

Thematic Report 2:

# Women's Health in Greater Glasgow and Clyde

2022/23



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# 1. Introduction

The health of women has received attention in recent years with the introduction of a Women's Health Plan in Scotland<sup>1</sup> and similar developing Health Strategies in other parts of the UK<sup>2,3</sup>, in recognition of women-specific health needs, primarily due to biological factors, and the fact that women live a greater proportion of their life in poor health and disability when compared with men<sup>4</sup>. Women are known to face disadvantages because they are women<sup>1</sup>. Gender inequalities in referral, diagnosis and treatment have been described previously<sup>5-10</sup>. It is hoped that by introducing a national strategy some of these inequalities will be addressed and a focus will be given to women's health services to meet the health needs of women at all stages of life.

The health of women and men in Scotland has been described most recently in the Scottish Health Survey 2022<sup>11</sup>, where it could be seen that women reported poorer mental health, in line with global statistics<sup>12</sup>, and additionally were more likely to have a long term condition, had poorer respiratory health, higher rates of diagnosed asthma and wheezing among young adults, more likely to have chronic pain, less likely to meet moderate to vigorous physical activity (MVPA) guidelines, and more likely to have had long COVID at age 35-44 years than men. NHS Greater Glasgow & Clyde 2022/23 Health and Wellbeing Survey (HWB) showed similar compromised health for women for a range of self reported health indicators<sup>13</sup>.

Social and economic changes in recent years that are likely to have impacted on health outcomes include the UK's withdrawal from the European Union, the cost of living crisis, an ageing population and changes in migration. Pre-pandemic austerity measures have worsened people's physical and mental health<sup>14</sup>, and further deterioration in mental health due to the pandemic has been shown in NHS Greater Glasgow and Clyde (NHSGGC) and elsewhere in Scotland<sup>11,13</sup>. Social context, known to impact health<sup>15</sup>, differs by sex, e.g. women are more likely to be primary care givers<sup>16</sup>, more likely to be single parents<sup>17</sup>, less likely to be in employment<sup>18</sup>, earn less money<sup>19</sup> and are more likely to live in poverty<sup>20</sup>. Women reported larger negative effects of the pandemic on wellbeing<sup>11</sup>. Sex differences in the social and environmental context are therefore a relevant and important factor in understanding and addressing the health needs of the population.

## 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 Adult Health and Wellbeing main report<sup>13</sup>. This is the second

in a series of Thematic Reports. The first Thematic Report examined the mental health of our population<sup>21</sup>. This paper examines the reported health of NHSGGC female residents, how this compares with that of male health, associated factors and changes over time to form a more complete overview of the health of our female 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



Perceived health among women was **worse in more deprived areas** for the majority of indicators. The proportion of females with possible depression in the 15% most deprived areas was 1.6 times that of 'Other areas' and the proportion with a long-term condition or illness was 1.4 times that of 'Other areas'



Perceived physical health and wellbeing among women **reduced with age**, however prevalence of depression and perceived mental health were **notably worse for those aged 45-64 years**



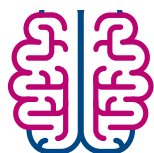
Women's self reported health was **poorer than that of men**, particularly at **younger and middle ages** and in both deprived and non deprived areas. The prevalence of females having a score indicating psychiatric disorder was 1.5 that of males



Deprivation had a bigger impact on women's than men's prevalence of long term conditions and prevalence of treatment for one or more illnesses or conditions



Gender inequalities, with women faring worse than men, **widened significantly over time and were at their widest in 2022/23 for several outcomes**



Gender inequalities in perception of physical health, perception of mental health, perception of quality of life and GHQ12 score indicating psychiatric disorder **widened significantly over time with poorer outcomes for females**



Women reported good health behaviours **more frequently than men**. Overall they also had **better social capital**, however they were more likely than men to **feel isolated from friends and family** and less likely than men to feel safe walking alone in their area



Women had **poorer outcomes in relation to finance**; women were less likely than men to feel that their household income was adequate and were more likely to have difficulty meeting the cost of food or energy and more likely to experience food insecurity or use a foodbank



Women were also **less likely to be economically active, less likely to have educational qualifications and more likely to live with dependent children and have caring responsibilities**



Although women and men reported similar prevalence in experience of discrimination, **women were three times as likely to report discrimination due to gender**



**Risky alcohol use was uniquely associated with women's health and wellbeing**, however the association was complex. Women with an at risk Alcohol Use Disorders Identification Test (AUDIT) score were more likely to have poorer mental health but better physical health



Use of foodbanks, caring responsibilities, experience of domestic abuse, and feeling they belong in their local area and can influence decisions were **all factors more strongly associated with health outcomes for females than males**



Females were **more likely to engage with services, using the internet**, if they were aged below 65 years, did not live in a deprived area, had caring responsibilities, were economically active, had qualifications, did not live alone, had experienced discrimination, had social capital, and/or did not feel safe using public transport in their local area



Females were **less likely to engage with services, using the internet**, if they had poor health behaviours such as a high risk AUDIT score, received all their income from state benefits, or had no difficulty meeting the cost of energy and/or food bills



Females were less likely to have had problems making an appointment with a dentist if they were aged 25-44 years, had no children in the household, were socially connected and had financial security

## 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 area, social health, financial wellbeing and relevant population characteristics. As Greater Glasgow and Clyde is the largest of the Scottish health boards and home to approximately 1.2 million people, the findings are relevant to other areas of Scotland and the UK beyond GGC.

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.

There were two sections in the 2022/23 survey. The first was face to face and the second, for those who agreed to participate, was online and asked questions of a more sensitive nature. For more information about the online survey, please visit Appendix H of the NHS Greater Glasgow and Clyde 2022/23 Adult Health and Wellbeing main report<sup>13</sup>.



## 2.1 Data definitions and methods

Table 1 gives a breakdown of the surveyed sample. The weighted proportions reflect the demography in NHSGGC. Nine indicators of health and wellbeing were included in this Thematic Report:

- » the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)<sup>22</sup> with a score of under 45 indicating possible depression
- » the General Health Questionnaire (GHQ-12)<sup>23</sup> with a score of 4+ indicating possible psychiatric disorder
- » having a long-term condition or illness
- » receiving treatment for at least one illness or condition
- » feeling in control of decisions
- » perception of general health
- » perception of physical health
- » perception of mental/emotional health
- » perception of quality of life


Lower prevalence within the population of the first four of the above measures is preferable, indicating good health and wellbeing, but the reverse is true for the latter five measures where lowered prevalence indicates poor health.

Comparisons of weighted proportions used Chi-squared tests and data modelling to answer questions relating to the health of women living in Greater Glasgow and Clyde in 2022/23. A p-value of  $p < 0.01$  was used, to reflect the number of comparisons made. Where there was a significant difference this was denoted by an asterisk. In some cases, as described in the text, only those that were significant are shown. Trends in health and wellbeing were also calculated. Not all outcomes were collected across all surveys. Where an item was not collected at a survey, a dotted line was used in graphs connecting two time points either side to indicate this.


Logistic modelling for binary outcomes included year, gender and an interaction term between the two, to measure significant gender inequalities over time. Area level deprivation was described by a binary variable, splitting the population by residence according to the Scottish Indicator of Multiple Deprivation<sup>24</sup>, so those living in the 15% most deprived datazones were categorised as "Bottom 15% SIMD" and those living in all other areas were categorised as "Other areas".



Table 1: Summary Table of the 2022/2023 HWB sample

 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)

 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)

■ Bottom 15% SIMD    ■ Other areas

The majority of the variables included in the analyses below were from the main survey, however a small number were from the online survey. These are questions relating to GHQ-12, foodbank use and domestic violence.



### 3. Women’s health and the 2022/23 Health and Wellbeing Survey

Females’ perceived health and wellbeing is described in Figures 1-4. This reduced with age for some outcomes such as perceived general health and physical health, long term conditions and feeling in control of decisions (Figures 1 and 2). However, for WEMWBS score indicating depression and perception of mental health, 45-64 year olds had significantly poorest outcomes, and 45+ year olds were less likely to have a positive perception of quality of life, while the proportion of females with a GHQ-12 score indicating psychiatric disorder was significantly more prevalent among 16-64 year olds (Figures 3 and 4).

Figure 1

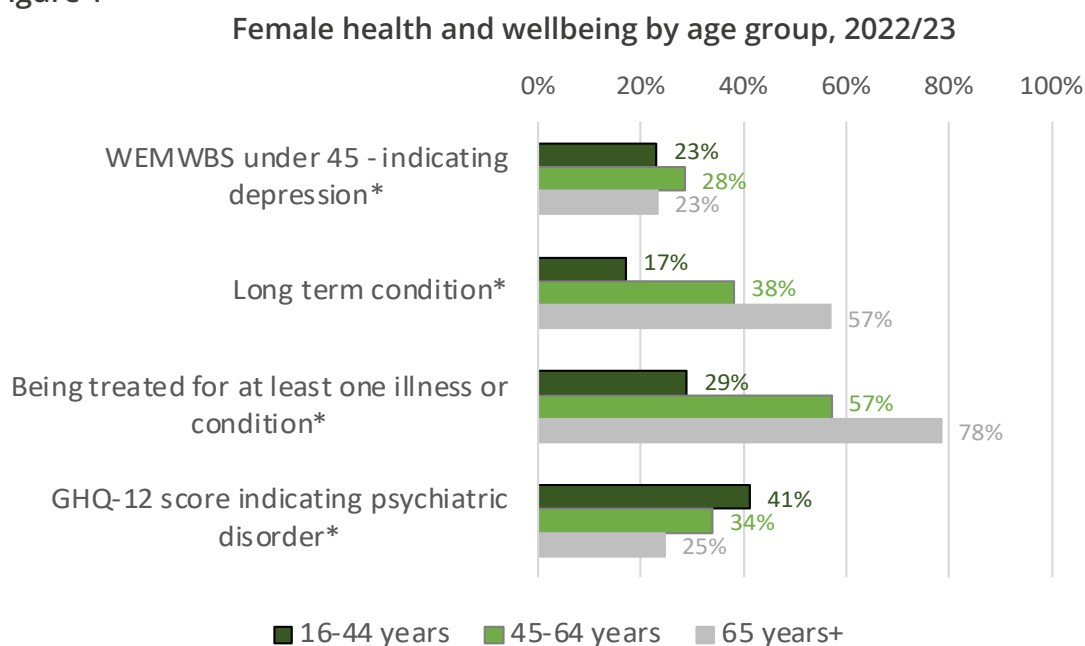
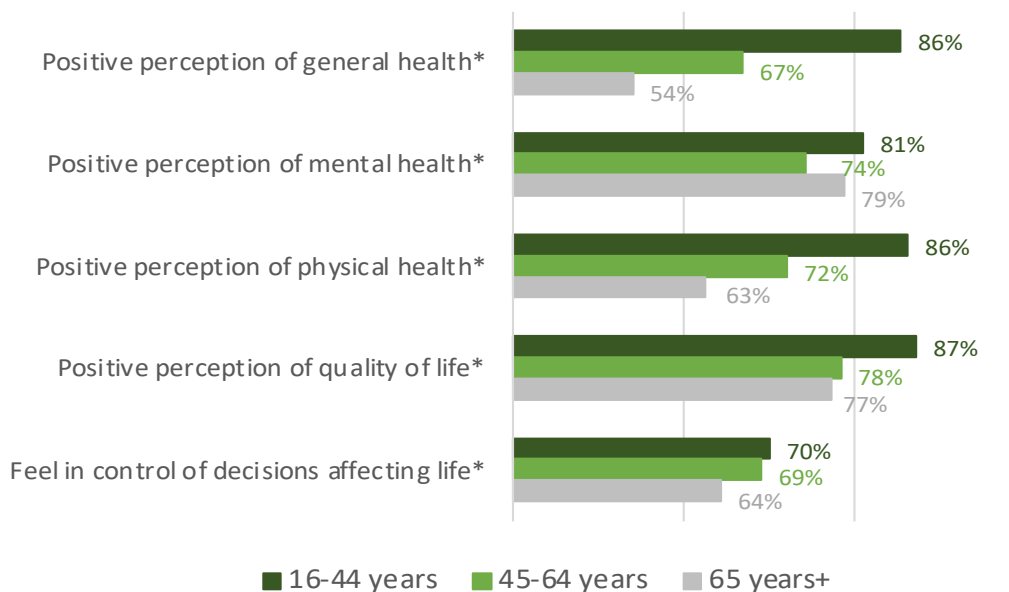


Figure 2

Female health and wellbeing by age group, 2022/23



Perceived health among females was worse in more deprived areas for all indicators except for proportion with a GHQ-12 score indicating psychiatric disorder, which did not see a significant difference between areas (Figure 3 and 4). In particular, the proportion of females with possible depression in most deprived areas was 1.6 times those in 'Other areas', while the proportion with a long term condition or illness in the 15% most deprived areas was 1.4 times those in 'Other areas'.

