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## Older people in England \& Wales: an overview of their health and well-being

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> East Midlands Research into Ageing Network (EMRAN) is a research collaboration across the East Midlands to facilitate collaborative applied clinical research into ageing and the care of older people. EMRAN was set up with support from NIHR CLAHRC East Midlands.

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[^0]EMRAN: Older people in England and Wales: Overview

## Introduction

This paper was written to support the SOPRANO project (Supporting Older People's Resilience through Assessment of Needs and Outcomes), which is part of the portfolio of the NIHR CLAHRC (Collaboration for Leadership and Applied Health Research and Care) East Midlands Caring for Older People and Stroke Survivors theme. The SOPRANO project (2014-2017) is studying the extent to which health, social and third sector services promote the resilience of older people and how they are commissioned in the East Midlands, with a particular interest in the integration of these services.

Resilience refers to the ability to overcome or bounce back from adversity, or when applied to older people it can refer to the ability for quality of life to be maintained despite (or even because of) the problems associated with ageing [1]. Resilience can be seen as an internal, personal, psychological notion, or can be seen as a consequence of social factors or be applied at a societal level [2]. The notion of resilience and successful ageing is of increasing interest in public health [3]. Interventions that might promote the resilience of older people include traditional public health measures such as campaigns to reduce obesity, smoking and alcohol excess and to promote physical exercise. But they also include "social" interventions such as schemes to reduce Ioneliness, to increase household safety and security, or to enable access to environmental and civic resources such as public transport, libraries, or parks. Promoting public health in this way might offer a preventative approach to the problems associated with ageing. Given that such low level interventions are likely to be inexpensive, they could well have economic advantages.

In preparation for the SOPRANO project, the study team recognised that the people to whom resilience-promoting measures might be best applied would be those who are in the process of transforming from being fit older "people" to those who become health or social care service "patients" and "clients". Early discussions with stakeholders in the research revealed a variety of views about what sort of people these might be: those from medical backgrounds typically had in their minds the sorts of patients seen in hospitals or by geriatric services (typically aged 80 or above), whereas those from older people's organisations had relatively vigorous older people in mind. Others invoked the age of 65 to denote when old age starts, and it is common in the media and in health circles for this age to be used when referring to "the elderly" or "older people". We noted a widespread unfamiliarity with some basic demography amongst our stakeholders. We

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felt that some sort of resource was required to help our study team and our stakeholders to the nature of the older people we envisaged resilience promotion might be best targeted.

All our stakeholders were aware that there are marked changes in the nature of older people within the age range from 65 and above. At the age of 65 , the number of 'healthy life years is around 11.1 years for men and 11.9 years for women, suggesting those in their mid-seventies can expect a decline in their cognitive and physical functioning (although this is obviously not uniformly the case) [4]. We decided, briefly, to orientate the study team and our stakeholders to the demography and actual nature of people in this age range using published survey data where possible split according to age bands (e.g. 65-75, 75-85, 85+). This report therefore provides a dossier of such facts. Its value to the SOPRANO project was as a resource to inform the team and its partners when referring to "older people".

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## Method

We conducted a simple narrative review of some of the most important large-scale surveys carried out over the last ten years, focusing on the most recent ones. We chose this method as it was quick and non-labour intensive: a detailed, exhaustive and precise summary of all available epidemiology was not required to orientate the study team and its partners.

We drew information from the Office for National Statistics [5-11], drawn from the UK census last conducted on March $27^{\text {th }} 2011$ (in which all residents of the UK are included), the annual Health Surveys for England from 2004 [12] (which had deliberately over sampled people from minority ethnic groups), 2005 (which had specifically focussed analyses upon those aged >65) [13-15], 2011 [16-19], 2012 [20-25] and 2013 [26-28] in which representatives of community dwelling adults were included. The National Diet and Nutrition Survey 2010 was used to find out about the eating habits of older people [29]. Information from the Census Data Explorer (beta) (http://www.ons.gov.uk/ons/guide-method/census/2011/census-data/ons-data-explorer--beta-/index.html - last accessed June 2015) was also downloaded and analysed for information pertinent to old people aged $>65$.

Given that SOPRANO was conducted in the English East Midlands, we would ideally present only English data, but frequently data for England and Wales were available. Officially-reported statistics do not always break down their findings by age bands other than crude ones such as providing results for all people aged $>65$, so at times we have reported statistics for those $>65$ (or $>75$ or $>85$ where cited).

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## Results

## Demography

In 2011, the total population in England and Wales was 56.1 million ( 53.0 million in England and 3.1 million in Wales). $7.8 \%$ of the population (i.e. 4.38 million) were aged 75 and over ${ }^{1}$. In comparison, $16.4 \%$ were aged 65 years and over ( 9.22 million) [6]. If this trend continues, one in four will be over the age of 65 by 2050 [30]. Table 1 summarises the number of people in the older age groups in England and Wales.

Table 1: Number (millions) of older people in England and Wales by age group, 2011

| Country/ <br> Age | $65-74$ <br> (Millions) |  | $75-84$ <br> (Millions) |  | $85+$ <br> (Millions) |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women |
|  <br> Wales | 2.33 | 2.52 | 1.36 | 1.76 | 0.41 | 0.85 |
| Total | 4.85 |  | 3.12 |  | 1.26 |  |

While there are approximately equal numbers of men and women under the age of 65, there are more women than men at older ages. In the oldest age group (85+), two thirds are women and one third men [5].

