NHS
Greater Glasgow and Clyde

Thematic Report 1:

Mental Health of the Greater Glasgow and Clyde Adult Population

2022/23

Authorship

Kate A Levin, Senior Researcher, NHS Greater Glasgow and Clyde

Margaret McGranachan, Public Health Researcher, NHS Greater Glasgow and Clyde

Rebecca Campbell, Public Health Consultant, NHS Greater Glasgow and Clyde

For further information please contact:

katie.levin@ggc.scot.nhs.uk

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Contents

1. Introduction

World Health Organisation (WHO) describes mental health as "**a state of mental wellbeing that enables people to cope with the stresses of life, realise their abilities, learn well and work well, and contribute to their community... integral to our wellbeing**"[1]. Mental health conditions include mental disorders and psychosocial disabilities, with depression and anxiety the most common of these.

Poor mental health can cause challenges in all aspects of life including relationships with others, coping with stress, decision making, and following a healthy lifestyle. Mental health is directly and indirectly associated with physical health[2] and the burden of mental disorders in terms of mortality and morbidity is likely to be underestimated because of this relationship[3]. Comorbidity complicates help seeking, diagnosis and treatment. Mental disorders such as schizophrenia and severe mental illness are associated with reduced life expectancy of up to 20 years[4] but more common and less severe mental health problems such as anxiety and depression are also associated with premature mortality and lowered life satisfaction[5,6].

In Scotland, mental wellbeing decreased between 2019 and 2022/23, following a steady trajectory since 2008[7], with women, younger adults and those living in more deprived areas in particular experiencing poor mental health outcomes. For many, their mental health was adversely affected during the COVID-19 pandemic[8]. Almost a fifth of respondents to the NHS Greater Glasgow and Clyde 2022/23 Health and Wellbeing Survey (HWB) described a deterioration in their mental health due to the pandemic[9]. Social and economic changes in recent years also include the UK's withdrawal from the European Union, the cost of living crisis, an ageing population and changes in migration. These changes in both context and population are likely to impact on reported health outcomes more generally. Pre-pandemic austerity has also been shown to have impacted on people's physical and mental health[10].

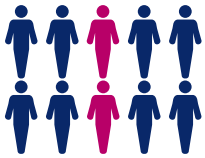
1.1 Aim of this Thematic Report

The aim of this report is to go beyond the findings of the NHS Greater Glasgow and Clyde 2022/23 HWB report[9]. This Thematic Report examines the mental health of NHSGGC residents and subgroups within it, associated factors and changes over time to form a more complete overview of the mental health of our population. It is hoped that the report will be of value to NHSGGC and HSCP strategists, decision makers, services, local government and the third sector, as well as academics and policymakers beyond the health board for whom the findings will also be relevant.

Summary of main findings

Females were more likely to have poor mental health than males, however **the impact of deprivation on mental health was greater than age or gender**. Those aged 45-64 years living in the 15% most deprived areas ('Bottom 15% SIMD') had the poorest mental health

Large inequalities in mental health by age group and gender within areas described as 'Bottom 15% SIMD' suggest a more heterogeneous population in terms of mental health



In 2022/23 **over one fifth of 45-64 year olds living in deprived areas reported a mental or emotional health problem** (MEHP), compared with less than one twelfth in 'Other areas'

Mental health of the Greater Glasgow and Clyde population has declined since 2014/15. The youngest age group, 16-44 years, has seen steepest decline in mental health over time for most outcomes and this is particularly the case in non-deprived areas

Of those reporting a long-term limiting condition or illness, **the proportion with a MEHP doubled between 2014/15 and 2022/23 to 29%**

Poor mental health was associated with poor perceived physical health, poor dental health and receiving treatment for illness, with highest prevalence of poor mental health for males and females aged 45-64 years living in deprived areas with poor physical health outcomes. Association between physical and mental health was weaker at older ages

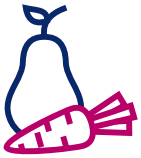
Likelihood of poorer mental health was greater for those reporting to be gay/bisexual/other, unemployed, living alone, to have no educational qualifications, no children living in the home and/or not to own their home. These associations were particularly strong among 45-64 year olds

Association between having caring responsibilities and mental health was dependent on age; 16-24 year olds with caring responsibilities were twice as likely to have a Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) score indicating depression while for those aged 65 years+ this was reversed so that those without caring responsibilities were twice as likely to have a score indicating depression

Poor mental health was clearly associated with poverty at an individual level within the survey. Poor mental health was more prevalent among those for whom all income was from benefits, household income was perceived to be inadequate, there was food insecurity, difficulty meeting food and fuel expenses and/or an inability to find unexpected sums of money. These differences were extremely large, with largest disparities among 45-64 year olds

People who experienced any level of food insecurity were four times more likely to have a MEHP

Current smokers were twice as likely to have a score indicating depression as non smokers and almost three times as likely to have a MEHP. These differences persisted after adjustment for area level deprivation and were particularly large for 45-64 year old males



Those meeting physical activity and fruit and veg consumption national targets were less likely to have poor mental health

Those who had experienced discrimination, had been victims of a crime and/or did not feel safe in their local area were more likely to have a WEMWBS score indicating depression, while those describing a positive perception of trust, reciprocity and/or friendships in their local area were more likely to have a positive perception of their mental health

The proportion who felt isolated from friends and family were three times as likely to have a WEMWBS score indicating depression and four times as likely to have a MEHP. Isolation was most strongly associated with depression for males under 65 years and for females aged 45 years+

Volunteering for clubs, charities, campaigns or organisations and/or belonging to a social club, association or church group was associated with better mental health and this was true particularly for males.

2. About the Health and Wellbeing Survey

The NHSGGC Health and Wellbeing Survey was conducted every three years between 1999 and 2017/18. The survey was due to be undertaken between autumn 2020 and early 2021 but had to be postponed until 2022/23 due to the COVID-19 pandemic. The survey is a key way in which NHSGGC monitors the health of the population including perceived health, health behaviours, perception of local areas, social health, financial wellbeing and relevant population characteristics.

Some variables are repeated each time allowing for a description of trends, while others are added as a reflection of changes in priorities and the social and environmental context. For example in the most recent survey questions on the topic of COVID-19 were included. In this way, the survey helps to inform planning within NHSGGC and highlights areas where engagement with partners and local communities can improve the health of the population.

2.1 Indicators of mental health

The HWB survey includes fourteen questions of the WEMWBS[11]. The scale is reported in two forms, as a continuous measure, with the mean score giving a measure of mental wellbeing or as a categorical measure, with a score of:

	**under 41**	**indicating probable clinical depression**
	**41-44**	**indicating possible/mild depression**
	**45+**	**indicating no depression**

WEMWBS was collected in survey years: 2008, 2011, 2014/15, 2022/23.

The HWB survey includes a question on general mental/emotional wellbeing. This was collected in the survey years: 2008, 2011, 2014/15, 2017/18, 2022/23.

The HWB survey also collects data about long-term limiting condition or illness. The question of whether a person has a long-term limiting condition or illness is further broken down to the type of condition or illness and within this is the category ‘a mental or emotional health problem’. This question was collected in survey years: 2008, 2011, 2014/15, 2017/18, 2022/23.

Four indicators of mental health were included in this Thematic Report:

1. WEMWBS mean score
2. Proportion of respondents with possible or probable depression
3. Proportion reporting positive perception of mental health
4. Proportion of respondents with a mental or emotional health problem

2.2 Data definitions and methods

Chi-squared tests were used to compare weighted proportions of the survey data. A p-value of $p<0.01$ was used to indicate statistical significance to reflect the number of comparisons made. Where there is a significant difference this is denoted by an asterisk. Trends in mental health and wellbeing were also calculated. Not all outcomes were collected across all surveys. Logistic modelling for binary outcomes includes year, gender/age group/deprivation and an interaction term to measure significant changes over time. Area level deprivation is described by a binary variable, splitting the population by residence according to the Scottish Indicator of Multiple Deprivation[12], so those living in the 15% most deprived datazones are categorised as “Bottom 15% SIMD” and those living in all other areas are categorised as “Other areas”.

3. Mental Health and the 2022/23 Health and Wellbeing Survey

Table 1 gives a breakdown of the surveyed sample. The weighted proportions reflect the demography in NHSGGC. From this it can be seen that **28%** of people living in NHSGGC reside within the **15%** most deprived areas. Overall, **25%** of females had a WEMWBS score indicating depression compared with **22%** of males, **78%** of females had a positive perception of their mental health compared with **84%** of males, however **8%** of males had a mental or emotional health problem (MEHP), compared with **10%** of females.

When stratified by age, sex and deprivation, 45-64 year old males and females in the 15% most deprived areas had the poorest outcomes for all measures of mental health and wellbeing, while 16-64 year old males living in 'Other areas' had the best outcomes. Areas of higher deprivation also saw greater age and gender differences in outcomes. For example, in 15% most deprived areas, 45-64 year old males had an average mean WEMWBS score 3.24 (in relative terms, 6.8%) lower than 16-44 year old males, while in 'Other areas' this difference was 0.75 (1.4%) lower. Similarly, among 16-44 year olds, the proportion with WEMWBS score indicating possible depression for females was 6% (in relative terms, 23.6%) greater than males in 15% most deprived areas, compared with a 1.7% (9.6%) greater in 'Other areas'.

Table 1: Summary Table of the 2022/2023 HWB sample and mental health

Males						
Age range	16-44		45-64		65+	
Unweighted sample, n	1,043	903	807	726	496	659
Weighted sample size, n (%)	731 (7.3)	1,743 (17.4)	409 (4.1)	1,072 (10.7)	216 (2.2)	658 (6.6)
Mean WEMWBS Score	50.95	53.06	47.71	52.31	51.17	51.36
% with WEMWBS score indicating depression	25.4	17.7	41.3	17.3	22.3	24.8
% with positive perception of mental health	83.9	87.0	68.3	84.6	78.6	83.2
% with mental or emotional health problems	9.1	6.2	21.5	5.2	6.4	7.2
	Bottom 15% SIMD	Other areas				

Table 1 (continued): Summary Table of the 2022/2023 HWB sample and mental health

Females						
Age range	16-44		45-64		65+	
Unweighted sample, n	1,258	996	853	769	663	836
Weighted sample size, n (%)	708 (7.1)	1,697 (17.0)	461 (4.6)	1,180 (11.8)	291 (2.9)	835 (8.3)
Mean WEMWBS Score	49.16	52.25	47.18	50.87	48.55	51.95
% with WEMWBS score indicating depression	31.4	19.4	39.7	24.0	34.0	19.7
% with positive perception of mental health	78.5	82.2	62.4	78.9	67.4	82.8
% with mental or emotional health problems	13.3	5.7	23.1	10.2	11.0	5.3
	Bottom 15% SIMD	Other areas				

These differences are particularly stark for the MEHP outcome. Males aged 45-64 years old in deprived areas were more than 4 times likely to report having a MEHP than those living in non-deprived areas, while women in this age group were more than twice as likely to do so. Additionally, among those living in deprived areas when compared with those aged 65 year+, 45-64 year old males were three times more likely to report having a MEHP while 45-64 year old women were twice as likely to do so.

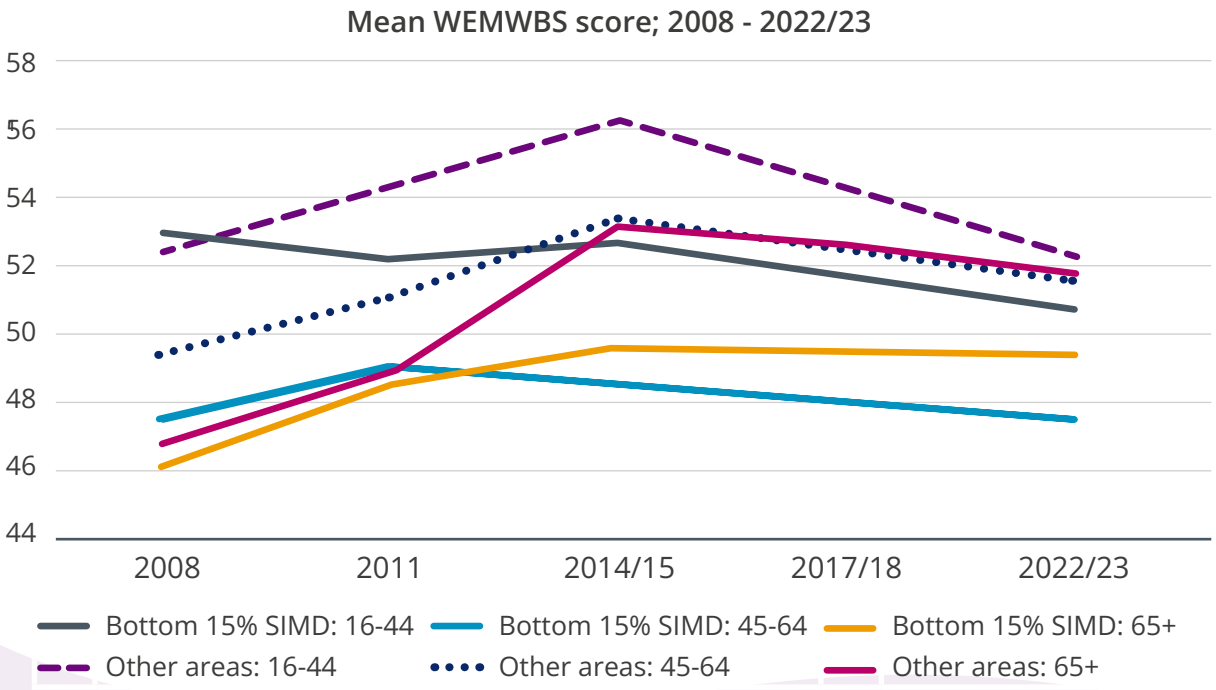
These analyses show that the 45-64 year age group is at a particularly high risk of poor mental health. The impact of deprivation on mental health, however, is greater than age or gender, and the large inequalities by gender and age groups within areas described as 'Bottom 15% SIMD' suggest a more heterogeneous population in terms of mental health.

4. Trends in Mental Health

Trends for the population as a whole describe improvements in mental health between 2008 and 2014/15 for all four outcomes, followed by a steep deterioration thereafter for WEMWBS and MEHP outcomes[a] and from 2017/18 onwards for perception of mental health. The youngest age group, 16-44 year olds, saw the steepest decline in mean WEMWBS score for both males and females and steepest increase in proportion with score indicating depression. The proportion with scores indicating depression in deprived areas increased by approximately a third between 2014/15 and 2022/23 and increased by two thirds in non-deprived areas, reducing socioeconomic inequalities in depression.

