSTRACT

There is ongoing debate about how the funding system for social care of older people in England should best be reformed. We investigated how public attitudes to individual and state responsibility for paying for social care in later life vary with demographic and socio-economic characteristics. Four vignettes of individuals in need of home care or residential care with varying levels of savings, income and housing wealth were presented to a sample of people aged 18–75 years ($n = 3000$) in December 2018. Respondents were asked if care costs should be paid by the user, the state or shared. They were also asked about the best way to pay for social care in old age. Latent class analysis was used to identify sub-groups with similar preferences for paying for care, and to explore their socio-demographic characteristics. We identified five classes. The majority (Class 1, 58%) preferred that the state and the user should share social care costs. Class 2 (18%) thought that the state should pay all costs regardless of users' savings, income or housing wealth. Class 3 (15%) preferred users to pay all costs at all levels of savings, income and housing wealth, with the exception of those unable to afford the costs. Classes 4 and 5 (5% each) were characterised by different patterns of 'don't know' answers. Socio-economic status was higher among those proposing higher user contributions (Class 3) and lower among those with several 'don't' know' responses (Classes 4 and 5). Concerns about care costs in old age were high among those proposing that the state pays all costs (Class 2) and those preferring that users pay all costs (Class 3). This study shows that public views on social care funding vary with respondents' characteristics and that proposals to reform the system need to be carefully calibrated.

1. Introduction

While most older people today are living longer and healthier lives than previous generations, the proportions of those living with low and high levels of dependency have increased (Kingston et al., 2018). In England, for example, older men will on average spend about 2.1 years and older women about 3.7 years with substantial care needs by 2025 (Kingston et al., 2018). High-quality community and residential care are costly, which increases longstanding concerns – expressed across many countries – about how care should be paid for and by whom. This study focussed specifically on the situation in England, where a continuing failure to implement changes to the funding system for adult social care, care of older people particularly, means that such questions are live issues for both policymakers and the public. When the data reported here were collected, the government was committed to publishing policy proposals by the end of 2020, specifically to honour an election promise to end the situation where an individual's housing assets are used to meet the costs of their care. Such a promise is particularly relevant to older people who are the most likely in society to need costly residential care and to have significant housing assets. Unsurprisingly perhaps, the demands of the coronavirus pandemic have delayed government action.

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1.1. The social care funding system in England

Social care for adults 'covers social work, personal care and practical support for adults with a physical disability, a learning disability, or physical or mental illness, as well as support for their carers' (National Audit Office, 2018). The majority (65% in 2018–19) of those receiving adult social care are older people (aged 65+) (NHS Digital, 2019). Although both the organisation and funding of social care have implications for policy and practice in the National Health Service, the universalist principles of the latter are quite different from those underlying social care.

Currently in England, about half of all people receiving adult social care pay for at least part of their care costs (Charlesworth and Johnson, 2018). This is because eligibility for state-funded social care is determined by assessments of financial resources as well as care needs (DHSC 2018). Social care users with assets over £14,250 contribute to their care costs from their savings, and those with assets of £23,250 or more have to meet *all* their care costs. Service users also contribute to the cost of their care from their income, up to the point of reaching the (different) minimum income levels specified for community and residential care. For those using residential care, housing assets are also taken into account, except when a spouse or other dependant lives in their home. As there is no lifetime cap on the costs met by service users, some older people (especially those with longer-term needs) may be required to make substantial contributions to their care costs. Indeed, a substantial, and rising, proportion of people fund their own social care, although little is known about them (Baxter and Glendinning, 2015). Moreover, despite the complexity of the means-tested system for funding care, few people access regulated financial advice about funding care in old age (Heavy et al., 2019), with people preferring advice from family and friends.

Health and social care are also legally and managerially separate in England. Social care is a local government function, while the NHS is a nationally funded and managed service, accountable to ministers and Parliament. It is this separation between the NHS and social care that makes the organisation of long-term support more fragmented in England than in many other countries. Nonetheless, this distinction and its significance for individuals' personal funding responsibilities have not been well understood within the wider population and there is substantial evidence that many people assume social care will be available free at the point of access and without reference to their assets (Gregory, 2014; Ipsos Mori, 2018).

There has been intense debate about how social care should be funded in England for more than two decades. Some proposals for reform have advocated personal care free at point of use, in the way that health care is made available in England. This was recommended by a Royal Commission (1999), the Labour Government (HM Government, 2010) and more recently by various stakeholders including Independent Age (2019). Other proposals have involved relaxing but not removing the means test; for example, the Dilnot Committee recommended a lifetime cap on care costs (Commission on Funding Care and Support, 2011), and this was accepted in legislation by the Coalition Government of 2010–15 but not implemented.

