See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/332112403

## Stay Well in Wales Super Profiles: Who thinks what about the nation's health

Book · March 2019

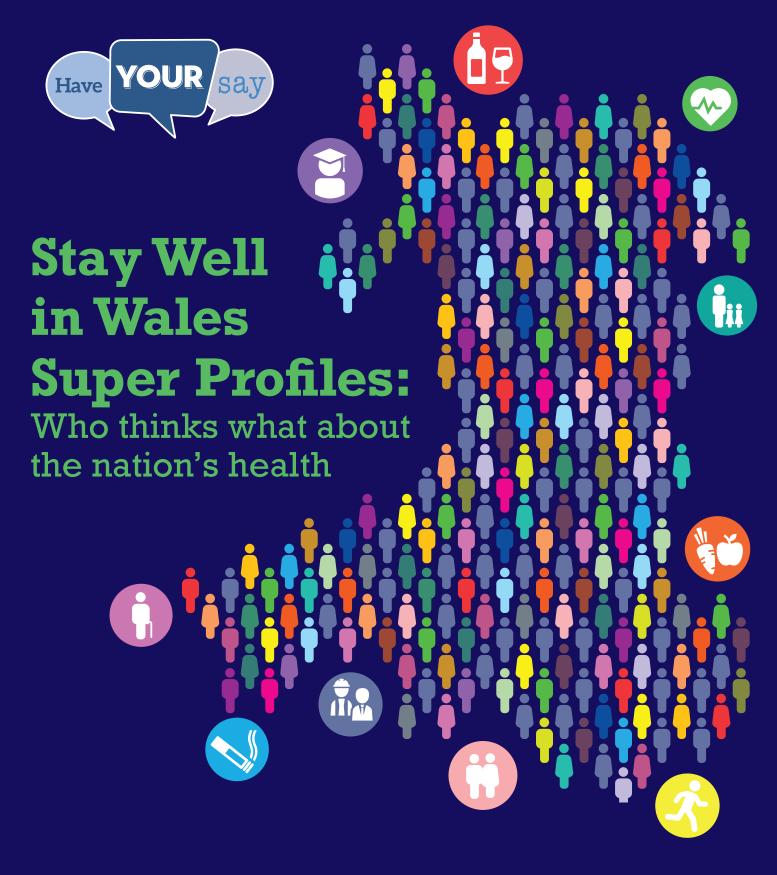
| CITATION:<br>0 | ŝ  | READS |  |  |  |  |  |
|----------------|--|-------|--|--|--|--|--|
| 4 autho        | rs:  |       |  |  |  |  |  |
|                | Catherine Sharp<br>Bangor University<br>28 PUBLICATIONS 56 CITATIONS<br>SEE PROFILE          |       | Karen Elizabeth Hughes<br>Public Health Wales<br>191 PUBLICATIONS 5,159 CITATIONS<br>SEE PROFILE |  |  |  |  |
|                | Lisa C. G. Di Lemma<br>University of Chester<br>19 PUBLICATIONS 182 CITATIONS<br>SEE PROFILE | ę     | Mark Bellis<br>Public Health Wales, Wrexham<br>429 PUBLICATIONS 10,201 CITATIONS<br>SEE PROFILE  |  |  |  |  |
| Some o         | Some of the authors of this publication are also working on these related projects:          |       |  |  |  |  |  |

Adverse Childhood Experiences of Young Adults in Latvia, 2011 survey View project

Stay Well in Wales: The public's views on public health View project









# Stay Well in Wales Super Profiles:

Who thinks what about the nation's health



Catherine A. Sharp<sup>1</sup>, Karen Hughes<sup>1,2</sup>, Lisa C.G. Di Lemma<sup>2</sup> and Mark A. Bellis<sup>1,2</sup>



<sup>1</sup>Public Health Collaborating Unit School of Health Sciences Bangor University Wrexham Technology Park Wrexham LL13 7YP Tel: +44(0)1248 383519



lechyd Cyhoeddus Cymru Public Health Wales

<sup>2</sup>Policy and International Directorate, a World Health Organization Collaborating Centre on Investment for Health and Wellbeing Public Health Wales Clwydian House, Wrexham Technology Park Wrexham LL13 7YP Tel: +44(0)1978 318413

#### Acknowledgements

We are very grateful to all the respondents who kindly completed the survey. We would like to thank BMG Research for undertaking the face-to-face data collection. We are grateful to colleagues from the Policy, Research and International Development Directorate at Public Health Wales who supported the development of the study and report production. Finally, we would also like to thank Dr Benjamin Gray and Dr Charlotte Grey who peer-reviewed and provided valuable comments on an earlier version of the report.

#### Ethics

Public Health Wales Research and Development Office provided permission for the survey. Ethical approval for these analyses was received from Bangor University Healthcare and Medical Sciences Academic Ethics Committee.

#### ISBN 978-1-78986-051-1

#### © 2019 Public Health Wales NHS Trust, Bangor University.

Material contained in this document may be reproduced under the terms of the Open Government Licence (OGL) **www.nationalarchives.gov.uk/doc/open-government-licence/version/3/** provided it is done so accurately and is not used in a misleading context. Acknowledgement to Public Health Wales NHS Trust to be stated. Copyright in the typographical arrangement, design and layout belongs to Public Health Wales NHS Trust, Bangor University.

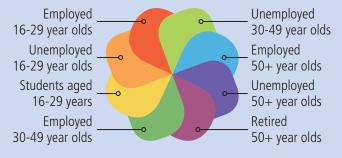
#### Funded by Public Health Wales

Public Health Wales is an NHS organisation providing professionally independent public health advice and services to protect and improve the health and wellbeing of the population of Wales. Production of this report was funded by Public Health Wales. The funded authors worked collaboratively with Public Health Wales, however, the views in this report should not be assumed the same as those of Public Health Wales.

# **Stay Well in Wales Super Profiles** Who thinks what about the nation's health

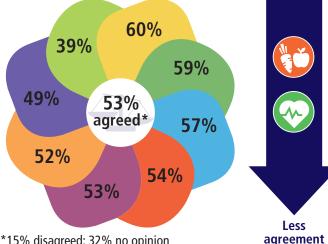
Using a household and online survey, the views of 3,310 individuals in Wales (aged 16+ years) on 19 public health statements were gathered. Eight demographic and five health-related behaviour super profiles were created to explore differences in opinions across population groups.

#### Super profile categories



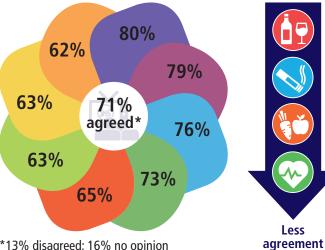
The adjusted proportion<sup>a</sup> within each profile that agreed<sup>b</sup> with the statement is shown within the respective coloured segment.

#### The NHS should spend less on treating illness and more on preventing it



\*15% disagreed; 32% no opinion

#### Junk food advertising should be banned to reduce childhood obesity



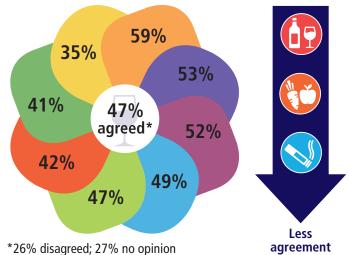
\*13% disagreed; 16% no opinion

The central figure shows the proportion of the nationally representative sample who agreed with the statement, with the proportions who disagreed and had no opinion shown below.

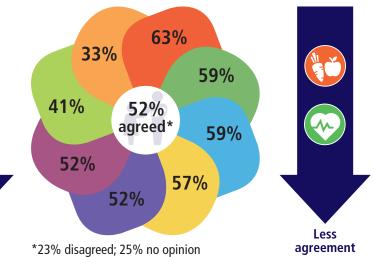
People who reported the health-harming behaviours<sup>c</sup> shown in the arrows had lower levels of agreement with the statement.



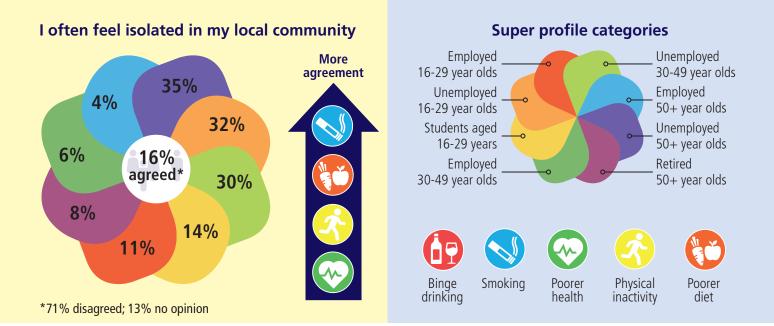
#### Alcohol advertising should be banned to prevent alcohol problems



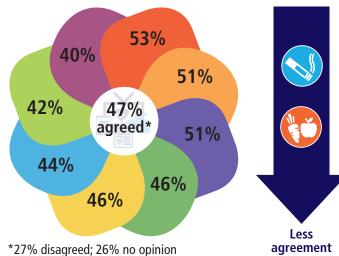
Parents should be given professional advice on how to raise their children well



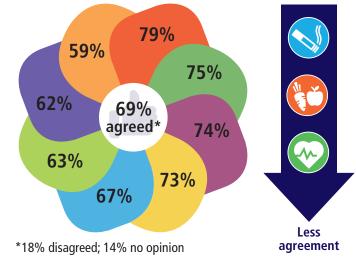
<sup>a</sup> Proportion adjusted by gender and survey method <sup>b</sup>Either agree or strongly agree. Other response options were 'neither agree nor disagree' categorised as no opinion, and 'disagree' or 'strongly disagree' categorised as disagree. Please see report for the definitions of the health-harming behaviours.



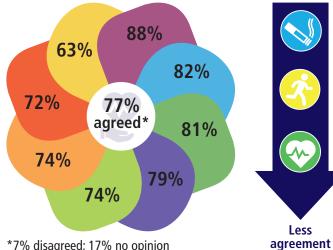
#### I would like more public information campaigns on how to live a healthier life



#### I am confident that if I got ill the NHS would meet my healthcare needs

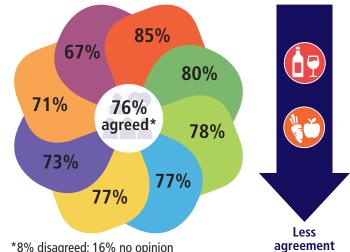


#### People should look after themselves, it's not the job of public services



\*7% disagreed; 17% no opinion

#### Employers should do more to look after their workers' health



\*8% disagreed; 16% no opinion

# **Contents**

| Introduction                                       | 2  |
|--|----|
| Methodology  | 2  |
| Findings   |    |
| Employed 16-29 year olds                           | 5  |
| Unemployed 16-29 year olds                         | 6  |
| Students aged 16-29 years                          | 7  |
| Employed 30-49 year olds                           | 8  |
| Unemployed 30-49 year olds                         | 9  |
| Employed 50+ year olds                             | 10 |
| Unemployed 50+ year olds                           | 11 |
| Retired 50+ year olds                              | 12 |
| Summary of demographic super profiles              | 13 |
| Binge drinking frequency                           | 14 |
| Smoking status                                     | 15 |
| Physical activity levels                           | 16 |
| Fruit and vegetable consumption                    | 17 |
| Self-reported general health                       | 18 |
| Summary of health-related behaviour super profiles | 19 |
| Discussion   | 20 |
| References   | 21 |
| Appendix: Data tables                              | 22 |

## Introduction

**Public involvement in policy making has become increasingly important.**<sup>1</sup> In Wales, the *Well-being of Future Generations (Wales) Act 2015*<sup>2</sup> recognised this and identified the public as a key stakeholder in decision-making. **The Stay Well in Wales survey**<sup>3</sup> was designed to capture the views of individuals living in Wales on a range of public health issues in order to inform the development of Public Health Wales' long-term strategy. Public Health Wales is the national public health institute for Wales and works to protect and improve health and wellbeing and reduce health inequalities for people in Wales. The Stay Well in Wales survey was conducted in September and October 2017 by Public Health Wales and Bangor University. Face-to-face interviews with a nationally representative household sample (n = 1,001) were undertaken along with an online survey (n = 2,309) open to all residents of Wales aged 16 years and over. Results from the nationally representative household survey were published in February 2018.<sup>3</sup> These found the Welsh public to be strongly in favour of preventative approaches to improve the health of the population, for example,

- 88% of people agreed that schools should teach children more about how to live a healthier life
- 82% of people agreed that healthy foods should cost a bit less and unhealthy foods a bit more.

This second report uses data from both the household and online surveys to present views on public health among different population **profiles**, *based on employment and age status, and on health-related behaviours.* 

## Methodology

**For the household survey,** 3,041 randomly selected households were informed of the study by letter; 182 (6%) opted out at this stage. Three quarters (76%) of eligible households visited by interviewers agreed to participate. A final sample of 1,001 individuals completed the questionnaire. The questionnaire was adapted from public opinion surveys which have been administered in other countries.<sup>4-6</sup> A professional marketing company undertook the face-to-face survey and all interviews were conducted in line with the Market Research Society (MRS) Code of Conduct. This survey method provided nationally representative sample data from the general population of Wales.

**For the online survey,** a website was created to host the survey, which was shared widely via stakeholders, staff, news channels and social media for anyone interested in participating. The online survey was open for four weeks. A total of 2,309 individuals submitted completed questionnaires with all the required demographic information (i.e. age, gender and employment status). This survey method enabled as many individuals in Wales as wished to contribute to have their say.

The **final combined sample** includes responses from 3,310 individuals (see Appendix Table A-1). The survey captured the public's opinions on: what they perceive to be the largest contributors to poor health and wellbeing (objective 1); which public health issues they think require more action by public services (objective 2); where they source their information about how to stay healthy and well from (objective 3); and their perspectives on a range of public health statements (objective 4). A range of demographic and health-related behaviour questions were also asked.

In this report, we explore opinions on 19 public health statements (objective 4) across eight demographic and five health-related behaviour super profiles. Super profiles are based on the combined views of demographically (not geographically) defined groups. The 19 statements focused on four overarching themes (see Box 1). Respondents were asked how much they agreed with each statement using a 5-point Likert scale (response options: *strongly disagree, disagree, neither disagree nor agree, agree, strongly agree*).

**Box 1.** The four overarching themes of the 19 public health statements the public's opinion was sought on:

- Public health policies
- Public health **support structures**
- Healthcare and Public Health
- Wellbeing.

The eight demographic super profiles presented are: employed 16-29 year olds, unemployed 16-29 year olds, students aged 16-29 years, employed 30-49 year olds, unemployed 30-49 year olds, employed 50+ year olds and retired 50+ year olds. Respondents were categorised as employed if they reported working full-time, part-time or being self-employed; and they were categorised as unemployed if they reported being unemployed, a carer, on long-term sick or disabled. Findings for each demographic super profile are compared with those from the nationally representative sample collected by face-to-face interview<sup>a</sup>.<sup>3</sup> Information on the health-related behaviours reported by each demographic super profile is also provided for context<sup>b</sup>.

The five health-related behaviour super profiles presented are: binge drinking frequency, smoking status, physical activity levels, fruit and vegetable consumption and self-reported general health. A single question was asked for each health-related behaviour, with responses categorised into three groups for analyses (see Box 2).