Figure 3

Female health and wellbeing by area level deprivation, 2022/23

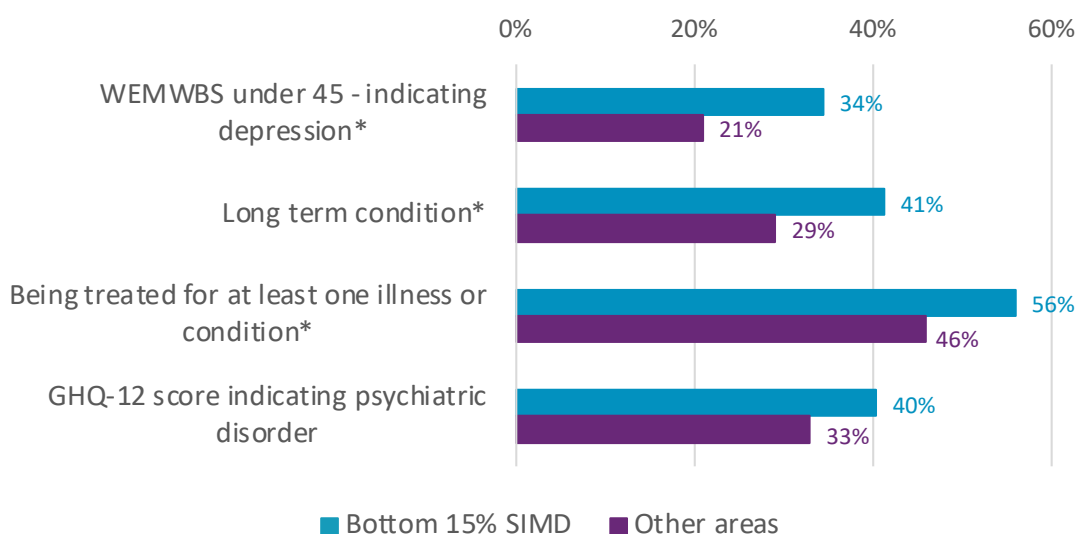
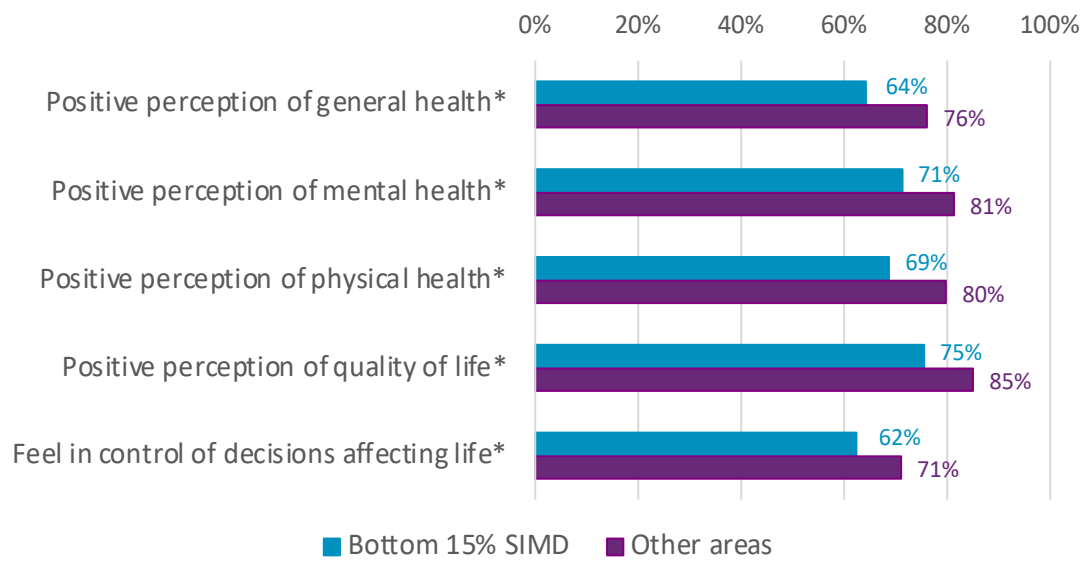


Figure 4

Female health and wellbeing by area level deprivation, 2022/23



### 3.1 How does women's reported health compare with that of men's?

In 2022/23 the health of females was poorer than of males for the majority of outcomes measured; prevalence of those with a WEMWBS score indicating depression, having a long term condition, being treated for a long term condition or having a GHQ-12 score indicating psychiatric disorder was significantly greater for females than males (Figure 5). Notably, the prevalence of females having a score indicating psychiatric disorder was 1.5 that of males.

Conversely, proportions having a positive perception of their general health, mental health, physical health and quality of life were significantly greater among males than females (Figure 6). While 14% of males did not have a positive perception of quality of life, this compares with 18% of females

Figure 5

Percentage (%) of Health and Wellbeing Survey respondents

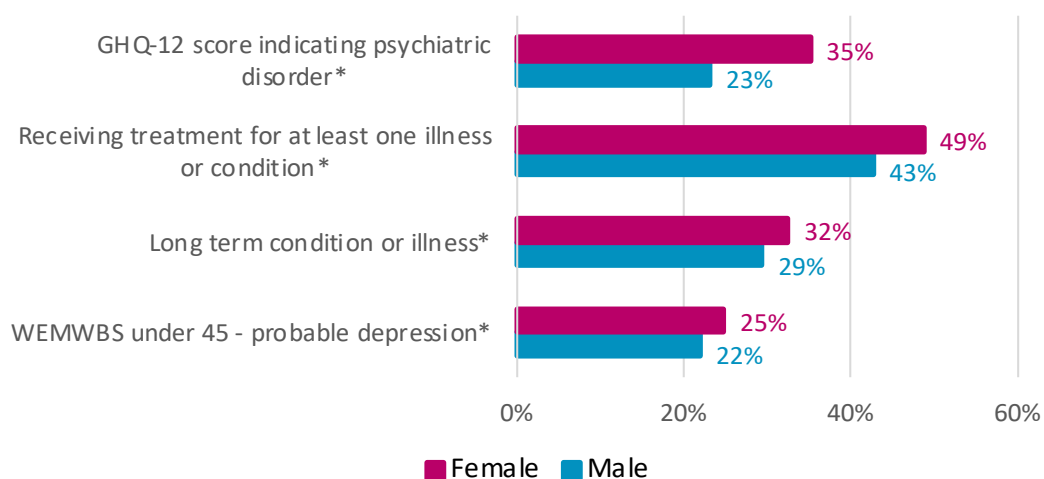
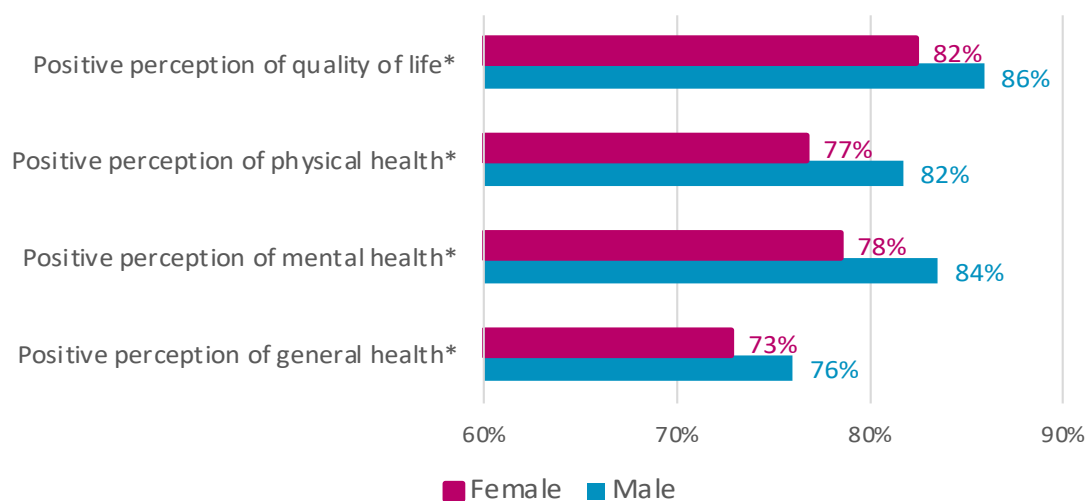


Figure 6

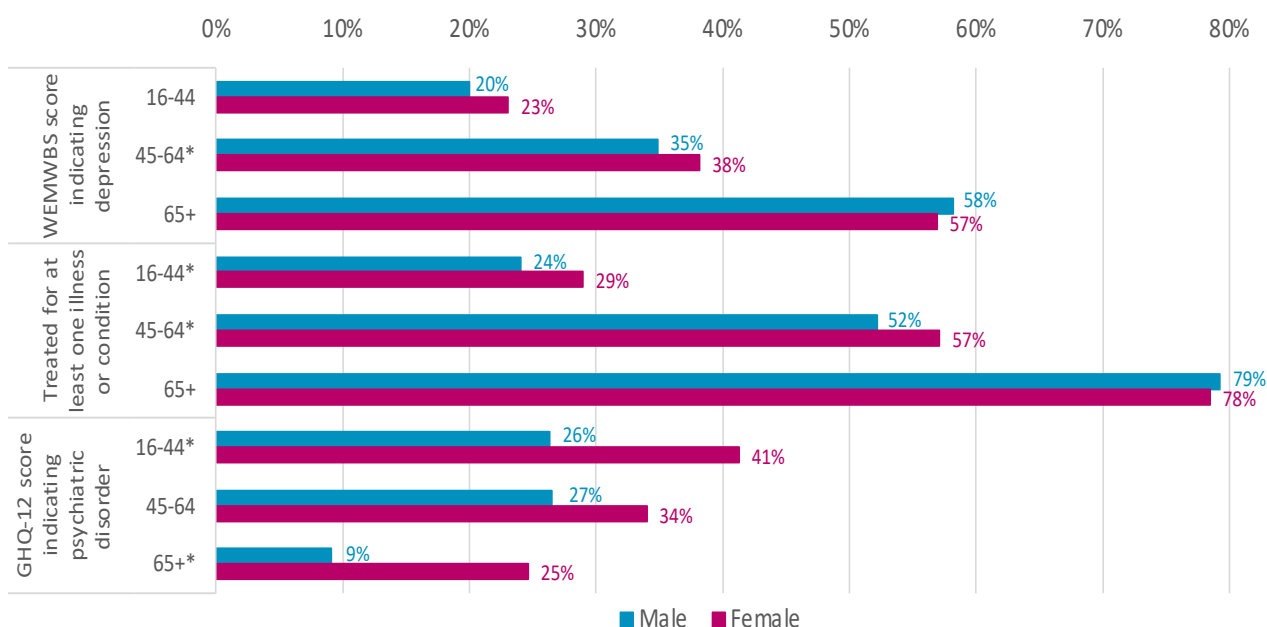
Percentage (%) of Health and Wellbeing Survey respondents