At the heart of this debate is an issue of principle, whether the social care system should be universal or targeted. This fundamental issue arises across a spectrum of social policies and has been widely discussed for several programmes, especially health, education and pensions. A universal system gives the whole population a stake in the programme, which is traditionally seen as likely to increase its political support and reduce any stigma associated with receipt (Titmuss, 1968, 2006). It also avoids the administrative complexity, implementation costs and perverse incentives that tend to arise under means-tested programmes, such as the disincentive to save for one's own care needs (Oorschot, 1999; Townsend, 2002). There may also be a public perception of unfairness where those who have worked and saved are denied access to public funding, while those who have not saved can receive public support. A drawback of a universal system, however, is that some, if not many, of its beneficiaries could afford to fund services to meet their own needs, or at least partially fund them, without recourse to public funding (Oorschot, 1999; Townsend, 2002). This is especially pertinent when public funding is highly constrained and difficult decisions have to be made about which government programmes should be prioritised.

Whether social care should be a universal service available free to all at point of use or whether it should be targeted toward those with lower resources has been considered in many countries. The reasons include that public coverage of social care has in most countries been more limited than coverage of health care, and that private insurance for social care has faced challenges of market failure, leaving people with substantial needs at risk of 'catastrophic' costs if they should require intensive support over an extended period. Scotland introduced free personal care for older people in 2002 – the only part of the UK to do so following the recommendation of the Royal Commission – and in 2019 extended it to adults of all ages (Scottish Government, 2019). Germany introduced in 1995, and reformed in 2015–2017, a social insurance scheme for long-term care under which publicly funded support is available for those with significant care needs on a universal basis without means test (European Commission, 2018; Curry, 2019). Japan introduced a social insurance scheme in 2000, but it includes a small user co-payment for those able to afford it (Curry et al., 2018). The policy issue which this paper informs is therefore relevant to many countries.

1.2. Knowledge of public attitudes to paying for social care

Given the unresolved nature of the funding debate in England, and elsewhere, it is possible that progress might be facilitated by more fully understanding public attitudes on paying for social care. Apart from studies on attitudes towards the role of family members and formal care providers in providing and financing social care (see for a review, Janus and Koslowski, 2020), the international literature focusing on attitudes to paying for social care is negligible. Only a few qualitative studies (Dixon et al., 2019; Hewitson et al., 2011; Ipsos Mori, 2018; Overton and Fox O'Mahony, 2017; Price et al., 2014) and descriptive surveys (not utilizing regression modelling or similar approaches; Ipsos Mori, 2013; Tian 2014; Wood and Vilbert, 2017) have investigated public attitudes to social care funding in England. Although evidence about attitudes to state and user contributions in paying for old age care is not clear-cut (Gregory, 2014), surveys in England show that significant proportions of the public believe that individuals have a responsibility for contributing to the costs of their care. For example, one study exploring attitudes to funding retirement and social care in old age found that more than half of respondents believed that individuals should contribute to their care costs, with most favouring user contributions up to a capped amount (31%) or means-tested support (24%; Wood and Vilbert, 2017). A third of respondents in that study (36%) thought that government should meet all care costs, and only 3% thought that individuals should always cover all care costs. About 5% of respondents did not know who should pay for the social care needed by older people. The oldest age group (over 65 years) showed the highest support (75%) for the view that it was the individual's responsibility to pay for some or all of their care.

In another survey, half the respondents thought that the state should pay for all care costs, and the remainder were split between those who thought the individual should pay up to a capped amount (27%) and those who preferred individuals paying what they could, with the state paying the rest (22%; Tian, 2014). Respondents aged 45–54 were most in favour of state funding of social care (57% compared to 50% overall), whereas younger people (aged 18–34) showed more support for individuals paying what they could afford (30% compared to 22% overall). Also, respondents aged 55–64 chose the capped model more frequently (36%) than the overall sample (27%), and people with higher income favoured more frequently individuals paying what they could

afford or up to a capped amount (60% compared to 50% overall). However, opinion was evenly divided in a third survey, as the same proportions of respondents (41%) agreed and disagreed that users should pay for their own care in old age. Younger people and those from higher socio-economic groups were more likely to support individual responsibility for care costs (Ipsos Mori, 2013).

As shown above, evidence on public preferences for paying for social care is mixed, analytical methods have mostly been descriptive, and associations with respondents' characteristics rarely studied. To provide up-to-date quantitative evidence, we carried out a survey to investigate public preferences for state and user contributions when paying for social care in old age. We used vignettes of older people facing home care or residential care costs with different levels of personal financial resources. The results showed that two-thirds of the sample favoured sharing the social care costs between the state and the user, while fewer than one-fifth preferred that the state pays all, and an even smaller proportion preferred that the user pays all regardless of the user's resources. Detailed findings have been reported elsewhere (Wittenberg et al., 2020).