A description of the process undertaken to analyse the data is presented in Box 3.

| Outcome                                      | Symbol       | Question   | Categories (Responses)   |
|--|--------------|--|--|
| Binge drinking<br>frequency*                 |              | In the last year how often have<br>you had 6 or more alcoholic<br>drinks in a single drinking<br>occasion?   | Regularly (daily; weekly)<br>Occasionally (monthly; less than<br>monthly)<br>Never (never; I don't drink at all)   |
| Smoking status                               |              | In terms of smoking tobacco,<br>which of the following best<br>describes you?  | Current (I smoke daily; I smoke<br>occasionally but not daily)<br>Ex-smoker (I used to smoke but do<br>not smoke at all now)<br>Never (I have never smoked)  |
| Physical activity<br>levels                  | ネ            | On how many days each week<br>do you engage in at least<br>30 minutes physical activity<br>(enough to make you out of<br>breath and sweat)?                                    | 0-1 day (never; 1 day or less)<br>2-4 days (2-4 days)<br>5+ days (5 days or more)  |
| Fruit and<br>vegetable<br>consumption        | 1            | On a normal day, how many<br>portions of fruit and vegetables<br>(excluding potatoes) would<br>you usually eat (one portion is<br>roughly one handful)?                        | 0-2 portions <i>(0; 1; 2)</i><br>3-4 portions <i>(3; 4)</i><br>5+ portions <i>(5 or more)</i>  |
| Self-reported<br>general health <sup>†</sup> |              | If 100 is the best state of health<br>you could possibly imagine and<br>0 is the worst state of health<br>you can imagine, how good<br>or bad is your own health<br>generally? | Low (0-65; $\leq 25^{th}$ percentile)<br>Average (66-87; $\geq 25^{th} - < 75^{th}$<br>percentile)<br>High (88-100; $\geq 75^{th}$ percentile)<br>(response derived from 0-100<br>visual analogue scale) |
| *Question drawn                              | from AUDIT C | tool <sup>7</sup> <sup>†</sup> Question adapted  | from the EQ-5D-Q <sup>8</sup>  |

#### Box 2. Single questions asked to obtain health-related behaviour information

a Due to small differences in weighting and other mathematical processes, national percentages presented in this report may differ by up to 1% from those presented in the first Stay Well in Wales Report.

b Health-related behaviour data for survey participants included in each demographic super profile is provided for context only. Such behavioural data should not be interpreted as being nationally representative.

#### Box 3. Data analysis

Data analysis was conducted using IBM SPSS v24. Demographic super profiles were created based on age and employment status. Insufficient postcode data was provided by respondents to enable use of the Welsh Index of Multiple Deprivation. To explore differences in opinions on public health statements between demographic super profiles, adjusted means (estimated marginal means) were calculated through generalized linear modelling (controlling for gender and survey method). To correct for bias in the online sample, estimated marginal means (and 95% confidence intervals) were further adjusted for each question to account for the difference in mean responses between the combined sample and that of the nationally representative sample (see Appendix Table A-2 for nationally representative sample 95% confidence intervals).

Findings for each demographic super profile are compared to those from the nationally representative sample, weighted to reflect the Welsh national population (aged 16 years and over)<sup>c</sup>. Significant differences between the demographic super profiles and the nationally representative sample were determined by no overlap between 95% confidence intervals; these have been included in the Appendix (Table A-3). In addition, 10% differences between the demographic super profiles and the nationally representative sample have also identified. For each demographic profile, the proportion who reported each health-related behaviour is shown. Due to rounding, values may not always total 100%.

Adjusted means were calculated to identify any differences in opinions based on health-related behaviours (through generalized linear modelling controlling for age and employment status; gender; and survey method; 95% confidence intervals are reported in the Appendix Tables A-4 to A-8). Pairwise comparisons were undertaken to identify significant differences between categories within each health-related behaviour group (with Least Significant Difference (LSD) correction).

4

С

## **Employed 16-29 year olds**

Employed 16-29 year olds accounted for 9% of the total sample. Table 1 shows the proportion who agreed with each public health statement and compares findings to those for the nationally representative sample (see Appendix Table A-3 for 95% confidence intervals). The opinions of this super profile differed significantly from those of the nationally representative sample for five of the statements. Employed 16-29 year olds showed greater support for providing parents with professional advice on raising their children well, for employers doing more to look after their workers' health, and they were more confident that the NHS would meet their healthcare needs if they got ill. However, they were less supportive of 20mph speed limits where they will reduce road traffic injuries and that advertising of unhealthy foods to children should be banned to reduce childhood obesity; although two thirds still agreed with these statements. For two of the statements (parenting advice, 20mph speed limits), proportions differed from the nationally representative sample by 10% or more.

Box 4 shows the health-related behaviours of employed 16-29 year olds surveyed. Two thirds had never smoked and the majority were categorised as being in average to high health. However, only 20-22% met the guidelines for physical activity levels and fruit and vegetable consumption.



Box 4. Health-related behaviours of employed 16-29 year olds surveyed (n = 306)<sup>d</sup>

| İ7 | 10%          | 62%          | 28%         |
|----|--------------|--------------|-------------|
|    | Regular      | Occasional   | Never       |
|    | 16%          | 16%          | 67%         |
|    | Current      | Ex-smoker    | Never       |
| x  | 32%          | 49%          | 20%         |
|    | 0-1 day      | 2-4 days     | 5+ days     |
| ŞČ | 35%          | 42%          | 22%         |
|    | 0-2 portions | 3-4 portions | 5+ portions |
|    | 21%          | 49%          | 30%         |
|    | Low          | Average      | High        |

Table 1. Adjusted proportion of employed 16-29 year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

| hould spend less on treating illness and more on preventing it<br>g of alcohol should be banned to reduce alcohol problems<br>g of unhealthy foods to children should be banned to reduce childhood obesity<br>ods should cost a bit less and unhealthy foods a bit more<br>s and individuals should be made to adopt behaviours to reduce climate change<br>20mph speed limits where they will reduce road traffic injuries<br>e more public information campaigns on how to live a healthier life<br>ould teach children more about how to live a healthy life | 54%<br>42%<br>65%<br>85%<br>73%<br>66%<br>53%<br>90%   | 53%<br>47%<br>71%<br>83%<br>67%<br>76%<br>47%   | *  |
|--|--|---|--|
| g of unhealthy foods to children should be banned to reduce childhood obesity<br>ods should cost a bit less and unhealthy foods a bit more<br>s and individuals should be made to adopt behaviours to reduce climate change<br>20mph speed limits where they will reduce road traffic injuries<br>e more public information campaigns on how to live a healthier life<br>ould teach children more about how to live a healthy life   | 65%<br>85%<br>73%<br>66%<br>53%  | 71%<br>83%<br>67%<br>76%<br>47%   |  |
| ods should cost a bit less and unhealthy foods a bit more<br>s and individuals should be made to adopt behaviours to reduce climate change<br>20mph speed limits where they will reduce road traffic injuries<br>e more public information campaigns on how to live a healthier life<br>ould teach children more about how to live a healthy life  | 85%<br>73%<br>66%<br>53%   | 83%<br>67%<br>76%<br>47%  |  |
| s and individuals should be made to adopt behaviours to reduce climate change<br>20mph speed limits where they will reduce road traffic injuries<br>e more public information campaigns on how to live a healthier life<br>ould teach children more about how to live a healthy life   | 73%<br>66%<br>53%  | 67%<br>76%<br>47%   | *  |
| 20mph speed limits where they will reduce road traffic injuries<br>e more public information campaigns on how to live a healthier life<br>ould teach children more about how to live a healthy life  | 66%<br>53%   | 76%<br>47%  | *  |
| e more public information campaigns on how to live a healthier life<br>ould teach children more about how to live a healthy life   | 53%  | 47%   | *  |
| ould teach children more about how to live a healthy life  |  |   |  |
| · ·  | 90%  |   |  |
|  |  | 88%   |  |
| ould be given professional advice on how to raise their children well  | 63%  | 52%   | *1   |
| l loving childhood is essential to becoming a healthy adult  | 85%  | 87%   |  |
| should do more to look after their workers' health   | 85%  | 76%   | *  |
| ould keep themselves healthy, it's not the job of public services  | 72%  | 77%   |  |
| dent that if I got ill the NHS would meet my healthcare needs  | 79%  | 69%   | *  |
| en I visit hospital that I might pick up an infection  | 30%  | 35%   |  |
| e my GP they usually talk to me about how to live a healthier life   | 30%  | 34%   |  |
| eak with health professionals like nurses and pharmacists they advise me on living<br>r life   | 36%  | 36%   |  |
| l isolated in my local community   | 11%  | 16%   |  |
|  | 87%  | 85%   |  |
| and secure in my local community   | 91%  | 85%   |  |
|  | er me<br>el isolated in my local community<br>and secure in my local community<br>I feel optimistic about life | el isolated in my local community 11%<br>and secure in my local community 87%<br>I feel optimistic about life 91% | el isolated in my local community 11% 16% and secure in my local community 87% 85% |

d Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# **Unemployed 16-29 year olds**

Unemployed 16-29 year olds accounted for just 1% of the sample, meaning findings for this super profile should be interpreted with care. Table 2 shows the proportion that agreed with each public health statement (see Appendix Table A-3). There were no significant differences from the nationally representative sample, potentially due to the small sample. However, for eight statements, a 10% or greater difference from the nationally representative sample was found. Compared with the nationally representative sample, unemployed 16-29 year olds were more supportive that advertising of alcohol should be banned to reduce alcohol problems. They were less supportive that companies and individuals should be made to adopt behaviours to reduce climate change, that parents should be given professional advice on how to raise their children well, and that they are confident that when they get ill the NHS would meet their healthcare needs. They were also less likely to feel safe and secure in their local community and feel optimistic about life, and more likely to feel isolated in their local community.

Box 5 shows the health-related behaviours of unemployed 16-29 year olds surveyed. This group were largely engaging in an unhealthy lifestyle. Nearly half were current smokers, reported little or no physical activity, and reported low general health. Over 60% consumed little or no fruit and vegetables.



Box 5. Health-related behaviours of unemployed 16-29 year olds surveyed (n = 36)<sup>d</sup>

| İ9 | 11%          | 50%          | 39%         |
|----|--------------|--------------|-------------|
|    | Regular      | Occasional   | Never       |
|    | 47%          | 17%          | 36%         |
|    | Current      | Ex-smoker    | Never       |
| ×  | 42%          | 28%          | 30%         |
|    | 0-1 day      | 2-4 days     | 5+ days     |
| ŞŬ | 61%          | 25%          | 14%         |
|    | 0-2 portions | 3-4 portions | 5+ portions |
|    | 44%          | 44%          | 11%         |
|    | Low          | Average      | High        |

Table 2. Adjusted proportion of unemployed 16-29 year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

|                    | Public Health Statements  | Unemployed<br>16-29<br>year olds | Nationally<br>representative<br>sample |   |
|--------------------|---|----------------------------------|--|---|
|                    | The NHS should spend less on treating illness and more on preventing it   | 52%                              | 53%                                    |   |
|                    | Advertising of alcohol should be banned to reduce alcohol problems  | 59%                              | 47%                                    | ٠ |
| Policies           | Advertising of unhealthy foods to children should be banned to reduce childhood obesity   | 62%                              | 71%                                    |   |
| Poli               | Healthy foods should cost a bit less and unhealthy foods a bit more   | 79%                              | 83%                                    |   |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change   | 54%                              | 67%                                    | ٠ |
|                    | I support 20mph speed limits where they will reduce road traffic injuries   | 68%                              | 76%                                    |   |
| S                  | I would like more public information campaigns on how to live a healthier life  | 51%                              | 47%                                    |   |
| Support structures | Schools should teach children more about how to live a healthy life   | 85%                              | 88%                                    |   |
| truc               | Parents should be given professional advice on how to raise their children well   | 33%                              | 52%                                    | ٠ |
| ors                | A safe and loving childhood is essential to becoming a healthy adult  | 91%                              | 87%                                    |   |
| ddr                | Employers should do more to look after their workers' health  | 71%                              | 76%                                    |   |
| S                  | People should keep themselves healthy, it's not the job of public services  | 74%                              | 77%                                    |   |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs   | 59%                              | 69%                                    | ٠ |
| Healthcare         | I worry when I visit hospital that I might pick up an infection   | 39%                              | 35%                                    |   |
| alth               | When I see my GP they usually talk to me about how to live a healthier life   | 44%                              | 34%                                    | • |
| He                 | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life  | 32%                              | 36%                                    |   |
| ing                | I often feel isolated in my local community   | 32%                              | 16%                                    | ٠ |
| Wellbeing          | I feel safe and secure in my local community  | 66%                              | 85%                                    | ٠ |
| We                 | Generally, I feel optimistic about life   | 72%                              | 85%                                    | ٠ |
|                    | ther agreed or<br>ongly agreed $\star$ Significant difference (p < .05) between the super profile and national<br>$\geq 10\%$ difference between the super profile and nationally representat | · ·                              | ample                                  |   |

6

d

Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

## Students aged 16-29 years

Three percent of the sample were students aged 16-29 years, therefore findings for this super profile should be interpreted with care. Table 3 shows the proportion agreeing with each public health statement (see Appendix Table A-3). Responses to two statements differed significantly from those of the nationally representative sample. Students aged 16-29 years were significantly less supportive that *people should keep themselves healthy, it's not the job of public services* and that *they worry when they visit hospital that they might pick up an infection.* 

For the two statements above, responses differed from the nationally representative sample by 10% or more. Thus, students aged 16-29 years were also (but not significantly) less supportive that *advertising of alcohol should be banned to reduce alcohol problems,* that *they feel safe and secure in their local community* and that *they feel optimistic about life.* 

Box 6 shows the health-related behaviours of the students aged 16-29 years surveyed. This group predominantly reported average to high health and 72% had never smoked, however, 66% were regular or occasional binge drinkers.



Box 6. Health-related behaviours of students aged 16-29 years surveyed (n = 108)<sup>d</sup>

| İ9 | 7%           | 59%          | 33%         |
|----|--------------|--------------|-------------|
|    | Regular      | Occasional   | Never       |
|    | 20%          | 8%           | 72%         |
|    | Current      | Ex-smoker    | Never       |
| ×  | 32%          | 55%          | 13%         |
|    | 0-1 day      | 2-4 days     | 5+ days     |
| şŏ | 39%          | 44%          | 17%         |
|    | 0-2 portions | 3-4 portions | 5+ portions |
|    | 27%          | 55%          | 30%         |
|    | Low          | Average      | High        |

# Table 3. Adjusted proportion of students aged 16-29 years who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

|   | Public Health Statements   | Students<br>aged 16-29<br>years | Nationally<br>representative<br>sample |    |  |
|---|--|---------------------------------|--|----|--|
|   | The NHS should spend less on treating illness and more on preventing it                                      | 60%                             | 53%                                    |    |  |
|   | Advertising of alcohol should be banned to reduce alcohol problems   | 35%                             | 47%                                    | ٠  |  |
| Policies  | Advertising of unhealthy foods to children should be banned to reduce childhood obesity                      | 63%                             | 71%                                    |    |  |
| Poli  | Healthy foods should cost a bit less and unhealthy foods a bit more  | 85%                             | 83%                                    |    |  |
|   | Companies and individuals should be made to adopt behaviours to reduce climate change                        | 61%                             | 67%                                    |    |  |
|   | I support 20mph speed limits where they will reduce road traffic injuries                                    | 71%                             | 76%                                    |    |  |
| S   | I would like more public information campaigns on how to live a healthier life                               | 46%                             | 47%                                    |    |  |
| Support structures  | Schools should teach children more about how to live a healthy life  | 93%                             | 88%                                    |    |  |
| truc  | Parents should be given professional advice on how to raise their children well                              | 57%                             | 52%                                    |    |  |
| ut s  | A safe and loving childhood is essential to becoming a healthy adult   | 82%                             | 87%                                    |    |  |
| odd   | Employers should do more to look after their workers' health   | 77%                             | 76%                                    |    |  |
| Su  | People should keep themselves healthy, it's not the job of public services                                   | 63%                             | 77%                                    | *• |  |
|   | I am confident that if I got ill the NHS would meet my healthcare needs                                      | 73%                             | 69%                                    |    |  |
| Healthcare  | I worry when I visit hospital that I might pick up an infection  | 15%                             | 35%                                    | *• |  |
| alth  | When I see my GP they usually talk to me about how to live a healthier life                                  | 33%                             | 34%                                    |    |  |
| Hei   | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life | 37%                             | 36%                                    |    |  |
| ng  | I often feel isolated in my local community  | 14%                             | 16%                                    |    |  |
| Wellbeing   | I feel safe and secure in my local community   | 75%                             | 85%                                    | ٠  |  |
| We  | Generally, I feel optimistic about life  | 74%                             | 85%                                    | ٠  |  |
| <ul> <li>Figure 4 and a second of the s</li></ul> |  |                                 |  |    |  |

d Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

## **Employed 30-49 year olds**

Across all participants, 39% were employed 30-49 year olds. Table 4 shows the proportion who agreed with each public health statement (see Appendix Table A-3). Compared with the nationally representative sample, seven significant differences were identified. Employed 30-49 year olds were more supportive that companies and individuals should be made to adopt behaviours to reduce climate change; that they support 20mph speed limits where they will reduce road traffic injuries; and that parents should be given professional advice on how to raise their children well. They were also more confident that if they got ill the NHS would meet their healthcare needs.