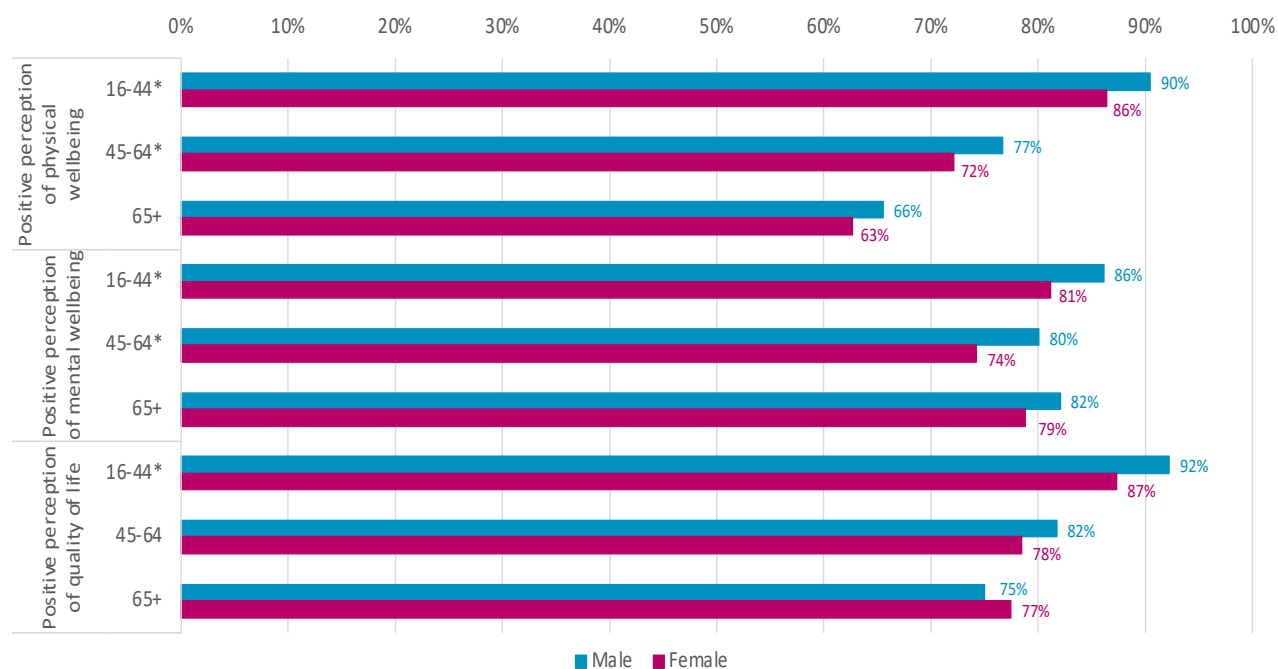
A difference of 4% may seem small but in this case this means that females were 25% more likely than males, or 1.25 as likely as males, to report not feeling positively about the quality of their life. Similarly, 18% of males did not have a positive perception of their physical health compared with 23% of females, so that females were 1.27 times as likely as males to not feel positively about their physical health. Additionally, females were 1.31 times as likely as males not to feel positively about their mental health and 1.13 times as likely as males not to feel positively about their general health. As well as being statistically significant therefore, the differences are also meaningful. The exception being the proportion feeling in control of decisions affecting their life (69%) which did not differ significantly between males and females.

Gender differences in reported health were particularly apparent at younger and middle ages (Figures 7 and 8). When stratified by age group, proportions with long term conditions, feeling in control of decisions and with perceived good general health did not differ between males and females. For other outcomes, significant differences were most often seen for those under 65 years, e.g. the proportion with a WEMWBS score indicating depression, the proportion being treated for illness and the proportions with a positive perception of physical wellbeing, mental wellbeing and quality of life. The exception being proportions with a GHQ-12 score indicating psychiatric disorder, which saw greatest disparities at the oldest ages; the proportion of females more than twice that of males for those aged 65+ years.

**Figure 7**  
**Percentage (%) of Health and Wellbeing Survey respondents, by age group**



**Figure 8**  
**Percentage (%) of Health and Wellbeing Survey respondents, by age group**

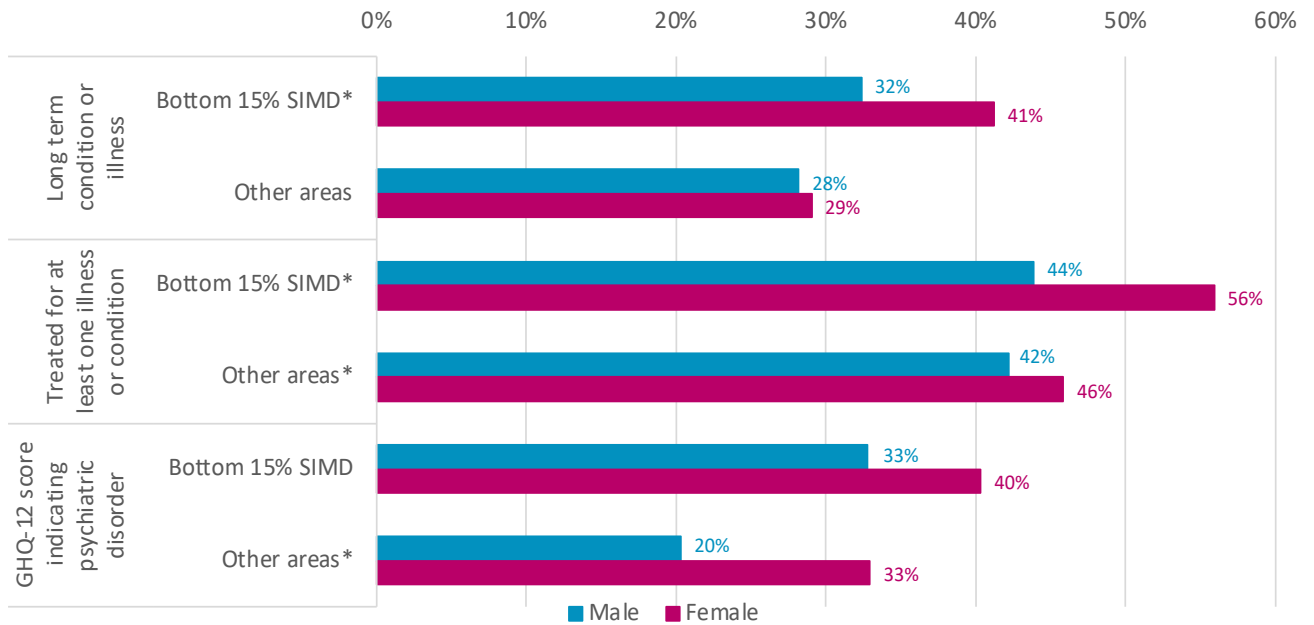


When stratified by deprivation, the proportion with a WEMWBS score indicating depression and the proportion feeling in control of decisions did not differ between males and females. The proportion with a long term condition was significantly greater for females than males in deprived areas, but this was not the case elsewhere (Figure 9).

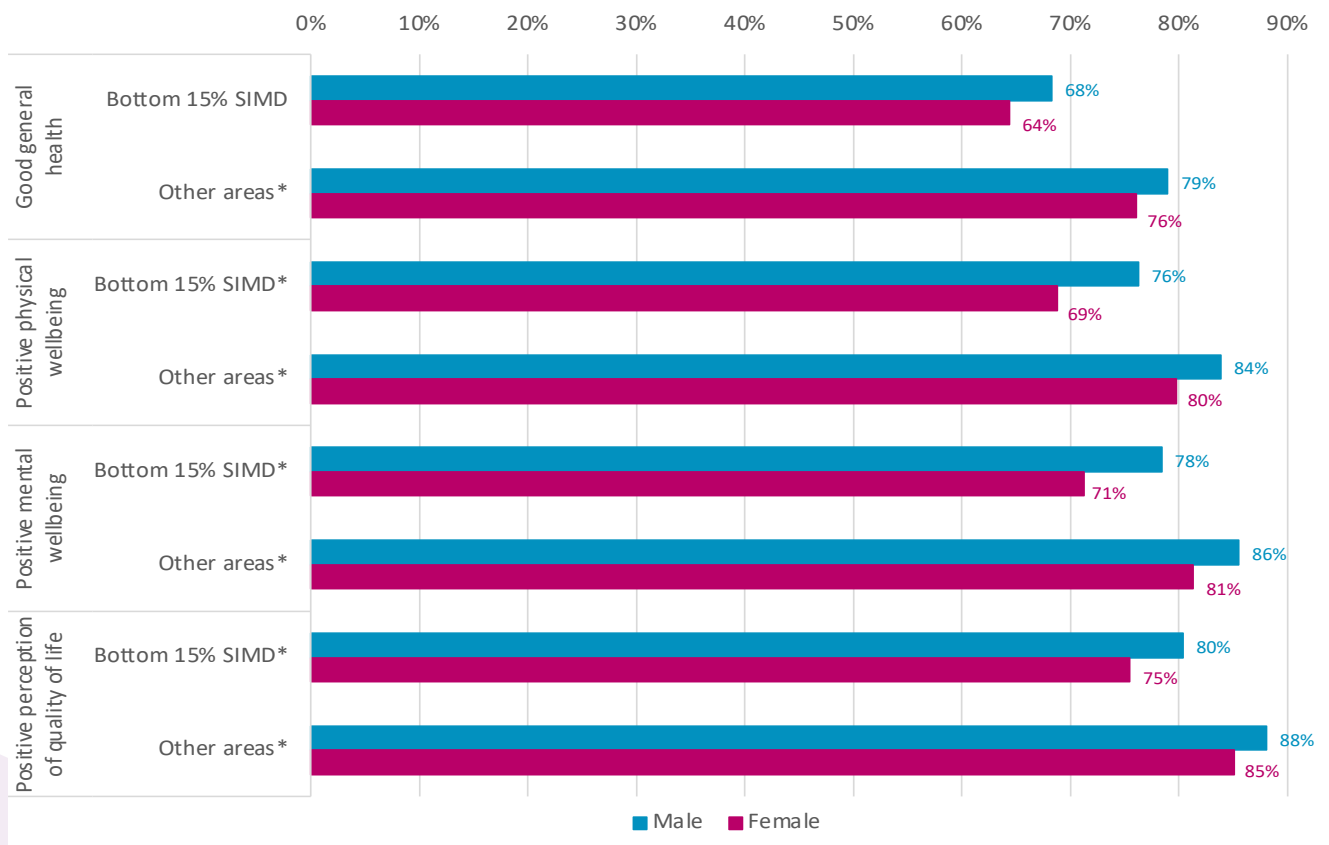
Conversely, the proportion with a GHQ-12 score indicating psychiatric disorder was significantly greater for females than males in 'Other areas' but not in deprived areas. For all other outcomes, females fared worse than males in both area types (Figures 9 and 10). When the data were modelled and an interaction added between deprivation and gender this was significant for outcomes long term condition and treatment for at least one illness; deprivation had a significantly bigger impact on females' health for these outcomes.



**Figure 9**  
Percentage (%) of Health and Wellbeing Survey respondents, by deprivation



**Figure 10**  
Percentage (%) of Health and Wellbeing Survey respondents, by deprivation

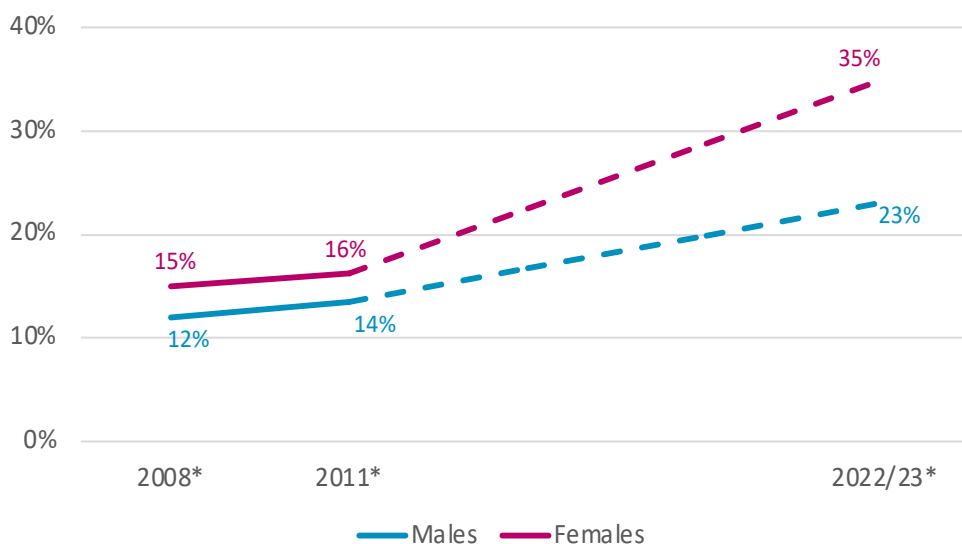




### 3.2 How have gender inequalities in health and wellbeing changed over time?

Gender inequalities, with females faring worse than males, widened significantly between 2008 and 2022/23 for several outcomes: % with a GHQ-12 score indicating possible psychiatric disorder (Figure 11), perception of mental health (Figure 12), perception of physical health (Figure 13) and perception of quality of life (Figure 14). When the data were modelled and an interaction added between year and gender these showed a significant widening over time. In addition, inequalities were at their widest in 2022/23 for all of the above outcomes, with poorer outcomes for females.