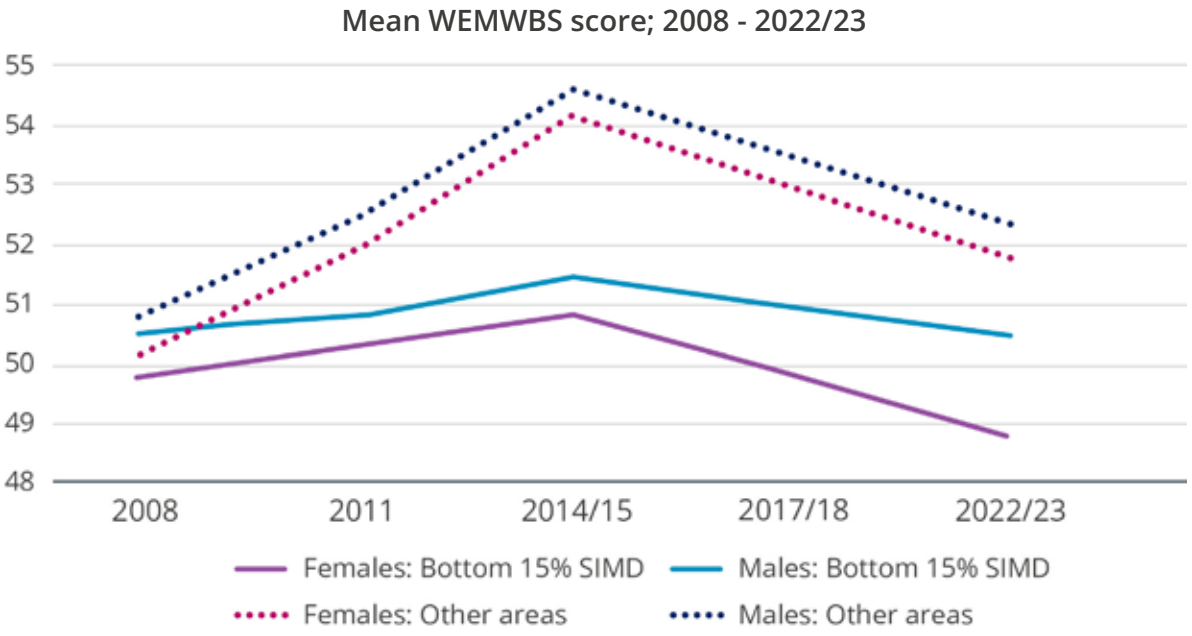
Although WEMWBS scores and proportions describe the worst outcomes in 2022/23 to be among 15% most deprived areas and especially for 45-64 year olds, trends show that since 2014/15 the biggest reduction in mean score and increase in proportion with depression occurred in non-deprived areas, and particularly for the youngest age group, those aged 16-44 years (Figure 1) and among females (Figure 2). When stratified further by age, the steepest decline in mental health was observed for 35-44 year old males and females and 16-24 year old females, for whom the proportion with depression approximately doubled between 2014/15 and 2022/23.

Figure 1



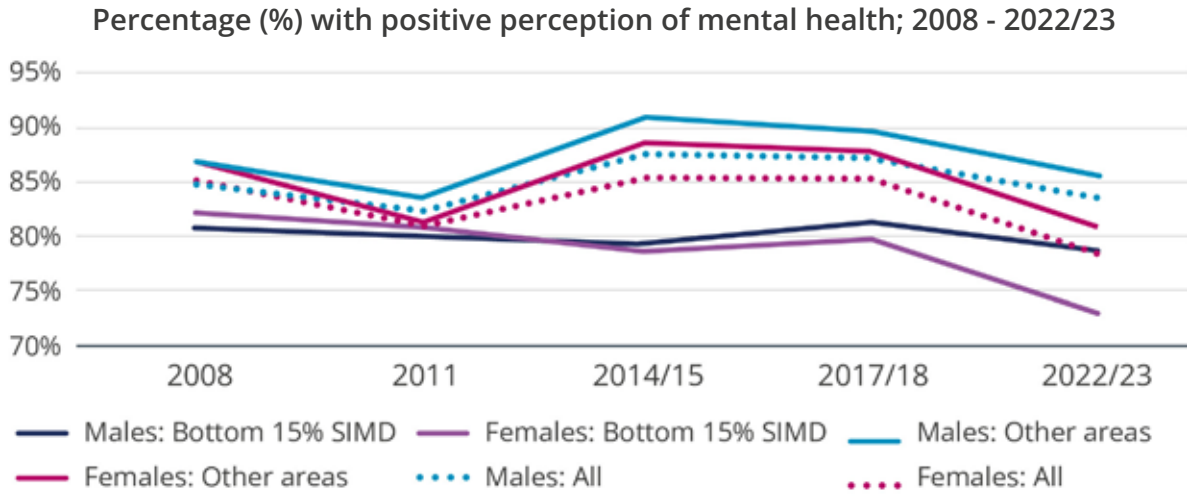
[a]Note that WEMWBS was not collected in the 2017/18 survey.

Figure 2



The percentage with a positive perception of mental health saw an increase for all age groups between 2008 and 2017/18, followed by a decline between 2017/18 and 2022/23. Although this proportion was smallest for those aged 45-64 years across all survey years, including 2022/23, the steepest declines over time were observed for those aged 16-44 years, from **90.6%** to **83.3%**. Socioeconomic inequalities in positive perception of health widened over time for both males and females, and particularly among 44-65 year olds.

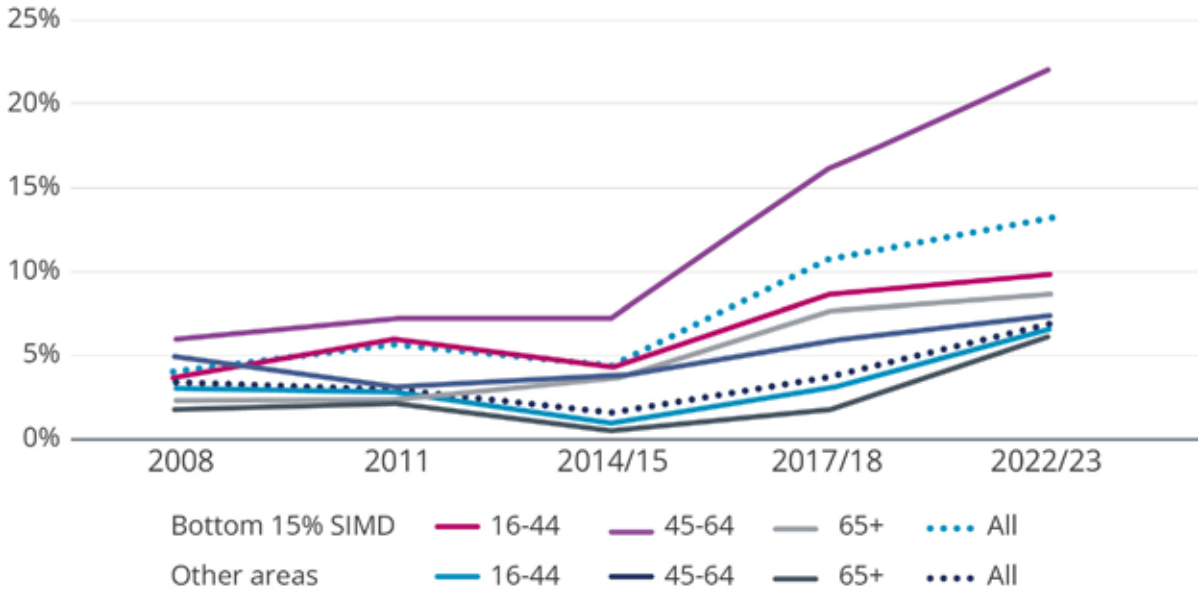
Figure 3



The proportion of people with a MEHP increased over time (Figure 4). As with perception of mental health, MEHP saw a widening of socioeconomic inequalities for those aged 45-64 years with greatest increases in MEHP occurring in deprived areas, where the proportion was already higher. In 2022/23 over one fifth of 45-64 year olds living in deprived areas reporting a MEHP in 2022/23, compared with less than one twelfth in 'Other areas' (Table 1).

Figure 4

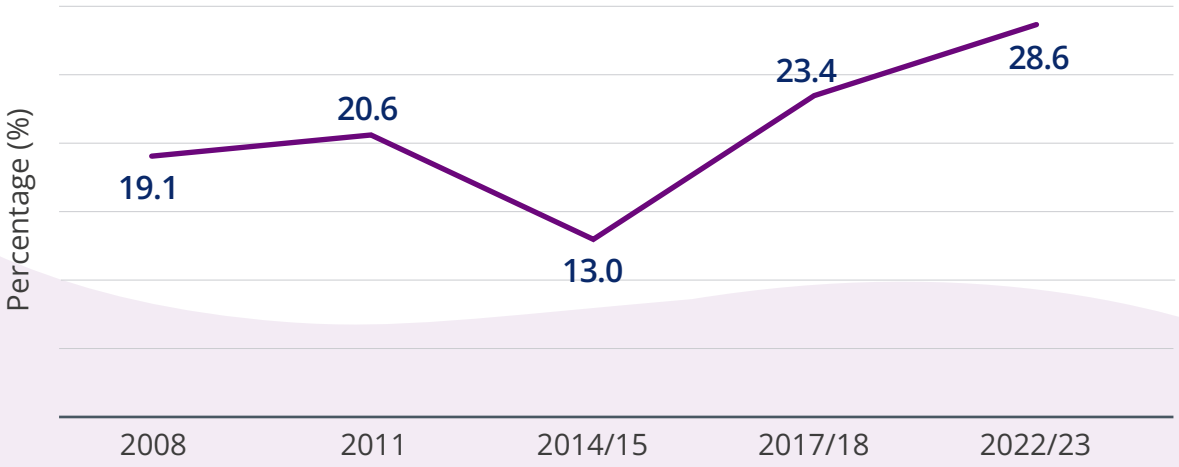
Percentage (%) with a mental or emotional health problem; 2008 - 2022/23



The HWB survey asks people if they have a long-term limiting illness or condition, then asks about the type of illness with MEHP as one response option (alternative responses are 'a physical disability', 'a long-term illness', 'don't know'). The number of people reporting a MEHP as a proportion of those reporting a long-term limiting condition or illness has increased over time (Figure 5), from **19.1%** in 2008 to **28.6%** in 2022/23, dipping slightly between 2011 and 2014/15 and doubling between 2014/15 and 2022/23.

Figure 5

Proportion of long-term limiting condition or illness described as a mental or emotional health problem; 2008 - 2022/23



5. Associations with Mental Health

5.1 Mental health and physical health

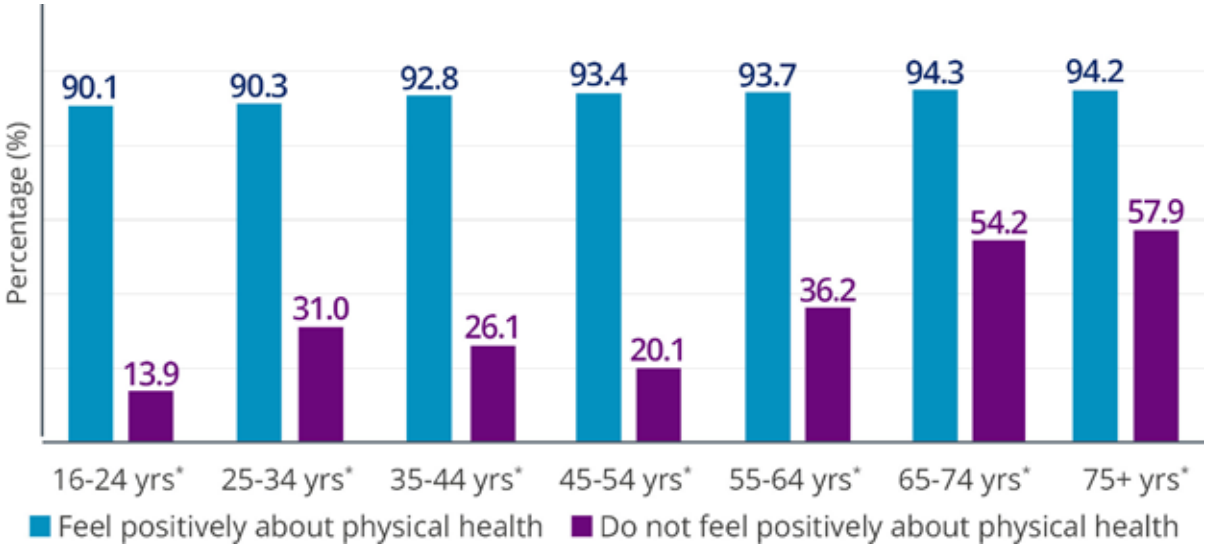
Survey respondents were asked about their **physical health**, **dental health**, if they had a **physical disability**, were **receiving treament for illness**, and the **impact of the COVID-19 pandemic**.

Physical health

There is a known strong association between physical and mental health[2]. This could also be seen in the HWB responses. Cross tabulations run between perceived positive mental health [no depression, no MEHP] and perceived physical health, show a strong association; **92%** [**84%**, **96%**] of people with a positive perception of physical wellbeing also had a positive perception of mental wellbeing [no depression, no MEHP], compared with **37%** [**48%**, **74%**] of people who did not have a positive perception of physical health. Association between perceived physical health and mental health was particularly evident among those living in 'Other areas' and among those aged under 55 years, with a reduced association at older ages (Figure 6).