The group were more likely to agree that they feel safe and secure in their local community and feel optimistic about life, and less likely to agree that they feel isolated in their local community. The difference between this super profile and the nationally representative sample for the latter two statements was greater than 10%.

Box 7 shows the health-related behaviours of employed 30-49 year olds surveyed. The majority reported average to high health (81%) and most consumed 3+ portions of fruit and vegetables a day (77%). Over a third reported low levels of physical activity (35%).



Box 7. Health-related behaviours of employed 30-49 year olds surveyed (n = 1,289)<sup>d</sup>

| İ 🕈 | 12%          | 56%          | 32%         |
|-----|--------------|--------------|-------------|
|     | Regular      | Occasional   | Never       |
|     | 13%          | 26%          | 62%         |
|     | Current      | Ex-smoker    | Never       |
| x   | 35%          | 48%          | 17%         |
|     | 0-1 day      | 2-4 days     | 5+ days     |
| ţŬ  | 24%          | 48%          | 29%         |
|     | 0-2 portions | 3-4 portions | 5+ portions |
|     | 19%          | 54%          | 27%         |
|     | Low          | Average      | High        |

Table 4. Adjusted proportion of employed 30-49 year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

|                    | Public Heal  | th Statements   | Employed<br>30-49<br>year olds | Nationally<br>representative<br>sample |    |  |  |
|--------------------|--|---|--------------------------------|--|----|--|--|
|                    | The NHS should spe   | nd less on treating illness and more on preventing it                     | 59%                            | 53%                                    |    |  |  |
|                    | Advertising of alcoh   | ol should be banned to reduce alcohol problems                            | 41%                            | 47%                                    |    |  |  |
| Policies           | Advertising of unhe  | althy foods to children should be banned to reduce childhood obesity      | 73%                            | 71%                                    |    |  |  |
| Poli               | Healthy foods shoul  | d cost a bit less and unhealthy foods a bit more                          | 85%                            | 83%                                    |    |  |  |
|                    | Companies and indi   | viduals should be made to adopt behaviours to reduce climate change       | 75%                            | 67%                                    | *  |  |  |
|                    | I support 20mph spe  | eed limits where they will reduce road traffic injuries                   | 82%                            | 76%                                    | *  |  |  |
| S                  | I would like more pu   | ublic information campaigns on how to live a healthier life               | 46%                            | 47%                                    |    |  |  |
| Support structures | Schools should teac  | h children more about how to live a healthy life                          | 88%                            | 88%                                    |    |  |  |
| truc               | Parents should be g  | iven professional advice on how to raise their children well              | 59%                            | 52%                                    | *  |  |  |
| orts               | A safe and loving ch   | ildhood is essential to becoming a healthy adult                          | 89%                            | 87%                                    |    |  |  |
| dd                 | Employers should de  | o more to look after their workers' health                                | 80%                            | 76%                                    |    |  |  |
| S                  | People should keep   | themselves healthy, it's not the job of public services                   | 81%                            | 77%                                    |    |  |  |
|                    | I am confident that  | if I got ill the NHS would meet my healthcare needs                       | 75%                            | 69%                                    | *  |  |  |
| Healthcare         | I worry when I visit   | hospital that I might pick up an infection                                | 34%                            | 35%                                    |    |  |  |
| alth               | When I see my GP t   | hey usually talk to me about how to live a healthier life                 | 31%                            | 34%                                    |    |  |  |
| He                 | When I speak with I<br>a healthier life  | nealth professionals like nurses and pharmacists they advise me on living | 36%                            | 36%                                    |    |  |  |
| ing                | I often feel isolated  | in my local community   | 6%                             | 16%                                    | *• |  |  |
| Wellbeing          | I feel safe and secur  | e in my local community   | 93%                            | 85%                                    | *  |  |  |
| We                 | Generally, I feel opti   | mistic about life   | 96%                            | 85%                                    | *• |  |  |
|                    | ‡Either agreed or<br>strongly agreed           ★ Significant difference (p < .05) between the super profile and nationally representative sample |   |                                |  |    |  |  |

8

d

Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# **Unemployed 30-49 year olds**

Unemployed 30-49 year olds accounted for only 3% of the sample meaning findings for this super profile should be interpreted with care. The proportion agreeing with each public health statement is shown in Table 5 (see Appendix Table A-3). Significant differences from the nationally representative sample were found for three statements. Unemployed 30-49 year olds felt more isolated in their local community, but less supportive that the *NHS should spend less on treating illness and more on preventing it* and that they feel optimistic about life.

Although not significantly different, unemployed 30-49 year olds were substantially less likely to agree that *parents should be given professional advice on how to raise their children well* (difference greater than 10%).

Box 8 shows the health-related behaviours of unemployed 30-49 year olds surveyed. Over two thirds reported low general health, 42% were regular or occasional binge drinkers, and 35% were current smokers.



Box 8. Health-related behaviours of unemployed 30-49 year olds surveyed (n = 106)<sup>d</sup>

| İ 🕈 | 10%          | 32%          | 58%         |
|-----|--------------|--------------|-------------|
|     | Regular      | Occasional   | Never       |
|     | 35%          | 29%          | 36%         |
|     | Current      | Ex-smoker    | Never       |
| x   | 51%          | 26%          | 23%         |
|     | 0-1 day      | 2-4 days     | 5+ days     |
| ţŬ  | 42%          | 41%          | 18%         |
|     | 0-2 portions | 3-4 portions | 5+ portions |
|     | 69%          | 22%          | 9%          |
|     | Low          | Average      | High        |

Table 5. Adjusted proportion of unemployed 30-49 year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

|                    | Public Health Statements   | Unemployed<br>30-49<br>year olds | Nationally<br>representative<br>sample |    |
|--------------------|--|----------------------------------|--|----|
|                    | The NHS should spend less on treating illness and more on preventing it                                      | 39%                              | 53%                                    | *• |
|                    | Advertising of alcohol should be banned to reduce alcohol problems   | 47%                              | 47%                                    |    |
| Policies           | Advertising of unhealthy foods to children should be banned to reduce childhood obesity                      | 63%                              | 71%                                    |    |
| Poli               | Healthy foods should cost a bit less and unhealthy foods a bit more  | 83%                              | 83%                                    |    |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change                        | 75%                              | 67%                                    |    |
|                    | I support 20mph speed limits where they will reduce road traffic injuries                                    | 85%                              | 76%                                    |    |
| S                  | I would like more public information campaigns on how to live a healthier life                               | 42%                              | 47%                                    |    |
| ture               | Schools should teach children more about how to live a healthy life  | 84%                              | 88%                                    |    |
| Support structures | Parents should be given professional advice on how to raise their children well                              | 41%                              | 52%                                    | ٠  |
| ut s               | A safe and loving childhood is essential to becoming a healthy adult   | 85%                              | 87%                                    |    |
| odd                | Employers should do more to look after their workers' health   | 78%                              | 76%                                    |    |
| Su                 | People should keep themselves healthy, it's not the job of public services                                   | 74%                              | 77%                                    |    |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs                                      | 63%                              | 69%                                    |    |
| Healthcare         | I worry when I visit hospital that I might pick up an infection  | 44%                              | 35%                                    |    |
| lthe               | When I see my GP they usually talk to me about how to live a healthier life                                  | 34%                              | 34%                                    |    |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life | 37%                              | 36%                                    |    |
| bu                 | I often feel isolated in my local community  | 30%                              | 16%                                    | *• |
| Wellbeing          | I feel safe and secure in my local community   | 77%                              | 85%                                    |    |
| We                 | Generally, I feel optimistic about life  | 68%                              | 85%                                    | *• |
| ‡Ei                | ther agreed or <b>*</b> Significant difference (p < .05) between the super profile and nation                | ally representative s            | ample                                  |    |

strongly agreed of

Significant difference (p < .05) between the super profile and nationally representative same

≥10% difference between the super profile and nationally representative sample

d Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

## **Employed 50+ year olds**

A quarter (25%) of the sample were employed 50+ year olds. The proportion of this super profile that agreed with each public health statement is shown in Table 6 (see Appendix Table A-3). There were significant differences from the nationally representative sample for four statements. Employed 50+ year olds showed greater support for *providing parents with professional advice on raising their children well.* 

This profile was more likely to agree that they *feel safe* and secure in their local community and optimistic about life, and less likely to agree they often *feel isolated in* their local community. Differences of 10% or more were found for two of the wellbeing statements.

Box 9 shows the health-related behaviours of employed 50+ year olds surveyed. The majority reported average or high general health (80%) and having never smoked or being an ex-smoker (90%), while over half were regular or occasional binge drinkers (56%).



Box 9. Health-related behaviours of employed 50+ year olds surveyed (n = 832)<sup>d</sup>

|    | 12%          | 44%          | 44%         |
|----|--------------|--------------|-------------|
| ₿₽ | Regular      | Occasional   | Never       |
|    | 10%          | 30%          | 60%         |
|    | Current      | Ex-smoker    | Never       |
| x  | 36%          | 41%          | 23%         |
|    | 0-1 day      | 2-4 days     | 5+ days     |
| ţŭ | 19%          | 43%          | 38%         |
|    | 0-2 portions | 3-4 portions | 5+ portions |
|    | 20%          | 49%          | 31%         |
|    | Low          | Average      | High        |

| Table 6. Adjusted proportion of employed aged 50+ year olds who agreed <sup>‡</sup> with each public health |  |
|---|--|
| statement, compared with the nationally representative sample   |  |

|                    | Public Health Statements  | Employed<br>50+<br>year olds | Nationally<br>representative<br>sample |    |
|--------------------|---|------------------------------|--|----|
|                    | The NHS should spend less on treating illness and more on preventing it   | 57%                          | 53%                                    |    |
|                    | Advertising of alcohol should be banned to reduce alcohol problems  | 49%                          | 47%                                    |    |
| Policies           | Advertising of unhealthy foods to children should be banned to reduce childhood obesity   | 76%                          | 71%                                    |    |
| Poli               | Healthy foods should cost a bit less and unhealthy foods a bit more   | 83%                          | 83%                                    |    |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change   | 69%                          | 67%                                    |    |
|                    | I support 20mph speed limits where they will reduce road traffic injuries   | 77%                          | 76%                                    |    |
| s                  | I would like more public information campaigns on how to live a healthier life  | 44%                          | 47%                                    |    |
| Support structures | Schools should teach children more about how to live a healthy life   | 87%                          | 88%                                    |    |
| truc               | Parents should be given professional advice on how to raise their children well   | 59%                          | 52%                                    | *  |
| orts               | A safe and loving childhood is essential to becoming a healthy adult  | 87%                          | 87%                                    |    |
| bdd                | Employers should do more to look after their workers' health  | 77%                          | 76%                                    |    |
| SL                 | People should keep themselves healthy, it's not the job of public services  | 82%                          | 77%                                    |    |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs   | 67%                          | 69%                                    |    |
| Healthcare         | I worry when I visit hospital that I might pick up an infection   | 36%                          | 35%                                    |    |
| lthe               | When I see my GP they usually talk to me about how to live a healthier life   | 31%                          | 34%                                    |    |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life  | 37%                          | 36%                                    |    |
| ing                | I often feel isolated in my local community   | 4%                           | 16%                                    | *• |
| Wellbeing          | I feel safe and secure in my local community  | 93%                          | 85%                                    | *  |
| We                 | Generally, I feel optimistic about life   | 95%                          | 85%                                    | *• |
|                    | ther agreed or<br>ongly agreed $\star$ Significant difference (p < .05) between the super profile and nationall<br>$\geq 10\%$ difference between the super profile and nationally representation | · ·                          | ample                                  |    |

10

d

Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# **Unemployed 50+ year olds**

Unemployed 50+ year olds accounted for only 3% of the sample, therefore findings for this super profile should be interpreted with care. Table 7 shows the proportion of unemployed 50+ year olds agreeing with each public health statement (see Appendix Table A-3). Compared with the nationally representative sample, only one significant difference was found; unemployed 50+ year olds were more likely to *feel isolated in their local community.* Over a third of unemployed 50+ year olds agreed with this statement (35%, compared with 16% in the nationally representative sample).

Box 10 shows the health-related behaviours of unemployed 50+ year olds surveyed. This group were largely not engaging in a healthy lifestyle; 36% were current smokers, 12% were regular binge drinkers and 59% were engaging in low levels of physical activity (0-1 days). In addition, two thirds (67%) reported having low general health.