Residents of rural areas have an increasingly older age profile than in urban areas. In the 10 years between censuses of 2001 and 2011, the proportion of those aged 75 and over was remained constant at $7.4 \%$ in urban areas, but increased in rural areas from $8.3 \%$ to $9.4 \%$ [8]. Residents in the 60-74 age bracket increased in both urban and rural settings, from $12.7 \%$ to $13.6 \%$ and from $15.4 \%$ to $19.6 \%$ respectively [8]. Rural residents are more likely to be of 'White British' ethnicity (95.0\% compared with 77.2\% for urban areas) [8].

Over the last decade the UK has become more ethnically diverse and will continue to do so [31], yet the changes in the older age groups have not been so marked. While those identifying as White British in England and Wales decreased from 86\% in 2001 to 72\% in 2011 in the under 65 age group, in the 65 and over age group the shift was from $94 \%$ in 2001 to $92 \%$ in 2011 [5]. Ethnic minorities from a non-White population aged 65 and

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over in England and Wales in 2011 was reported to be $416110^{2}$ of which approximately just over half were of Asian or Asian British background. There is greater regional variation, evidenced by the proportion of White to other ethnic groups such as Asian in the population of Leicester, a city in the East Midlands. 70\% of over 65s identified as 'White' compared to the England and Wales average of 95.5\%. The average of Asian/Asian British in England and Wales is 2.6\%, in comparison to $25.7 \%$ in Leicester. The >85 age group is the most homogenous of the older age groups, with $97.7 \%$ identifying as White in England Wales in 2011 [5]. The lowest proportion of ethnic minorities represented in the $>65$ category is accounted for by 'other' ethnic groups ${ }^{3}$.

## Marital Status

In 2011, 5.3 million (57.1\%) of those aged 65 and over were married or in a civil partnership (including those who are in civil partnership or separated but still legally married) [6]. A difference in marital status between the sexes is increasingly seen with age: there are a higher proportion of older widows than older widowers, due to men dying younger; $40.2 \%$ of women over 65 are widowed in comparison to only $14.4 \%$ of men over 65. Thus in the 85 and over age group, $13 \%$ of women and $48 \%$ of men were married, $77 \%$ of women and $43 \%$ of men were widowed, $6 \%$ of women and $5 \%$ of men were single and $4 \%$ of women and men were either separated or divorced. We were unable to find figures for those aged $70-80$ but we expect them to be experiencing this transition.

## Household Composition \& Residency Type

$31.1 \%$ of those aged 65 and above in 2011 was living in one person households [6]. Again, data for those aged 70-80 were not found. The proportion of older people living in communal establishments aged 65 and over in 2011 was $3.7 \%$ (having fallen from 4.2\% a decade earlier). The majority (59\%) of residents of care homes in 2011 were aged 85 or above, an increase from 56.5\% in 2001 [10].

In 2011, 10.3\% of the population aged 65+ in England and Wales were economically active, and $3.6 \%$ of those aged 75 (i.e. 158,000 ) were still economically active [6]. Between 2001 and 2011 there was a significant increase in the proportion of people aged $65-74$ working, almost doubling from $8.7 \%$ to $16 \%$ [6].

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## Health behaviours and risks

## Exercise and activity

The current aerobic activity guidelines for adults aged 19 and over recommend to spend at least 150 minutes ( 2.5 hours) per week in moderately intensive physical activity, in bouts of ten minutes or longer [25,32]. Alternatively, they should spend 75 minutes per week in vigorous physical activity, or do a combination of the two. The Health Survey England (HSE) 2012 showed that the proportion of men and women in England meeting the aerobic activity guidelines generally decreases as age increases [25]. Forty-three percent of men and $21 \%$ of women aged $75-84$ met the recommendations. Guidelines recommend older adults at risk of falls should spend at least two days a week undertaking exercise focussing on improving balance and coordination.

## Diet

The Food Standards Agencies defines a healthy diet as one based on plenty of starchy foods, including wholegrain varieties, at least 5 portions of a variety of fruit and vegetables a day, moderate amounts of protein-rich foods (meat, fish, eggs, nuts and pulses) and milk and dairy (choosing reduced fat versions on a more frequent basis); and less saturated fat, salt and sugar [33]. The HSE 2013 report shows around $28 \%$ of men and $26 \%$ of women over 65 eat the recommended 5 portion of fruit and vegetables every day [28]. The UK Dietary Reference Value (DRV) for mean intake of total fat is a population average of no more than $35 \%$ of food energy. All younger age and sex groups met this DRV except for women and men aged 65 years and over for whom, on average, total fat provided $35.9 \%$ and $37.1 \%$ food energy, respectively. Mean intakes of saturated fat exceeded the DRV (no more than 11\% food energy) in all age groups; for those aged 65 and over it was $14.4 \%$ of food energy. Milk and milk products were the main source of saturated fatty acids for people in this age group, who had a higher consumption of butter and consumed a higher proportion of red meat of total meat consumption than those in younger age groups. Mean consumption of oily fish was well below the recommendation of at least one portion (140g) per week in all age groups, although the percentage of consumers aged 65 years and over was higher (36\%) than that in all other age groups (25\%) [29].