Figure 6

Percentage (%) with a positive perception of mental health; Physical health

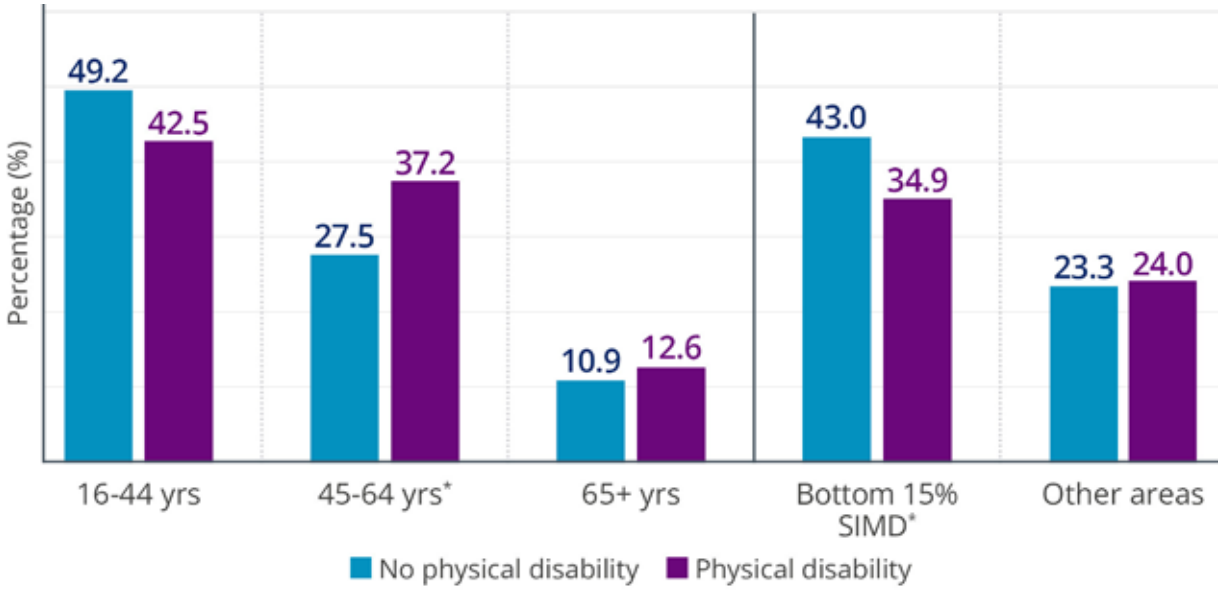


Physical disability

Of the respondents that reported a long-term limiting condition or illness, **52%** reported having a physical disability. Physical disability was not significantly associated (p<=0.01) with mean WEMWBS score, percentage with WEMWBS less than 45, or percentage with positive perception of mental health. Physical disability was however associated with MEHP for those aged 45-64 years and for those living in deprived areas, a reversed relationship; those with no physical disability were more likely to have a MEHP (Figure 7).

Figure 7

Percentage (%) with a mental or emotional health problem; Physical disability

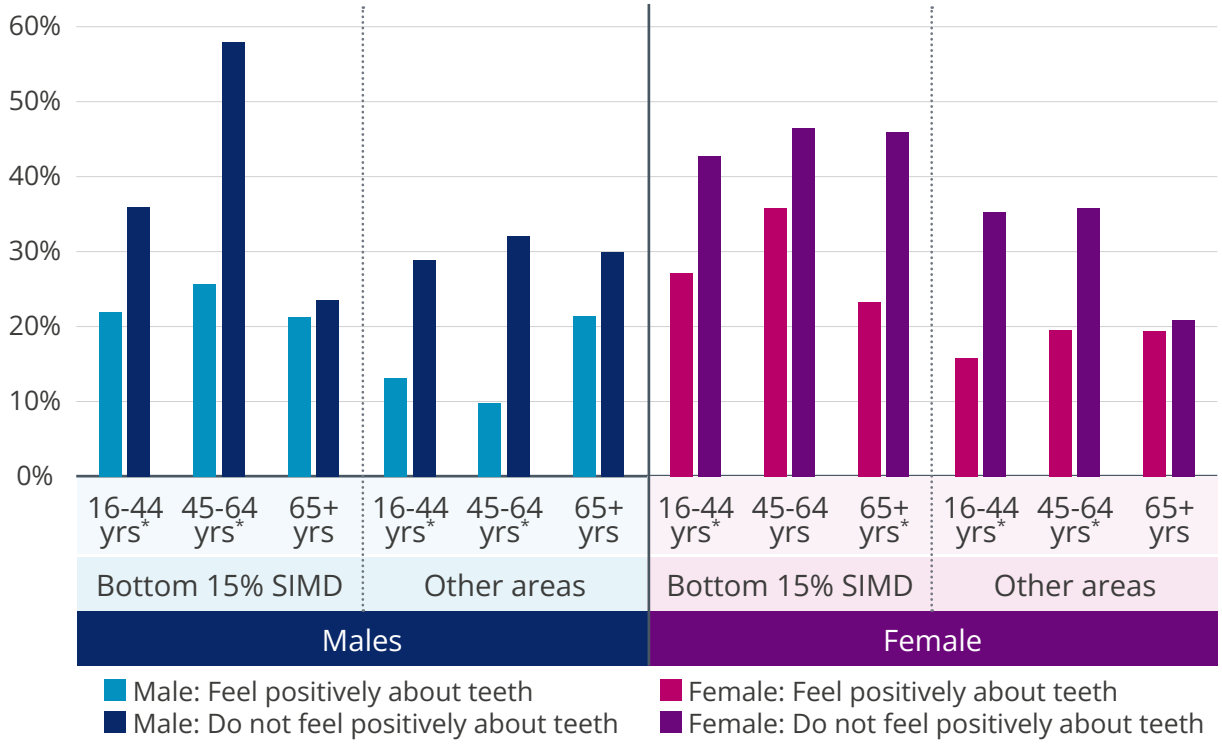


Dental health

Association between dental and mental health was evident; a score indicating depression was almost twice as likely for those who did not feel good about their teeth (**35%**) as those who did (**18%**). The association between mental and dental health was particularly evident for those living in 'Other areas' compared with those living in 15% most deprived areas, among males than females and among those aged 45-64 years. When stratified by age and gender simultaneously, however, the largest differences in mental health were seen for men aged 45-64 years (Figure 8); in deprived areas a score indicating depression was more than twice as likely (**57%**) for those not feeling good about their teeth compared with those that did feel good about their teeth (**25%**) and more than three times as likely in 'Other areas' (**32%** compared with **10%**).

Figure 8

Percentage (%) with a WEMWBS score indicating depression; Dental health

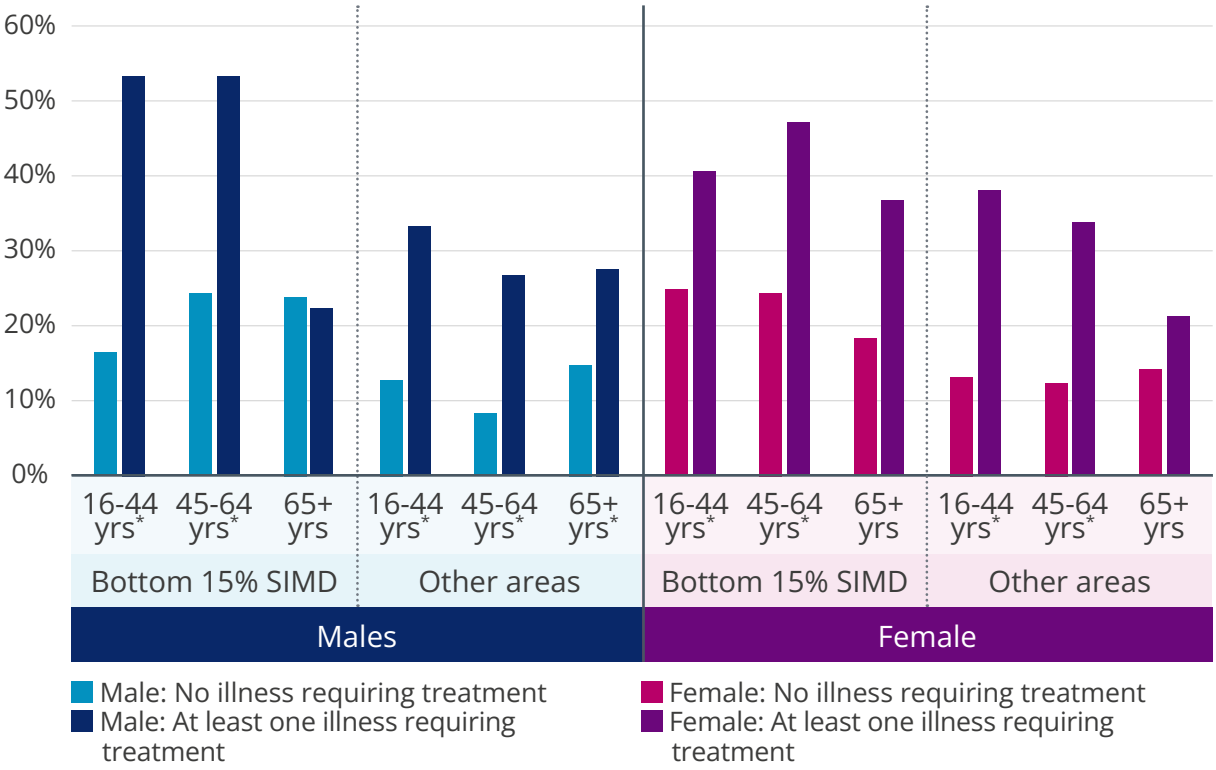


Illness

Treatment for one illness or more is associated with poor mental health for all outcomes; **91%** of people with no illness requiring treatment had a positive perception of mental health compared with **69%** of those who were being treated for at least one condition. When stratified by age, gender and deprivation simultaneously, the association between score indicating depression and treatment for illness was greatest for males from deprived areas aged 16-44 years and 45-64 year old males and females living in 'Other areas' (Figure 9).

Figure 9

Percentage (%) with a WEMWBS score indicating depression; Illness

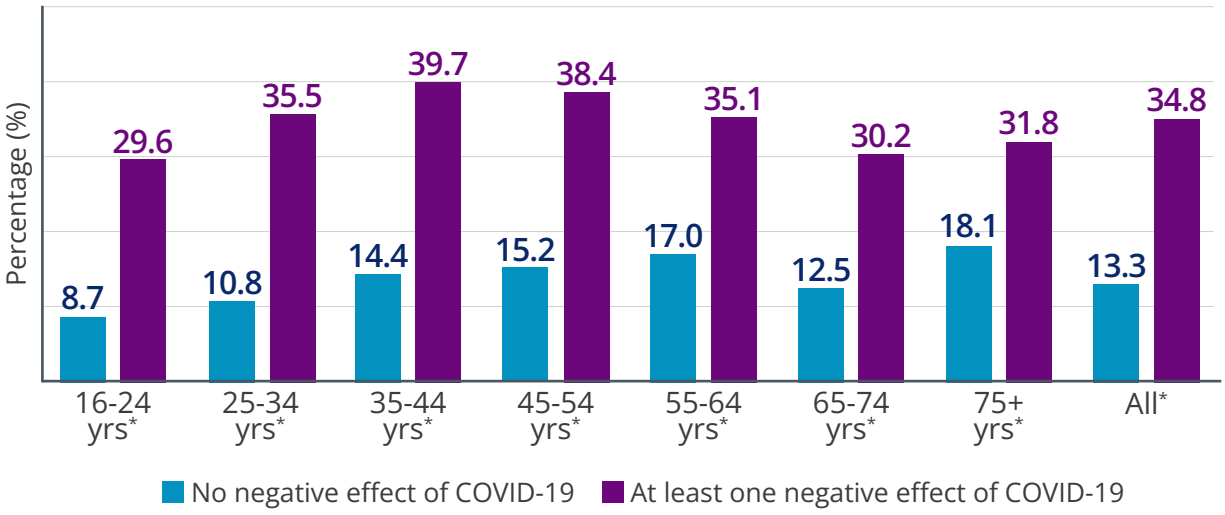


COVID-19

When asked about the effect of the COVID-19 pandemic, almost half of the respondents (**47%**) said that their health had deteriorated due to this. This proportion was more than twice as likely to have a WEMWBS score indicating depression; **35%** compared with **13%** of people who had not seen a deterioration in their health. This difference was greatest among those aged 16-34 years (Figure 10).

Figure 10

Percentage (%) with a WEMWBS score indicating depression; COVID-19



5.2 Mental Health and Population Characteristics

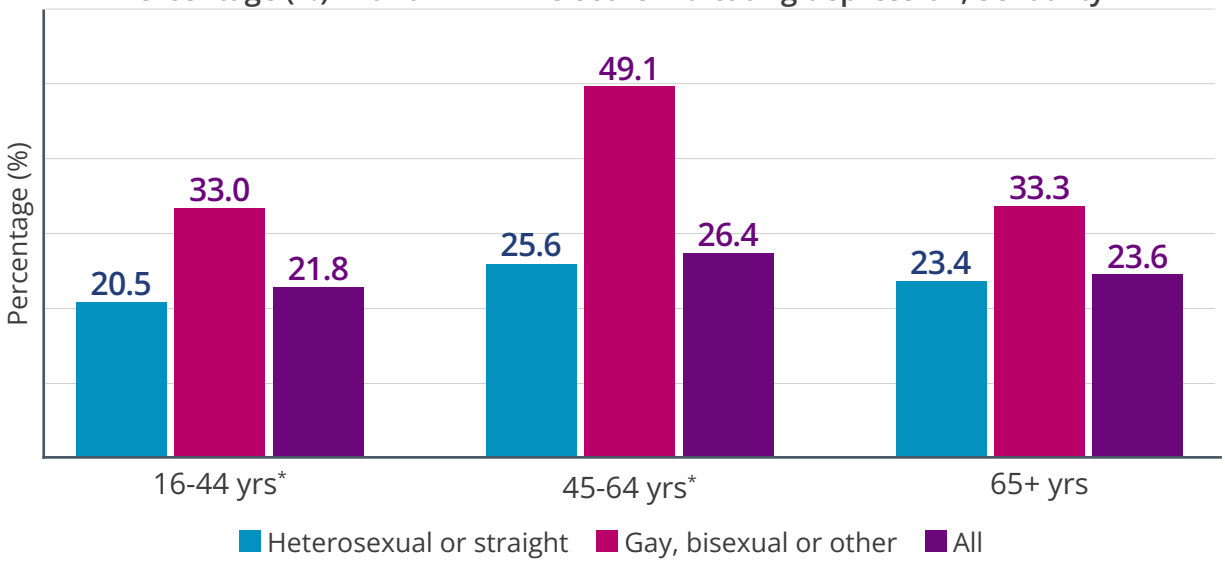
Survey respondents were asked about their **sexuality**, **educational qualifications**, **employment status**, **whether they lived alone**, **had children**, **owned their own home** and if they had **caring responsibilities**.

Sexuality

Gay, bisexual or 'other' respondents were more likely to have a score indicating depression (**35%**) compared with heterosexual respondents (**23%**). This was particularly true for age group 45-64 years, while sexuality was more strongly associated with having a MEHP for those living in 'Other areas'.