In more detailed analyses, described in this paper, we sought to understand the underlying patterns in the survey findings by using latent class analysis (i) to identify sub-groups with similar preferences for paying for social care in old age; and (ii) to examine demographic and socio-economic characteristics associated with those preferences.

2. Methods

2.1. Sample

We conducted an online survey of 3000 individuals living in England aged between 18 and 75 years; data collection was carried out by Kantar, Public Division between 6th and December 19, 2018. Survey methods are described in detail elsewhere (Erens et al., 2020). The sample used age quotas to be representative of the population of England; it included an equal number of men and women. The sample was also largely representative of the population on other socio-demographic variables (Erens et al., 2020). The survey was approved by the London School of Hygiene and Tropical Medicine Observational Research Ethics Committee (Ref 16186).

2.2. Vignettes used to ascertain preferences for paying for social care

Following a qualitative study exploring people's views about their future social care needs and the funding of their care (Dixon et al., 2019), four vignettes were developed to elicit respondents' preferences on state and user contributions to the costs of social care in old age. Two of the four vignettes focused on individuals needing home care and two on residential care. The costs of care in the vignettes were indicative estimates of likely costs at the time; i.e. £220/week for receiving home care and £750/week for residential care. Respondents were asked to indicate their preferences about how care should be paid for: fully by the state; fully by the service user; or shared between the two, taking into account varying levels of the user's savings, income and housing wealth. Answers were recoded into five ordinal categories with increasing user contribution:

i) the state pays all costs in all cases;
ii) users contribute to the costs if they have the highest level of income and assets;
iii) users contribute at the middle level of income and assets;
iv) users contribute even at the lowest level of income and assets; and
v) users pays all costs in all cases.

A brief description of the vignettes is shown in Supplementary Table 1. The questionnaire is described in detail elsewhere (Erens et al., 2020).

All respondents were presented with the same scenarios on paying for home care and residential care costs. In the first two vignettes on home care, half the sample were randomised to receive a vignette with a female character (named Grace in the vignettes) and the other half with a male character (named Alan in the vignettes). The characters' names were switched in the second two vignettes on residential care, so that each respondent received two vignettes of each gender in a random starting order. To investigate the possible effect of vignette gender on responses to the survey, we identified the average vignette response on the ordinal scale from 1 to 5 (as described above by the vignette character's gender) and then divided the average score for the male character by the average score for the female character to see if the respondents were suggesting higher contributions for a male user (ratio above 1) or a female user (ratio below 1). The ratio was calculated within the answers the respondent gave to each of the two vignette genders.

The proportion of 'don't know' answers was calculated across the four vignettes, with each vignette having three sections (for different values of the user's savings, income or housing wealth). The number of 'don't know' answers could vary between 0 and 12. Depending on their previous responses, the number of the sections differed between respondents. The proportion of 'don't know' answers was calculated within the administered sections.

2.3. Best way to pay for care

A separate general question was also asked about the best way to pay for care ("Of the statements shown below, which do you think is the best way that care for older people should be paid for?"). The question was followed by four options with increasing user contributions:

i) the state should pay for care for all older people, irrespective of their income;
ii) the state should pay for basic services, and people who can afford to should be able to pay for better care;
iii) the state should only pay for care for those who cannot afford to, and everyone else should make their own arrangements for paying for care; and
iv) everyone should make their own arrangements for paying for care.

The responses were coded as an ordinal variable.

2.4. Socio-demographic variables

A binary variable for *female* gender was used (0 = male, 1 = female). Three *age groups* were identified: younger (18–34 years), middle aged (35–64 years) and older people (64–75 years). Having a *partner* and having *any child under age 16 living in the household* were both binary variables (0 = no, 1 = yes). Because of the small numbers of people other than White in the sample, *ethnicity* was coded into two categories: 0 = other; 1 = White. *Education* was measured in three levels: 1 = no qualifications; 2 = any qualification below higher education; and 3 = higher education (a degree or higher).

Tenure status and house value were combined into a variable with five categories:

i) social rent from local authority or housing association;
ii) private rent;
iii) owns house worth less than £150,000;
iv) owns house worth between £150,000 and £499,999;
v) owns house worth £500,000 or more.