## Alcohol

In 2012, $20 \%$ of men and $12 \%$ women aged $75+$ reported drinking alcohol almost every day in the last year, and $17 \%$ of men and $15 \%$ of women drank once or twice a week [22]. $27 \%$ of men and $13 \%$ of women reported drinking five or more days in the last week: of these $17 \%$ of both men and women drank more than the recommended daily amounts (more than 4 units for men, more than 3 for women). 20\% of men and $35 \%$ of women aged 75 and over reported that they drank no alcohol at all. Men and women in the highest income quintile were more likely to have drunk alcohol in the last week, and more frequently, than those in the lowest income quintile [22].

## Smoking

Statistics from 2012 show that 20\% of adults over 16 in England smoke in comparison to $26 \%$ of adults in 2002 . Those aged over 60 report the lowest prevalence of all age groups (around 13\%) in comparison to younger age groups (Table 2). Sixteen percent of those in employment, $17 \%$ of unemployed and $12 \%$ of economically inactive over 60 s smoked. Those in routine and manual occupations are more than twice more likely to smoke than those in managerial and professional positions [34]. Only 6\% of those over 75 reported to be current smokers [35].

Table 2: Prevalence of cigarette smoking among adults in Great Britain, by age group, 2000 and 2012.


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The average amount expended on cigarettes per household drops noticeably in those over 65 (just over $£ 30$ per week) when compared to younger age groups (just over $£ 50$ $\mathrm{p} / \mathrm{w}$ in the 50-64 age bracket) [34]. This drops further still for adults aged over 75 years, with an average expenditure of under $£ 20$ per week. One possible explanation for this is the greater perceived risk of diseases associated with smoking increases with age. $75.5 \%$ of non-smokers aged over 50 reported to be in good health in comparison with only $56.7 \%$ of current smoker, a significant finding when comparing this to the 18-24 cohort where the statistics are $91.9 \%$ vs. $85.1 \%$ reporting good health for non-smokers and smokers respectively [34].

The level of smokers decreasing as age increases is shown in Table 3 (adapted from HSCIC 2014).

|  |  | Age Group |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{3 5 - 5 4}$ | $\mathbf{5 5 - 6 4}$ | $\mathbf{6 5 - 7 4}$ | $\mathbf{6 5 +}$ | $\mathbf{7 5 +}$ |  |  |  |  |  |  |  |  |
| Male <br> $\%$ | Smoker | 24 | 20 | 14 | 11 | 7 |  |  |  |  |  |  |  |
|  | Ex-Smoker | 20 | 33 | 43 | 45 | 49 |  |  |  |  |  |  |  |
| Female <br> $\%$ |  |  |  |  |  |  |  | Smoker | 20 | 15 | 14 | 11 | 7 |
|  | Ex-Smoker | 17 | 25 | 28 | 27 | 26 |  |  |  |  |  |  |  |

## Weight

Obesity and underweight are associated with poor health and well-being among older people, obesity affecting limitations in activity and overall life quality [13, 36]. Only about a quarter of men and women aged 75 to 84 were normal weight in England in 2012 [36]. There was variation regarding the prevalence of overweight and obesity between regions, being notably lower in London than other regions of the country, with the North West of England having the highest prevalence [36]. 2\% of women aged 7584 and those aged $85+$ were underweight (less than $18.5 \mathrm{~kg} / \mathrm{m}^{2}$. $2 \%$ of men in the oldest age group were underweight as well [36]. Waist circumference is an important measure in older people, because central deposition of fat (abdominal or visceral obesity) is more closely associated with obesity-related chronic diseases than BMI [13]. The HSE 2012 highlighted that, unlike BMI which decreased in the oldest age groups compared with middle-age, the rise of waist circumference was continuous and increased with age for both men and women: for men aged 75 and over it was 103.0 cm and for women 92.4 cm [36], with a 'raised waist circumference' defined as $>102 \mathrm{~cm}$ for men and

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$>88 \mathrm{~cm}$ for women [26]. In 2011-2013, 53.1\% of men/61.5\% of women had waists greater than the set standard in the 65-74 age bracket and $52.5 \%$ of men/65.8\% of women had a waist circumference exceeding the standard in 75+ year olds [26]. In 2004, there was considerable variation regarding the prevalence of obesity and overweight among ethnic minority women aged 55+ [12]. The prevalence of obesity was $54 \%$ among Black African, $49 \%$ among Pakistani, and $44 \%$ among Black Caribbean women, i.e. significantly higher than among the general population of the same age (26\%). About a quarter of Indian and Irish, a fifth of Bangladeshi and only 5\% of Chinese women aged 55+ were obese. Prevalence of obesity among ethnic minority men aged 55+ was much lower than among the women, the Irish and Black Caribbean men topping the table. The highest prevalence of overweight was among Indian and Black Caribbean women aged $55+$ at $49 \%$ and $43 \%$, respectively [12].