Box 10. Health-related behaviours of unemployed 50+ year olds surveyed (n = 106)<sup>d</sup>

|    | 12%          | 28%          | 59%         |
|----|--------------|--------------|-------------|
| ∎¶ | Regular      | Occasional   | Never       |
|    | 36%          | 25%          | 39%         |
|    | Current      | Ex-smoker    | Never       |
| ネ  | 59%          | 27%          | 14%         |
|    | 0-1 day      | 2-4 days     | 5+ days     |
| ŞŬ | 42%          | 40%          | 19%         |
|    | 0-2 portions | 3-4 portions | 5+ portions |
|    | 67%          | 25%          | 8%          |
|    | Low          | Average      | High        |

Table 7. Adjusted proportion of unemployed 50+ year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

|                    | Public Health Statements   | Unemployed<br>50+<br>year olds | Nationally<br>representative<br>sample |    |  |  |
|--------------------|--|--------------------------------|--|----|--|--|
|                    | The NHS should spend less on treating illness and more on preventing it  | 49%                            | 53%                                    |    |  |  |
|                    | Advertising of alcohol should be banned to reduce alcohol problems   | 53%                            | 47%                                    |    |  |  |
| Policies           | Advertising of unhealthy foods to children should be banned to reduce childhood obesity  | 80%                            | 71%                                    |    |  |  |
| Poli               | Healthy foods should cost a bit less and unhealthy foods a bit more  | 87%                            | 83%                                    |    |  |  |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change  | 63%                            | 67%                                    |    |  |  |
|                    | I support 20mph speed limits where they will reduce road traffic injuries  | 79%                            | 76%                                    |    |  |  |
| S                  | I would like more public information campaigns on how to live a healthier life   | 51%                            | 47%                                    |    |  |  |
| ture               | Schools should teach children more about how to live a healthy life  | 90%                            | 88%                                    |    |  |  |
| Support structures | Parents should be given professional advice on how to raise their children well  | 52%                            | 52%                                    |    |  |  |
|                    | A safe and loving childhood is essential to becoming a healthy adult   | 89%                            | 87%                                    |    |  |  |
| odd                | Employers should do more to look after their workers' health   | 73%                            | 76%                                    |    |  |  |
| Su                 | People should keep themselves healthy, it's not the job of public services   | 79%                            | 77%                                    |    |  |  |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs  | 62%                            | 69%                                    |    |  |  |
| care               | I worry when I visit hospital that I might pick up an infection  | 44%                            | 35%                                    |    |  |  |
| Healthcare         | When I see my GP they usually talk to me about how to live a healthier life  | 38%                            | 34%                                    |    |  |  |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life   | 35%                            | 36%                                    |    |  |  |
| ing                | I often feel isolated in my local community  | 35%                            | 16%                                    | *• |  |  |
| Wellbeing          | I feel safe and secure in my local community   | 83%                            | 85%                                    |    |  |  |
| We                 | Generally, I feel optimistic about life  | 76%                            | 85%                                    | *  |  |  |
|                    | <ul> <li>Figure a strongly agreed</li> <li>★ Significant difference (p &lt; .05) between the super profile and nationally representative sample</li> <li>★ ≥10% difference between the super profile and nationally representative sample</li> </ul> |                                |  |    |  |  |

d Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

# **Retired 50+ year olds**

Retired 50+ year olds accounted for 16% of the sample. Table 8 shows the proportion of this super profile who agreed with each public health statement (see Appendix Table A-3). Significant differences from the nationally representative sample were found for six statements. Retired 50+ year olds were more supportive that *advertising of unhealthy foods to children should be banned to reduce childhood obesity* and that *people should keep themselves healthy, it's not the job of public services*. They were less supportive that *employers should do more to look after their workers' health.* 

Retired 50+ year olds were more likely to *feel optimistic* about life and *feel safe and secure in their local community,* and less likely to *feel isolated in their local community,* with differences for the latter two statements being greater than 10%.

Box 11 shows the health-related behaviours of retired 50+ year olds surveyed. This group largely engaged in a healthy lifestyle; nearly half had never smoked (49%), the majority reported never binge drinking (73%) and most were consuming 3+ portions of fruit and vegetables a day (77%).



Box 11. Health-related behaviours of retired 50+ year olds surveyed (n = 527)<sup>d</sup>

| İ Ŧ | 7%           | 20%          | 73%         |
|-----|--------------|--------------|-------------|
|     | Regular      | Occasional   | Never       |
|     | 9%           | 42%          | 49%         |
|     | Current      | Ex-smoker    | Never       |
| x   | 46%          | 34%          | 20%         |
|     | 0-1 day      | 2-4 days     | 5+ days     |
| ţť  | 23%          | 44%          | 33%         |
|     | 0-2 portions | 3-4 portions | 5+ portions |
|     | 38%          | 46%          | 16%         |
|     | Low          | Average      | High        |

Table 8. Adjusted proportion of retired 50+ year olds who agreed<sup>‡</sup> with each public health statement, compared with the nationally representative sample

|                    | Public Health Statements   | Retired<br>50+<br>year olds | Nationally<br>representative<br>sample |    |
|--------------------|--|-----------------------------|--|----|
|                    | The NHS should spend less on treating illness and more on preventing it  | 53%                         | 53%                                    |    |
|                    | Advertising of alcohol should be banned to reduce alcohol problems   | 52%                         | 47%                                    |    |
| Policies           | Advertising of unhealthy foods to children should be banned to reduce childhood obesity  | 79%                         | 71%                                    | *  |
| Poli               | Healthy foods should cost a bit less and unhealthy foods a bit more  | 78%                         | 83%                                    |    |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change  | 62%                         | 67%                                    |    |
|                    | I support 20mph speed limits where they will reduce road traffic injuries  | 80%                         | 76%                                    |    |
| S                  | I would like more public information campaigns on how to live a healthier life   | 40%                         | 47%                                    |    |
| ture               | Schools should teach children more about how to live a healthy life  | 85%                         | 88%                                    |    |
| truc               | Parents should be given professional advice on how to raise their children well  | 52%                         | 52%                                    |    |
| Support structures | A safe and loving childhood is essential to becoming a healthy adult   | 87%                         | 87%                                    |    |
| ddr                | Employers should do more to look after their workers' health   | 67%                         | 76%                                    | *  |
| S                  | People should keep themselves healthy, it's not the job of public services   | 88%                         | 77%                                    | *• |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs  | 74%                         | 69%                                    |    |
| Healthcare         | I worry when I visit hospital that I might pick up an infection  | 41%                         | 35%                                    |    |
| alth               | When I see my GP they usually talk to me about how to live a healthier life  | 33%                         | 34%                                    |    |
| He                 | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life   | 39%                         | 36%                                    |    |
| ing                | I often feel isolated in my local community  | 8%                          | 16%                                    | *• |
| Wellbeing          | I feel safe and secure in my local community   | 95%                         | 85%                                    | *• |
| We                 | Generally, I feel optimistic about life  | 94%                         | 85%                                    | *  |
|                    | ther agreed or<br>significant difference ( $p < .05$ ) between the super profile and nationally<br>$\ge 10\%$ difference between the super profile and nationally representation |                             | sample                                 |    |

12

d

Please refer to larger nationally representative sources (e.g. National Survey for Wales) for nationally representative information on health-related behaviours by demographics in Wales.

## Summary of differences in opinions on public health statements between the eight demographic super profiles and the nationally representative sample

| Public Health Statements   | Employed<br>16-29 year olds | Unemployed<br>16–29 year olds | Students<br>aged 16–29 years | Employed<br>30–49 year olds | Unemployed<br>30–49 year olds | Employed<br>50+ year olds | Unemployed<br>50+ year olds | Retired<br>50+ year olds |
|--|-----------------------------|-------------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------|-----------------------------|--------------------------|
| Public health policies   |                             |                               |                              |                             |                               |                           |                             |                          |
| The NHS should spend less on treating illness and more on preventing it                                      |                             |                               |                              |                             | *●                            |                           |                             |                          |
| Advertising of alcohol should be banned to reduce alcohol problems   |                             | ٠                             |                              |                             |                               |                           |                             |                          |
| Advertising of unhealthy foods to children should be banned to reduce childhood obesity                      | *                           |                               |                              |                             |                               |                           |                             | *                        |
| Healthy foods should cost a bit less and unhealthy foods a bit more  |                             |                               |                              |                             |                               |                           |                             |                          |
| Companies and individuals should be made to adopt behaviours to reduce climate change                        |                             |                               |                              | *                           |                               |                           |                             |                          |
| I support 20mph speed limits where they will reduce road traffic injuries                                    | *•                          |                               |                              | *                           |                               |                           |                             |                          |
| Public health support structures   |                             |                               |                              |                             |                               |                           |                             |                          |
| I would like more public information campaigns on how to live a healthier life                               |                             |                               |                              |                             |                               |                           |                             |                          |
| Schools should teach children more about how to live a healthy life  |                             |                               |                              |                             |                               |                           |                             |                          |
| Parents should be given professional advice on how to raise their children well                              | *•                          | ٠                             |                              | *                           | ٠                             | *                         |                             |                          |
| A safe and loving childhood is essential to becoming a healthy adult   |                             |                               |                              |                             |                               |                           |                             |                          |
| Employers should do more to look after their workers' health   | *                           |                               |                              |                             |                               |                           |                             | *                        |
| People should keep themselves healthy, it's not the job of public services                                   |                             |                               | *•                           |                             |                               |                           |                             | *•                       |
| Healthcare and public health   |                             |                               |                              |                             |                               |                           |                             |                          |
| I am confident that if I got ill the NHS would meet my healthcare needs                                      | *                           | ٠                             |                              | *                           |                               |                           |                             |                          |
| I worry when I visit hospital that I might pick up an infection  |                             |                               | *•                           |                             |                               |                           |                             |                          |
| When I see my GP they usually talk to me about how to live a healthier life                                  |                             | •                             |                              |                             |                               |                           |                             |                          |
| When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life |                             |                               |                              |                             |                               |                           |                             |                          |
| Wellbeing  |                             |                               |                              |                             |                               |                           |                             |                          |
| I often feel isolated in my local community  |                             | ٠                             |                              | *•                          | *•                            | *•                        | *•                          | *•                       |
| I feel safe and secure in my local community   |                             |                               | ٠                            | *                           |                               | *                         |                             | *•                       |
| Generally, I feel optimistic about life  |                             | ٠                             | ٠                            | *•                          | *●                            | *•                        | *                           | *                        |

★ The demographic super profile was significantly (p < .05) MORE LIKELY to agree than the nationally representative sample

• The demographic super profile was  $\geq$ 10% MORE LIKELY to agree than the nationally representative sample

\* The demographic super profile was significantly (p < .05) LESS LIKELY to agree than the nationally representative sample

• The demographic super profile was  $\geq$ 10% LESS LIKELY to agree more than the nationally representative sample

# **Binge drinking frequency**

Across all participants, 11% reported binge drinking regularly (weekly or daily), 47% reported binge drinking occasionally (monthly or less), and 43% reported never binge drinking (including those who never drink alcohol). Table 10 shows the proportion of participants that agreed with each public health statement based on their binge drinking frequency (see Appendix Table A-4 for 95% confidence intervals).

Greater support for public health intervention was typically found amongst individuals who never engaged in binge drinking, with support decreasing as frequency of binge drinking increased. Compared with those who never binge drink, occasional and regular drinkers were significantly less likely to agree that *advertising of alcohol should be banned to reduce alcohol problems*, and that *companies and individuals should be made to adopt behaviours to reduce climate change*. Regular binge drinkers were significantly less likely than occasional binge drinkers or those who never binge drink to agree *healthy foods should cost less and unhealthy foods a bit more*.

Those who never binge drink were significantly more likely to agree that *employers should do more to look after their workers' health* and that a safe and loving childhood is essential to becoming a healthy adult, relative to those who drink weekly. Finally, those who never binge drink were significantly more likely to agree that they *feel isolated in their local community* than both regular and occasional drinkers.

# Table 10. Adjusted proportion who agreed<sup>‡</sup> with each public health statement depending on binge drinking frequency

|                    | Public Health Statements  | Regular<br>(n=364) | Occasional<br>(n=1549) | Never<br>(n=1421) |  |  |
|--------------------|---|--------------------|------------------------|-------------------|--|--|
|                    | The NHS should spend less on treating illness and more on preventing it   | 53%                | 53%                    | 52%               |  |  |
|                    | Advertising of alcohol should be banned to reduce alcohol problems  | 41%●               | 42%♦                   | 56%●◆             |  |  |
| Policies           | Advertising of unhealthy foods to children should be banned to reduce childhood obesity   | 68%                | 72%                    | 73%               |  |  |
|                    | Healthy foods should cost a bit less and unhealthy foods a bit more   | 78% <b>+</b> ●     | 85%+                   | 85%●              |  |  |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change   | 62%●               | 66%♦                   | 71%●◆             |  |  |
|                    | I support 20mph speed limits where they will reduce road traffic injuries   | 76%                | 77%                    | 76%               |  |  |
| S                  | I would like more public information campaigns on how to live a healthier life  | 43%                | 49%                    | 48%               |  |  |
| ture               | Schools should teach children more about how to live a healthy life   | 88%                | 88%                    | 89%               |  |  |
| truc               | Parents should be given professional advice on how to raise their children well   | 52%                | 52%                    | 53%               |  |  |
| st                 | A safe and loving childhood is essential to becoming a healthy adult  | 84%●               | 87%                    | 90%               |  |  |
| Support structures | Employers should do more to look after their workers' health  | 72% <b>+</b> ●     | 78% 🕇                  | 79%●              |  |  |
| Su                 | People should keep themselves healthy, it's not the job of public services  | 77%                | 78%                    | 76%               |  |  |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs   | 67%                | 72%♦                   | 69%♦              |  |  |
| are                | I worry when I visit hospital that I might pick up an infection   | 36%                | 37%                    | 39%               |  |  |
| Healthcare         | When I see my GP they usually talk to me about how to live a healthier life   | 36%                | 33%                    | 32%               |  |  |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life  | 38%                | 35%                    | 34%               |  |  |
| Ing                | I often feel isolated in my local community   | 13%●               | 15%♦                   | 20%●◆             |  |  |
| Wellbeing          | I feel safe and secure in my local community  | 83%                | 87%                    | 85%               |  |  |
| We                 | Generally, I feel optimistic about life   | 83%                | 88%                    | 84%               |  |  |
|                    | <ul> <li>Either agreed or strongly agreed</li> <li>significant difference between those who binge drink alcohol regularly and those who binge drink alcohol occasionally</li> <li>significant difference between those who binge drink alcohol regularly and those who never binge drink alcohol</li> </ul> |                    |                        |                   |  |  |

• significant difference between those who binge drink alcohol regularly and those who never binge drink alcohol

• significant difference between those who binge drink alcohol occasionally and those who never binge drink alcohol

# **Smoking status**

Across all participants, 14% were current smokers, 28% were exsmokers and 58% had never smoked. Table 11 shows the proportion of respondents who agreed with each public health statement based on their smoking status (see Appendix Table A-5).

Significant differences were found in opinions on public health policies and in wellbeing statements. Individuals who have never smoked and ex-smokers were significantly more likely to agree with policy approaches such as *banning advertising* of alcohol and unhealthy foods, changing behaviour to reduce climate change and introducing 20 mph speed limits than current smokers. Compared with those who have never smoked, current smokers were also significantly less likely to agree that people are responsible for their own health, it's not the job of public services.

Although not significantly different, current smokers were more likely to

agree that GPs and health professionals speak to them about how to live a healthier life than ex-smokers and non-smokers. However, current smokers were significantly less likely than ex-smokers and those who have never smoked to agree that the NHS would look after them if they got ill.

Current smokers were significantly more likely to agree that they feel isolated in their local community than ex-smokers and those who have never smoked. They also felt significantly less safe and secure in their local community and less optimistic about life.

# Table 11. Adjusted proportion who agreed<sup>‡</sup> with each public health statement depending on their smoking status

|                    | Public Health Statements   | Current<br>(n=459) | Ex-smoker<br>(n=943) | Never<br>(n=1940) |  |  |
|--------------------|--|--------------------|----------------------|-------------------|--|--|
|                    | The NHS should spend less on treating illness and more on preventing it  | 49%+               | 56% 🕇                | 53%               |  |  |
|                    | Advertising of alcohol should be banned to reduce alcohol problems   | 39% <b>+●</b>      | 50%+                 | 51%               |  |  |
| cies               | Advertising of unhealthy foods to children should be banned to reduce childhood obesity  | 67%●               | 70% 🔶                | 75%●◆             |  |  |
| Policies           | Healthy foods should cost a bit less and unhealthy foods a bit more  | 78% <b>+</b> •     | 85%+                 | 85%               |  |  |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change  | 62% <b>+●</b>      | 68%+                 | 69%               |  |  |
|                    | I support 20mph speed limits where they will reduce road traffic injuries  | 71%+•              | 79%+                 | 78%●              |  |  |
| S                  | I would like more public information campaigns on how to live a healthier life   | 45%                | 48%                  | 49%               |  |  |
| Support structures | Schools should teach children more about how to live a healthy life  | 89%                | 88%                  | 88%               |  |  |
| truc               | Parents should be given professional advice on how to raise their children well  | 51%                | 54%                  | 52%               |  |  |
| IT SI              | A safe and loving childhood is essential to becoming a healthy adult   | 84%                | 87%                  | 88%               |  |  |
| odd                | Employers should do more to look after their workers' health   | 75%                | 77%                  | 77%               |  |  |
| Su                 | People should keep themselves healthy, it's not the job of public services   | 73%●               | 78%                  | 80%●              |  |  |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs  | 64% <b>+</b> •     | 71%+                 | 71%●              |  |  |
| Healthcare         | I worry when I visit hospital that I might pick up an infection  | 38%                | 39%♦                 | 35%♦              |  |  |
| Įţ                 | When I see my GP they usually talk to me about how to live a healthier life  | 37%                | 34%                  | 33%               |  |  |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life   | 39%                | 35%                  | 35%               |  |  |
| bu                 | I often feel isolated in my local community  | 23%+•              | 14%+                 | 12%●              |  |  |
| Wellbeing          | I feel safe and secure in my local community   | 80%●               | 86%                  | 88%●              |  |  |
| We                 | Generally, I feel optimistic about life  | 78% <b>+</b> ●     | 88%+                 | 88%●              |  |  |
|                    | <ul> <li>+ significant difference between current smokers and ex-smokers</li> <li>significant difference between current smokers and those who had never smoked</li> </ul> |                    |                      |                   |  |  |

significant difference between ex-smokers and those who had never smoked

# **Physical activity levels**

Across all participants, 38% reported engaging in physical activity on 0-1 days a week, 43% on 2-4 days and 19% on 5+ days. Table 12 shows the proportion agreeing with each public health statement based on physical activity levels (see Appendix Table A-6).