Figure 11

Percentage (%) with a WEMWBS score indicating depression; Sexuality

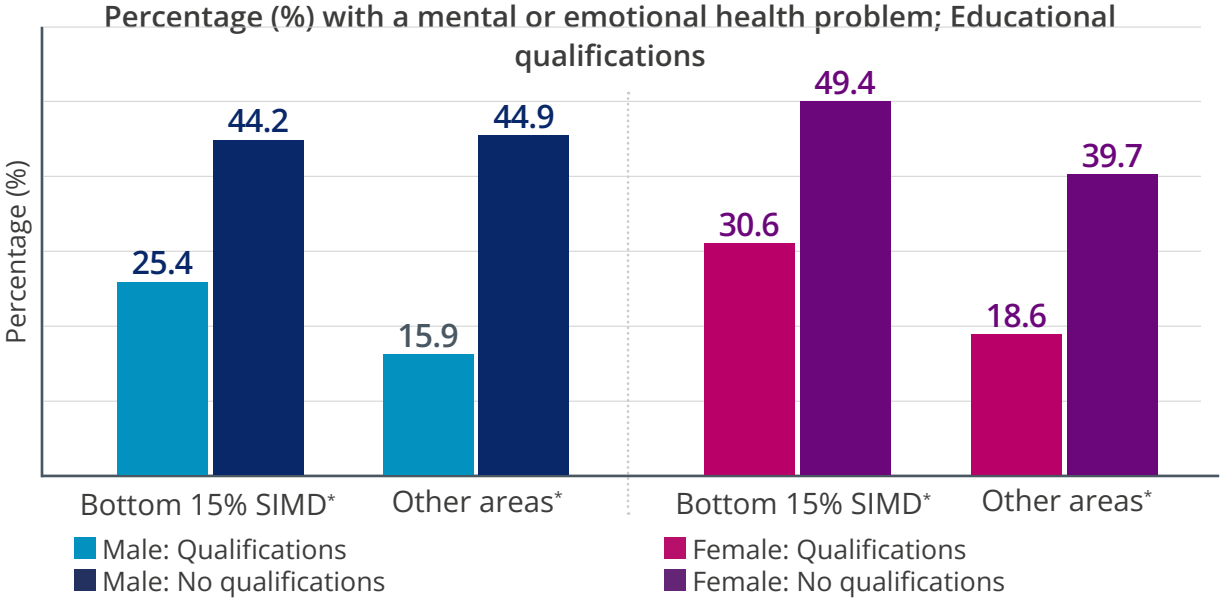


Educational qualifications

Respondents with no educational qualifications (**14%** of the survey sample) were more than twice as likely to have a score indicating depression; **44%** compared with **20%** who had any educational qualification. This difference was particularly great for age group 45-64 years, males and those living in 'Other areas' (Figure 12). Similar results were seen for all mental health outcomes.

Figure 12

Percentage (%) with a mental or emotional health problem; Educational qualifications

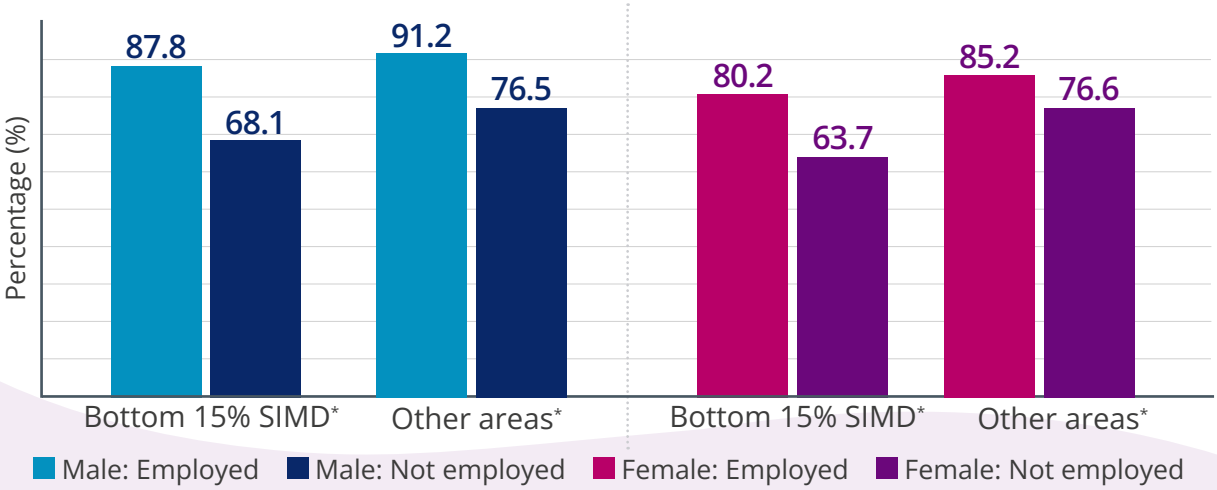


Employment status

Those that responded that they were not employed or self employed (**55%** of the survey sample) were more likely to have a score indicating depression (**31%**) compared with other responses which included unemployed looking for work, looking after family, permanently sick/disabled, retired and in education (**17%**). Similar results were seen for all mental health outcomes (Figure 13).

Figure 13

Percentage (%) with a positive perception of mental health; Employment status

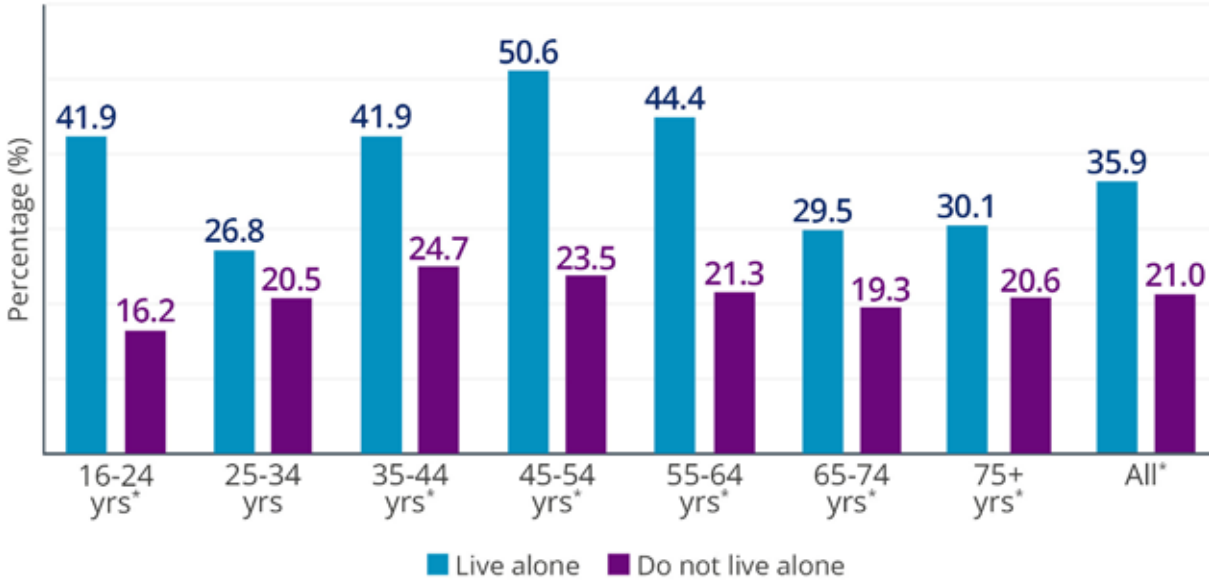


Living arrangements

Those that responded that they lived alone (**17%** of the survey sample) were more likely to have a score indicating depression; **36%** compared with **21%** who did not live alone. This difference was particularly great for males and age group 45-64 years, however when further stratified by age, 16-24 year olds also saw large relative disparities (Figure 14).

Figure 14

Percentage (%) with a WEMWBS score indicating depression; Living arrangements

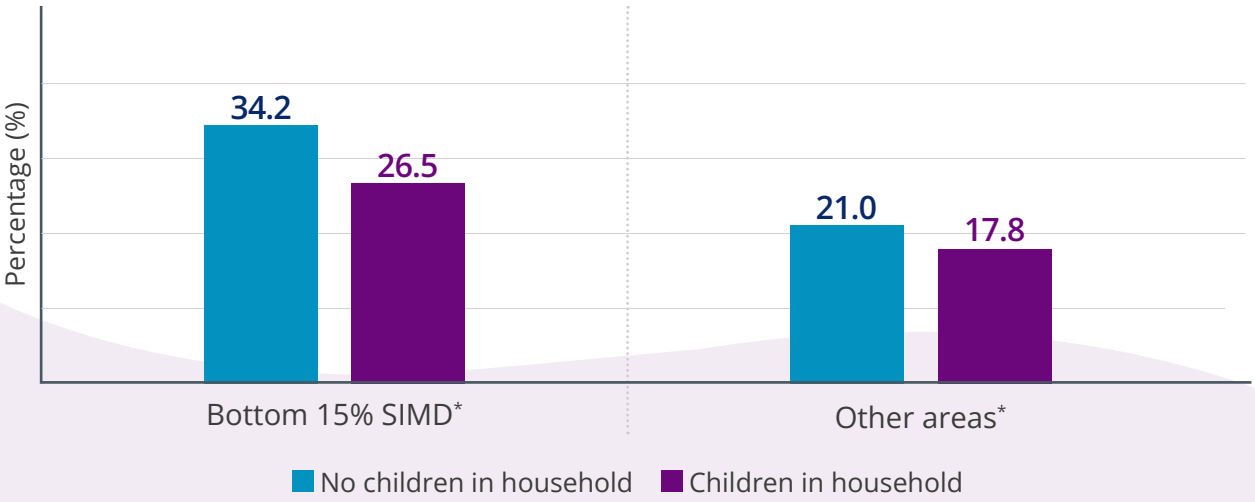


Children in household

Those that responded that they had at least one child under 16 years living in the household (**26%** of the survey sample) were less likely to have a score indicating depression; **20%** compared with **25%** who did not have children living in the household. However when stratified by age and gender, this relationship was only significant for males and those aged 45-64 year olds. The association between having children in the household and a score indicating depression was less pronounced than that between area deprivation and depression (Figure 15).

Figure 15

Percentage (%) with a WEMWBS score depicting depression; Children in household

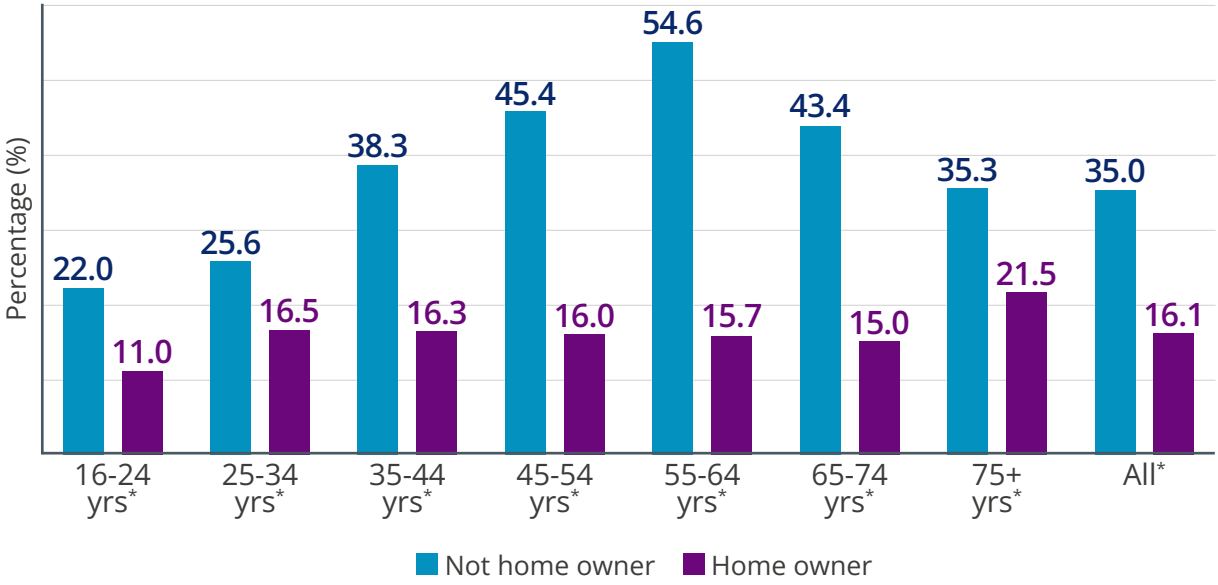


Home ownership

Those that responded that they did not own their own home, with or without a mortgage (**61%** of the survey sample) were more than twice as likely to have a score indicating depression; **35%** compared with **16%** who did own their home. Similar significant associations were seen when stratified by gender and by area deprivation. However when stratified by age, largest disparities were seen for 55-64 year olds (Figure 16); **16%** of people who owned their own home had depression compared with **55%** who did not.

Figure 16

Percentage (%) with a WEMWBS score indicating depression; Home ownership

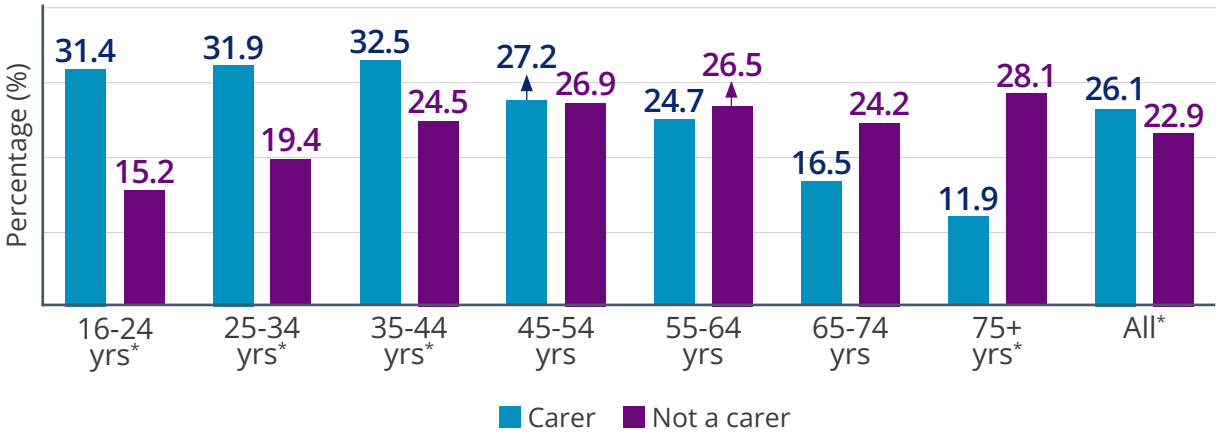


Caring responsibilities

Respondents with caring responsibilities (**21%** of the survey sample) were more likely to have a score indicating depression; **26%** compared with **23%** who did not. This difference was dependent on age (Figure 17), with a reversed association at the older ages; while 16-24 year old carers were twice as likely to be depressed as those with no caring responsibilities, at 75 years+ those without caring responsibilities were 2.4 times as likely to be depressed as carers. The association between depression and caring did not differ between males and females. This was also the case for MEHP however the lowered prevalence of positive perception of mental health among carers was particularly so for females.