## Hypertension

Hypertension is a major predisposing factor for cerebrovascular and cardiovascular disease [13, 17]. The relationship between increased blood pressure level and risk of disease is continuous. Hypertension is largely asymptomatic, apart from extremely elevated levels and can be detected only through direct, objective measurement. In $2013,65.6 \%$ of men and $67.2 \%$ of women aged $75+$ were hypertensive ( $\geq 140 / 90$ mmHg or on treatment for blood pressure). Hypertension was uncontrolled or untreated in $37.6 \%$ of men and $34.8 \%$ of women in this age group [17]. HSE 2013 highlights the prevalence of hypertension in men aged 65-74 is $57.8 \%$, rising to $63.5 \%$ in the $75+$ category. Women in the same age groups show rates of $59.5 \%$ and $67.2 \%$ respectively. The age-standardised prevalence of hypertension is higher within lower household income quintiles and among those living in areas of high deprivation [17]. There is significant regional variation in the prevalence of untreated and controlled hypertension, prevalence of untreated hypertension being lowest in London (16\% of men and 17\% of women) and highest in the North East (36\% of men and 30\% of women) [13]. The 2004 HSE highlighted significant differences in the prevalence of hypertension in the minority ethnic groups, although not all results for those aged 55+ were shown because of small numbers [12]. Similarly to the general population, the prevalence of hypertension increased across the age groups for men and women in each ethnic minority group. For example, the prevalence of hypertension for those aged 55 and over was $73 \%$ in Black Caribbean men, $65 \%$ in Indian men, and $64 \%$ in Irish men ( $58 \%$ among men in the general population). For women aged 55+, the figures were $80 \%, 59 \%, 59 \%$ and $61 \%$ respectively for these four groups.

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## Health

## Overall self-reported health

Self-reported poor overall health has been associated with increased risk of mortality in older people and is predictive of functional decline [14]. In 2011, a far smaller proportion of people aged 75-84 thought that their health was good or very good than those under the age of 65 (Tables 4a and 4b)[5]. 44\% of men aged 75-84 reported very good or good health, $39 \%$ reported fair health and $17 \%$ bad or very bad health. Among women aged $75-84,40 \%$ reported very good or good health, $42 \%$ fair health and $18 \%$ bad/very bad health. Differences among the sexes were most pronounced among married couples: $33 \%$ of men, yet only $26 \%$ of women reported very good or good health. Dissimilar caring roles men and women take in a marriage are a likely cause for these differences [5]. By contrast, single men and women in this age group had the highest proportion of each sex in very good or good health, at around $33 \%$. London and the South East region showed a better general pattern of health than the Northern regions. Unsurprisingly, $37 \%$ of older people living in communal establishments (i.e. care homes) reported bad or very bad health (37\% of those aged 65 and over) [6] and only 16\% reported good health. Twice the proportion of people aged 85 and over living in a private household considered their health to be good or very good (29\%) compared to those resident in a communal establishment (15\%).

Table 4a:Self-reported general health of men, by age group, 2011, England \& Wales

|  | Age groups (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Health | Under 65 | $65-74$ | $75-84$ | $85+$ |
| Very good/good | 88 | 59 | 44 | 31 |
| Fair | 9 | 29 | 39 | 45 |
| Bad/very bad | 4 | 12 | 17 | 24 |

Table 4b: Self-reported general health of women, by age group, 2011, England \& Wales

|  | Age groups (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Health | Under 65 | $65-74$ | $75-84$ | $85+$ |
| Very good/good | 87 | 59 | 40 | 25 |
| Fair | 9 | 29 | 42 | 48 |
| Bad/very bad | 4 | 11 | 18 | 26 |

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The prevalence of bad or very bad health increases with age among minority ethnic groups as well. In 2004, the association of bad or very bad self-reported health with older age was strongest in the Bangladeshi and Pakistani groups and weakest among the Chinese [12]. The proportion reporting bad or very bad health among Pakistanis aged $55+$ was $34 \%$ for men and $45 \%$ for women. Among the Bangladeshi, $53 \%$ of men and $44 \%$ of women reported bad or very bad health (the base size for Bangladeshi men is small) [12].

The EQ-5D questionnaire used by the HSE to assess self-reported health status provides further information about health related quality of life, focussing on the following dimensions: mobility, self-care, usual activities, pain or discomfort, and anxiety or depression [24] - some of these are discussed in further detail later in this section. Using the EQ-5D, the proportions of men and women reporting problems generally increased with age across all dimensions except for anxiety or depression in 2012. Just over $50 \%$ of men and $40 \%$ of women aged 65-74 reported no general health problems (reflective of a health state score of 11111 on the EQ5D), dropping to $40 \%$ of men and $28 \%$ of women aged 75-84 and just over 20\% for both men and women over 85 [26]. Unsurprisingly, people in the oldest age groups reported more problems on all dimensions, the effect of age being strongest for mobility and weakest for anxiety/depression. Tables 5 a and 5 b show the proportions of men and women in the older age groups who reported no problems, some problems or severe problems for each of the five EQ-5D dimensions. For those aged 75-84, problems were more prevalent among women than men across all domains except for self-care, for which the prevalence of reported problems was lowest for both sexes. The domain that stands out is that of pain or discomfort, with $55 \%$ of women and $48 \%$ of men in this age group reporting moderate pain or discomfort, $10 \%$ of women and $5 \%$ of men reporting extreme pain or discomfort.

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Table 5a: EQ-5D dimensions, by older age groups, men, 2012, England

|  | Age Groups (Percentage) |  |  |
| :---: | :---: | :---: | :---: |
| EQ5D Dimension | 65-74 | 75-84 | 85+ |
| MOBILTY |  |  |  |
| No problems with walking about | 74 | 61 | 53 |
| Some problems walking about | 26 | 39 | 47 |
| Confined to bed | 0 | 0 | 0 |
| SELF-CARE |  |  |  |
| No problems with self-care | 90 | 90 | 85 |
| Some problems with washing or dressing | 10 | 10 | 15 |
| Unable to wash or dress self | 1 | 0 | 0 |
| USUAL ACTIVITIES |  |  |  |
| No problems with performing usual activities | 79 | 75 | 64 |
| Some problems performing usual activities | 18 | 23 | 32 |
| Unable to perform usual activities | 3 | 3 | 4 |
| PAIN OR DISCOMFORT |  |  |  |
| No pain or discomfort | 58 | 47 | 43 |
| Moderate pain or discomfort | 36 | 48 | 53 |
| Extreme pain or discomfort | 6 | 5 | 4 |
| ANXIETY/DEPRESSION |  |  |  |
| Not anxious or depressed | 85 | 81 | 86 |
| Moderately anxious or depressed | 13 | 17 | 12 |
| Extremely anxious or depressed | 1 | 1 | 1 |
|  |  |  |  |
| No Health Problems (Health State 11111) | 52 | 40 | 22 |
| BASES* |  |  |  |
| Unweighted | 542 | 271 | 49 |
| Weighted | 388 | 217 | 60 |