Social grade was measured using the National Readership Survey (2019) (NRS) classification of the chief income earner occupation in the household. The use of the original six occupational categories would

have resulted in very small cell sizes in the sub-groups after latent class analysis, so the two larger categories were used to represent non-manual and manual occupation/not in work:

i) ABC1 (higher or intermediate managerial, administrative and professional, supervisory, clerical and junior managerial, administrative and professional); and
ii) C2DE (skilled manual workers, semi-skilled and unskilled manual workers, state pensioners, casual and lowest-grade workers, not employed with state benefits only including homemakers and students).

Two binary variables were used for *cares for someone* and *being cared for by someone* (0 = no, 1 = yes). As very few people reported poor health, the original 5-point scale for *self-rated health* was re-coded into two categories: 0 = very poor/poor/fair health; and 1 = good/very good health. Having a *limiting long-term illness* was defined as a binary variable (0 = no, 1 = yes).

A question on *how concerned about meeting the cost of care when old* was measured using five categories: 1 = extremely; 2 = moderately; 3 = slightly; 4 = not at all; and 5 = I don't know. *How likely to care for someone in the future* was also measured with five categories: 1 = very likely; 2 = somewhat likely; 3 = somewhat unlikely; 4 = very unlikely; and 5 = I don't know.

Regarding general attitudes to public spending, respondents were asked if they *would like to see more or less spending* on the NHS, the military, schools and education, public transport, social care for older people who need help, old age/state pensions and winter fuel payments for older people. The spending in each of the seven areas was measured on a 5-point scale (1 = a lot less; 2 = a little less; 3 = no change; 4 = a little more; 5 = a lot more). We created a mean of the seven items to indicate the overall preference towards higher state spending. The score showed adequate internal consistency: Cronbach's alpha for the seven public spending items was 0.72.

2.5. Analysis

We investigated the underlying patterns of preferences for paying for social care using latent class analysis (LCA) in Mplus (Muthén and Muthén, 1998–2015). This method is designed to identify underlying population sub-groups with similar profiles. As a model-based technique, it has several advantages over more traditional methods, including statistical criteria for determining the appropriate number of classes (Nylund et al., 2007). The indicators used in constructing the latent classes were:

- the four vignettes with responses coded into five ordinal categories (from state pays all to user pays all);
- the effect of vignette gender (the ratio indicating whether a male user was expected to make higher or lower contributions compared to a female user);
- the proportion of 'don't know' answers used as a continuous variable; and
- a 4-point ordered categorical item for the 'Best way to pay for care'.

Models with one to six latent classes were tested for fit to identify the most parsimonious model. This was done by assessing the interpretability of the classes and statistically comparing the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Vuong-Lo-Mendell-Rubin Likelihood Ratio Test (VLMR-LRT) and entropy value between the nested models, as provided in Mplus (Asparouhov and Muthén, 2014). Lower AIC and BIC values indicate a better fit, whereas an entropy value closer to 1 indicates a clearer delineation of classes. The likelihood ratio test (VLMR-LRT) was used to compare the nested models. A significant *p*-value indicates that the added class is needed to improve the fit of the model. Maximum likelihood estimation with robust standard errors was used. To retain all possible information, the full information likelihood method was used for creating the latent classes. This permitted inclusion in the analysis of the means and standard deviations of any variables for which only partially complete data were available.

We used a three-step approach to study the associations between class membership and socio-demographic factors (Asparouhov and Muthén, 2014). This approach allows simultaneous creation of an optimal number of classes (identification of the latent classes) and examination of the associations of the classes with other variables (multinomial regression). Individual socio-demographic factors included in the three-step model as auxiliary variables and used in the complete data multinomial regression were: gender; age; whether respondent had a partner; whether there was any child under 16 in the household; ethnicity; tenure/house value; social grade; caring for others; cared for by others; self-rated health; limiting long-term illness; how concerned about meeting the cost of care when old; how likely to care for someone in the future; and whether respondents would like to see more public spending in general.

3. Results

3.1. Descriptive results

Table 1 shows distributions of socio-demographic factors in the sample. Most respondents were aged between 35 and 64 (54%). A majority had a partner (61%) and 29% had a child under 16 years living in the household. Ninety-one percent of the sample identified themselves

Table 1
Distributions of the socio-demographic factors among the respondents to the online survey.