Figure 17

Percentage (%) with a WEMWBS score indicating depression; Caring Responsibilities



5.3 Mental Health and Poverty

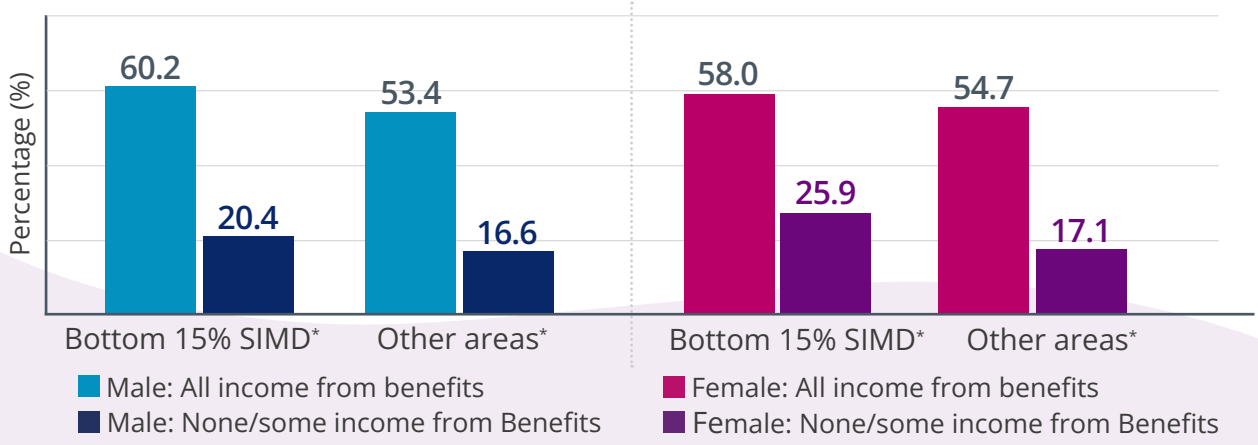
The relationship between mental health and area level deprivation is described in Table 1. However, the survey additionally included questions relating to the individual's experience of poverty. Survey respondents were asked about the **income they receive from benefits**, **adequacy of household income**, **food insecurity**, **difficulty meeting food and fuel expenses** and **ability to find unexpected sums of money**.

Income from benefits

Those for whom all their income came from state benefits (**13%** of the survey sample) were more likely to have a score indicating depression [a MEHP, not a positive perception of mental health]; **57%** [**29%**, **41%**, respectively] compared with **19%** [**6%**, **16%**] for whom at least some of their income did not come from state benefits. The association between depression and state benefits did not differ significantly by gender, age group or area deprivation (Figure 18). However, the association between state benefits and having a MEHP was greatest for males and those aged 45-64 years.

Figure 18

Percentage (%) with a WEMWBS score indicating depression; Income from benefits

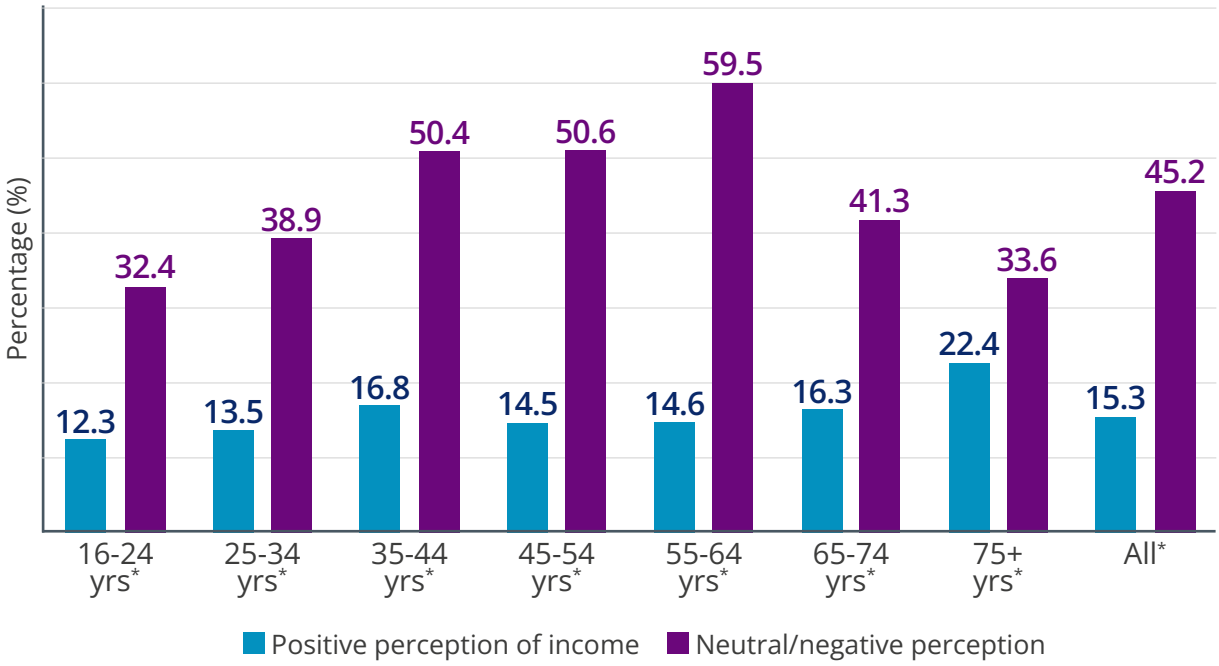


Adequacy of household income

Those that responded negatively about the adequacy of their income (**28%** of the survey sample) were three times more likely to have a score indicating depression; **45%** compared with **15%** who responded positively. Similar significant associations were seen when stratified by gender and by area deprivation. However when stratified by age, largest disparities were seen for 35-64 year olds and particularly 55-64 year olds (Figure 19); **60%** of people who have a negative perception of their income had depression compared with **15%** who had a positive perception.

Figure 19

Percentage (%) with a WEMWBS score indicating depression; Adequacy of income

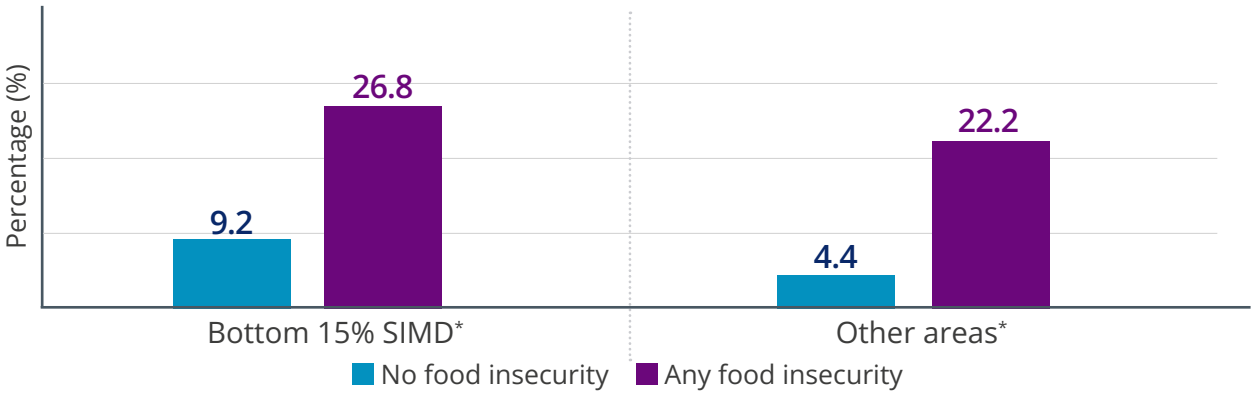


Food insecurity

Those that experienced any level of food insecurity (**17%** of the survey sample) were more likely to have a MEHP; **24%** compared with **6%** who did not experience food insecurity. This relationship did not differ significantly by gender but significantly greater differences were seen in 'Other areas' compared with deprived areas (Figure 20). When stratified by age, largest disparities were seen for 16-44 year olds.

Figure 20

Percentage (%) with a mental or emotional health problem; Food insecurity

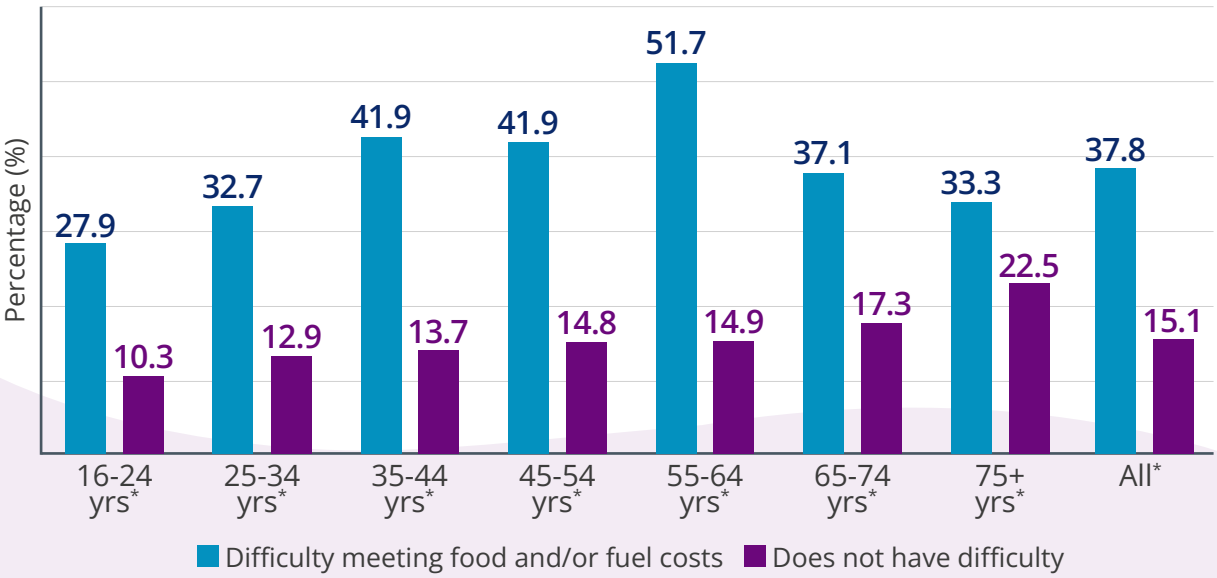


Ability to meet food and fuel costs

Respondents that had difficulty meeting food and/or fuel costs at least occasionally (**38%** of the survey sample) were more than twice as likely to have a score indicating depression; **38%** compared with **15%** who had not experienced difficulty. This association did not differ significantly by gender or by area deprivation. However when stratified by age, largest disparities were seen for 55-64 year olds; **52%** of people aged 55-64 years who had difficulty meeting food and/or fuel costs had likely depression compared with **15%** of those who did not.

Figure 21

Percentage (%) with a WEMWBS score indicating depression; Ability to meet food and fuel costs

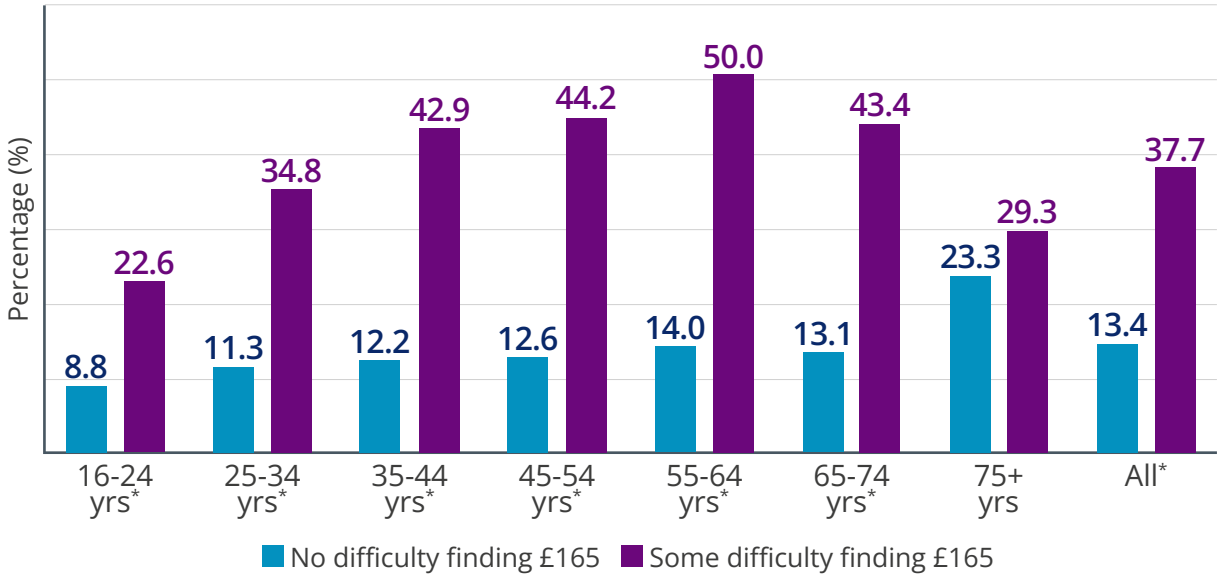


Ability to meet unexpected costs

Those that responded that they would find it hard to meet an unexpected cost of £165 (**41%** of the survey sample) were more than twice as likely to have a score indicating depression; **38%** compared with **13%** who said they would not find it hard to meet the unexpected cost. This association did not differ significantly by gender or by area deprivation. This was also true for associations with outcomes MEHP and positive perception of mental health. However, associations between difficulty finding £165 and mental health differed with age, with largest disparities seen for 35-74 year olds; **50%** of people aged 55-64 years with difficulty had a score indicating depression compared with **14%** of those with no difficulty (Figure 22).

Figure 22

Percentage (%) with a WEMWBS score indicating depression; Ability to meet unexpected costs



5.4 Mental Health and Health Behaviours

Survey respondents were asked about their health behaviours including **smoking**, **alcohol**, **diet**, **physical activity** and **gambling**. The causal direction between compromising health behaviour and compromised mental health cannot be established with the current data, however an association between health behaviours and mental health is evident among the survey respondents.