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Table 5b: EQ-5D dimensions, by older age groups, women, 2012, England

|  | Age Groups (Percentage) |  |  |
| :---: | :---: | :---: | :---: |
| EQ5D Dimension | 65-74 | 75-84 | 85+ |
| MOBILTY |  |  |  |
| No problems with walking about | 70 | 53 | 31 |
| Some problems walking about | 30 | 47 | 69 |
| Confined to bed | 0 | 0 | 0 |
| SELF-CARE |  |  |  |
| No problems with self-care | 93 | 88 | 69 |
| Some problems with washing or dressing | 6 | 11 | 30 |
| Unable to wash or dress self | 0 | 1 | 1 |
| USUAL ACTIVITIES |  |  |  |
| No problems with performing usual activities | 76 | 63 | 46 |
| Some problems performing usual activities | 22 | 32 | 46 |
| Unable to perform usual activities | 2 | 5 | 8 |
| PAIN OR DISCOMFORT |  |  |  |
| No pain or discomfort | 47 | 35 | 38 |
| Moderate pain or discomfort | 46 | 55 | 53 |
| Extreme pain or discomfort | 7 | 10 | 9 |
| ANXIETY/DEPRESSION |  |  |  |
| Not anxious or depressed | 78 | 73 | 72 |
| Moderately anxious or depressed | 20 | 26 | 26 |
| Extremely anxious or depressed | 1 | 1 | 2 |
|  |  |  |  |
| No Health Problems (Health State 11111) | 41 | 27 | 22 |
| BASES* |  |  |  |
| Unweighted | 581 | 335 | 112 |
| Weighted | 422 | 270 | 89 |

* The bases shown here are for mobility. Other bases are of a similar magnitude.

Source: [24] (adapted by HT from HSE report)

## Mental health

Good mental health is predictive of improved life expectancy, quality of life, recovery from episodes of ill health, and greater life satisfaction [24]. In 2012, HSE used the 12item General Health Questionnaire (GHQ-12) to assess mental health (See Appendix 1) [24]. In all age groups women were more likely than men to report a GHQ-12 score of 4 or more, which is indicative of probable mental ill health. Prevalence for women aged 7584 was $14 \%$ and $23 \%$ for those aged 85 or more. For men the figures were $11 \%$ and $15 \%$, respectively. There was significant regional variation in the proportion of men and

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women with a high GHQ-12 score, age-standardised levels being lowest in the South West and in the South East. A high GHQ-12 score was also associated among men and women with the lowest quintile of household income, as well as with those reporting worse general health [24]. There was little variation in GHQ-12 scores by gender among the minority ethnic groups in 2004, with the exception of Black Africans: 19\% of women and $11 \%$ of men from this ethnic group scored 4 or more [12]. No data was available for different age groups, but Bangladeshi and Pakistani men and women had a higher relative risk of a high GHQ-12 score than the general population.

In 2013, HSE used the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) [37] to determine the mental wellbeing of English residents. This scale is positively worded, consisting of 14 questions with responses ranging from 1 to 5 on a Likert Scale. A score of 1 represents low mental health wellbeing, a score of 5 represents good mental wellbeing (minimum score is 14 , maximum score is 70 ). The mean score for men aged $65-74$ was 52.8 and 52.3 for women, an average of 52.6 . For men aged $75+$, the mean score decreased slightly to 51.3 , and to 50.8 in women. This suggests that older people feel positive some of the time or often. The Quality and Outcomes Framework (QOF) 2012/13 reported a prevalence of diagnosed dementia in 0.57\% of patients [35], however this is for all patients not just those over 65.

## Longstanding and limiting longstanding illness

Longstanding illnesses are defined by HSE as "illnesses, disabilities and infirmities that have affected or are likely to affect a person over a period of time" [12]. Similarly to self-reported general health, self-reported longstanding illness is used as an indicator of the general health of the population, and need for health and social services. Informants who report a longstanding illness are asked whether the condition limits their activities in any way, and such an illness is classified as 'limiting longstanding illness' [12].

The prevalence of long-standing illness or disability (LSID) and limiting longstanding illness or disability increases with age for both men and women. The prevalence of men and women who suffered a self-reported LSID in 2012 was $56 \%$ and $57 \%$ (of which 31 \% were limiting LSIDs) respectively, rising to $69 \%$ and $66 \%$ (of which $48 \%$ and $47 \%$ were limiting LSIDs )in those over 75 (see Table 6)[11]. Prevalence of developing a LSID is about 3 times greater in those who are economically inactive in comparison to

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those in employment. Trends also suggest the higher a person's income, the less likely they are to develop an illness or disability.