Variable	*n*	%
Gender (female)	3000	50.0
Age group	3000	
18–34		32.0
35–64		54.0
65–75		14.0
Partner	2965	60.8
Any child under 16 in household	2882	29.2
Ethnicity (White)	2916	90.9
Education	2965	
No qualification		4.9
Any qualification below higher education		53.0
Higher		42.1
Tenure/house value	2870	
Rents, local authority		17.1
Rents, private		18.9
Owns house, <£150,000		21.0
Owns house, £150,000–499,999		36.5
Owns house, £500,000+		6.5
Non-manual occupation	3000	62.7
Caring for others	2929	24.2
Cared for by someone	3000	13.5
Self-rated health (good/very good)	2971	61.9
Limiting long-term illness	2910	25.8
How concerned about meeting the cost of care when old	3000	
Extremely		19.3
Moderately		30.0
Slightly		27.1
Not at all		15.4
I don't know		8.2
How likely to care for someone in the future	3000	
Very likely		22.9
Somewhat likely		36.6
Somewhat unlikely		14.2
Very unlikely		11.5
Don't know		14.8
		mean (*sd*)
Would like to see more public spending	2949	3.7 (0.63)

sd = standard deviation.

as White. Most owned their own home (64%), whereas 17% rented from the local authority and 19% rented privately. Most people had qualifications below degree (53%), with a slightly lower percentage (42%) reporting higher education qualifications. Most respondents were in non-manual occupations (63%). Twenty-four percent were caring *for* someone and 14% were cared for *by* someone. A majority (62%) reported their health as good or very good, and 26% had a limiting long-term illness. Most people were either moderately (30%) or slightly (27%) concerned about the cost of care when old. More than a third answered that it was somewhat likely that they would care for someone in the future (37%), followed by 23% who said it was very likely. Most people wanted to see somewhat more spending on public services including health and social care, the average being 3.7 (on a scale from 1 to 5 where 3 means 'no change' and 4 means 'a little more').

The distributions of the vignette responses are shown in Table 2. Most people (58%) preferred options that involved sharing the costs of social care between the state and the user. The proportion of 'don't know' answers varied between 0% and 100%, the average being 8.7% ($sd = 22.9$). The ratio indicating any vignette gender effect suggested that respondents tended to propose a slightly higher user contributions at the lower levels of income and assets for men than for women (ratio = 1.08, $sd = 1.17$).

Table 3 shows the distribution of responses to the question on the 'Best way to pay for care'. Nearly half the sample (47%) preferred the option of the state paying for basic services and people who could afford it paying for better care. About a fifth of the respondents thought that the state should pay for care for all regardless of income, and another fifth that the state should pay for care only for those who cannot afford it. Smaller proportions preferred the option that everyone should make their own arrangements for paying for care (6%) or did not know how the costs of care should be split (8%).

3.2. Latent class analysis: paying for social care

A comparison of the diagnostic statistics for latent class analysis with different number of classes is shown in Table 4. The VLMR likelihood ratio test along with AIC and BIC values suggested that the best solution would be to use six classes. However, the sixth class was very small ($n = 77$) and its content was difficult to interpret. Therefore, we chose the five-class solution which had the second best (second lowest) AIC (45755) and BIC (46415), and showed good discrimination between the classes (entropy = 0.92).

A summary of the five classes of preferences for paying for social care is shown in Table 5. Estimated probabilities and means for each LCA indicator are in Supplementary Table 2.

More than half the sample (Class 1, 58%) was characterised by the preference for the user to pay some of the costs of care with the state contributing the rest from the start of receiving care. This would apply to people with even the lowest levels of income and assets, with the exception of those who both rented and had very little income and savings (Vignette 2). Respondents in this class expected the state to provide basic services which the user could top up. The distributions of the socio-demographic characteristics of each class (Supplementary Table 3) showed that this large sub-group did not differ from the overall sample (Table 1). Therefore, it was used as the comparison (reference) class in a multinomial analysis of the association between the classes and socio-demographic factors (Supplementary Table 4).

Table 2
Distributions of vignette responses (%) among survey respondents.

Vignettes	1[a]	2[b]	3[c]	4[d]
State pays all (full cost) in all cases	14.0	20.0	16.2	15.2
User contributes to cost only at the highest level of income/savings/housing wealth	14.3	36.4	7.4	9.3
User contributes at the middle level	27.6	19.3	22.9	16.4
User contributes even at the lowest level	26.0	12.6	39.0	39.8
User pays all (full cost) in all cases	11.2	5.2	6.4	11.7
Don't know	6.9	6.4	8.1	7.6

[a] Vignette 1: paying for home care cost of £220/week at varying levels of savings.
[b] Vignette 2: paying for home care cost of £220/week at varying levels of income.
[c] Vignette 3: paying for residential care cost of £750/week at varying levels of house value.
[d] Vignette 4: paying for residential care cost of £750/week at varying levels of income.

Table 3
Distributions of responses on the best way to pay for care.