Those who engaged in physical activity 2-4 days a week were significantly more likely than those who were less physically active to agree that companies and individuals should be made to adopt behaviours to reduce climate change, that schools should teach children more about how to live a healthy life, that employers should do more to look after their workers' health and that people should keep themselves healthy, it's not the job of public services. Those who engaged in physical activity 5+ days a week were also significantly more likely than those with the lowest activity levels to agree that people

should keep themselves healthy. However, they were significantly less likely than those who did 2-4 days to agree that schools should teach children more about how to live a healthy life.

Significant differences were found across all the wellbeing statements. Compared with those doing higher levels of physical activity, individuals reporting 0-1 days were more likely to agree that they often feel isolated in their local community and less likely to agree that they feel safe and secure in their community, and feel optimistic about life.

# Table 12. Adjusted proportion who agreed<sup>‡</sup> with each public health statement depending on physical activity levels

|                    | Public Hea                         | Ith Statements  | 0-1 days<br>(n=1272) | 2-4 days<br>(n=1415) | 5+ days<br>(n=644) |
|--------------------|------------------------------------|---|----------------------|----------------------|--------------------|
|                    | The NHS should sp                  | end less on treating illness and more on preventing it                    | 52%                  | 55%                  | 51%                |
|                    | Advertising of alco                | hol should be banned to reduce alcohol problems                           | 48%                  | 46%                  | 47%                |
| Policies           | Advertising of unh                 | ealthy foods to children should be banned to reduce childhood obesity     | 71%                  | 73%                  | 71%                |
| Poli               | Healthy foods shou                 | ld cost a bit less and unhealthy foods a bit more                         | 82%                  | 84%                  | 84%                |
|                    | Companies and inc                  | lividuals should be made to adopt behaviours to reduce climate change     | 64%+                 | 70%+                 | 68%                |
|                    | I support 20mph sp                 | eed limits where they will reduce road traffic injuries                   | 76%                  | 78%                  | 75%                |
| S                  | I would like more p                | ublic information campaigns on how to live a healthier life               | 48%                  | 49%                  | 45%                |
| Support structures | Schools should tea                 | ch children more about how to live a healthy life                         | 87%+                 | 90% <b>+</b> ♦       | 86%♦               |
| truc               | Parents should be                  | given professional advice on how to raise their children well             | 52%                  | 54%                  | 50%                |
| st                 | A safe and loving o                | hildhood is essential to becoming a healthy adult                         | 87%                  | 88%                  | 85%                |
| odd                | Employers should o                 | lo more to look after their workers' health                               | 76%                  | 78%                  | 75%                |
| Su                 | People should keep                 | themselves healthy, it's not the job of public services                   | 74% <b>+</b> ●       | 79%+                 | 80%●               |
|                    | I am confident that                | if I got ill the NHS would meet my healthcare needs                       | 69%                  | 70%                  | 68%                |
| care               | I worry when I visit               | hospital that I might pick up an infection                                | 38%                  | 36%                  | 36%                |
| Healthcare         | When I see my GP                   | they usually talk to me about how to live a healthier life                | 32%                  | 36%                  | 34%                |
| Hea                | When I speak with a healthier life | health professionals like nurses and pharmacists they advise me on living | 35%                  | 38%                  | 35%                |
| Dg                 | I often feel isolated              | l in my local community   | 23%+•                | 13%+                 | 13%●               |
| Wellbeing          | I feel safe and secu               | re in my local community  | 80%+                 | 90% <b>+</b> ♦       | 83%♦               |
| We                 | Generally, I feel op               | timistic about life   | 76% <b>+</b> ●       | 89%+                 | 89%●               |
|                    | ther agreed or                     | + significant difference between those who engage in physical activity o  | n 0-1 days and       | 2-4 days             |                    |
| stro               | ongly agreed                       | • significant difference between those who engage in physical activity o  | n 0-1 days and       | 5+ days              |                    |
|                    |                                    | • significant difference between those who engage in physical activity o  | n 2-4 days and       | 5+ days              |                    |

## Fruit and vegetable consumption

Across all participants, 26% reported consuming 0-2 portions of fruit and vegetables a day, 45% consuming 3-4 portions and 30% consuming 5+ portions. Table 13 shows the proportion agreeing with with each public health statement based on fruit and vegetable consumption (see Appendix Table A-7).

Significant differences were found across policies and wellbeing statements; as daily fruit and vegetable consumption increased, agreement with the statements also increased. For example, the proportion agreeing that *the NHS should spend less on treating illness and more on preventing it* increased significantly between each consumption category, rising from 47% in those with the lowest consumption levels to 57% in those with the highest levels. The same pattern was found for *advertising of unhealthy foods; companies and individuals adopting behaviours to reduce climate change;* and *support for 20mph speed limits.* 



Significant differences were also found across the wellbeing statements. For example, those who consumed 0-2 portions of fruit and vegetables a day were significantly more likely to agree that they *feel isolated in their local community* than those with higher levels of consumption.

# Table 13. Adjusted proportion who agreed<sup>‡</sup> with each public health statement depending on fruit and vegetable consumption

|                    | Public Health Statements   | 0-2 portions<br>(n=857) | 3-4 portions<br>(n=1486) | 5+ portions<br>(n=999) |
|--------------------|--|-------------------------|--------------------------|------------------------|
|                    | The NHS should spend less on treating illness and more on preventing it  | 47% <b>+●</b>           | 53% <b>+</b> ♦           | 57%●◆                  |
|                    | Advertising of alcohol should be banned to reduce alcohol problems   | 45%                     | 46%                      | 49%                    |
| cies               | Advertising of unhealthy foods to children should be banned to reduce childhood obesity  | 64% <b>+</b> •          | 71% <b>+</b> ♦           | 76%●◆                  |
| Policies           | Healthy foods should cost a bit less and unhealthy foods a bit more  | 80%●                    | 82%                      | 85%●                   |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change  | 59% <b>+</b> •          | 69% <b>+</b> ♦           | 73%●♦                  |
|                    | I support 20mph speed limits where they will reduce road traffic injuries  | 70% <b>+●</b>           | 77% <b>+</b> ♦           | 81%●♦                  |
| S                  | I would like more public information campaigns on how to live a healthier life   | 45%                     | 46%                      | 50%                    |
| Support structures | Schools should teach children more about how to live a healthy life  | 87%                     | 88%                      | 90%                    |
| truc               | Parents should be given professional advice on how to raise their children well  | 47% <b>+●</b>           | 52%+                     | 55%                    |
| IT S               | A safe and loving childhood is essential to becoming a healthy adult   | 85%+                    | 89%+                     | 88%                    |
| odd                | Employers should do more to look after their workers' health   | 72%●                    | 76%♦                     | 80%●◆                  |
| Su                 | People should keep themselves healthy, it's not the job of public services   | 77%                     | 78%                      | 76%                    |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs  | 63% <b>+</b> ●          | 70%+                     | 73%●                   |
| Healthcare         | I worry when I visit hospital that I might pick up an infection  | 38%                     | 36%                      | 36%                    |
| lthe               | When I see my GP they usually talk to me about how to live a healthier life  | 34%                     | 33%                      | 34%                    |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life   | 35%                     | 36%                      | 37%                    |
| bu                 | I often feel isolated in my local community  | 21%+•                   | 15%+                     | 12%●                   |
| Wellbeing          | I feel safe and secure in my local community   | 74% <b>+●</b>           | 86% <b>+</b> ♦           | 92%●◆                  |
| We                 | Generally, I feel optimistic about life  | 75% <b>+●</b>           | 88%+                     | 91%●                   |
|                    | ther agreed or<br>ongly agreed or significant difference between those who consume 0-2 portions and 3-<br>o significant difference between those who consume 0-2 portions and 5- |                         |                          |                        |

• significant difference between those who consume 0-2 portions and 5+ portions of fruit and vegetables daily

significant difference between those who consume 3-4 portions and 5+ portions of fruit and vegetables daily

# Self-reported general health

Across all participants, 26% were identiifed as being in low general health, 50% in average general health, and 30% in high general health. Table 14 shows the proportion agreeing with each public health statement based on their self-reported general health (see Appendix Table A-8).

Significant differences were found between general health levels and views on policies, healthcare and wellbeing. As individuals' health improved, agreement with the statements tended to increase. For example, the proportion who agreed that the *NHS should spend less on treating illness and more on preventing it* increased significantly between each health level, rising from 46% in those with low general health to 59% in those with high general health.

Individuals with low general health were significantly less likely to agree that they were confident that if they got ill the NHS would meet their healthcare needs than those with average or high general health. However, those with low or average general health were more likely to agree that GPs talked to them about how to live a healthier life than those with high general health.

Moreover, those with low general health were significantly more likely to agree that they feel *isolated in their community* and significantly less likely to agree that they *feel safe and secure in their community* and *optimistic about life* than those with average and high general health.

# Table 14. Adjusted proportion who agreed<sup>‡</sup> with each public health statement depending on general health

|                    | Public Health Statements   | Low<br>(n=869) | Average<br>(n=1662) | High<br>(n=808) |
|--------------------|--|----------------|---------------------|-----------------|
|                    | The NHS should spend less on treating illness and more on preventing it                                      | 46%+           | 54% <b>+</b> ♦      | 59%●◆           |
|                    | Advertising of alcohol should be banned to reduce alcohol problems   | 47%            | 48%                 | 46%             |
| cies               | Advertising of unhealthy foods to children should be banned to reduce childhood obesity                      | 66%+•          | 71%+                | 74%●            |
| Policies           | Healthy foods should cost a bit less and unhealthy foods a bit more  | 83%            | 84%                 | 83%             |
|                    | Companies and individuals should be made to adopt behaviours to reduce climate change                        | 64% <b>+●</b>  | 69%+                | 69%●            |
|                    | I support 20mph speed limits where they will reduce road traffic injuries                                    | 73%            | 77%                 | 77%             |
| S                  | I would like more public information campaigns on how to live a healthier life                               | 48%            | 48%                 | 46%             |
| Support structures | Schools should teach children more about how to live a healthy life  | 88%            | 89%                 | 88%             |
| Ĕ                  | Parents should be given professional advice on how to raise their children well                              | 48% <b>+●</b>  | 53%+                | 54%●            |
| L S                | A safe and loving childhood is essential to becoming a healthy adult   | 85%            | 88%                 | 88%             |
| bdd                | Employers should do more to look after their workers' health   | 76%●           | 78%                 | 74%●            |
| S                  | People should keep themselves healthy, it's not the job of public services                                   | 72%●           | 76%♦                | 82%●◆           |
|                    | I am confident that if I got ill the NHS would meet my healthcare needs                                      | 61%+•          | 72%+                | 74%●            |
| Healthcare         | I worry when I visit hospital that I might pick up an infection  | 39%●           | 38%                 | 34%●            |
| Ĕ                  | When I see my GP they usually talk to me about how to live a healthier life                                  | 37%●           | 35%♦                | 30%●♦           |
| Hea                | When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life | 41% <b>+●</b>  | 36% <b>+</b> ♦      | 32%●♦           |
| B                  | I often feel isolated in my local community  | 28% <b>+</b> • | 16% <b>+</b> ♦      | 7%●◆            |
| Wellbeing          | I feel safe and secure in my local community   | 74% <b>+</b> ● | 85% <b>+</b> ♦      | 93%●♦           |
| We                 | Generally, I feel optimistic about life  | 67% <b>+</b> • | 87% <b>+</b> ♦      | 95%●◆           |
|                    | ther agreed or significant difference between those who engage in physical activity of ongly agreed          |                |                     |                 |

significant difference between those who engage in physical activity on 0-1 days and 5+ days

significant difference between those who engage in physical activity on 2-4 days and 5+ days

# Summary of differences in opinions on public health statements by health-related behaviours

| Public Health Statements   | Binge drinking<br>frequency | Smoking status | Physical activity<br>levels | Fruit and<br>vegetable<br>consumption | General health |
|--|-----------------------------|----------------|-----------------------------|---------------------------------------|----------------|
| Public health policies   |                             |                |                             |                                       |                |
| The NHS should spend less on treating illness and more on preventing it                                      | -                           | -              | -                           | t                                     | t              |
| Advertising of alcohol should be banned to reduce alcohol problems   | Ť                           | t              | -                           | 1                                     | -              |
| Advertising of unhealthy foods to children should be banned to reduce childhood obesity                      | 1                           | t              | _                           | t                                     | t              |
| Healthy foods should cost a bit less and unhealthy foods a bit more  | 1                           | t              | _                           | t                                     | -              |
| Companies and individuals should be made to adopt behaviours to reduce climate change                        | Ť                           | t              | -                           | Ť                                     | t              |
| I support 20mph speed limits where they will reduce road traffic injuries                                    | -                           | t              | -                           | t                                     | 1              |
| Public health support structures   |                             |                |                             |                                       |                |
| I would like more public information campaigns on how to live a healthier life                               | -                           | 1              | -                           | 1                                     | -              |
| Schools should teach children more about how to live a healthy life  | -                           | -              | _                           | 1                                     | -              |
| Parents should be given professional advice on how to raise their children well                              | -                           | -              | -                           | t                                     | t              |
| A safe and loving childhood is essential to becoming a healthy adult   | 1                           | 1              | _                           | Ť                                     | Ť              |
| Employers should do more to look after their workers' health   | 1                           | -              | -                           | t                                     | -              |
| People should keep themselves healthy, it's not the job of public services                                   | -                           | 1              | 1                           | -                                     | t              |
| Healthcare and public health   |                             |                |                             |                                       |                |
| I am confident that if I got ill the NHS would meet my healthcare needs                                      | -                           | t              | -                           | t                                     | t              |
| I worry when I visit hospital that I might pick up an infection  | 1                           | _              | _                           | _                                     | ¥              |
| When I see my GP they usually talk to me about how to live a healthier life                                  | <b>↓</b>                    | ¥              | -                           | -                                     | ¥              |
| When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life | ŧ                           | ŧ              | -                           | _                                     | ¥              |
| Wellbeing  |                             |                |                             |                                       |                |
| I often feel isolated in my local community  | 1                           | ¥              | ¥                           | ¥                                     | ¥              |
| I feel safe and secure in my local community   | -                           | 1              | -                           | t                                     | t              |
| Generally, I feel optimistic about life  | -                           | t              | t                           | t                                     | t              |

Positive trend towards greater agreement among those with healthier behaviours (i.e. never smoking, never binge drinking, physically active, eating fruit and vegetables)

- Negative trend towards lower agreement among those with healthier behaviours (i.e. never smoking, never binge drinking, physically active, eating fruit and vegetables)
- No clear pattern of opinion based on health-related behaviour.