**Figure 11**  
Percentage (%) with a GHQ12 score indicating possible psychiatric disorder



**Figure 12**  
Percentage (%) with a positive perception of mental health

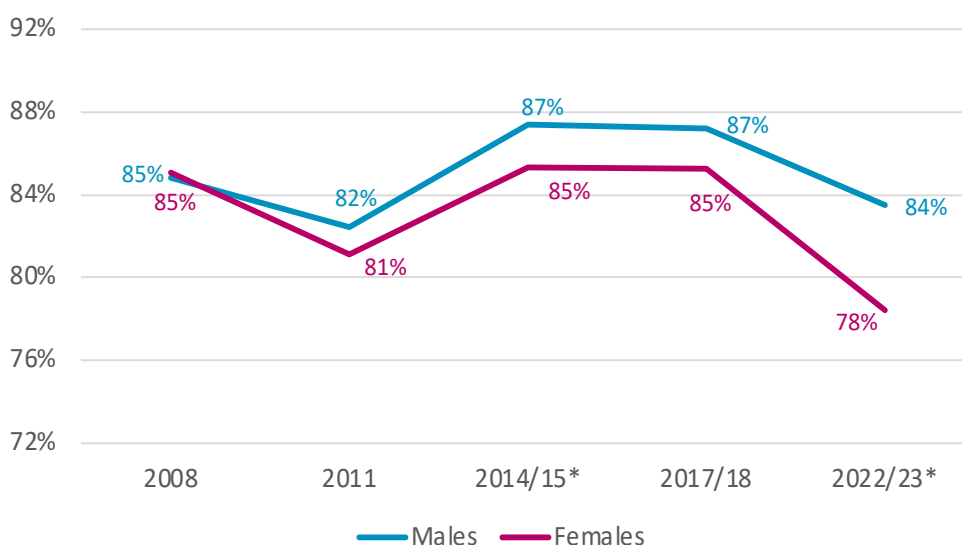


Figure 13

Percentage (%) with a positive perception of physical health

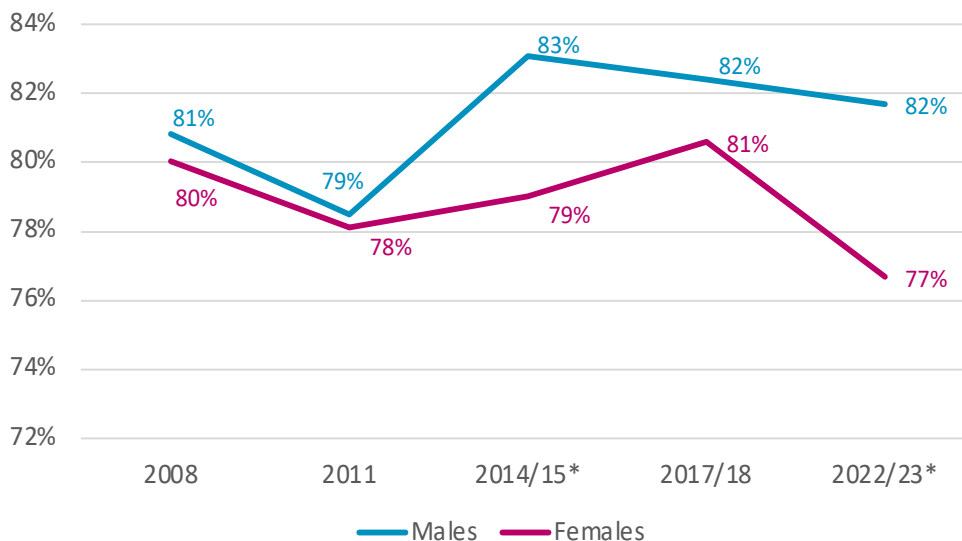
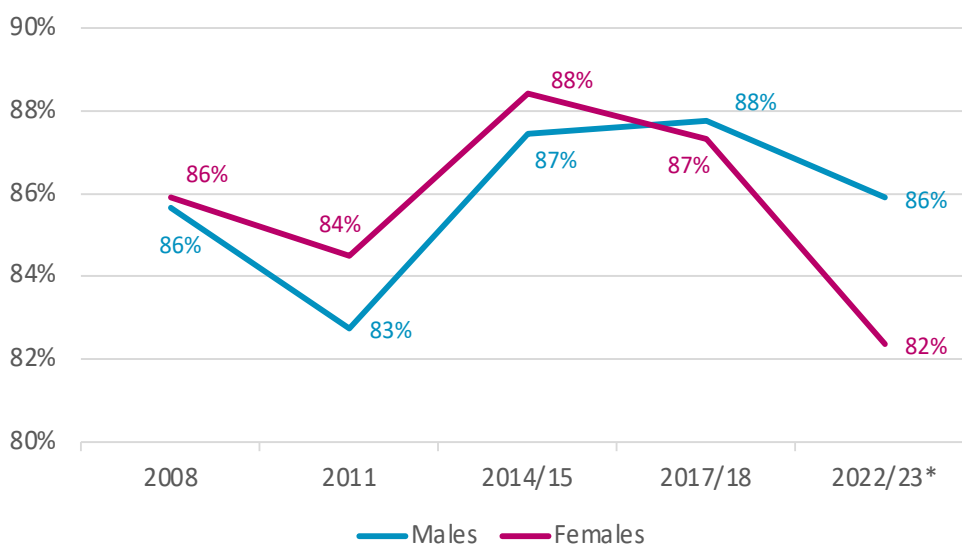


Figure 14

Percentage (%) with a positive perception of quality of life



The proportion with a WEMWBS score indicating depression saw no significant change in gender inequalities across the study period 2008 and 2022/23. This proportion, however, was significantly greater for females than males in 2022/23, unlike all other years (Figure 15). The gap between males and females also widened significantly between 2017/18 and 2022/23 for outcomes: prevalence with at least one illness or condition for which they receive treatment (Figure 16) and prevalence with a positive perception of general health (Figure 17), while the proportion of females feeling in control of decisions affecting their life (Figure 18) saw a significantly greater reduction between 2017/18 and

2022/23 than the proportion of males. Persistent gender inequalities in the proportion with a long term condition were also seen (Figure 19).

Figure 15

Percentage (%) with a WEMWBS score indicating depression

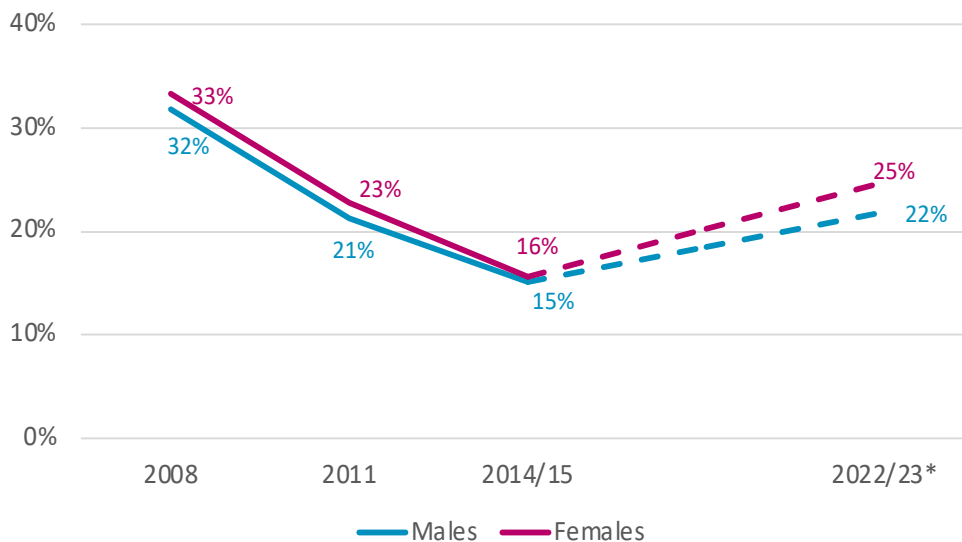


Figure 16

Percentage (%) with at least one illness or condition for which they receive treatment