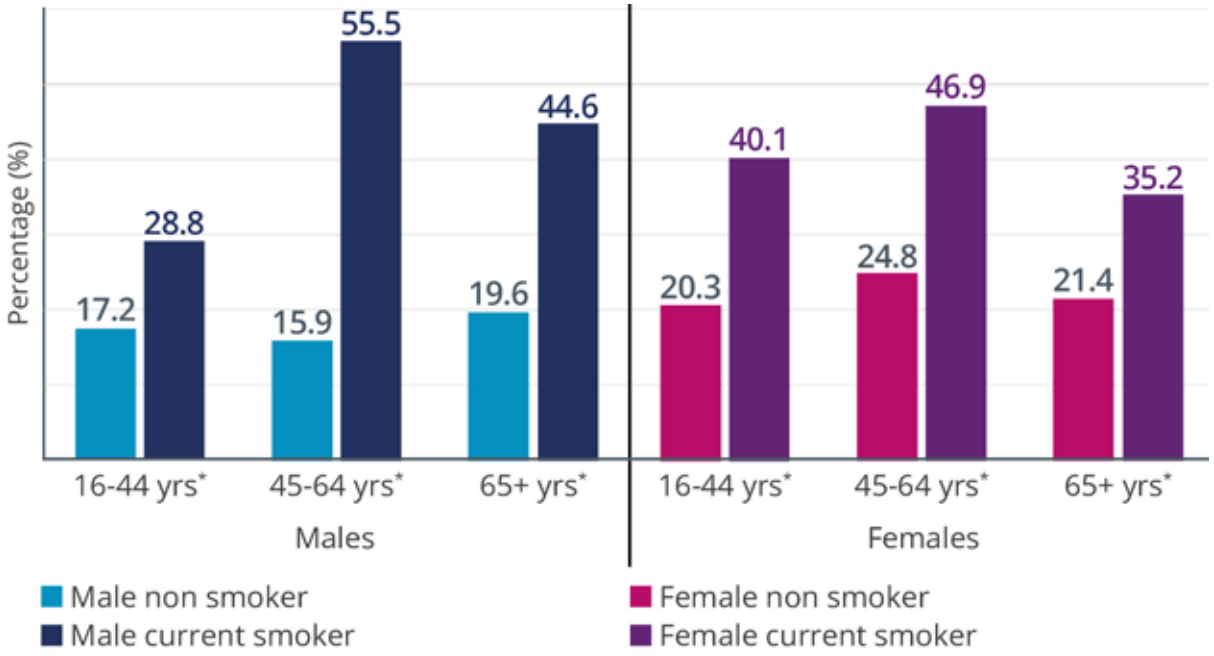
Smoking

Respondents who smoked currently (**17%** of the survey sample) were twice as likely to have a score indicating depression (**40%** compared with **20%**) and almost three times as likely to have a MEHP (**19%** compared with **7%**). Smokers were also less likely to perceive their mental health positively; **69%** compared with **83%** of non smokers. The relationship between smoking and having a score indicating depression was not significant for those aged 75 years+ and did not differ significantly between 15% most deprived and 'Other areas'. Largest

disparities were seen for 45-64 year old males (Figure 23); **55%** of smokers had a score indicating depression compared with **16%** of non smokers.

Figure 23

Percentage (%) with a WEMWBS score indicating depression; Smoking

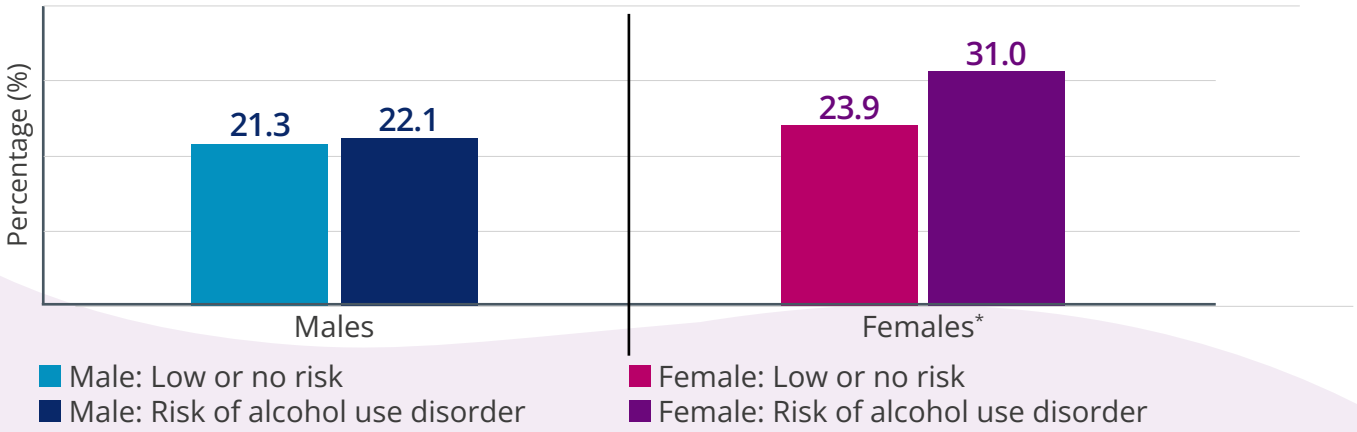


Alcohol

Respondents with increased risk of an alcohol use disorder (Alcohol Use Disorders Identification Test (AUDIT) score of 8+) (**17%** of the survey sample) were more likely to have a MEHP (**12%** compared with **8%** for those with low or no risk). However only females were more likely to have a score indicating depression (Figure 24); **31%** compared with **24%** with no or low risk. Weekly binge drinking (6+ units for females and 8+ units for males on one or more occasions) was associated with a score indicating depression; **23%** of weekly binge drinkers had a WEMWBS score indicating depression, while **20%** of non weekly binge drinkers did. This relationship did not differ significantly by gender, age or deprivation.

Figure 24

Percentage (%) with a WEMWBS score indicating depression; Alcohol consumption

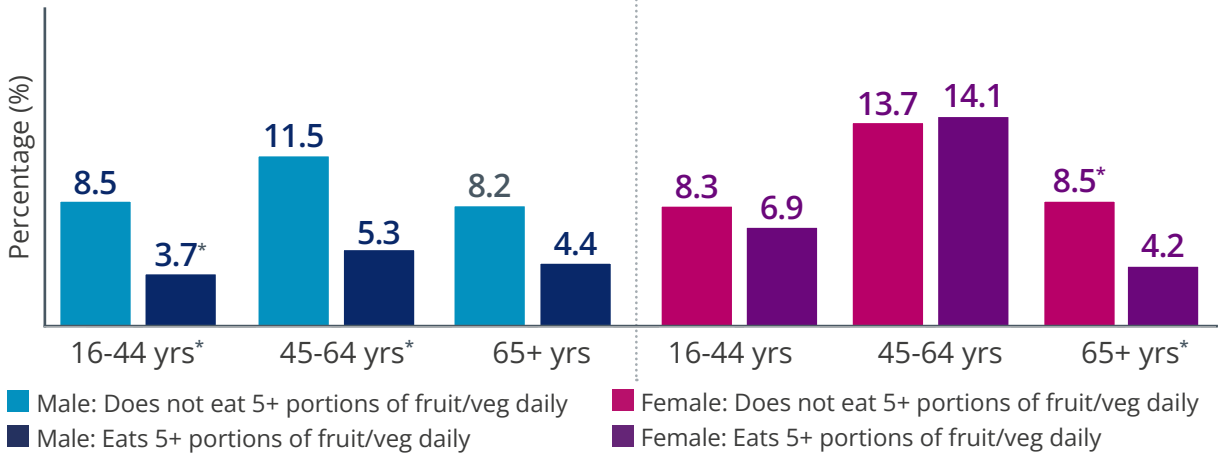


Diet

Those that responded that they consumed at least five portions of fruit and/or vegetables per day (**34%** of the survey sample) were less likely to have a score indicating depression; 1**8%** compared with **26%** who did not. This was also true for associations with outcomes MEHP and positive perception of mental health. Conversely, those with a score indicating depression were less likely to meet the target; **26%** compared with **74%** who did not meet the target. The association between depression and diet did not differ significantly by gender, age or by area deprivation, however associations did differ significantly for outcome MEHP, with largest disparities seen among males and particularly males aged less than 65 years (Figure 25); those not meeting the recommended target were twice as likely to have a MEHP.

Figure 25

Percentage (%) with a mental or emotional health problem; Diet

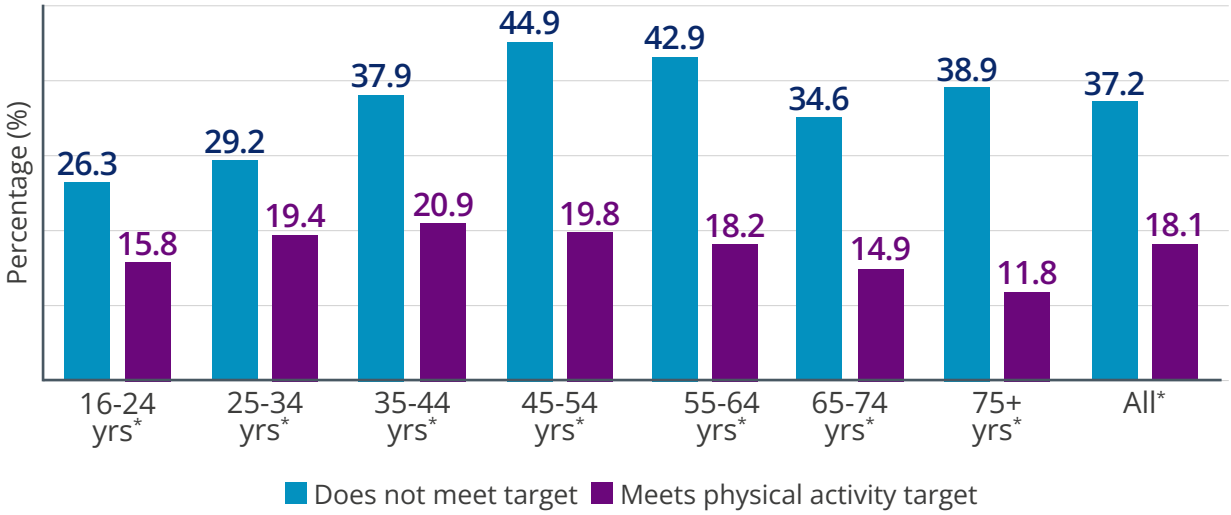


Physical activity

Respondents who did not meet the physical activity target of 150 minutes per week (**30%** of the survey sample) were twice as likely to have a score indicating depression (**37%** compared with **18%**) or have a MEHP (**13%** compared with **7%**). They were also less likely to perceive their mental health positively; **74%** compared with **84%** of those who did meet the target. Associations with MEHP and depression did not differ by gender or deprivation, however differences were seen by age, with largest disparities for those aged 45 years+ (Figure 26).

Figure 26

Percentage (%) with a WEMWBS score indicating depression; Physical activity

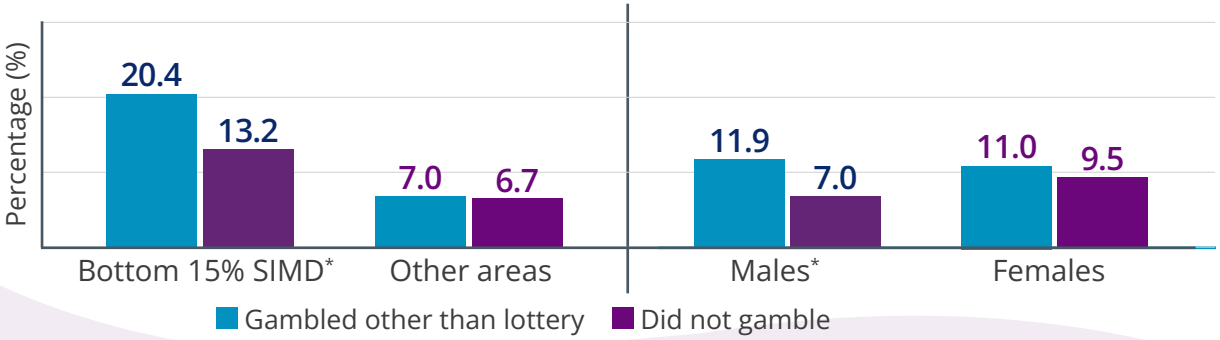


Gambling

Respondents who spent money on gambling activities aside from the lottery in the previous month (**12%** of the survey sample) were more likely to have a score indicating depression (**30%** compared with **23%** who had not gambled) or have a MEHP (**12%** compared with **9%**). Associations with depression did not differ by gender or deprivation, however associations with a MEHP were only significant for males, those living in 15% most deprived areas and those aged 45-64 years.

Figure 27

Percentage (%) with a mental or emotional health problem; Gambling



5.5 Mental health, Social Health and Social Capital

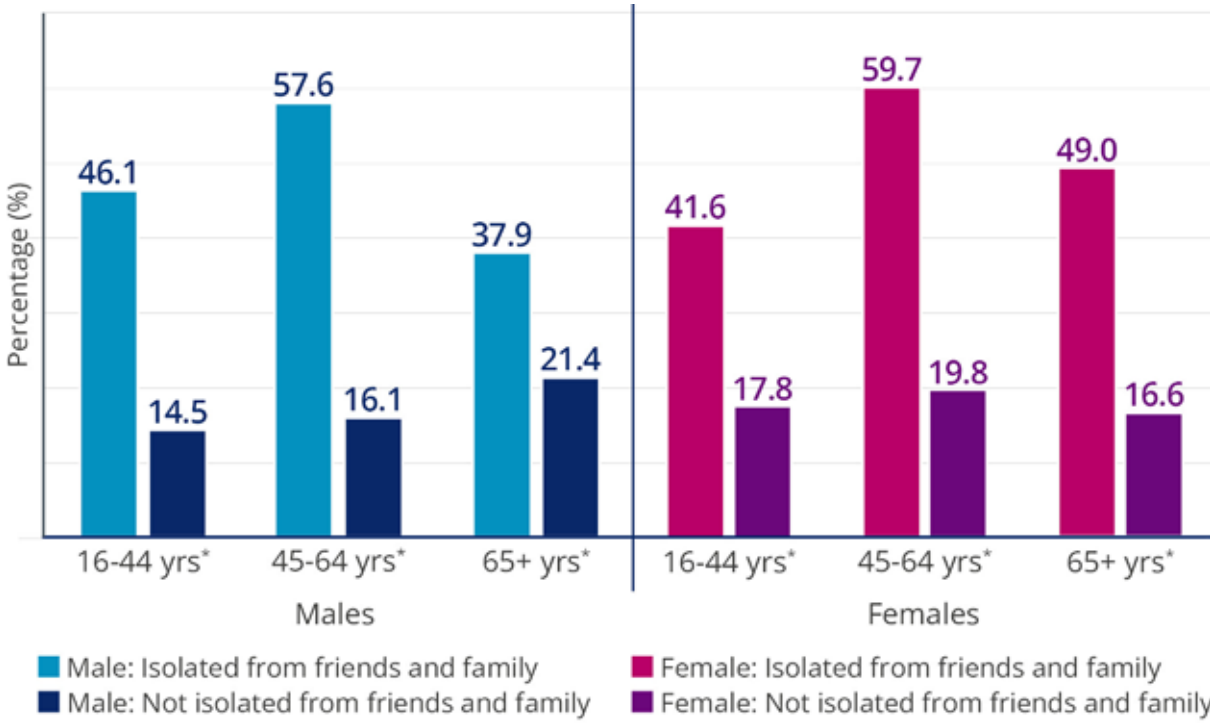
Survey respondents were asked about their social health and social capital including **social connectedness**, **experience of crime**, **feelings of safety**, **discrimination**, **reciprocity** and **trust**, **local friendships**, **social support**, **volunteering**, **social activism**, and **belonging to clubs**, **associations and groups**.