Coloured box indicates a significant difference (p < 0.05) within the health-related behaviour.

## Discussion

The Stay Well in Wales survey was the first survey in Wales to seek residents' opinions on public health in order to inform the development of a long-term national public health strategy. Findings from the nationally representative household survey highlighted public support for prevention measures to improve public health.<sup>9</sup> This second report has incorporated findings from the wider online survey which was open to all Welsh residents aged 16 years and over. Thus, the findings from this survey provide insight into the views of over 3,000 people in Wales. However, there are limitations in the conclusions that can be drawn from the data. Participation in the survey was voluntary and findings may therefore be biased towards those that have an interest in public health; individuals who completed the face-to-face interviews were provided with an opportunity to opt-out and those who completed the online survey would have had to self-initiate their completion of the survey. All responses were self-reported by participants, meaning the data was subjectively collected and participants could have responded inaccurately. Responses to all questions were reduced into a smaller number of categories than posed by the original question, which may mask some relationships. However, findings provide some insights into how individuals' views on public health in Wales vary across demographic groups.

Across six of the eight demographic super profiles explored (based on age and employment status), the statement with the greatest level of support was *healthy foods should cost a bit less and unhealthy foods a bit more.* Unemployed 30-49 year olds and retired 50+ year olds were most in favour of *20mph speed limit restrictions where they will reduce road traffic injuries.* Five of eight demographic super profiles were confident that the *NHS would meet their healthcare needs;* interestingly unemployed 16-29 year olds were least confident (59%) while employed 16-29 year olds were most confident (79%). The opposite pattern was found for the statement *when I see my GP they usually talk to me about how to live a healthier life,* with unemployed 16-29 year olds being most likely to agree (44%) and employed 16-29 year olds uper profile, any conclusions should be interpreted with care.

A contrast in wellbeing between demographic super profiles was evident. For example, whilst nearly all employed 30-49 year olds agreed they were *generally optimistic about life* (96%), this dropped to just 68% among unemployed 30-49 year olds. The greatest difference in agreement with the statement *l often feel isolated in my local community* was found among those aged 50+ years; 35% of those aged 50+ who were unemployed felt isolated compared with only 4% of those who were employed. These differences show a strong association between employment status individuals' perspectives and lives.<sup>12</sup> Moreover, the low wellbeing can also prevent people from working, therefore the direction of the association is underdetermined.

Distinctive differences in public opinion were found based on health-related behaviours.

Individuals who never binge drink and had never smoked were most likely to agree that *advertising of alcohol should be banned to reduce alcohol problems* (56% and 51%, respectively), whilst those who regularly binge drink and those who currently smoke were least likely to agree (41% and 39%, respectively). However, for physical activity and fruit and vegetable consumption, the largest differences in agreement were found for the statement *companies and individuals should be made to adopt behaviours to reduce climate change;* those who engaged in physical activity 2-4 days a week and those who consumed 5+ portions of fruit and vegetables per day were most likely to agree (70% and 73%, respectively), and those reporting little activity (0-1 days) and little fruit and vegetable consumption (0-2 portions) were least likely to agree (64% and 59%, respectively).

Large differences in opinions were found based on fruit and vegetable consumption and self-reported general health; as individuals' fruit and vegetable consumption and general health improved, the level of agreement with the public health statements tended to increase. Agreement with *banning advertising of unhealthy foods to reduce childhood obesity* varied by general health; those with high general health were most likely to agree (74%) while those with low general health were least likely to agree (66%). Differences were also found across wellbeing statements. Those who were most likely to *feel isolated in their community* were those who currently smoke (23%), do least physically activity (0-1 days; 23%), and never binge drink (20%). For fruit and vegetable consumption, a large difference in agreement was found for *feeling safe and secure in their community;* those who consumed most portions a day were substantially more likely to agree with this statement (92%) than those consuming the least portions (74%). Finally, individuals with low general health were much less likely than individuals with high general health to agree that generally they *feel optimistic about life* (67% and 95%, respectively).

In summary, this study begins to identify how opinions on public health in Wales vary by age, employment status and health-related behaviours.<sup>13</sup> It reveals how, often, the strongest resistance to public health measures can come from those with most to gain from their implementation. The information should provide the basis for more targeted public health measures and interventions and act as a baseline against which changes in public opinion on population health measures can be measured.

## References

- 1. Diepeveen S, Ling T, Suhrcke M, et al. Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis. BMC Public Health 2013; 13: 756.
- Welsh Government. Wellbeing of Future Generations (Wales) Act 2015. Cardiff: Welsh Government; 2015. Retrieved from: http://gov.wales/topics/people-and-communities/people/ future-generations-act/?lang=en. Accessed 17/09/2018.
- 3. Sharp CA, Hughes K, Bellis MA. Stay Well in Wales: The public's views on public health. Findings from the nationally representative household survey. Wrexham: Bangor University and Public Health Wales; 2018.
- 4. Ormston R, Curtice J. (eds.) British Social Attitudes: The 32nd Report, London: NatCen Social Research; 2015. Retrieved from: www.bsa.natcen.ac.uk. Accessed 17/09/2018.
- 5. Granville Valence Public Health. US Community Health Opinion Survey; 2011. Retrieved from: https://gvph. org/wp-content/uploads/2014/08/CHA-Appendix-L6\_2011HealthOpinionSurvey\_VC\_06-21-11.pdf. Accessed 17/09/2018.
- Public Health England. Public awareness and opinion survey. Ipsos MORI, 2017. Retrieved from: https://www.ipsos.com/ ipsos-mori/en-uk/public-health-england-public-awarenessand-opinion-survey-2017. Accessed 17/09/2018.
- Bush K, Kivlahan DR, McDonell MB, et al. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. Arch Intern Med, 1998; 158: 1789-1795.

- EuroQol Research Foundation. EQ-5D-5L User guide. Basic information on how to use the EQ-5D-5L. Rotterdam: EuroQol Research Foundation; 2015. Retrieved from: https://euroqol.org/wp-content/uploads/2016/09/EQ-5D-5L\_UserGuide\_2015.pdf.
- Sharp CA, Hughes K, Bellis MA. *Stay Well in Wales:* The public's views on public health. Findings from the nationally representative household survey. Appendix. Wrexham: Bangor University and Public Health Wales; 2018.
- 10. Vansteenkiste M, Lens W, De Witte S, etc. The 'why' and 'why not' of job search behaviour: their relation to searching, unemployment experience, and wellbeing. European Journal of Social Psychology, 2004; 34: 345-363.
- 11. Dawson C, Hinks T, Veliziotis M. 'Choose to Be Optimistic, it Feels Better? Evidence of optimism on employment utility. Bulletin of Economic Research 2017; 69: 428-436.
- van der Noordt M, IJzelenberg H, Droomers M, Proper KI. (2014). Health effects of employment: a systematic review of prospective studies. BMJ Occup Environ Med 2014; 71: 730-736.
- 13. Blendon RR, Benson JJ, Steelfisher GK, Connolly JJ. Americans' conflicting views about the public health system, and how to shore up support. *Health Affairs*, 2010; 29: 2033-2040.

# **Appendix:** Data Tables

#### Table A-1. Demographics of the combined sample (aged 16 years and over)

|   |            | n    | %    |
|---|------------|------|------|
| Gender  | Male       | 929  | 28.1 |
|   | Female     | 2381 | 71.9 |
| Age (years)   | 16-29      | 450  | 13.6 |
|   | 30-49      | 1395 | 42.1 |
|   | 50+        | 1465 | 44.3 |
| Employment status   | Employed   | 2427 | 73.3 |
|   | Unemployed | 248  | 7.5  |
|   | Student    | 108  | 3.3  |
| Binge drinking<br>frequency<br>(missing 10)   | Retired    | 527  | 15.9 |
| <b>frequency</b><br>(missing 10)  | Never      | 1410 | 42.7 |
|   | Occasional | 1530 | 46.4 |
|   | Regular    | 360  | 10.9 |
| Smoking status  | Never      | 1927 | 58.3 |
| <b>frequency</b><br>(missing 10)  | Ex-smoker  | 926  | 28.0 |
|   | Current    | 454  | 13.7 |
|   | 0-1        | 1272 | 38.2 |
| (days per week)   | 2-4        | 1415 | 42.5 |
|   | 5+         | 644  | 19.3 |
| Fruit and vegetable   | 0-2        | 847  | 25.6 |
| per day)  | 3-4        | 1470 | 44.5 |
| (missing 3)   | 5+         | 990  | 29.9 |
| (missing 10)       (missing 10)         Smoking status       (missing 3)         (missing 3)       (missing 3)         Physical activity levels       (missing 3)         (days per week)       (missing 3)         Fruit and vegetable consumption (portions per day)       (missing 3)         Self-reported general health       (missing 6) | Low        | 862  | 26.1 |
|   | Average    | 1612 | 48.8 |
|   | High       | 830  | 25.1 |
| Survey method   | Household  | 1001 | 29.9 |
|   | Online     | 2309 | 70.1 |

# Table A-2. Proportion (weighted; 95% confidence interval) of the nationally representative sample who agreed<sup>‡</sup>, had no opinion<sup>\*</sup> and disagreed<sup>®</sup> with each public health statement<sup>+</sup>

|  | Nationally rep | resentative sam | ple % (95% CI) |
|--|----------------|-----------------|----------------|
| Public Health Statements   | Agreed         | No opinion      | Disagreed      |
| Public health policies   |                |                 |                |
| The NHS should spend less on treating illness and more on preventing it                                      | 53%            | 32%             | 15%            |
|  | (50-56)        | (29-35)         | (13-17)        |
| Advertising of alcohol should be banned to reduce alcohol problems   | 47%            | 17%             | 15%            |
|  | (44-50)        | (15-19)         | (11-15)        |
| Advertising of unhealthy foods to children should be banned to reduce childhood obesity                      | 71%            | 27%             | 26%            |
|  | (68-73)        | (24-30)         | (23-29)        |
| Healthy foods should cost a bit less and unhealthy foods a bit more  | 83%            | 12%             | 5%             |
|  | (81-85)        | (10-14)         | (4-7)          |
| Companies and individuals should be made to adopt behaviours to reduce climate change                        | 67%            | 24%             | 9%             |
|  | (64-70)        | (21-27)         | (8-11)         |
| I support 20mph speed limits where they will reduce road traffic injuries                                    | 76%            | 12%             | 12%            |
|  | (73-78)        | (10-14)         | (11-15)        |
| Public health support structures   |                |                 |                |
| I would like more public information campaigns on how to live a healthier life                               | 47%            | 26%             | 27%            |
|  | (44 -50)       | (23-29)         | (24-30)        |
| Schools should teach children more about how to live a healthy life  | 88%            | 7%              | 6%             |
|  | (85-90)        | (5-9)           | (4-7)          |
| Parents should be given professional advice on how to raise their children well                              | 52%            | 25%             | 23%            |
|  | (48-55)        | (23-28)         | (21-26)        |
| A safe and loving childhood is essential to becoming a healthy adult   | 87%            | 9%              | 4%             |
|  | (85-89)        | (7-11)          | (3-5)          |
| Employers should do more to look after their workers' health   | 76%            | 16%             | 8%             |
|  | (74-79)        | (14-18)         | (6-10)         |
| People should keep themselves healthy, it's not the job of public services                                   | 77%            | 17%             | 7%             |
|  | (74-79)        | (15-19)         | (5-8)          |
| Healthcare and public health   |                |                 |                |
| I am confident that if I got ill the NHS would meet my healthcare needs                                      | 69%            | 18%             | 14%            |
|  | (66-71)        | (15-20)         | (12-16)        |
| I worry when I visit hospital that I might pick up an infection  | 35%            | 17%             | 48%            |
|  | (32-38)        | (15-20)         | (45-51)        |
| When I see my GP they usually talk to me about how to live a healthier life                                  | 34%            | 16%             | 50%            |
|  | (31-37)        | (14-19)         | (47-53)        |
| When I speak with health professionals like nurses and pharmacists they advise me on living a healthier life | 36%            | 21%             | 43%            |
|  | (33-39)        | (19-24)         | (40-47         |
| Wellbeing  |                |                 |                |
| I often feel isolated in my local community  | 16%            | 13%             | 71%            |
|  | (14-19)        | (11-15)         | (68-74)        |
| I feel safe and secure in my local community   | 85%            | 10%             | 5%             |
|  | (82-87)        | (8-12)          | (4-7)          |
| Generally, I feel optimistic about life  | 85%            | 10%             | 5%             |
|  | (82-87)        | (8-12)          | (4-7)          |

\*Either agreed or strongly agreed; \*neither agree nor disagree; \*either disagreed or strongly disagreed

<sup>+</sup>Due to small differences in weighting and other mathematical processes, national percentages presented in this report may differ by up to 1% from those presented in the first Stay Well in Wales Report.

# Table A-3. Adjusted proportion (estimated marginal mean; 95% confidence interval) within each demographic super profile who agreed<sup>‡</sup> with each public health statement