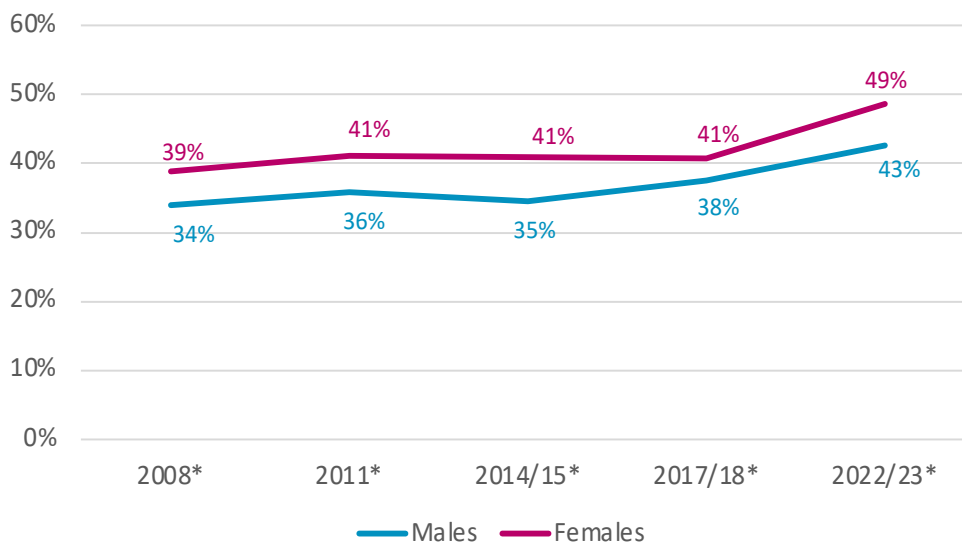


Figure 17

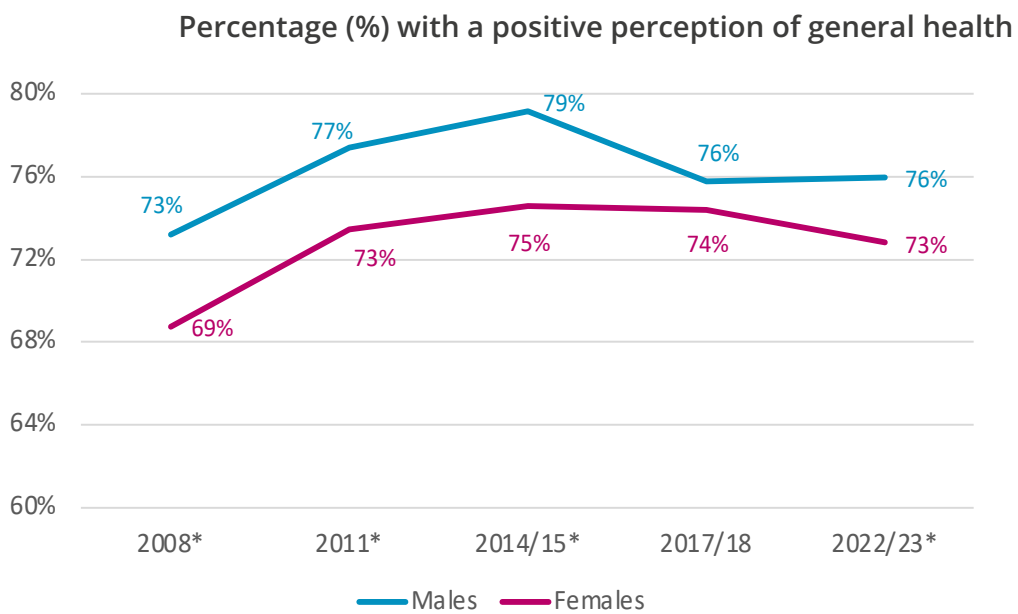


Figure 18

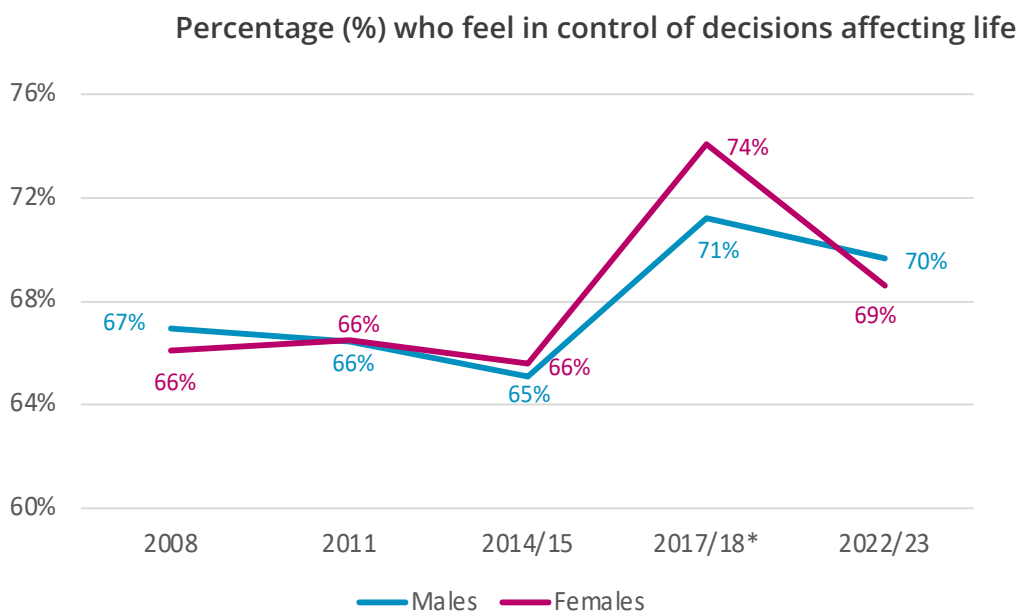
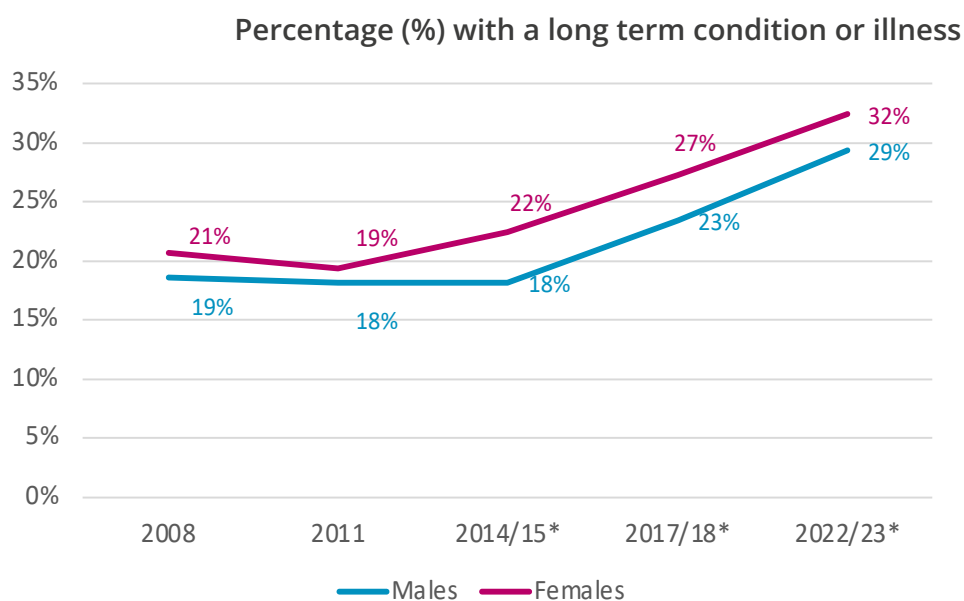


Figure 19



### 3.3 What social and demographic characteristics of women might impact on their health?

From the NHS Greater Glasgow and Clyde 2022/23 Adult Health and Wellbeing report<sup>13</sup>, we know that surveyed females were less likely to be smokers, be exposed to second hand smoke, drink alcohol and binge drink, and/or gamble and were more likely to meet the target of consuming five or more portions of fruit/vegetables per day, but less likely to meet strength and balance guidelines.

Females were more likely than males to feel isolated from friends and family and less likely than males to feel safe walking alone in their local area. They were, however, more likely to feel valued as a member of their community, have positive view of reciprocity and social support in their local area and value local friendships.

In particular, females had poorer outcomes in relation to finance; females were less likely than males to feel that their household income was adequate and were more likely to have difficulty meeting the cost of food or energy, more likely to experience food insecurity and use food banks. Females were also less likely to be economically active and to have educational qualifications and were more likely to live with dependent children and have caring responsibilities.

There was no significant difference between males and females in the proportion reporting any experience of discrimination (39%). However, when

asked for the reason for this discrimination 31% stated they had experienced discrimination due to gender with a significantly greater proportion (44%) of females than males (15%). When split by age, this difference was particularly apparent for those aged under 65 years.

### 3.4 Are there variables that are uniquely associated with women's health?

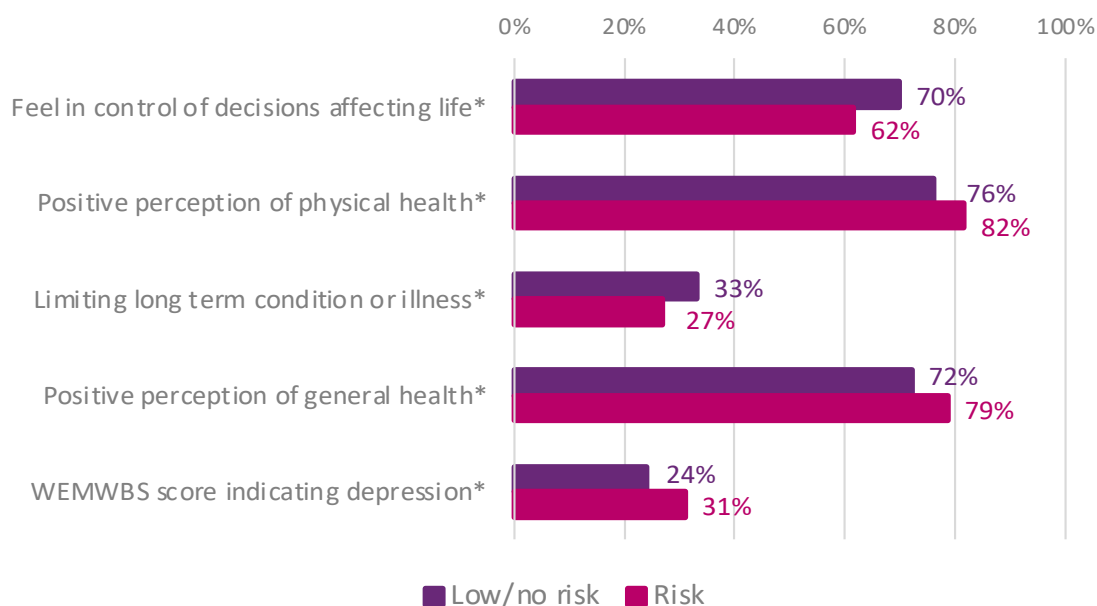
Risky alcohol use was uniquely associated with females' health and wellbeing, however the association was complex. Using the Alcohol Use Disorders Identification Test (AUDIT)<sup>25</sup>, the sample was categorised as having no/low risk (a score of 0-7) or increased risk (a score of 8+). Previously it was seen that males were twice as likely to have a score indicating risk, however 12% of female respondents were categorised as having an 'at risk' AUDIT score. When the nine outcomes of health and wellbeing were compared for those with and without an 'at risk' AUDIT score, the association was significant for 5 of the 9 outcomes for females (Figure 20).

Females with an 'at risk' AUDIT score were less likely to feel in control of decisions affecting their life (70% compared with 62% of those with no/low risk) and more likely to have a WEMWBS score indicating depression (31% compared with 24% with no/low risk). However, they were also more likely to have a positive perception of physical health (82% compared with 76% of those with no/low risk), general health (79% compared with 72%) and less likely to have a long term condition (27% compared with 33%). When split by age group, the age groups with the largest proportion with an 'at risk' AUDIT score were 16-24 year olds (19%) and 45-54 year olds (17%).



Figure 20

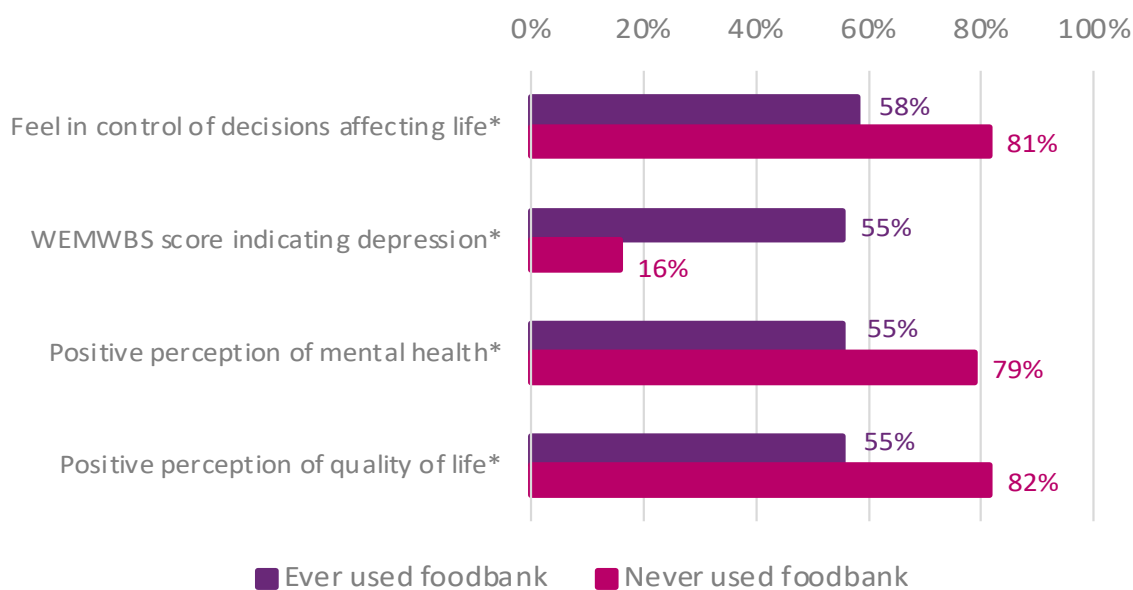
Association between females' health and wellbeing outcomes and AUDIT risk categories



Approximately one eighth of females (12%) and 6% of males reported ever using a foodbank. Use of a foodbank was also significantly associated with poorer health and wellbeing for four outcomes for females, while for males significant associations were only seen for outcomes GHQ-12 and quality of life. Females who had ever used a foodbank were less likely to feel in control of decisions affecting their lives, less likely to perceive their mental health or quality of life as positive and more than three times as likely to have a WEMWBS score indicating depression than those who had never used one (Figure 21).

Figure 21

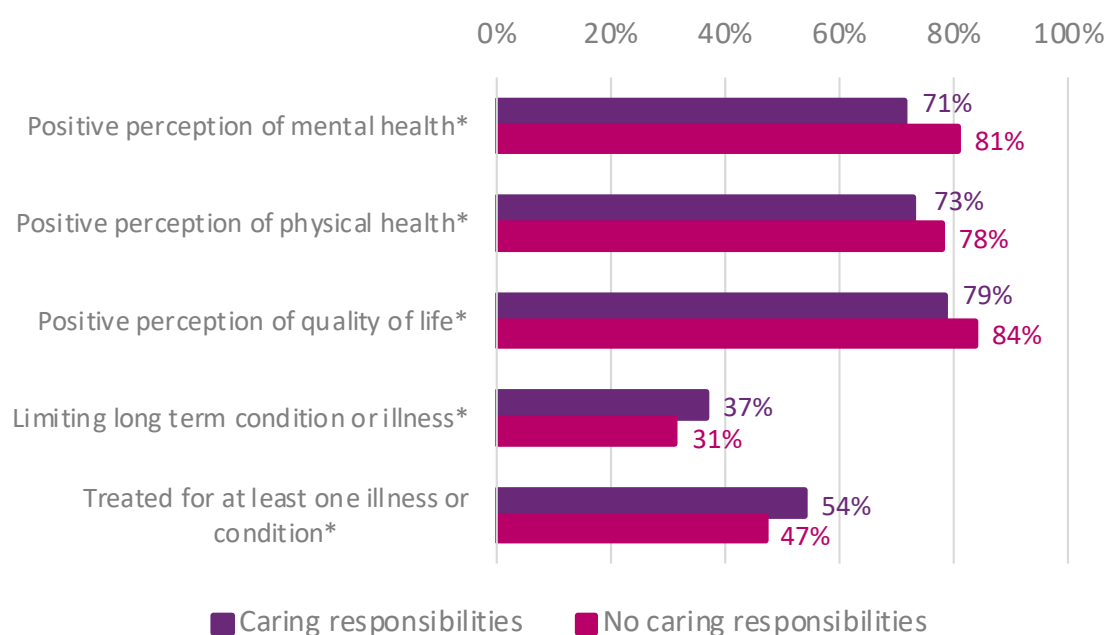
Association between females' health and wellbeing outcomes and use of foodbanks



Similarly, having caring responsibilities was significantly associated with poorer health and wellbeing for males and females. Approximately **23%** of females and **19%** of males reported caring for family members, friends or neighbours. However, while males who cared for others were less likely to have positive perception of mental health or general health and were more likely to report a long term condition or illness, among females, significant associations were also seen between being a carer and perceived physical health and quality of life (Figure 22).