Table 6: Prevalence of Long-Standing Illness or Disability, by Age, 2012


Source: Opinions and Lifestyle Survey - Office for National Statistics

Source: [11]

Illnesses related to the musculoskeletal system and the heart and circulatory system were the two most commonly reported longstanding illnesses among both men and women (Table 7) [13, 14]. Among men aged 75-79, 372 per 1000 suffered from illnesses related to the heart and circulatory system and 276 per 1000 had musculoskeletal illnesses. The rates for women in this age group for these illnesses were 330 per 1000 (heart \& circulatory system) and 432 per 1000 (musculoskeletal) [14].

These were followed by illnesses linked with the endocrine and metabolic system (136 per 1000 men, 166 per 1000 women aged 75-79) and respiratory system ( 120 per 1000 men, 128 per 1000 women aged 75-79). The rate of many conditions, albeit not all, increased with age in both sexes. The increase in rate is especially noteworthy for illnesses linked with the musculoskeletal system for women.

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Table 7: Rate per thousand reporting longstanding illness conditions, by age and sex, 2005, England.

## Rate per thousand reporting longstanding illness conditions, by age and sex



Source: [14]

The prevalence of longstanding and limiting longstanding illness increases with age in all minority groups as well, yet there is variation among ethnic groups in the older age groups. In 2004, the prevalence of self-reported longstanding illness (and limiting longstanding illness) among Pakistani women and men aged $55+$ was $86 \%$ ( $70 \%$ ) and

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$72 \%$ (54\%), respectively [12]. For Black Caribbean women and men aged 55+ the figures were $73 \%$ ( $49 \%$ ) and $70 \%$ ( $46 \%$ ), respectively. In comparison, the figures for the general population in this age group were $67 \%$ (43\%) for women and $67 \%$ ( $40 \%$ ) for men, and for the Chinese women $42 \%$ (17\%) and Chinese men $59 \%$ (22\%). In 2012, people from white ethnic groups were almost twice as likely as those from nonwhite ethnic groups to have a limiting LSID (20\% compared to 11\%) [11].

## Chronic disease

HSE 2005 also asked specifically about a selection of chronic diseases: cardiovascular disease, diabetes, cancer, chronic lung disease, asthma, arthritis, osteoporosis, Parkinson's disease, and any emotional, nervous or psychiatric disease [13]. These were chosen because of their significant contribution to morbidity particularly in older people. Participants were classified as having a particular condition only if they reported that the diagnosis was confirmed by a doctor. This approach ignored medical records of the participants and also undiagnosed disease. The most common chronic diseases reported were arthritis, particularly in women and cardiovascular disease, particularly in men (Table 8) [13].

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Table 8: Prevalence of self-reported doctor diagnosed chronic diseases, by age and sex, 2005, England.

Prevalence of self-reported doctor diagnosed chronic diseases, by age and sex

| Aged 65 and over |  |  |  |  |  | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Self-reported prevalence of disease | Age group |  |  |  |  | Total |
|  | 65-69 | 70-74 | 75-79 | 80-84 | $85+$ |  |
|  | \% | \% | \% | \% | \% |  |
| Men |  |  |  |  |  |  |
| Any CVD ${ }^{\text {a }}$ | 30 | 37 | 43 | 44 | 43 | 37 |
| Heart attack | 12 | 16 | 17 | 17 | 12 | 15 |
| $1 \mathrm{HD}^{\text {b }}$ | 19 | 24 | 27 | 27 | 23 | 23 |
| Stroke | 7 | 9 | 12 | 9 | 9 | 9 |
| IHD or Stroke | 22 | 29 | 34 | 34 | 27 | 28 |
| Diabetes | 15 | 11 | 14 | 9 | 9 | 13 |
| Asthma | 10 | 12 | 8 | 10 | 9 | 10 |
| Chronic lung disease, such as chronic bronchitis or emphysema | na 7 | 10 | 8 | 13 | 13 | 9 |
| Cancer or a malignant tumour (excluding minor skin cancers) | 7 | 9 | 12 | 13 | 11 | 10 |
| Arthritis (including osteoarthritis or rheumatism) | 29 | 33 | 33 | 36 | 34 | 32 |
| Osteoporosis | 1 | 2 | 3 | 4 | 4 | 2 |
| Whether ever had joint replacement(s) | 5 | 9 | 10 | 11 | 16 | 9 |
| Any emotional, nervous or psychiatric problems | 5 | 4 | 3 | 2 | 2 | 4 |
| Parkinson's disease | 1 | 1 | 1 | 1 | 2 | 1 |
| Women |  |  |  |  |  |  |
| Any CVD ${ }^{\text {a }}$ | 23 | 24 | 35 | 38 | 45 | 31 |
| Heart attack | 5 | 6 | 6 | 10 | 14 | 7 |
| $1 \mathrm{HD}^{\text {b }}$ | 10 | 12 | 19 | 20 | 24 | 16 |
| Stroke | 3 | 5 | 7 | 9 | 12 | 7 |
| IHD or Stroke | 12 | 16 | 24 | 27 | 33 | 20 |
| Diabetes (excluding pregnancy) | 11 | 11 | 10 | 8 | 7 | 10 |
| Asthma | 11 | 11 | 13 | 16 | 7 | 12 |
| Chronic lung disease, such as chronic bronchitis or emphysema | na 6 | 6 | 7 | 8 | 9 | 7 |
| Cancer or a malignant tumour (excluding minor skin cancers) | 9 | 8 | 10 | 12 | 7 | 9 |
| Arthritis (including osteoarthritis or rheumatism) | 40 | 45 | 47 | 54 | 54 | 47 |
| Osteoporosis | 8 | 12 | 11 | 18 | 19 | 12 |
| Whether ever had joint replacement(s) | 7 | 9 | 16 | 17 | 17 | 12 |
| Any emotional, nervous or psychiatric problems | 8 | 8 | 7 | 6 | 6 | 7 |
| Parkinson's disease | 0 | 1 | 1 | 0 | 1 | 1 |
| Bases (unweighted) |  |  |  |  |  |  |
| Men | 607 | 508 | 421 | 221 | 138 | 1895 |
| Women | 646 | 594 | 492 | 375 | 262 | 2369 |
| Bases (weighted) |  |  |  |  |  |  |
| Men | 597 | 497 | 380 | 240 | 151 | 1865 |
| Women | 642 | 573 | 495 | 404 | 283 | 2397 |