| Public Health Statements  | р      | 16-29<br>employed | 16-29 un-<br>employed | 16-29<br>student | 30-49<br>employed | 30-49 un-<br>employed | 50+<br>employed | 50+ un-<br>employed | 50+<br>retired  |
|---|--------|-------------------|-----------------------|------------------|-------------------|-----------------------|-----------------|---------------------|-----------------|
| Public health policies  |        |                   |                       |                  |                   |                       |                 |                     |                 |
| The NHS should spend less on<br>treating illness and more on<br>preventing it   | 0.007  | 54%<br>(49-60)    | 52%<br>(36-68)        | 60%<br>(50-69)   | 59%<br>(55-62)    | 39%<br>(30-49)        | 57%<br>(54-61)  | 49%<br>(40-59)      | 53%<br>(48-57)  |
| Advertising of alcohol should be<br>banned to reduce alcohol problems   | <0.001 | 42%<br>(36-47)    | 59%<br>(42-73)        | 35%<br>26-44)    | 41%<br>(38-45)    | 47%<br>(37-56)        | 49%<br>(45-52)  | 53%<br>(44-62)      | 52%<br>(48-56)  |
| Advertising of unhealthy foods to<br>children should be banned to reduce<br>childhood obesity                         | <0.001 | 65%<br>(59-70)    | 62%<br>(45-76)        | 63%<br>(53-71)   | 73%<br>(71-76)    | 63%<br>(53-72)        | 76%<br>(73-79)  | 80%<br>(71-86)      | 79%<br>(75-82)  |
| Healthy foods should cost a bit less and unhealthy foods a bit more   | 0.049  | 85%<br>(80-88)    | 79%<br>(61-90)        | 85%<br>(76-90)   | 85%<br>(83-87)    | 83%<br>(74-89)        | 83%<br>(80-85)  | 87%<br>(79-92)      | 78%<br>(74-81)  |
| Companies and individuals should<br>be made to adopt behaviours to<br>reduce climate change                           | <0.001 | 73%<br>(68-78)    | 54%<br>(38-69)        | 61%<br>(51-69)   | 75%<br>(72-77)    | 75%<br>(66-82)        | 69%<br>(66-73)  | 63%<br>(54-72)      | 62%<br>(58-66)  |
| I support 20mph speed limits where they will reduce road traffic injuries   | <0.001 | 66%<br>(60-72)    | 68%<br>(51-83)        | 71%<br>(61-79)   | 82%<br>(80-85)    | 85%<br>(76-92)        | 77%<br>(74-80)  | 79%<br>(70-87)      | 80%<br>(76-83)  |
| Public health support structure   | es     |                   |                       |                  |                   |                       |                 |                     |                 |
| I would like more public information<br>campaigns on how to live a<br>healthier life                                  | 0.031  | 53%<br>(47-58)    | 51%<br>(35-66)        | 46%<br>(37-56)   | 46%<br>(43-49)    | 42%<br>(33-52)        | 44%<br>(41-48)  | 51%<br>(42-61)      | 40%<br>(36-44)  |
| Schools should teach children more about how to live a healthy life   | 0.079  | 90%<br>(86-92)    | 85%<br>(71-93)        | 93%<br>(87-96)   | 88%<br>(86-90)    | 84%<br>(76-89)        | 87%<br>(84-89)  | 90%<br>(84-94)      | 85%<br>(81-87)  |
| Parents should be given professional<br>advice on how to raise their children<br>well                                 | <0.001 | 63%<br>(57-68)    | 33%<br>(19-50)        | 57%<br>(47-66)   | 59%<br>(56-62)    | 41%<br>(32-50)        | 59%<br>(56-63)  | 52%<br>(42-61)      | 52%<br>(48-57)  |
| A safe and loving childhood is<br>essential to becoming a healthy<br>adult  | 0.245  | 85%<br>(80-89)    | 91%<br>(74-98)        | 82%<br>(73-88)   | 89%<br>(87-91)    | 85%<br>(77-91)        | 87%<br>(84-89)  | 89%<br>(81-94)      | 87%<br>(83-90)  |
| Employers should do more to look after their workers' health  | <0.001 | 85%<br>(81-88)    | 71%<br>(54-83)        | 77%<br>(68-83)   | 80%<br>(77-82)    | 78%<br>(69-85)        | 77%<br>(73-79)  | 73%<br>(64-81)      | 67% (63-<br>71) |
| People should keep themselves<br>healthy, it's not the job of public<br>services                                      | <0.001 | 72%<br>(66-77)    | 74%<br>(56-88)        | 63%<br>(53-72)   | 81%<br>(78-84)    | 74%<br>(64-83)        | 82%<br>(78-85)  | 79%<br>(69-88)      | 88%<br>(85-92)  |
| Healthcare and public health  |        |                   |                       |                  |                   |                       |                 |                     |                 |
| I am confident that if I got ill the<br>NHS would meet my healthcare<br>needs   | <0.001 | 79%<br>(74-84)    | 59%<br>(43-75)        | 73%<br>(64-82)   | 75%<br>(72-78)    | 63%<br>(53-72)        | 67%<br>(63-71)  | 62%<br>(52-71)      | 74%<br>(70-78)  |
| I worry when I visit hospital that I might pick up an infection   | <0.001 | 30%<br>(25-36)    | 39%<br>(25-56)        | 15%<br>(10-24)   | 34%<br>(31-37)    | 44%<br>(34-53)        | 36%<br>(33-40)  | 44%<br>(34-53)      | 41%<br>(36-45)  |
| When I see my GP they usually talk<br>to me about how to live a healthier<br>life                                     | 0.481  | 30%<br>(25-35)    | 44%<br>(30-61)        | 33%<br>(25-43)   | 31%<br>(28-33)    | 34%<br>(26-43)        | 31%<br>(28-35)  | 38%<br>(30-48)      | 33%<br>(29-37)  |
| When I speak with health<br>professionals like nurses and<br>pharmacists they advise me on living<br>a healthier life | 0.941  | 36%<br>(31-41)    | 32%<br>(21-49)        | 37%<br>(28-47)   | 36%<br>(33-39)    | 37%<br>(29-46)        | 37%<br>(34-41)  | 35%<br>(28-45)      | 39%<br>(35-43)  |
| Wellbeing   |        |                   |                       |                  |                   |                       |                 |                     |                 |
| I often feel isolated in my local<br>community  | <0.001 | 11%<br>(7-16)     | 32%<br>(17-49)        | 14%<br>(8-23)    | 6%<br>(4-8)       | 30%<br>(21-39)        | 4%<br>(2-6)     | 35%<br>(26-45)      | 8%<br>(5-11)    |
| I feel safe and secure in my local community  | <0.001 | (82-91)           | 66%<br>(49-82)        | 75% (<br>66-84)  | 93%<br>(91-96)    | 77%<br>(67-85)        | 93%<br>(90-95)  | 83%<br>(73-91)      | 95%<br>(91-98)  |
| Generally, I feel optimistic about life   | <0.001 | 91%<br>(86-95)    | 72%<br>(55-87)        | 74%<br>(64-82)   | 96%<br>(93-98)    | 68%<br>(58-78)        | 95 %<br>(93-98) | 76%<br>(66-85)      | 94%<br>(90-97)  |
| *Fither agreed or strongly agreed   |        |                   |                       |                  |                   |                       |                 |                     |                 |

Table A-4. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>‡</sup> with each public health statement by binge drinking frequency, with pairwise comparisons (*p*-values)

|  |        | Adjusted       | proportion     | Pairwise comparisons |                        |                   |                      |
|--|--------|----------------|----------------|----------------------|------------------------|-------------------|----------------------|
| Public health Statements   | p      | Regular        | Occasional     | Never                | Regular:<br>Occasional | Regular:<br>Never | Occasional:<br>Never |
| Public health policies   |        |                |                |                      |                        |                   |                      |
| The NHS should spend less on treating illness and more on preventing it  | 0.935  | 53%<br>(47-59) | 53%<br>(49-57) | 52%<br>(49-56)       | 0.972                  | 0.800             | 0.736                |
| Advertising of alcohol should be banned to<br>reduce alcohol problems  | <0.001 | 41%<br>(36-47) | 42%<br>(38-46) | 56%<br>(52-60)       | 0.787                  | <0.001            | <0.001               |
| Advertising of unhealthy foods to children should<br>be banned to reduce childhood obesity                         | 0.363  | 68%<br>(62-74) | 72%<br>(68-75) | 73%<br>(69-76)       | 0.282                  | 0.164             | 0.593                |
| Healthy foods should cost a bit less and<br>unhealthy foods a bit more   | 0.010  | 78%<br>(73-83) | 85%<br>(82-87) | 85%<br>(82-87)       | 0.008                  | 0.011             | 0.932                |
| Companies and individuals should be made to<br>adopt behaviours to reduce climate change                           | 0.002  | 62%<br>(56-68) | 66%<br>(63-70) | 71%<br>(68-75)       | 0.148                  | 0.002             | 0.008                |
| l support 20mph speed limits where they will reduce road traffic injuries  | 0.653  | 76%<br>(71-81) | 77%<br>(74-81) | 76%<br>(72-79)       | 0.739                  | 0.782             | 0.357                |
| Public health support structures   |        |                |                |                      |                        |                   |                      |
| I would like more public information campaigns<br>on how to live a healthier life                                  | 0.161  | 43%<br>(37-49) | 49%<br>(45-53) | 48%<br>(48-48)       | 0.056                  | 0.154             | 0.492                |
| Schools should teach children more about how to live a healthy life  | 0.799  | 88%<br>(84-91) | 88%<br>(85-90) | 89%<br>(78-91)       | 0.916                  | 0.747             | 0.508                |
| Parents should be given professional advice on how to raise their children well                                    | 0.899  | 52%<br>(46-58) | 52%<br>(58-56) | 53%<br>(49-57)       | 0.969                  | 0.798             | 0.652                |
| A safe and loving childhood is essential to<br>becoming a healthy adult  | 0.023  | 84%<br>(79-88) | 87%<br>(84-90) | 90%<br>(87-92)       | 0.172                  | 0.016             | 0.076                |
| Employers should do more to look after their<br>workers' health  | 0.041  | 72%<br>(66-77) | 78%<br>(74-80) | 79%<br>(75-81)       | 0.044                  | 0.018             | 0.539                |
| People should keep themselves healthy, it's not<br>the job of public services                                      | 0.314  | 77%<br>(71-82) | 78%<br>(75-82) | 76%<br>(72-79)       | 0.644                  | 0.592             | 0.128                |
| Healthcare and public health   |        |                |                |                      |                        |                   |                      |
| l am confident that if I got ill the NHS would meet<br>my healthcare needs   | 0.051  | 67%<br>(61-73) | 72%<br>(69-76) | 69%<br>(65-72)       | 0.057                  | 0.569             | 0.044                |
| I worry when I visit hospital that I might pick up<br>an infection   | 0.284  | 36%<br>(31-42) | 37%<br>(33-40) | 39%<br>(36-43)       | 0.958                  | 0.305             | 0.134                |
| When I see my GP they usually talk to me about<br>how to live a healthier life                                     | 0.388  | 36%<br>(31-42) | 33%<br>(30-36) | 32%<br>(29-36)       | 0.263                  | 0.180             | 0.702                |
| When I speak with health professionals like<br>nurses and pharmacists they advise me on living<br>a healthier life | 0.246  | 38%<br>(33-44) | 35%<br>(32-39) | 34%<br>(30-37)       | 0.301                  | 0.109             | 0.356                |
| Wellbeing  |        |                |                |                      |                        |                   |                      |
| l often feel isolated in my local community  | 0.004  | 13%<br>(8-18)  | 15%<br>(12-18) | 20%<br>(17-24)       | 0.523                  | 0.011             | 0.003                |
| l feel safe and secure in my local community   | 0.249  | 83%<br>(77-88) | 87%<br>(84-90) | 85%<br>(82-88)       | 0.126                  | 0.387             | 0.316                |
| Generally, I feel optimistic about life  | 0.070  | 83%<br>(77-88) | 88%<br>(85-91) | 84%<br>(81-88)       | 0.079                  | 0.625             | 0.055                |

Table A-5. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>‡</sup> with each public health statement by smoking status, with pairwise comparisons (*p*-values)

|  | Adjusted proportion |                |                |                | Pairwise comparisons  |                   |                     |  |  |
|--|---------------------|----------------|----------------|----------------|-----------------------|-------------------|---------------------|--|--|
| Public health Statements   | p                   | Regular        | Ex-smoker      | Never          | Current:<br>Ex-smoker | Current:<br>Never | Ex-smoker:<br>Never |  |  |
| Public health policies   |                     |                |                |                |                       |                   |                     |  |  |
| The NHS should spend less on treating illness and more on preventing it  | 0.062               | 49%<br>(44-54) | 56%<br>(52-60) | 53%<br>(49-57) | 0.020                 | 0.159             | 0.136               |  |  |
| Advertising of alcohol should be banned to reduce alcohol problems   | <0.001              | 39%<br>(34-44) | 50%<br>(46-55) | 51%<br>(48-55) | <0.001                | <0.001            | 0.554               |  |  |
| Advertising of unhealthy foods to children should<br>be banned to reduce childhood obesity                         | 0.007               | 67%<br>(62-72) | 70%<br>(66-74) | 75%<br>(71-78) | 0.363                 | 0.007             | 0.028               |  |  |
| Healthy foods should cost a bit less and<br>unhealthy foods a bit more   | 0.001               | 78%<br>(73-82) | 85%<br>(82-88) | 85%<br>(82-87) | 0.002                 | 0.001             | 0.833               |  |  |
| Companies and individuals should be made to<br>adopt behaviours to reduce climate change                           | 0.038               | 62%<br>(57-67) | 68%<br>(64-72) | 69%<br>(65-72) | 0.040                 | 0.013             | 0.737               |  |  |
| I support 20mph speed limits where they will reduce road traffic injuries  | 0.006               | 71%<br>(66-75) | 79%<br>(75-83) | 78%<br>(74-81) | 0.002                 | 0.006             | 0.447               |  |  |
| Public health support structures   |                     |                |                |                |                       |                   |                     |  |  |
| I would like more public information campaigns<br>on how to live a healthier life                                  | 0.504               | 45%<br>(40-50) | 48%<br>(44-53) | 49%<br>(45-52) | 0.323                 | 0.248             | 0.920               |  |  |
| Schools should teach children more about how to live a healthy life  | 0.783               | 89%<br>(91-85) | 88%<br>(86-91) | 88%<br>(85-90) | 0.927                 | 0.593             | 0.560               |  |  |
| Parents should be given professional advice on how to raise their children well                                    | 0.550               | 51%<br>(46-56) | 54%<br>(49-54) | 52%<br>(48-56) | 0.312                 | 0.641             | 0.400               |  |  |
| A safe and loving childhood is essential to becoming a healthy adult   | 0.158               | 84%<br>(80-88) | 87%<br>(84-90) | 88%<br>(85-90) | 0.166                 | 0.067             | 0.644               |  |  |
| Employers should do more to look after their workers' health   | 0.611               | 75%<br>(70-79) | 77%<br>(73-80) | 77%<br>(74-80) | 0.447                 | 0.329             | 0.832               |  |  |
| People should keep themselves healthy, it's not the job of public services   | 0.017               | 73%<br>(68-78) | 78%<br>(73-82) | 80%<br>(77-84) | 0.107                 | 0.006             | 0.190               |  |  |
| Healthcare and public health   |                     |                |                |                |                       |                   |                     |  |  |
| I am confident that if I got ill the NHS would<br>meet my healthcare needs   | 0.048               | 64%<br>(59-69) | 71%<br>(67-75) | 71%<br>(67-74) | 0.024                 | 0.020             | 0.866               |  |  |
| I worry when I visit hospital that I might pick up<br>an infection   | 0.040               | 38%<br>(33-43) | 39%<br>(35-44) | 35%<br>(31-38) | 0.653                 | 0.191             | 0.016               |  |  |
| When I see my GP they usually talk to me about how to live a healthier life  | 0.225               | 37%<br>(32-42) | 34%<br>(30-38) | 33%<br>(29-36) | 0.350                 | 0.098             | 0.406               |  |  |
| When I speak with health professionals like<br>nurses and pharmacists they advise me on living<br>a healthier life | 0.257               | 39%<br>(34-44) | 35%<br>(31-39) | 35%<br>(32-38) | 0.182                 | 0.108             | 0.834               |  |  |
| Wellbeing  |                     |                |                |                |                       |                   |                     |  |  |
| I often feel isolated in my local community  | <0.001              | 23%<br>(18-28) | 14%<br>(1-18)  | 12%<br>(9-15)  | 0.002                 | <0.001            | 0.298               |  |  |
| I feel safe and secure in my local community   | 0.005               | 80%<br>(75-85) | 86%<br>(82-90) | 88%<br>(85-91) | 0.035                 | 0.002             | 0.273               |  |  |
| Generally, I feel optimistic about life  | <0.001              | 78%<br>(73-83) | 88%<br>(84-92) | 88%<br>(85-91) | 0.001                 | <0.001            | 0.991               |  |  |