**Figure 22**

**Association between females' health and wellbeing outcomes and having caring responsibilities**



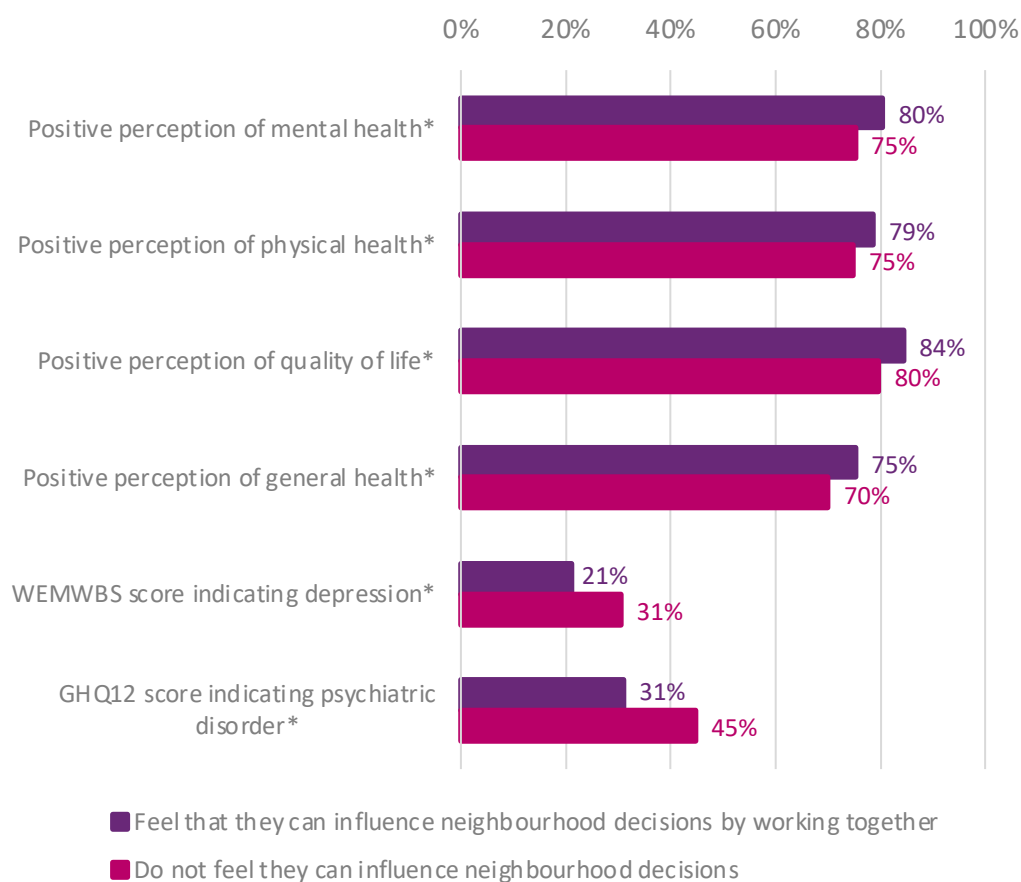
Approximately two thirds (**68%**) of the population agreed with the statement *“By working together, people in my neighbourhood can influence decisions that affect my neighbourhood”* with no significant gender difference. The association between this and health did, however, differ significantly between males and females. Females who agreed with this statement were more likely to report positive health and wellbeing.

Females who agreed were more likely to have a positive perception of their mental health (**80%** compared with **75%** of those who did not), physical health (**79%** compared with **75%**), quality of life (**84%** compared with **80%**), general health (**75%** compared with **70%**) and less likely to have a WEMWBS score indicating depression (**21%** compared with **31%**) or a GHQ-12 score indicating psychiatric disorder (**31%** compared with **45%**) (Figure 23). Significant associations for males were only seen for physical health and quality of life.



Figure 23

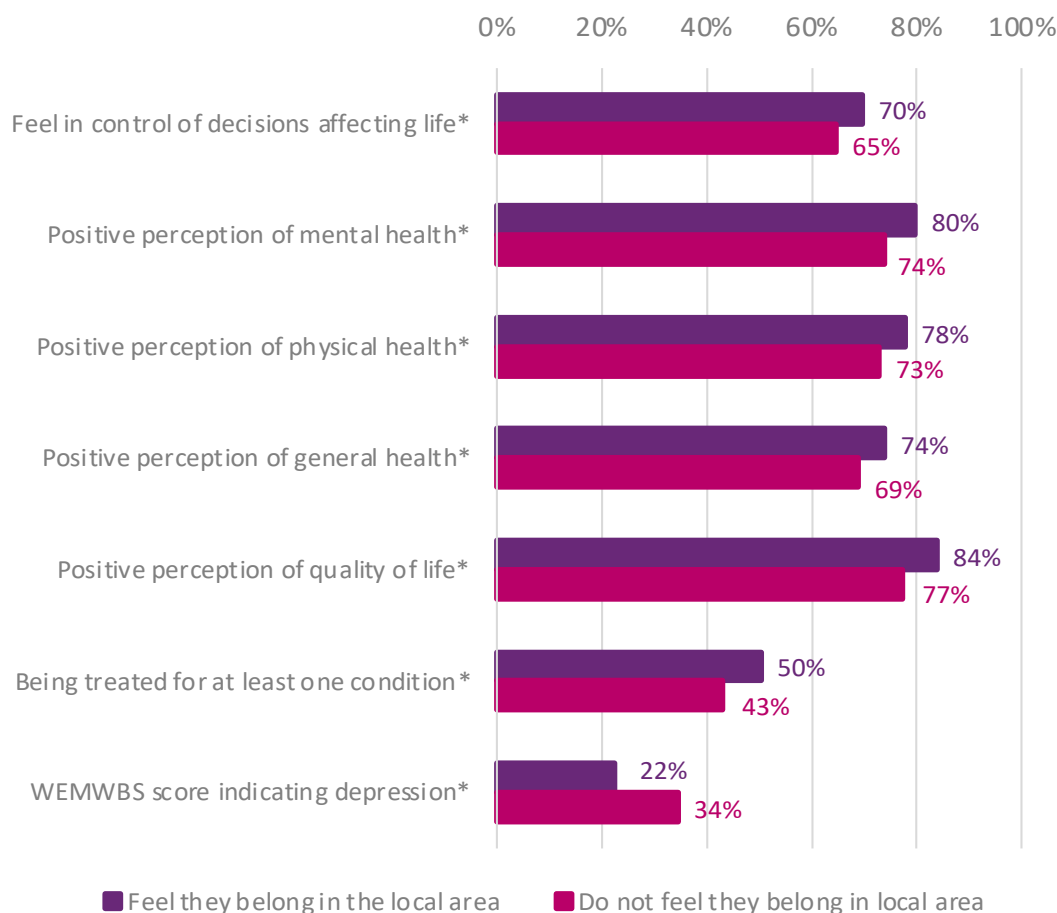
Association between females' health and wellbeing outcomes and feeling they can influence neighbourhood decisions



Similarly, feeling they belong in their local area was associated with better health and wellbeing outcomes for females, the exception being treatment for one or more conditions where a reversed relationship was seen (Figure 24). Significant associations were also seen for males but for fewer outcomes, five of the nine included here.

Figure 24

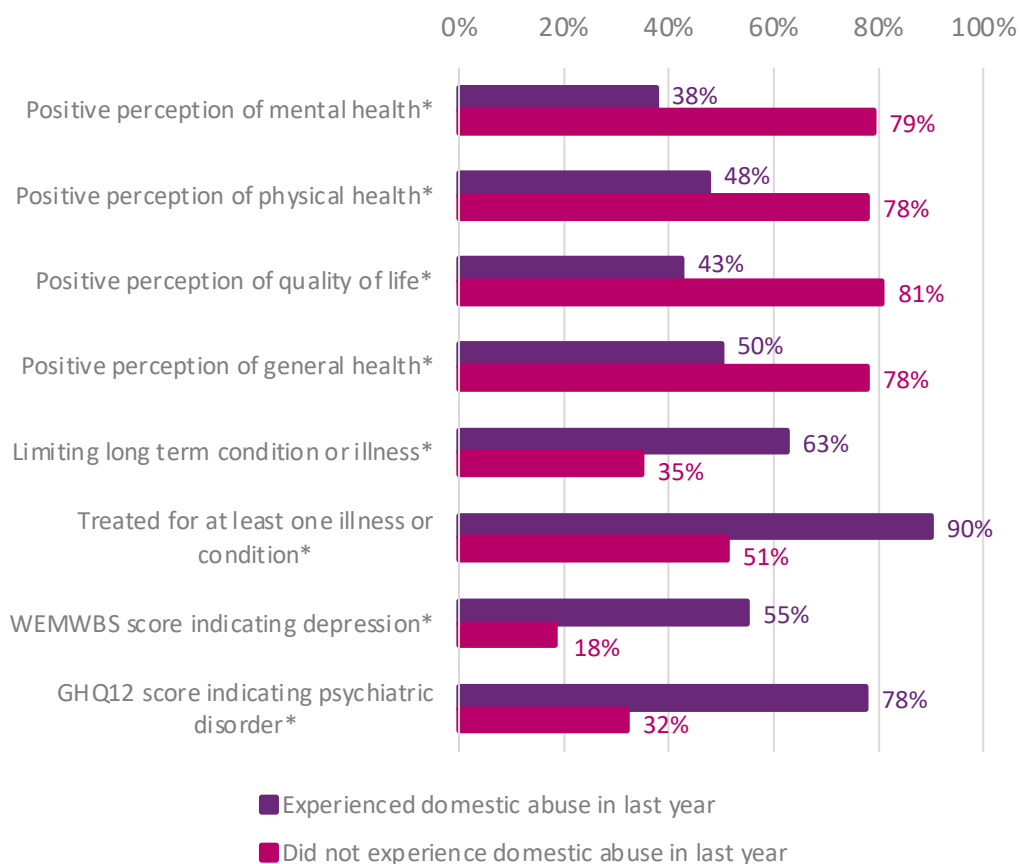
Association between females’ health and wellbeing outcomes and feeling they belong in their local area



Of those who replied to the online survey, 6.4% of females and 2.9% of males reported experiencing domestic abuse in the previous year. Experience of domestic abuse was associated with poorer health and wellbeing for females for all outcomes with the exception of feeling in control of decisions (Figure 25). Males saw an association for this variable, however and one other, GHQ-12 score.

Figure 25

Association between females' health and wellbeing outcomes and domestic abuse



### 3.5 What social and demographic characteristics of women might impact their ability to engage with and/or benefit from services?