${ }^{a}$ CVD-Cardiovascular disease, reported as doctor-diagnosed angina, heart attack, stroke, heart murmur, irregular heart rhythm or 'other heart trouble'.
b IHD- Ischaemic heart disease, reported as doctor diagnosed angina or heart attack.
Source: [13]

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## Falls

People aged over 65 have the greatest risk of falling, with $30 \%$ of those over 65 suffering a fall in the last year, rising to $50 \%$ over those over 80 [38]. The prevalence of falls was higher for women than men for each age group, apart from those aged 85 or more in 2005 (Table 9) [13]. Nineteen percent of men and 27\% of women aged 70-79 had fallen at least once; among those aged 80 and over $31 \%$ of men and $34 \%$ of women had experienced at least one fall. In the 85+ age group, the prevalence for both sexes was $43 \%$. $25 \%$ of men and $34 \%$ of women aged $75-79$ had required medical treatment for a fall in 2005 [13]. The gender difference in the need for medical treatment was apparent in each age group. Unlike for men, the proportion of women requiring medical treatment increased with age, with $42 \%$ of those aged $85+$ reporting a need for medical intervention.

Table 9: Prevalence and number of falls in last 12 months, by age and sex, 2005, England.

## Prevalence and number of falls in last $\mathbf{1 2}$ months, by age and sex

| Aged 65 and over |  |  |  |  |  | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of falls in previous 12 months | Age group |  |  |  |  | Total |
|  | 65-69 | 70-74 | 75-79 | 80-84 |  |  |
|  | \% | \% | \% | \% | \% | \% |
| Men |  |  |  |  |  |  |
| No falls | 82 | 80 | 81 | 69 | 57 | 77 |
| 1 fall | 11 | 12 | 10 | 19 | 22 | 13 |
| 2 falls | 4 | 4 | 3 | 6 | 6 | 4 |
| 3+ falls | 3 | 5 | 5 | 5 | 14 | 5 |
| One or more fall | 18 | 20 | 19 | 31 | 43 | 23 |


| Women |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| No falls | 77 | 73 | 73 | 66 | 57 | 71 |
| 1 fall | 14 | 15 | 16 | 17 | 24 | 16 |
| 2 falls | 5 | 7 | 6 | 9 | 9 | 7 |
| 3+ falls | 5 | 4 | 5 | 8 | 10 | 6 |
| One or more fall | 23 | 27 | 27 | 34 | 43 | 29 |


| Bases (unweighted) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Men | 608 | 508 | 421 | 220 | 136 | 1893 |
| Women | 644 | 595 | 492 | 372 | 263 | 2366 |
| Bases (weighted) |  |  |  |  |  |  |
| Men | 598 | 497 | 380 | 239 | 149 | 1862 |
| Women | 639 | 574 | 497 | 401 | 284 | 2396 |

Source: [13]

Variables found to be significantly associated with falling at least once in the last 12 months included age, obesity, limiting longstanding illness, general health questionnaire (GHQ12) score measuring psychosocial wellbeing, combined physical performance score, disease of the nervous system, stroke, and depression [13].

Disability, long term health problems and activities of daily living
The 2011 census asked respondents to report on the impact of long-term health problems or disabilities on their ability in carrying out daily activities, hence providing for adults an indication of a person's independence and an insight into their ability to cope with tasks of daily living [5]. Table 10 shows the steady decline by age group in the ability of older people to carry out daily activities, the proportion of those declaring no limitations in daily activities dropping significantly from $60.3 \%$ in the 65-74 age group to $37.5 \%$ in the $75-84$ age group. In the latter group, $62.5 \%$ perceived being limited a little or lot. For those aged 85 and over this figure was $85.6 \%$. Those aged $85+$ living in private households and reporting good or very good health were almost four times more likely not to have any limitations on their daily activities compared to residents of communal establishments; however about half of those reporting fair health in private households were limited a lot in their daily activities [5]. The proportion of older people reporting at least one functional limitation (seeing, hearing, communication, walking, or using stairs) of day to day activities increases with age.