Social connectedness

The proportion who felt isolated from friends and family (**20%**) has seen a large increase since 2017/18[9]. This proportion was almost three times as likely to have a score indicating depression (**49%** compared with **17%** who did not feel isolated) and four times as likely to have a MEHP (**22%** compared with **6%**). They were also less likely to perceive their mental health positively; **60%** compared with **86%** who did not feel isolated. When stratified by age and gender simultaneously, isolation is most strongly associated with depression for males under 65 years and for females aged 45 years+ (Figure 28).

Figure 28

Percentage (%) with a WEMWBS score indicating depression; Social connectedness

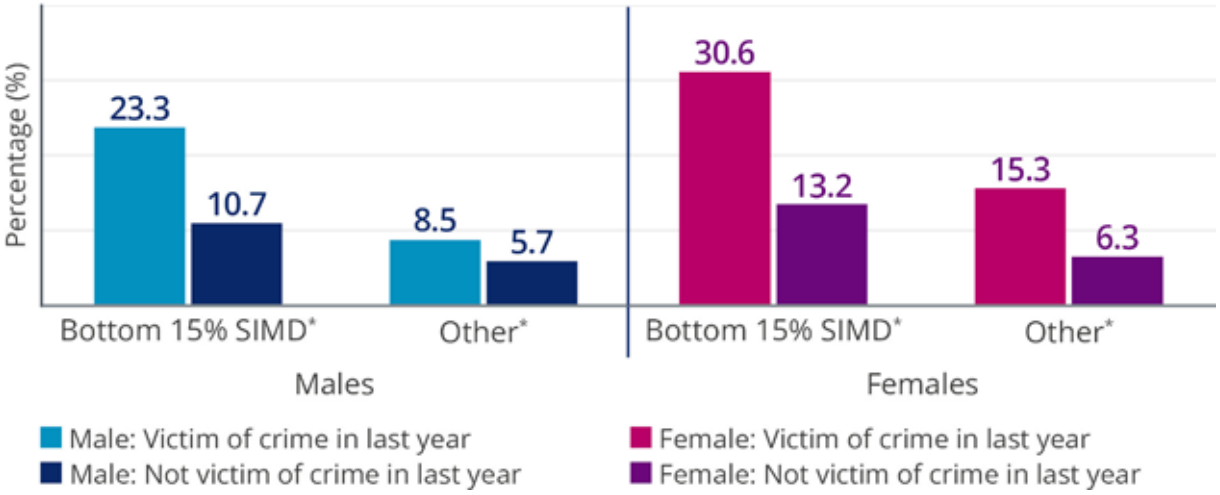


Experience of crime

Respondents who were a victim of crime (**11%** of the survey sample) were more likely to have a score indicating depression (**37%** compared with **22%** who had not) or have a MEHP (**18%** compared with **8%**). Associations with a score indicating depression did not differ by gender or deprivation, however associations with a MEHP were more pronounced for females and those living in deprived areas (Figure 29). Largest inequalities in poor mental health by experience of crime were seen among 16-24 year olds; **17%** of those who had been a victim of crime had a MEHP compared with **4%** who had not.

Figure 29

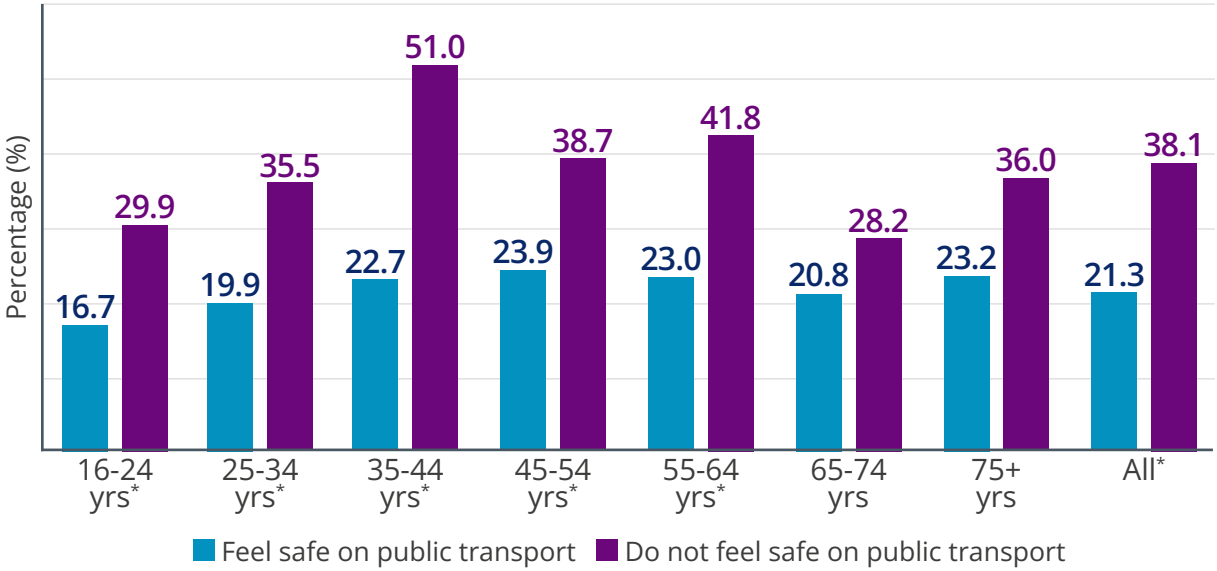
Percentage (%) with a mental or emotional health problem; Experience of crime



Feelings of safety

Those that responded that they felt safe on public transport (**88%** of the survey sample) were less likely to have a score indicating depression; **21%** compared with **38%** who did not feel safe. Similar significant associations were seen when stratified by gender and by area deprivation. However when stratified by age, largest disparities were seen for 35-44 year olds (Figure 30); **23%** of people who felt safe on public transport had likely depression compared with **51%** who did not feel safe. Similar associations were seen for feeling safe walking in local area.

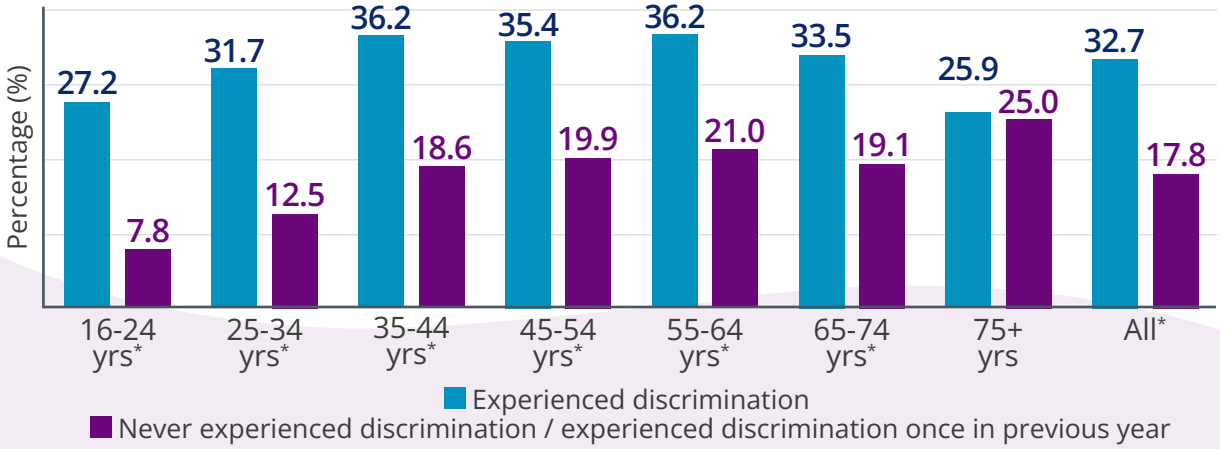
Figure 30
Percentage (%) with a WEMWBS score indicating depression; Feelings of safety



Discrimination

Those that responded that they had experienced discrimination at least a few times in the previous year (**39%** of the survey sample) were more likely to have a score indicating depression; **33%** compared with **18%** who had not experienced discrimination. This relationship was particularly evident at the younger ages; **27%** of those aged 16-24 years who had experienced discrimination had a WEMWBS score indicating depression, compared with **8%** who had not.

Figure 31
Percentage (%) with a WEMWBS score indicating depression; Discrimination

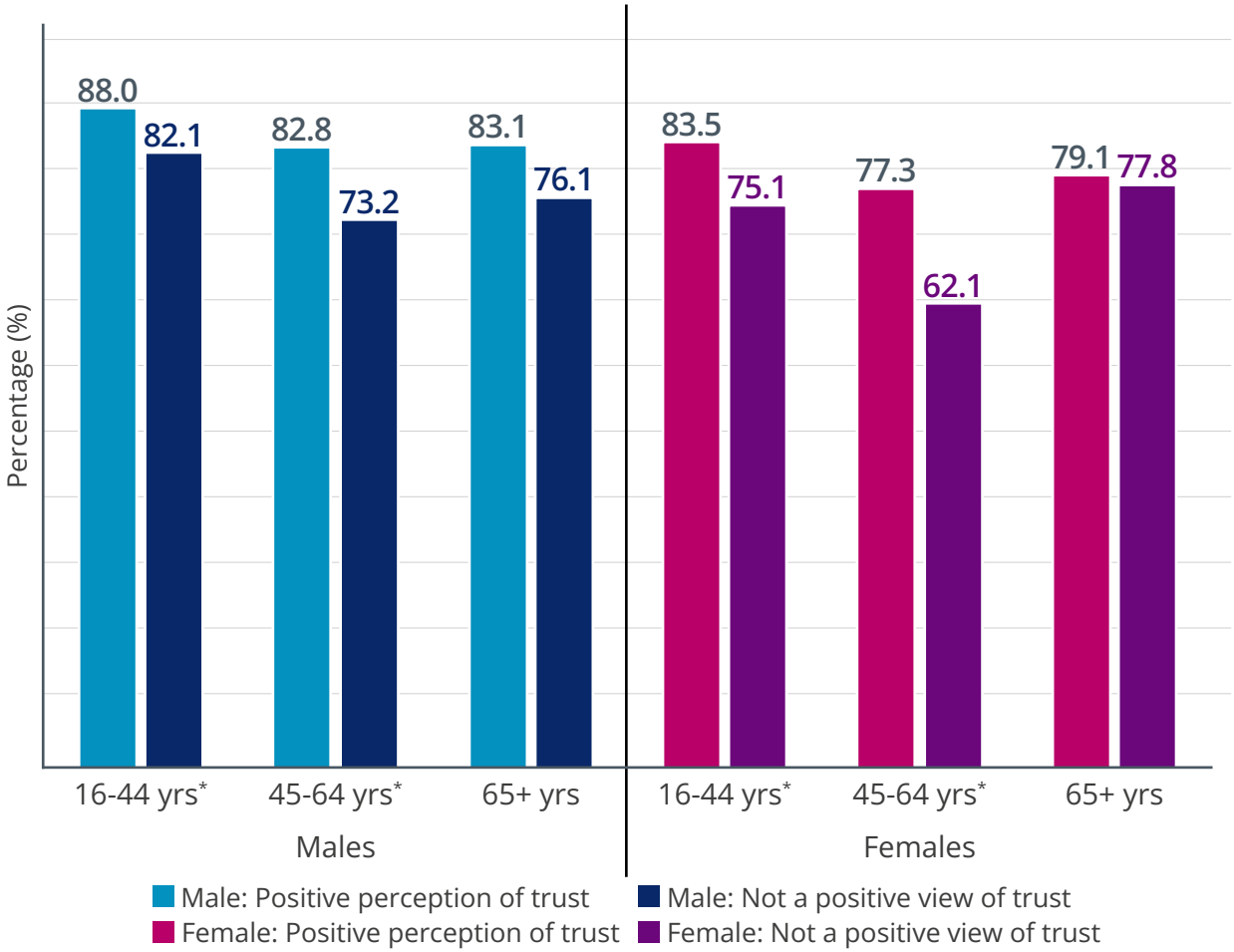


Perceptions of trust, reciprocity and local friendships

Respondents were asked to indicate the extent to which they agree with the following statements: "**This is a neighbourhood where neighbours look out for each other**", "**Generally speaking, you can trust people in my local area**", "**The friendships and associations I have with other people in my local area mean a lot to me**". Those agreeing with the first statement (**74%**) were categorised as having a positive view of reciprocity, those agreeing with the second (**76%**) were categorised as having a positive view of trust and those agreeing with the third (**73%**) were thought to value local friendships. Respondents with a positive view of one were likely to a have a positive view of all (correlation of > 0.5 for any two responses). Associations with mental health were also for the most part similar. Strongest associations with trust, reciprocity and valuing friendships were for females aged 45-64 years (Figure 32); of whom **77%** with a positive perception of trust had a positive perception of their mental health compared with **62%** of those who did not have a positive perception of trust.