Although there were no questions within the survey relating to ease of access or barriers to accessing services, there were questions relating to use of services and while these are likely to reflect need, they may also give an idea of ease of access. An example might be attendance at a dental surgery. The survey<sup>13</sup> asks: *“In the last two years, have you been able to get a dental appointment at your usual dentist when needed?”*

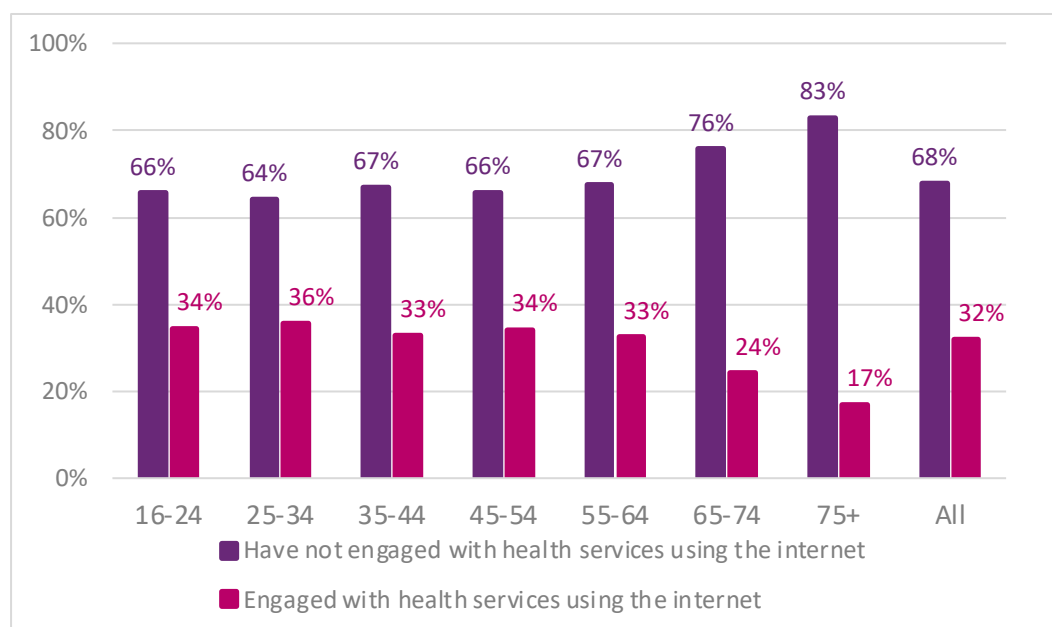
A series of questions also asked about the use of the internet which included: *“At any time have you used the internet for making an appointment with a medical practitioner via a website or app?”* and *“At any time have you used the internet for using other online health services via a website or app instead of*

*having to go to hospital or visit a doctor?*' A new variable was created named 'Use of internet to engage with health services'. If the respondent answered 'yes' to either of the questions above, they were categorised as those who had used the internet to engage with services and if they responded no to both then they were categorised as those who had not. This variable and the one asking about ability to make a dental appointment are used as proxy measures of ability to engage with services.

Almost a third of females surveyed (32.1%) responded that they had used the internet to engage with services. Females were more likely to engage with services (via the internet) if they were aged below 65 years (Figure 26).

Figure 26

Females' engagement with services using the internet by age group



Females were also more likely to engage with services (via the internet) if they: did not live in the Bottom 15% SIMD, had caring responsibilities, were economically active, had qualifications, did not live alone, had a low/no risk AUDIT score, participated in online gambling, met the fruit and veg consumption target, met the physical activity target, had no income from state benefits, had difficulty meeting the cost of energy and/or food bills, felt they belonged in the local area, valued local friendships, felt they could trust people in their local area, that there was reciprocity in their local area, volunteered, belonged to clubs or had taken part in social activism, had experienced discrimination and/or did not feel safe using public transport in their local area (Figures 27 - 30).

Figure 27

Percentage (%) of females engaging with health services using the internet; demographic characteristics

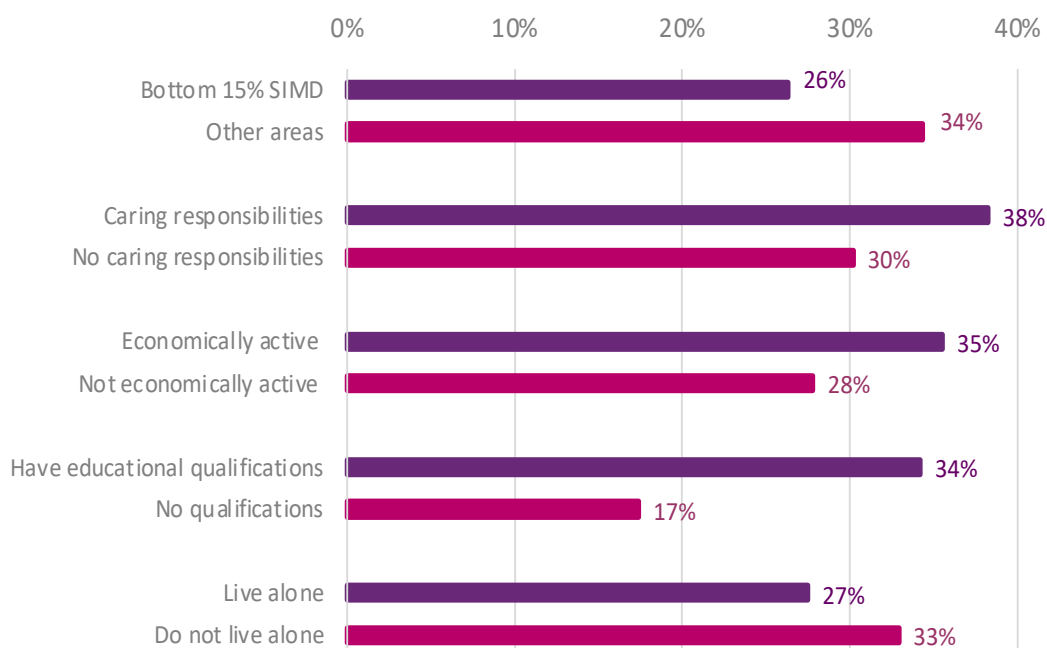


Figure 28

Percentage (%) of females engaging with health services using the internet; health behaviours

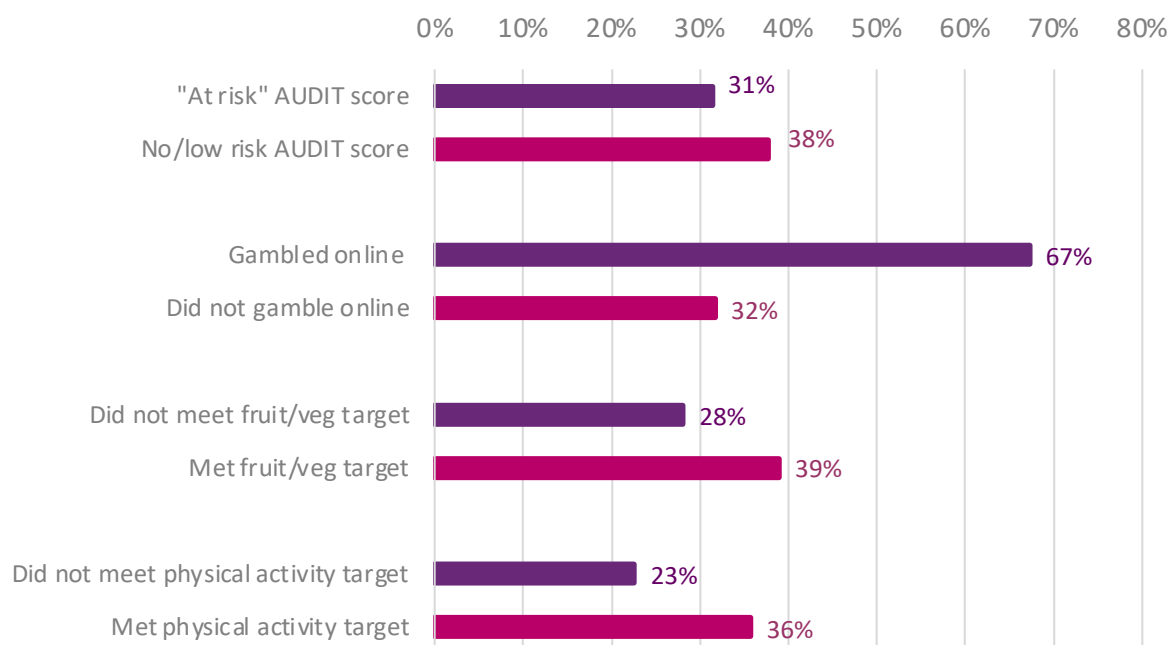


Figure 29

Percentage (%) of females engaging with health services using the internet; financial context

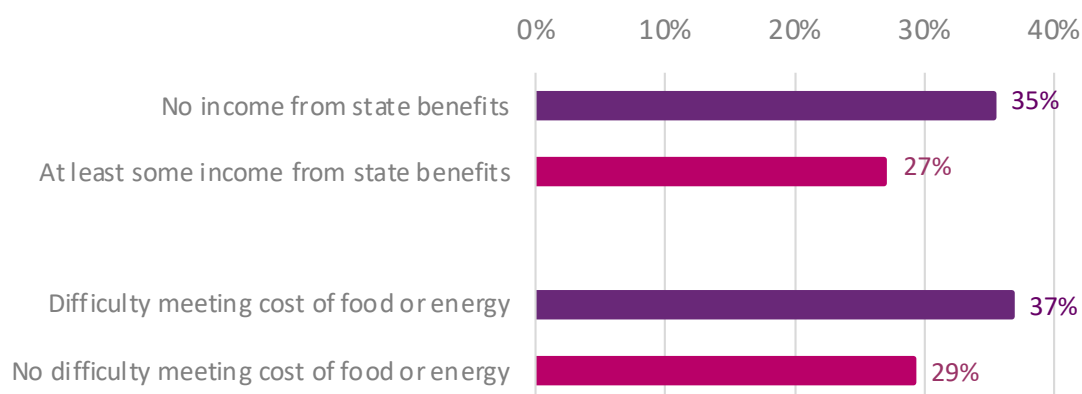
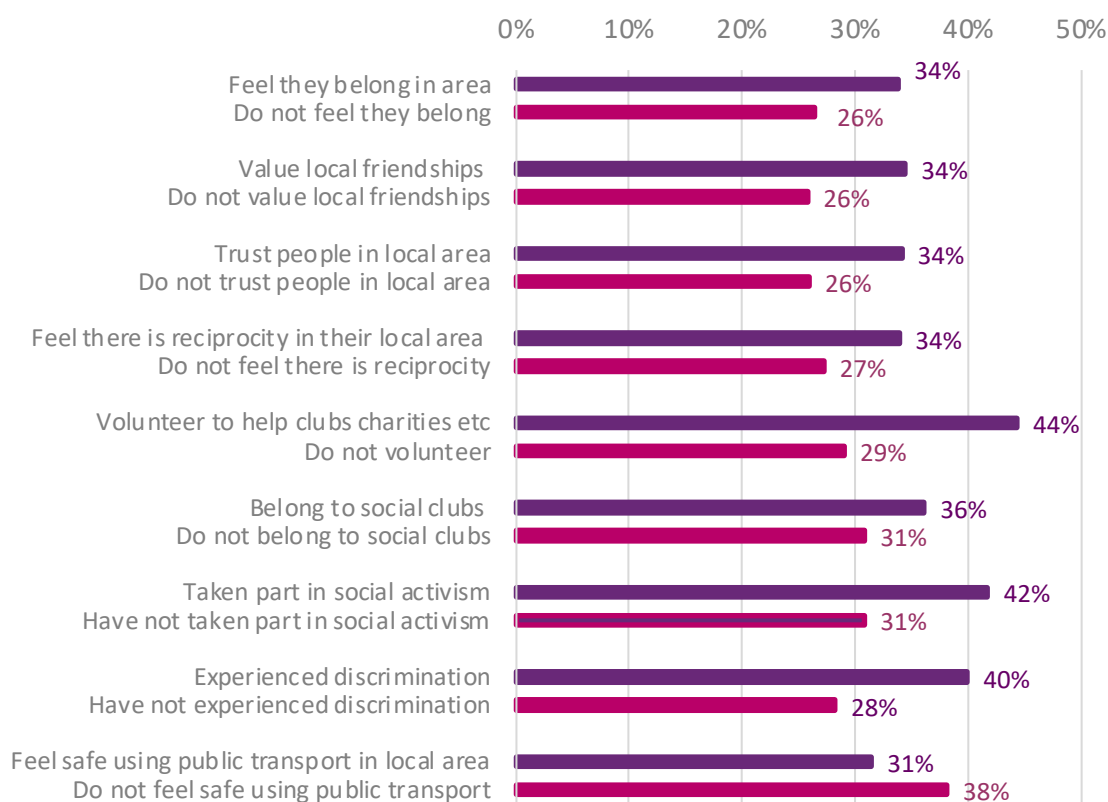


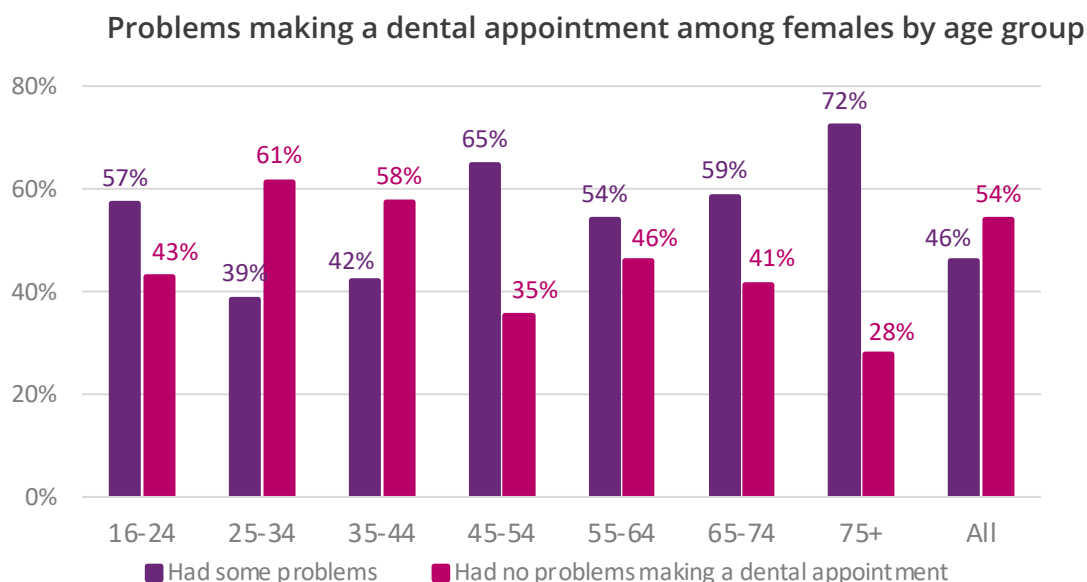
Figure 30

Percentage (%) of females engaging with health services using the internet; social capital



Of those who responded to the online survey, **45.9%** said that they had experienced some problems arranging a dental appointment in the last two years. Females were less likely to have had problems making an appointment with a dentist if they were aged 25-44 years (Figure 31).