Of the statements shown below, which do you think is the best way that care for older people should be paid for?	%
State should pay for care for all older people, whatever their income	19.4
State should pay for basic services, and people who can afford to should be able to pay for better care	46.9
State should only pay for care for those who cannot afford it, and everyone else should make their own arrangements for paying for care	20.3
Everyone should make their own arrangements for paying for care	5.5
I don't know	8.0

Class 2 (18%) was characterised by the preference for the state to pay all costs irrespective of the user's savings, income or housing wealth (Table 5 and Supplementary Table 2). Respondents in this class were mostly male, owned a house worth £150,000–499,999, were not caring for someone, had poorer health but did not have a limiting long-term illness, were extremely concerned about meeting the cost of care when old and favoured more public spending compared to Class 1 (Supplementary Tables 3 and 4).

Respondents in Class 3 (15%) preferred that the user should pay all costs at all levels of savings, income and housing wealth until they run out of means. Answers to the 'Best way to pay for care' question in this class divided approximately equally between the options that the state should pay for care only for those who cannot afford it (39%), and the state should only cover the costs of basic services (33%; Table 5 and Supplementary Table 2). In this class, respondents were more often male, younger, had child (ren) under age 16 in the household, had non-manual occupation, owned a house with higher value, were cared for, were caring for someone (not significant in the final model), and/or likely to care for someone in the future, reported better health, were extremely concerned about meeting the cost of care when old, and favoured less public spending compared to the respondents in Class 1 (Supplementary Tables 3 and 4).

Class 4 and Class 5 (5% each) were considerably smaller in size and both were characterised by a higher proportion of 'don't know' answers (Table 5 and Supplementary Table 2). In Class 4, respondents typically answered 'don't know' sporadically, whereas in Class 5 the 'don't know' answers were numerous, especially towards the end of the questionnaire. Respondents in these two classes tended to have lower education (Class 4), or be classified into a lower social grade, i.e. manual occupation/not in work (Class 5), gave more frequent 'don't know' answers to the other attitude questions and supported less public spending compared to Class 1 (Supplementary Tables 3 and 4).

In all classes, there was a slight vignette gender effect suggesting that a male social care user should contribute more to their care costs compared to a female social care user. This effect was somewhat more pronounced in Classes 2 and 4 (Supplementary Table 2).

4. Discussion

Our study examined how public attitudes on paying for social care vary with people's demographic and socio-economic characteristics. Our analysis divided survey respondents, using latent class analysis, into three broad classes (plus two small classes who responded 'don't know' to some or many survey questions). Class 2, comprising 18% of survey

Table 4
Fit statistics for the latent class analysis of preferences for paying for social care ($n = 3000$).

Number of classes	Loglikelihood	N of parameters	VLMR-LRT	AIC	BIC	Entropy
1	−28614.83	22	–	57274	57406	–
2	−26367.37	44	$p < 0.001$	52823	53087	0.99
3	−24513.34	66	$p < 0.001$	49159	49555	0.91
4	−23609.29	88	$p = 0.008$	47395	47923	0.94
5	−22767.25	110	$p < 0.001$	45755	46415	0.92
6	−22179.83	132	$p < 0.001$[a]	44624	45416	0.93

VLMR-LRT = Vuong-Lo-Mendel-Rubin likelihood ratio test; AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion.
[a] VLMR-LRT cannot differentiate between the solutions of five and six classes. However, the sixth class is very small ($n = 77$) and its content difficult to interpret.

Table 5
Summary of the class characteristics.

	Class 1	Class 2	Class 3	Class 4	Class 5
	$n = 1742$ (58%)	$n = 526$ (18%)	$n = 439$ (15%)	$n = 138$ (5%)	$n = 154$ (5%)
Vignettes on paying for care	Mixed user and state contributions at all levels	State pays all at all levels	User pays all at all levels	No clear preference for who pays	Mixed user and state contributions at all levels[a]
Vignette gender effect	Male user contributes more	Male user contributes more	Male user contributes more	Male user contributes more	n/a[b]
Proportion of 'don't know' answers	2%	1%	1%	50%	93%
'Best way to pay'	"State should pay for basic services …"[c]	"State should pay for care for all …"[d]	"State should only pay for care for those who cannot afford it …"/"State should pay for basic services …"[e]	"State should pay for basic services …"[c]	"State should pay for basic services …"/"State should pay for care for all older people …"[f]
Individual socio-demographic characteristics	Similar to sample averages	- male - owned house worth £150,000–499,999 - not caring - had poorer health but did not have a limiting long-term illness - extremely concerned about meeting the cost of care - more public spending	- male - younger - non-manual occupation - had child (ren) in household - owned a house with worth £500,000+ - were cared for - reported better health - extremely concerned about meeting the cost of care - likely to care for someone in the future - less public spending	- lower education - frequent 'don't know' answers in other attitude questions - less public spending	- manual occupation/not in work - frequent 'don't know' answers in other attitude questions - less public spending