Table 10: Impact of long-term health problems or disability on the ability to carry out daily activities, by older age groups, 2011, in England and Wales. Source: [5]


Source: Census - Office for National Statistics

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## Chronic pain

Chronic pain is defined by HSE as pain or discomfort that troubles a person all of the time or on and off for more than three months [16]. Like many other conditions, the prevalence of chronic pain increases with age: older people are more likely to report chronic pain than younger people. Overall, $53 \%$ of men and $59 \%$ of women aged 75 and over reported chronic pain in 2011 [16]. More women than men reported chronic pain in other age groups as well. Respondents living in the highest income quintile of equivalised household income were less likely to report having chronic pain than those living in the lowest income quintile. Participants of HSE 2011 experiencing chronic pain were asked to report all sites of their pain, and the most commonly reported site in all age groups was in the arms, hands, hips, legs or feet. $66 \%$ of men and $73 \%$ of women aged 75 or more had pain here. Back pain was the next most commonly reported site of pain, $42 \%$ of men and 49\% of women aged 75+ reporting it [16]. For neck or shoulder pain the figures were $23 \%$ for men and $31 \%$ for women. Nearly $60 \%$ of men and $50 \%$ of women aged 75+ had pain in one site only; $40 \%$ of men and half of women had pain in two or more sites. Respondents were also asked to estimate their pain right now, and their usual pain level in the last three months on a scale from 0 to 10 , where 0 is no pain and 10 is pain as bad as it could be. Overall, women reported a higher level of pain than men, and the level of pain in both men and women increased with age [16]. For current pain, the mean rating for women and men aged 75 and over was 4.0 and 3.3, respectively. Ratings related to usual level of pain in the last three months were higher than those for current level of pain, women aged 75 and over scoring a mean rating of 5.6, men 4.9.

## Care needs

The HSE 2012 included questions for older people (aged 65 and over) about their need for care for activities of daily living (ADL), receipt of care and payment for care [24]. Unsurprisingly, age had a positive direct effect on the need for help with ADL and the proportions receiving help [24]. For most activities, however, there was a gap between the number of people indicating a need for, and the number of those actually receiving, help. There was a pattern of increased need for help with age. For example, 29\% of women aged 75-79 indicated needing help getting up and down stairs but only $8 \%$ reported receiving any. In the age group $80-84,46 \%$ needed and $9 \%$ received help and for those aged 85 and over, the respective figures were $55 \%$ and $13 \%$. While the proportion of men needing help with stairs wasn't as great as for women, the gap between those needing and receiving help was prominent. Getting up and down the

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stairs, having a bath or shower, dressing or undressing and getting in or out of bed were the activities which oldest people needed most help with. The gender difference regarding the need for help with these activities was greater in the $80-84$ age group and those aged 85 (Table 11) [24].

Table 11: Need for help with ADLs, by age and sex, 2012, England.


Source: [24]

Table 12 shows the proportion of older people who needed help with at least one ADL or IADL, yet received no help in the last month in 2012. Levels of unmet need increased clearly with age.

Table 12: Proportion who needed help with at least one ADL or IADL and received no help in the last month, by age and sex, 2012, England.


Source: [24]

The majority of people aged 65 and over who received help in the last month were helped by an informal helper, rather than a formal one. For Activities of Daily Living (ADLs), 75 per cent of men and 71 per cent of women had informal helpers only, and the equivalent proportions for Instrumental Activities of Daily Living (IADLs) were 78 per cent and 74 per cent respectively." (HSE 2012 website). There is no explicit data for those aged 75+ (or 75-84, these two terms are not used consistently in the data) in the census, 'age 65 and over' instead being used.

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## Discussion

This paper provides a summary of a number of demographic and health statistics related to the older population in England and Wales in the early $21^{\text {st }}$ century. They illustrate variability in health status particularly with increasing age, but also with additional geographic, socioeconomic and ethnic variability. There are some limitations of this paper. The search for sources was not systematic or extensive, and original data sources themselves were not interrogated de novo. Surveys were carried out in different years and some may be outdated. Different surveys used different age groupings and did not consistently report findings for older age groups. No data were available for those aged $75+$ in ethnic minority groups because the sample size was often too small.

Nevertheless, the overall findings demonstrate clearly that it is unwise to attempt to characterise a "typical older person" given the marked differences between older age groups, the sexes and so on. For those planning or delivering services for older people, it is important to define which particular part of the older population is being targeted or provided for.

Although the data presented here do not allow for individual trajectories to be described, the results illustrate that in general as people age after retirement they are increasingly more likely to accrue health problems, and there is evidence that there is increasing unmet need for care - implying that the rise in the prevalence of health problems is not matched by an corresponding rise the provision of support.

Whilst this paper can be used as a simple reference point for health and demographic statistics, for the SOPRANO study and its interest in the promotion of resilience the above arguments illustrates that there is scope for "traditional" public health measures (e.g. support for smoking cessation, dealing with alcohol excess, schemes to reduce obesity and increase activity and to control hypertension) to ameliorate the effects of ageing upon health and wellbeing and hence contribute to resilience against the consequences of ageing in this way. The gap between the amount of self-reported needs and the extent to which those needs are met also indicates scope for social interventions to improve health and hence resilience against the consequences of ageing.

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## Ethical Approval

This discussion paper has been authored in alignment with the SOPRANO study, which has received appropriate scientific committee approval.

## Conflicts of Interests

None declared.

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[^1]:    ${ }^{1}$ Information from http://bit.Iy/1cVNEmN - last accessed June 2015

[^2]:    ${ }^{2}$ Information from http://bit.ly/1cVNEmN - last accessed June 2015
    ${ }^{3}$ Information from http://bit.ly/1cVNEmN - last accessed June 2015

[^3]:    * The bases shown here are for mobility. Other bases are of a similar magnitude.

    Source: [24] (adapted by HT from HSE report)