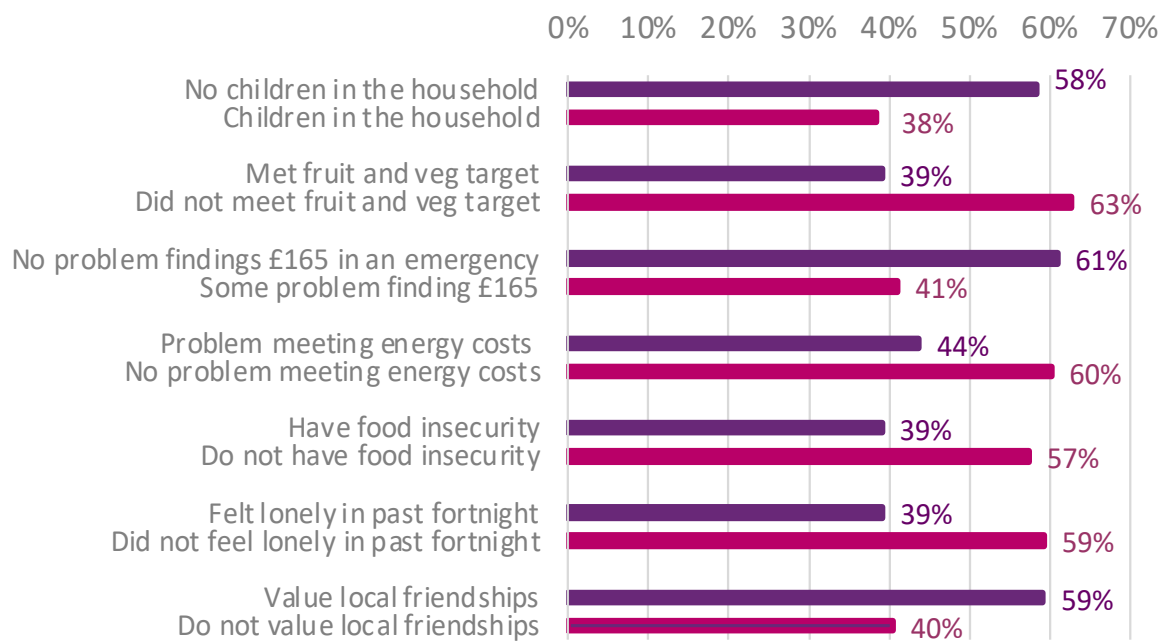
**Figure 31**



Females were also less likely to have had problems making an appointment with a dentist if they: had no children in the household, had not met the fruit and veg target, had no problem finding £165 in an emergency, had no problem paying for energy, had no food insecurity, valued local friendships, had rarely/never felt lonely in past two weeks (Figure 32).

Figure 32

Percentage (%) of females having no problem making a dental appointment by contextual factors





## 4. Discussion

Trends in reported physical and mental health of our population show a deterioration at population level since 2017/18<sup>13</sup>. The COVID pandemic, cuts in healthcare services due to austerity measures, and the cost of living crisis caused by international conflict, the pandemic and the UK's withdrawal from the European Union, are thought to have contributed to this deterioration. This is not unique to Greater Glasgow & Clyde, and has been described across Scotland<sup>11</sup> and elsewhere in the UK<sup>26</sup>. Studies have suggested that the impact of austerity and public spending cuts have disproportionately affected women who are more likely to use public services and more likely to have dependent family members<sup>27</sup>.

This Thematic Report describes current patterns of women's health among the NHSGGC population. Worse outcomes are seen for women than men, with widening inequalities over time for several physical and mental health outcomes. In particular, mental health and perceived quality of life has seen a deterioration among women. It was previously shown that the pandemic had a bigger impact on female's mental health<sup>11</sup> and this might in part explain these trends. However, inequalities existed prior to the pandemic and these analyses find that gender inequalities in reported physical health, general health and quality of life also widened between 2017/18 and 2022/23. These differences are primarily seen in the younger and middle ages.

Of particular concern is the health of women aged 45-64 years. The prevalence of compromised mental health for this age group is evident, with 28% having a WEMWBS score indicating depression, significantly greater than older and younger age groups and males of any age. Additionally, perception of physical health was lower and prevalence of receiving treatment for at least one condition was higher for women than men of this age group, but not for those aged 65 years+.

The current Women's Health Plan splits the health journey of women into three life stages, Girls and Young Women (puberty to around 25 years), Middle Years (25-50 years) and Later Years (around 51 years and over)<sup>1</sup>. The appropriateness of these stages are not reflected in our findings. This is perhaps not surprising given that the average age of menopause is 51, but women can start to experience symptoms in perimenopause from their early 40s. The range of menopausal symptoms typically last between 5 and 7 years with fluctuating intensity and include a broad spectrum of affects, including those of a psychological nature e.g. mental health, such as anxiety and depression or cognitive symptoms, including changes to memory<sup>28</sup>. The results presented within this Thematic Report suggest that it might be better to split the stages within future women's health plans more appropriately around the life stages of

women so that the Menopausal/preretirement stage (45- 64 years) is treated as a separate stage of women's life to that before and after.

Menopause also occurs at a stage in a women's life that is often marked by competing pressures and demands around work, caring and other community responsibilities, often called "the sandwich generation", typically aged around 45-56 years but now potentially older, where women have caring responsibilities for both children and ageing parents<sup>29</sup>. This may be particularly true of the current middle aged population as their parents are living longer than those of previous generations<sup>30</sup>, their retirement age is later, and their child rearing held off until later for many, compared with previous generations<sup>31</sup>. These cumulative stresses, financial strains of costly teenage and 20-something dependents and time constraints to meet the needs of ailing relatives, can significantly impact menopausal symptoms and how they are experienced<sup>28</sup>. Alongside a downward trend in mental health during menopause, routinely collected data show a deterioration in women's physical health over time, with e.g. rising incidence rates of heart disease mortality among 45-54 year olds<sup>32</sup>. These further make the case for this life stage to be considered separately within policy and practice.

But it is not just the health of women around menopause that is concerning. Our findings show psychiatric disorders at youngest and oldest ages are more prevalent for women than men. Gender inequalities are also observed among 16-44 year olds for perceptions of quality of life, mental and physical wellbeing and treatment for one or more conditions, with women having worse outcomes. Our findings also show that although women and men reported similar prevalence in experience of any discrimination, women were three times as likely to report discrimination due to gender. Ageist sexism in health services has been described previously where young women are made to feel "hormonal" and "overdramatic" putting them off seeking health support and treatment<sup>33</sup>. Women's experience of discrimination regarding mental health has also been highlighted where anxiety is dismissed as female attribute, while more generally discrimination has resulted in physical symptoms among women being dismissed as psychological. Discrimination of this kind is damaging to women's health, to their mental health when they feel they are not taken seriously and to their physical health as they avoid or delay seeking help as a result<sup>34</sup>. Addressing gender discrimination and ageist sexism as a priority within health services and complimentary agencies may therefore help to narrow the gender gap.

Compounding this is the effect of poverty. Women's reported health was poorer than that of men's in both deprived and non-deprived areas but the effect of deprivation was evident, with the proportion of females with possible depression in 15% most deprived areas 1.6 times greater than those in 'Other areas' and the proportion with a long-term condition or illness in most deprived areas 1.4 times greater than those in 'Other areas'. At the individual level, women additionally had poorer outcomes than men in relation to finance; women were less likely than men to feel that their household income was adequate and were more likely to have difficulty meeting the cost of food or energy or to experience food

insecurity, while use of foodbanks was more strongly associated with health outcomes for females than males. Poverty is the single biggest driver for poor mental health<sup>35</sup>, and our findings suggests poverty has a bigger impact on women than men.

The outcomes described here as having a long term condition or illness and receiving treatment for one or more illness or condition may reflect health seeking behaviour rather than health in itself. It is generally believed that females are more likely to attend health services such as general practice, more likely to over report symptoms, and therefore more likely to receive a diagnosis than men<sup>36</sup>. More recent studies, however, have shown a more complex picture with this relationship being dependent on age<sup>37</sup>, socioeconomic status<sup>38</sup> and ethnicity<sup>39</sup>, as well as reversed inequalities in diagnostic testing and prescribing, where diagnostic and therapeutic efforts are greater among males than females<sup>40-43</sup>. For many harder outcomes, such as cause specific mortality, males in Scotland, as in the rest of Western Europe, have higher rates than females. However this 'gender health paradox'- where men have a mortality disadvantage but women have a morbidity disadvantage, at least in part due to having a longer life expectancy- has been shown previously<sup>44</sup>. The findings of the current study are supported by findings elsewhere in and across Scotland, where women are also more likely to report having a long term condition or illness<sup>11</sup>.

Almost a third (29%) of people with long term conditions in NHSGGC had a mental or emotional health problem, a greater proportion than in previous years<sup>21</sup>. Whether the findings relating to long term conditions and illness reflect health, health seeking behaviour or the increase in the prevalence of mental health conditions specifically, is not known but gives an indication of gender differences in health service use/demand. The next Thematic Report will consider long term conditions and multimorbidity in more detail.

Women's health and wellbeing was uniquely associated with risky alcohol use; women with an 'at risk' AUDIT score were more likely to have poorer mental health but better physical health. The causal direction of these associations is not known and further qualitative research is recommended to understand this association, especially given the rising alcohol-related mortality rate among females in Scotland in the last decade<sup>45</sup>. The prevalence of 'at risk' AUDIT scores is particularly high among 16-24 and 45-54 year old females. One impact of health service discrimination on health described previously is that the psychological stress experienced may lead to negative health behaviours as a coping mechanism<sup>33</sup>. This might therefore be again tied into the experiences of females of these age groups. Use of foodbanks, experience of domestic abuse and having caring responsibilities were also associated with a greater number of health and wellbeing outcomes for women than men. Health services should be made aware of these associations when engaging with women as well as knowledge and training in signposting available support.

A further theme that arises in our analyses is the importance of social capital and social connectedness to the health of women. Feeling they belong in their local area and can influence decisions were factors more often associated with health outcomes for females than males. Additionally, women were more likely to engage with services using the internet and less likely to have problems making an appointment with a dentist if they felt socially connected.

Interventions aimed at addressing loneliness and isolation among women is recommended and is in line with the Scottish Government's 'Communities Mental Health and Wellbeing Fund'<sup>46</sup>, which aims to support community connection in innovative ways. The findings also identify groups that might struggle to engage with health services, though only two types of engagement were included in the study and associations between health and online engagement, specifically, may be a reflection not only on accessibility but also on an individual's online usage more generally and digital expertise. Nevertheless, these findings may provide an insight into the characteristics of women within the population that experience barriers in accessing services.



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