[a] This relates to vignette 1 only. There were too few responses for the other vignettes.
[b] Not possible to calculate because of a high proportion of 'don't know' answers per respondent.
[c] "State should pay for basic services, and people who can afford to should be able to pay for better care."
[d] "State should pay for care for all older people, whatever their income."
[e] "State should only pay for care for those who cannot afford it, and everyone else should make their own arrangements for paying for care", with overlapping CIs with "State should pay for basic services, and people who can afford to should be able to pay for better care".
[f] "State should pay for basic services, and people who can afford to should be able to pay for better care", overlapping CIs with "State should pay for care for all older people, whatever their income".

respondents, preferred a universal system under which costs of care are met by the state even for service users with substantial resources. Class 3, with 15% of respondents, preferred a non-universal targeted system under which costs of care are met by service users unless they have insufficient resources. Class 1, which accounted for 58% of respondents, took an intermediate view preferring that costs be shared between the state and the service user, with the majority of the costs met by the state even for those with substantial resources. This implies that those in Class 1 would be very likely to prefer a higher level of state contribution than under England's current funding system, which precludes from state support those people with substantial income or savings.

Our results are largely consistent with previous studies that have described how the majority of the public believe that social care users should be responsible for at least some of the costs of their social care (Bottery et al., 2018; Ipsos Mori, 2013; Wood and Vilbert, 2017). Our new study, however, identified a substantially smaller group of people (Class 2, about 15%) whose preference was for the state to be responsible for paying for *all* old age care, compared to about 36–50% in previous surveys (Ipsos Mori, 2013; Tian, 2014; Wood and Vilbert, 2017). This discrepancy may be due to differences in methods, as our study asked respondents to engage with a series of realistic situations where the individual's income, wealth, care needs and social care costs of care were clearly stated, ensuring that everyone had the same information. It may also be a product of the context for the current study (discussed below).

The socio-demographic characteristics of respondents in Class 1 were consistent with the overall sample; this group thought that social care costs should be shared between the user and the state. The two classes that suggested that either the state pay all (Class 2) or the user pay all (Class 3) in all circumstances represented the extreme ends of the preference distribution but, interestingly, they shared several characteristics. Male respondents and home owners were over-represented in both classes, and respondents in both classes were extremely concerned about meeting the cost of care when old. However, those who proposed that the user should pay all in all circumstances (Class 3) often owned a house with a higher value, were classified into a higher social grade, reported having long-term illness but better health, were cared for or likely to care for someone, and preferred less (overall) state spending compared to respondents who proposed that the state should pay all in all circumstances (Class 2).

Our results are in line with previous findings reporting that younger people and people in higher socio-economic groups tend to prefer higher user contributions and less state involvement (Ipsos Mori, 2013; Tian, 2014; Wood and Vilbert, 2017). Perhaps those participants who were better-off were relatively confident about meeting any potential future care costs, and those who were younger anticipated the possible cost to occur only in the very distant future. Consequently, any increase in government spending would almost certainly add to their immediate costs (through taxation) without necessarily increasing their direct or immediate benefits. Those in higher socioeconomic groups may also believe that they have lower lifetime risk of needing extensive long-term care. A very high level of concern about the costs of care appeared to unite classes 2 and 3, but led them to favour different solutions depending on their financial means, health, caring responsibilities and general attitudes to public spending. These findings challenge the idea that those who are wealthier and who have experience of care and its costs (Class 3) would be reluctant to contribute out-of-pocket when there is a possibility that the state pays all. It is important to note that our survey question on concerns about the future costs did not specify whether the concern related to the cost to the individual or the fiscal cost.

There were two smaller sub-groups who were characterised by answering 'don't know' either sporadically or to nearly all questions related to the vignettes. The inclusion of these classes (which involved coding the 'don't know' answers rather than setting them as missing and adding Class 4 and 5 to the LCA) improved the fit of the model, even though they were a small proportion of the sample (5% each). Small proportions of those who are undecided on who should pay for care have also been found in the previous studies (Wood and Vilbert, 2017). Higher proportions of 'don't know' answers were more frequent among those in lower socio-economic grades. Whether this was because these respondents found the vignettes difficult to understand and/or to complete, or whether they lacked interest in, or had not formed any opinions on, the topic needs further investigation.