Table A-6. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>‡</sup> with each public health statement by physical activity levels, with pairwise comparisons (p-values)

| Public health Statements   |        | Adjusted p     | proportion     |                | Pairwise comparisons |            |            |  |
|--|--------|----------------|----------------|----------------|----------------------|------------|------------|--|
| Public health statements   | p      | 0-1            | 2-4            | 5+             | 0-1:<br>3-4          | 0-1:<br>5+ | 2-4:<br>5+ |  |
| Public health policies   |        |                |                |                |                      |            |            |  |
| The NHS should spend less on treating illness and more on preventing it  | 0.159  | 52%<br>(48-56) | 55%<br>(51-59) | 51%<br>(46-56) | 0.127                | 0.679      | 0.096      |  |
| Advertising of alcohol should be banned to<br>reduce alcohol problems  | 0.736  | 48%<br>(44-52) | 46%<br>(42-50) | 47%<br>(42-52) | 0.433                | 0.742      | 0.761      |  |
| Advertising of unhealthy foods to children should<br>be banned to reduce childhood obesity                         | 0.547  | 71%<br>(74-76) | 73%<br>(69-76) | 71%<br>(66-75) | 0.351                | 0.896      | 0.368      |  |
| Healthy foods should cost a bit less and<br>unhealthy foods a bit more   | 0.164  | 82%<br>(78-84) | 84%<br>(81-87) | 84%<br>(80-87) | 0.081                | 0.157      | 0.970      |  |
| Companies and individuals should be made to<br>adopt behaviours to reduce climate change                           | 0.004  | 64%<br>(60-67) | 70%<br>(67-73) | 68%<br>(63-72) | 0.001                | 0.100      | 0.295      |  |
| I support 20mph speed limits where they will reduce road traffic injuries  | 0.338  | 76%<br>(72-79) | 78%<br>(74-81) | 75%<br>(71-79) | 0.210                | 0.865      | 0.231      |  |
| Public health support structures   |        |                |                |                |                      |            |            |  |
| would like more public information campaigns on how to live a healthier life                                       | 0.367  | 48%<br>(44-52) | 49%<br>(45-53) | 45%<br>(41-50) | 0.586                | 0.338      | 0.150      |  |
| Schools should teach children more about how to ive a healthy life   | 0.002  | 87%<br>(85-89) | 90%<br>(88-92) | 86%<br>(83-89) | 0.005                | 0.401      | 0.00       |  |
| Parents should be given professional advice on now to raise their children well                                    | 0.144  | 52%<br>(55-48) | 54%<br>(50-58) | 50%<br>(45-54) | 0.175                | 0.469      | 0.06       |  |
| A safe and loving childhood is essential to<br>becoming a healthy adult  | 0.182  | 87%<br>(83-89) | 88%<br>(85-91) | 85%<br>(81-89) | 0.203                | 0.513      | 0.09       |  |
| Employers should do more to look after their<br>workers' health  | 0.253  | 76%<br>(72-79) | 78%<br>(75-81) | 75%<br>(71-79) | 0.210                | 0.645      | 0.13       |  |
| People should keep themselves healthy, it's not the job of public services   | 0.007  | 74%<br>(70-77) | 79%<br>(75-82) | 80%<br>(75-84) | 0.007                | 0.008      | 0.603      |  |
| Healthcare and public health   |        |                |                |                |                      |            |            |  |
| am confident that if I got ill the NHS would<br>neet my healthcare needs   | 0.770  | 69%<br>(65-73) | 70%<br>(66-74) | 68%<br>(63-73) | 0.663                | 0.734      | 0.48       |  |
| worry when I visit hospital that I might pick up<br>an infection   | 0.284  | 38%<br>(34-42) | 36%<br>(32-40) | 36%<br>(32-41) | 0.336                | 0.435      | 0.99       |  |
| When I see my GP they usually talk to me about now to live a healthier life  | 0.203  | 32%<br>(29-36) | 36%<br>(32-40) | 34%<br>(29-38) | 0.080                | 0.651      | 0.31       |  |
| When I speak with health professionals like<br>nurses and pharmacists they advise me on living<br>a healthier life | 0.135  | 35%<br>(31-38) | 38%<br>(35-42) | 35%<br>(31-39) | 0.069                | 0.978      | 0.13       |  |
| Wellbeing  |        |                |                |                |                      |            |            |  |
| often feel isolated in my local community  | <0.001 | 23%<br>(19-27) | 13%<br>(1-16)  | 13%<br>(9-17)  | <0.001               | <0.001     | 0.86       |  |
| feel safe and secure in my local community   | <0.001 | 80%<br>(76-84) | 90%<br>(87-93) | 83%<br>(79-88) | <0.001               | 0.164      | 0.00       |  |
| Generally, I feel optimistic about life  | <0.001 | 76%<br>(72-80) | 89%<br>(86-92) | 89%<br>(84-92) | <0.001               | <0.001     | 0.90       |  |
|  |        |                |                |                |                      |            |            |  |

Table A-7. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>‡</sup> with each public health statement by fruit and vegetable consumption, with pairwise comparisons (*p*-values)

|  | Adjusted proportion |                |                |                | Pairwise comparisons |            |            |  |
|--|---------------------|----------------|----------------|----------------|----------------------|------------|------------|--|
| Public health Statements   | p                   | 0-2            | 3-4            | 5+             | 0-2:<br>3-4          | 0-2:<br>5+ | 3-4:<br>5+ |  |
| Public health policies   |                     |                |                |                |                      |            |            |  |
| The NHS should spend less on treating illness and more on preventing it  | <0.001              | 47%<br>(43-51) | 53%<br>(49-57) | 57%<br>(53-62) | 0.008                | <0.001     | 0.050      |  |
| Advertising of alcohol should be banned to reduce alcohol problems   | 0.098               | 45%<br>(41-49) | 46%<br>(42-49) | 49%<br>(45-54) | 0.741                | 0.057      | 0.062      |  |
| Advertising of unhealthy foods to children should be banned to reduce childhood obesity                            | <0.001              | 64%<br>(60-68) | 71%<br>(68-74) | 76%<br>(80-72) | 0.001                | <0.001     | 0.007      |  |
| Healthy foods should cost a bit less and unhealthy foods a bit more  | 0.014               | 80%<br>(77-83) | 82%<br>(79-85) | 85%<br>(82-88) | 0.169                | 0.003      | 0.055      |  |
| Companies and individuals should be made to<br>adopt behaviours to reduce climate change                           | <0.001              | 59%<br>(55-63) | 69%<br>(66-72) | 73%<br>(69-77) | <0.001               | <0.001     | 0.028      |  |
| I support 20mph speed limits where they will reduce road traffic injuries  | <0.001              | 70%<br>(66-74) | 77%<br>(74-80) | 81%<br>(77-85) | 0.001                | <0.001     | 0.028      |  |
| Public health support structures   |                     |                |                |                |                      |            |            |  |
| I would like more public information campaigns<br>on how to live a healthier life                                  | 0.161               | 45%<br>(41-49) | 46%<br>(43-50) | 50%<br>(45-54) | 0.547                | 0.069      | 0.141      |  |
| Schools should teach children more about how to live a healthy life  | 0.173               | 87%<br>(84-89) | 88%<br>(86-90) | 90%<br>(87-92) | 0.289                | 0.059      | 0.294      |  |
| Parents should be given professional advice on how to raise their children well                                    | 0.007               | 47%<br>(43-52) | 52%<br>(48-56) | 55%<br>(51-60) | 0.027                | 0.002      | 0.195      |  |
| A safe and loving childhood is essential to<br>becoming a healthy adult  | 0.039               | 85%<br>(81-88) | 89%<br>(86-91) | 88%<br>(84-90) | 0.013                | 0.101      | 0.447      |  |
| Employers should do more to look after their workers' health   | 0.001               | 72%<br>(69-76) | 76%<br>(73-79) | 80%<br>(77-83) | 0.064                | <0.001     | 0.023      |  |
| People should keep themselves healthy, it's not the job of public services   | 0.525               | 77%<br>(73-81) | 78%<br>(74-82) | 76%<br>(71-80) | 0.581                | 0.646      | 0.262      |  |
| Healthcare and public health   |                     |                |                |                |                      |            |            |  |
| I am confident that if I got ill the NHS would<br>meet my healthcare needs   | <0.001              | 63%<br>(59-68) | 70%<br>(66-74) | 73%<br>(69-77) | 0.004                | <0.001     | 0.125      |  |
| I worry when I visit hospital that I might pick up<br>an infection   | 0.508               | 38%<br>(34-42) | 36%<br>(32-40) | 36%<br>(32-40) | 0.318                | 0.281      | 0.850      |  |
| When I see my GP they usually talk to me about how to live a healthier life  | 0.878               | 34%<br>(30-38) | 33%<br>(30-37) | 34%<br>(30-39) | 0.762                | 0.875      | 0.622      |  |
| When I speak with health professionals like<br>nurses and pharmacists they advise me on living<br>a healthier life | 0.620               | 35%<br>(32-39) | 36%<br>(32-39) | 37%<br>(33-42) | 0.868                | 0.385      | 0.406      |  |
| Wellbeing  |                     |                |                |                |                      |            |            |  |
| I often feel isolated in my local community  | 0.001               | 21%<br>(17-25) | 15%<br>(12-19) | 12%<br>(9-16)  | 0.010                | <0.001     | 0.084      |  |
| I feel safe and secure in my local community   | <0.001              | 74%<br>(70-78) | 86%<br>(82-89) | 92%<br>(88-95) | <0.001               | <0.001     | <0.001     |  |
| Generally, I feel optimistic about life  | <0.001              | 75%<br>(71-79) | 88%<br>(85-91) | 91%<br>(87-94) | <0.001               | <0.001     | 0.221      |  |
|  |                     |                |                |                |                      |            |            |  |

Table A-8. Adjusted proportion (estimated marginal mean; 95% confidence interval) who agreed<sup>‡</sup> with each public health statement by self-reported general health, with pairwise comparisons (*p*-values)

|  |        | Adjusted       | proportion     |                | Pairw          | ise compari  | arisons         |  |
|--|--------|----------------|----------------|----------------|----------------|--------------|-----------------|--|
| Public health Statements   | p      | Low            | Average        | High           | Low:<br>Middle | Low:<br>High | Middle:<br>High |  |
| Public health policies   |        |                |                |                |                |              |                 |  |
| The NHS should spend less on treating illness and more on preventing it  | <0.001 | 46%<br>(42-50) | 54%<br>(50-58) | 59%<br>(55-64) | <0.001         | <0.001       | 0.008           |  |
| Advertising of alcohol should be banned to<br>reduce alcohol problems  | 0.742  | 47%<br>(43-51) | 48%<br>(44-52) | 46%<br>(42-51) | 0.631          | 0.842        | 0.46            |  |
| Advertising of unhealthy foods to children should<br>be banned to reduce childhood obesity                         | 0.009  | 66%<br>(62-70) | 71%<br>(68-75) | 74%<br>(69-77) | 0.020          | 0.003        | 0.26            |  |
| Healthy foods should cost a bit less and unhealthy foods a bit more  | 0.802  | 83%<br>(79-86) | 84%<br>(81-86) | 83%<br>(79-86) | 0.534          | 0.859        | 0.67            |  |
| Companies and individuals should be made to<br>adopt behaviours to reduce climate change                           | 0.037  | 64%<br>(60-68) | 69%<br>(65-72) | 69%<br>(65-73) | 0.018          | 0.031        | 0.89            |  |
| support 20mph speed limits where they will reduce road traffic injuries  | 0.222  | 73%<br>(70-77) | 77%<br>(73-80) | 77%<br>(73-81) | 0.126          | 0.118        | 0.78            |  |
| Public health support structures   |        |                |                |                |                |              |                 |  |
| would like more public information campaigns<br>on how to live a healthier life                                    | 0.633  | 48%<br>(44-52) | 48%<br>(44-52) | 46%<br>(42-51) | 0.798          | 0.372        | 0.42            |  |
| chools should teach children more about how to ive a healthy life  | 0.576  | 88%<br>(85-90) | 89%<br>(86-91) | 88%<br>(85-90) | 0.400          | 0.982        | 0.39            |  |
| Parents should be given professional advice on now to raise their children well                                    | 0.048  | 48%<br>(44-52) | 53%<br>(49-56) | 54%<br>(49-59) | 0.041          | 0.021        | 0.52            |  |
| A safe and loving childhood is essential to<br>becoming a healthy adult  | 0.106  | 85%<br>(82-88) | 88%<br>(85-90) | 88%<br>(85-91) | 0.064          | 0.060        | 0.77            |  |
| mployers should do more to look after their vorkers' health  | 0.123  | 76%<br>(72-79) | 78%<br>(75-81) | 74%<br>(70-78) | 0.237          | 0.500        | 0.05            |  |
| People should keep themselves healthy, it's not<br>the job of public services                                      | <0.001 | 72%<br>(68-76) | 76%<br>(72-80) | 82%<br>(78-86) | 0.670          | <0.001       | 0.00            |  |
| Healthcare and public health   |        |                |                |                |                |              |                 |  |
| am confident that if I got ill the NHS would<br>neet my healthcare needs   | <0.001 | 61%<br>(57-65) | 72%<br>(68-75) | 74%<br>(70-78) | <0.001         | <0.001       | 0.24            |  |
| worry when I visit hospital that I might pick up<br>an infection   | 0.089  | 39%<br>(36-44) | 38%<br>(34-41) | 34%<br>(30-39) | 0.354          | 0.029        | 0.10            |  |
| When I see my GP they usually talk to me about now to live a healthier life  | 0.006  | 37%<br>(33-41) | 35%<br>(32-39) | 30%<br>(26-34) | 0.472          | 0.002        | 0.00            |  |
| When I speak with health professionals like<br>nurses and pharmacists they advise me on living<br>a healthier life | <0.001 | 41%<br>(37-45) | 36%<br>(32-39) | 32%<br>(28-36) | 0.009          | <0.001       | 0.03            |  |
| Wellbeing  |        |                |                |                |                |              |                 |  |
| often feel isolated in my local community  | <0.001 | 28%<br>(24-32) | 16%<br>(13-19) | 7%<br>(1-4)    | <0.001         | <0.001       | <0.00           |  |
| feel safe and secure in my local community   | <0.001 | 74%<br>(70-78) | 85%<br>(82-88) | 93%<br>(86-96) | <0.001         | <0.001       | <0.00           |  |
| Generally, I feel optimistic about life  | <0.001 | 67%<br>(63-71) | 87%<br>(84-89) | 95%<br>(92-98) | <0.001         | <0.001       | <0.00           |  |
|  |        |                |                |                |                |              |                 |  |

#### Funded by Public Health Wales

Public Health Wales is an NHS organisation providing professionally independent public health advice and services to protect and improve the health and wellbeing of the population of Wales. Production of this report was funded by Public Health Wales. The funded authors worked collaboratively with Public Health Wales, however, the views in this report should not be assumed the same as those of Public Health Wales.

#### **Health Protection**

Providing information and advice and taking action to protect people from infectious diseases and environmental hazards

Microbiology Providing a network of microbiology services which support diagnosis and management of infectious diseases



Health Improvement Providing information, advice and taking action, across sectors, to promote health, prevent disease and reduce health inequalities

# **Public Health Wales** what we do

We exist to protect and improve health and wellbeing and reduce health inequalities for people in Wales. We work locally, nationally and internationally, with our partners and communities, in the following areas:

Screening

Providing screening programmes which assist the early detection, prevention and treatment of disease

## **Health intelligence**

Providing public health data analysis, evidence finding and knowledge management

#### Policy, research and international development Influencing policy, supporting research and contributing to international health

development



#### Safeguarding

Providing expertise and advice to help protect children and vulnerable adults

#### NHS quality improvement and patient safety Providing the NHS with information, advice and support to improve

#### Primary, community

and integrated care Strengthening public health impact through policy, commissioning, planning and service delivery patient outcomes



Public Health Collaborating Unit School of Health Sciences Bangor University Wrexham Technology Park Wrexham LL13 7YP Tel: +44(0)1248 383519



| lechyd Cyhoeddus | Cymru | Public Health | Wales

Policy and International Directorate, a World Health Organization Collaborating Centre on Investment for Health and Wellbeing Public Health Wales Clwydian House, Wrexham Technology Park Wrexham LL13 7YP Tel: +44(0)1978 318413