Figure 32

Percentage (%) with a positive perception of mental health; Trust

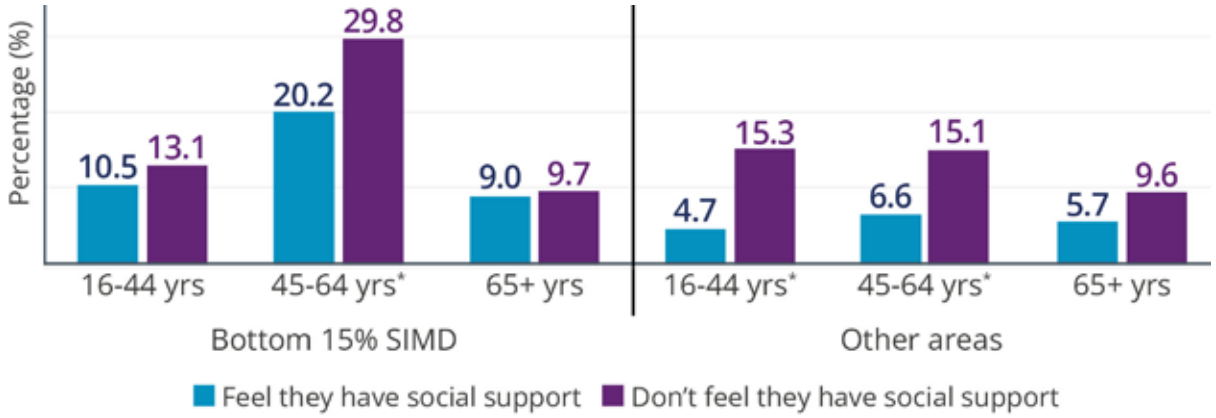


Social support

Respondents were asked if they agreed with the statement "**If I have a problem, there is always someone to help me**". Those with a positive view of social support (**84%** of the survey sample) were less likely to have a score indicating depression; **21%** compared with **39%** who did not feel they had social support. This relationship was particularly pronounced at the middle ages and among younger people living in 'Other areas'. This could also be seen for outcome MEHP (Figure 33); **5%** of those aged 16-44 years living in 'Other areas' who felt they had social support had a MEHP, compared with **15%** felt they did not.

Figure 33

Percentage (%) with a mental or emotional health problem; Social support

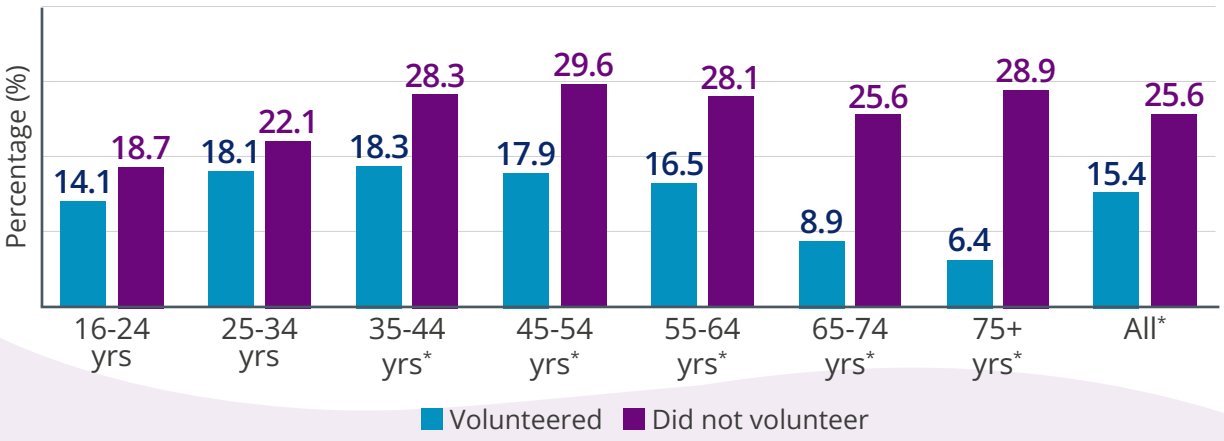


Volunteering

Those that responded that they had volunteered for clubs, charities, campaigns or organisations in the last year (**19%** of the survey sample) were less likely to have a score indicating depression; **15%** compared with **26%** who had not volunteered. This difference was significantly greater for males than females and became more pronounced with increasing age (Figure 34); for those aged 65 years+, only **4%** of males who volunteered had a score indicating depression compared with **28%** of those who did not volunteer.

Figure 34

Percentage (%) with a WEMWBS score indicating depression; Volunteering

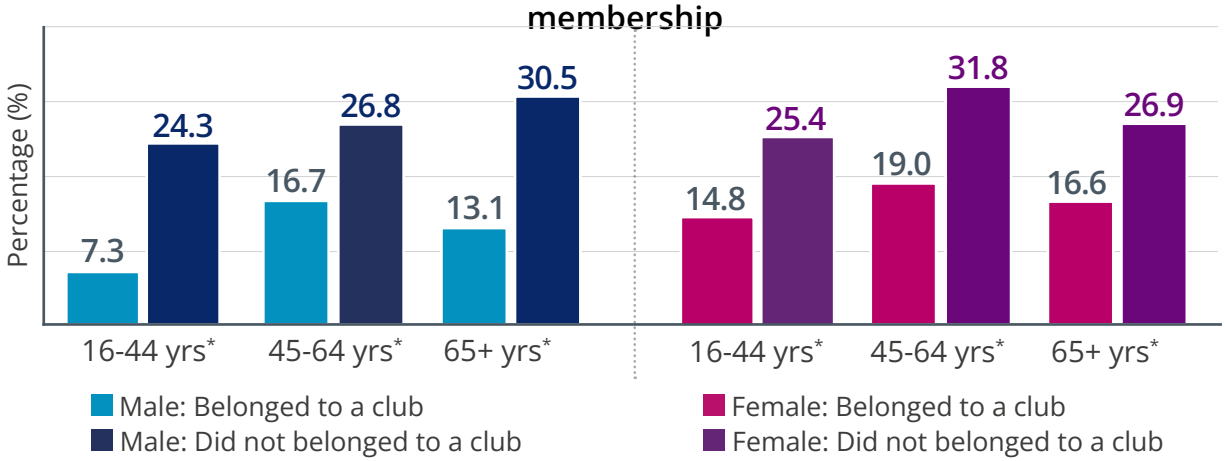


Club membership and social activism

Similarly, those that responded that they belonged to a social club, association, church group or similar (**26%** of the survey sample) were less likely to have a score indicating depression; **14%** compared with **27%** who were not a member of a club. This difference was again significantly greater for males than females, however it was most pronounced at the youngest ages; **7%** of 16-44 year old males who belonged to a club had a score indicating depression compared with **24%** who did not.

Figure 35

Percentage (%) with a WEMWBS score indicating depression; Club membership



Respondents who had engaged in social activism (**11%** of the survey sample) were less likely to have a score indicating depression (**17%** compared with **25%** who had not). Social activism was not however associated with having a MEHP or with positive mental health. Associations with depression did not differ by gender or deprivation but were only significant for those aged over 35 years.

6. Discussion

The impact of the COVID-19 pandemic on social and physical health, cuts in healthcare services due to austerity measures, and the cost of living crisis caused by international conflict and the UK's withdrawal from the European Union, have all contributed to the deterioration in the mental health of our population. This is not unique to Greater Glasgow and Clyde, and has been described across Scotland[7] and elsewhere in the UK[13]. This report describes the downturn of our population's mental health with a particularly worrying trajectory for those aged 16-44 years and highest levels of poor mental health in 2022/23 among the middle aged living in our most deprived areas.

This Thematic Report describes current patterns of mental health of the Greater Glasgow and Clyde population, changes over time and the subgroups with the greatest burden of poor mental health. It also describes associations between mental health and physical health, population characteristics, poverty, health behaviours and social capital to give some indication of factors which can protect mental health and those which are detrimental. When describing these by age, sex and area deprivation, this gives additional insight into where focused efforts might be targeted for best impact. Mental health is not experienced equally across the population, with higher risk of poor mental health in specific groups. As well as individual factors, mental health is shaped by the social, economic and physical environments in which we live[14]. Thus, the primary determinants of mental health are rooted in the political and social decisions and priorities that result in the distribution of money, income, resources, and power across the population and between groups.

The Mental Health Foundation describes prevention as key to addressing the mental health crisis, alongside targeted evidence-based programmes and changes in policy and practice, to promote mentally healthier lives and prevent mental health problems entrenched in lived experience[15]. Prevention is also a key action of the Scottish Government's current Mental Health Strategy 2017-2027[16], which cites poverty as the single biggest driver for poor mental health.

The findings above describe the very significant role financial security and socioeconomic position, at individual as well as area level, play in achieving good mental health. Area level deprivation is more strongly associated with mental health than age or sex; those living in the most deprived areas are 50% more likely to have a WEMWBS score indicating depression as those who do not. Greater Glasgow and Clyde is home to a particularly large proportion of individuals living in the 'Bottom 15%' or most deprived areas; 28% of our population do so, therefore this finding is not insignificant. Additionally, individual level financial status shows largest differences in mental health between those who have and those who do not have a level of financial security. People experiencing any food insecurity were four times as likely to have a mental or emotional health problem as those who do not.

The findings suggest fiscal policy addressing the current financial crisis and programmes to increase financial inclusion, employability and access to employment, educational qualification attainment, reducing food insecurity and housing instability, is likely to result in increased mental health, particularly among males. The study also identifies that particular groups: those with limiting conditions, poor physical health, LGBTQ+, unemployed, those living alone and young carers (aged 16-24), are more likely to be living with poor mental health. Many of these groups experience multiple discrimination, and are more likely to live in areas of deprivation, increasing marginalisation and isolation, exacerbating risk of poor mental health[17]. Additionally, tackling mental health stigma and discrimination is a national priority[18] and is likely to improve mental health for many, but requires cross societal, joined up work to have the impact required at population level. The findings also support the case for targeting specific support to those who are at highest risk of poor mental health.

A second theme that comes out strongly from the above findings is the importance of social connection and social capital as protective factors from poor mental health. There has been a notable increase in those feeling isolated from family and friends across NHSGGC since 2017/18, with a greater increase seen in the 15% most deprived areas. Those who said they felt lonely in the previous two weeks also increased from 17% in 2017/18 to 25% in 2022/23. The impact of stay home guidance and social distancing during the pandemic is likely to have resulted in increased level of loneliness and isolation[19], and the impact of these may still be felt three years on. The proportion who felt isolated from friends and family were three times as likely to have a WEMWBS score indicating depression and four times as likely to have a MEHP. Isolation was most strongly associated with depression for males under 65 years and for females aged 45 years+. Alongside the increase in isolation and loneliness has been a decrease in sense of belonging to the local area, feeling valued as a member of the community (with a larger decrease in 'Other areas' than the 15% most deprived areas) and feeling that local people can influence local decisions (again, with a larger decrease in 'Other areas'). Social isolation and loneliness are associated with an increased risk for early mortality, a range of psychiatric disorders, suicidal ideation and behaviours[20,21]. Therefore, tackling social isolation and loneliness will likely have an impact on both physical and mental health.

Addressing social isolation and loneliness is most effective at community level – increasing community connections, inclusion and sense of belonging [22]. Community grass roots and third sector organisations are key in understanding local needs and working collaboratively with communities to identify what would support connection in innovative and variable ways. The Scottish Government has identified this as a vital part of the approach to prevention and early intervention for mental health and wellbeing, with the creation of the 'Communities Mental Health and Wellbeing Fund' (CMHWB) in 2021[23], with year four of the fund recently announced. The importance of volunteering, belonging to a club or social organisation or involvement in social activism should be promoted to males and older people for whom the association with better

mental health is evident. Addressing crime and discrimination among 16-24 year olds and availability and access to mental health services for those experiencing these should also be considered in the promotion of mental health.

Our findings describe the association between mental health and a range of health behaviours. This is in line with proposed actions in the Scottish Mental Health Strategy to target smoking cessation and substance use programmes to those with mental health problems[16]. However, presented here is a broader picture of common risk and the importance of recognising the role of mental health in public health more generally. Smoking, not meeting dietary or physical activity guidelines, binge drinking and gambling were all associated with poor mental health. The causal direction of these associations is not known, however there are strong physical benefits to improving diet, not smoking and quitting, to avoiding excessive alcohol consumption and to meeting advised physical activity levels, as well as likely financial benefits to avoiding gambling, smoking and reducing alcohol consumption. These all make the case for continuing to promote healthy behaviours with the additional benefit of potentially improving mental health, particularly among the middle aged and males. Specifically, increasing physical activity among older people, reducing risk of alcohol disorder among females and reducing gambling in the most deprived areas may impact mental health outcomes. Primary Care and third sector services that work in tandem with mental health services may be the key to success. Further qualitative research is recommended to understand the causal direction of this association in order to support current and future health improvement interventions and ensure optimal cost effectiveness.

The association between physical and mental health has been described previously[2], and has been highlighted in our national Mental Health Strategy[16]. This association is seen particularly for males and those aged under 65 years in Greater Glasgow and Clyde. This suggests a need for timely involvement of mental health services or signposting to complementary agencies, where appropriate, for those undergoing treatment for illness. Additionally, among those with depression, the negative impact of COVID-19 on mental health is most strongly felt for those aged 16-34; those whose health deteriorated due to COVID-19 were three times as likely to have a score indicating depression. Previously it was suggested that the effect of the pandemic might be greater among young females[19] but we did not find a gender difference among 16-34 year olds with depression. The Scottish Government's Mental Health – Scotland's Transition and Recovery report suggests that alongside whole population approaches to improve population wellbeing, targeted support should focus on at risk groups and a focus on factors that contribute to mental illness[19]. Our findings suggest that in Greater Glasgow and Clyde interventions targeted at those aged 16-34 years with depression are recommended to overcome the long term mental health effects of COVID-19.

Our findings show a strong association between being a young carer and the likelihood of having lowered mental health. Having caring responsibilities doubles the likelihood of having depression for those aged 16-24 years. This suggests a need for timely support services which include mental health services for these young people. This relationship, however, is reversed at the older ages, perhaps a proxy for having the physical health to care for someone or having a sense of purpose[24] or social connection[25] known to be associated with better mental health among older people, or it may be the case that services are already in place for older carers. This interesting relationship requires further investigation.

This report describes the state of the Greater Glasgow and Clyde population's mental health, trajectories in mental health and associated individual and area level factors, as well as the subgroups that might see improvements in mental health from changes in fiscal policy, cross-organisational working, targeted health improvement interventions and timely mental health support. Perhaps most importantly, the report describes a growing burden of disease and indicates increasing levels of demand on mental health services within Greater Glasgow and Clyde. The report also indicates the associations that should be further investigated using qualitative research such as focus groups to understand causal direction as well as possible confounding and other relevant factors not captured by the survey.

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