Previous studies have shown that, when given more information on how social care is funded, people may consider the current system unfair and in need of change (Bottery et al., 2018). Such information may increase the proportion of respondents who think that people who currently use services are required to contribute too much to their care costs, for example, by having to sell their house to pay for residential care (Gregory, 2014). However, it may also have the opposite effect, as shown in focus group studies, where participants proposed higher user contributions when they were given more information about the current state of social care funding (Hewitson et al., 2011).

Knowledge of the context may influence the way people answer the questions on who should pay. Our study used scenarios which included information on the actual costs of care in a situation where an older person needs care, does not have any alternative to care services (such as unpaid care) and possesses – in some of the cases – reasonable income or assets. This information may increase support for the view that those benefitting from care and having income or assets might be expected to take more responsibility for paying for their own care (Wood and Vilbert, 2017), most often in partnership with the state (Hewitson et al., 2011). This may explain why those who had experience of caring roles were more likely to propose a higher user contribution. This finding may also reflect people's concerns about the likely quality of care. People may believe that self-funding will secure a greater choice of providers, and a bigger say over what is provided and its quality. For example, family carers have been found to be less satisfied with local authority-commissioned social care than the general public (Ipsos Mori, 2013). Those who preferred that the user should pay all care costs (or contribute even at the lowest levels of income and savings) may simply be supportive of greater individual responsibility, including for securing a good quality of life in old age (Ipsos Mori, 2013; Wood and Vilbert, 2017).

At the same time, it is possible that our findings and any differences compared with previous studies in England reflect underlying changes in public attitudes about the balance of individual and state responsibilities, whether specifically in the case of funding social care or, more broadly, in relation to the public sector as a whole. It is possible to hypothesise potential causes for such switches in attitudes in the recent English context. Since successive governments have repeatedly claimed to be prioritising social care funding reform but failing to enact or implement any changes, it may be considered both procedurally and economically rational on the part of the public to reduce their expectations of any further effective collective action and increasingly recognise their need to continue largely to fund their own care. More generally, such learned behaviours are consistent with the impact of more than a decade of financial austerity and the longer term (but linked) consequences of neoliberal economics for the implied social contracts between the state and the public. From this perspective, the field of adult social may provide a rich context for understanding the evolution of welfare regimes over the last thirty years.

This is the first study to report preferences for paying for care in old age using vignettes and model-based methods (latent class analysis) with a representative sample of adults in England. Using vignettes is a powerful way to study a complex issue such as social care funding. It allows greater opportunity to standardize the situation for all respondents by providing specific information on costs and needs when eliciting public views. However, vignettes may limit the range of options considered by respondents and hence potentially limit the generalisability of the study. In our study, the scenarios focused on the user/state share of home care and residential care costs, but did not include any other care options such as unpaid care (Janus and Koslowski, 2020), or differences in quantity and quality of care or the lifestyles that people might enjoy under different versions of the scenarios. The scenarios also did not indicate how much more revenue the state would need to raise on average per person were all care costs to be met publicly. The use of scenarios obliges respondents to consider the issue in a specific context, which may be quite different from answering a general question on who should pay. There may also be a difference between asking respondents how they would like to pay for their own care and asking them how they believe others should (or would be able to) pay for care. Further qualitative research (similar to that used to develop the survey and scenarios in the first place) would be useful to explore further the quantitative findings and to understand the underlying reasons for the preferences expressed.

Although the sample was representative of the relevant population in England on a number of demographic indicators, there was a slight overrepresentation of those with higher education (Erens et al., 2020). The sample was taken from a volunteer panel, and so might not provide robust population estimates. It is possible that different distributions of the existing classes and/or more sub-groups of respondents could have been identified through the latent class analysis by using a larger sample, including more respondents from disadvantaged backgrounds. The 'don't know' answers complicated the analysis, but we decided to include these responses as they made an important contribution to characterising the funding preferences of different sub-groups. There may be other features of the funding arrangements that could be added to vignettes and/or as general questions in future surveys.

Our study shows that about three-quarters of the general public would like to see users contribute at least partially towards the cost of their care in old age, but these preferences varied with respondents' demographic and socio-economic characteristic. The majority would support a reformed would support a reformed system where social care is highly subsidised by the state, but where people who use services contribute in all cases to the costs of their care depending on their means. Future work should explore how much people consider the user should contribute, what is considered 'basic service' and 'better quality' care, and what is considered a 'fair' share between the user and the state over a lifetime, taking into account not only likely use of social care but also health care.

Our findings can inform the development of policies for reforming the system of financing social care in two ways. First, they can provide an indication of likely public attitudes and responses to reform options that policy-makers may be considering. Second, they could help policy-makers to develop the case for particular policy options and frame the arguments in ways which might resonate with the general public.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.socscimed.2021.113803.

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