



**NHS Lothian Public
Health Survey 2023**
Summary report

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NHS Lothian

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Background

“The social determinants of health are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.” [World Health Organization](#)

Good health should be the experience for everyone in our society. However, there are complex reasons why this is not the case. The circumstances in which we are born, live and work greatly influence our physical and mental health, yet access to and control over fundamental aspects of our lives, such as housing, employment, income and social opportunities are not experienced on an equal basis in society. [NHS Lothian’s Director of Public Health Annual Report 2022](#) highlighted particular challenges in these circumstances in recent years, owing to austerity, the COVID-19 pandemic and a cost-of-living crisis, with improvements in [average life expectancy stalling since 2013](#).

The [wide range of factors that impact on health](#) can be thought of as ‘building blocks’. The presence and quality of these blocks can have a positive effect on individuals and populations. Where building blocks are missing or weak, this can negatively impact on health and social circumstances, and these effects often persist across generations. For example, insecure or irregular employment can result in low income. Income impacts on the ability to afford good housing and to heat one’s home when necessary. Cold and damp living conditions can lead to respiratory conditions, or make existing health conditions worse, potentially leading to an inability to work, loss of income and poor mental health, such as symptoms of stress or anxiety.

Provision of, and access to, healthcare services is vital and can help mitigate the negative consequences of inadequate living and working conditions, but action on the building blocks of health themselves is essential to help prevent disease before it emerges. Prevention is a moral and professional duty of the healthcare system. There are also strong practical and financial arguments in favour of aiming to prevent ill health before it emerges. Practically, [NHS services across Scotland are facing unprecedented demand](#), and these pressures will continue to increase as populations age, and in [Lothian’s case, grow](#). Actions which lessen the demands placed on healthcare services will enable them to remain more accessible to those in greatest need. Financially, there is [compelling economic evidence](#) that the return on investment of preventative interventions is significantly greater than that spent on treating disease once it has emerged.

Executive summary

The Lothian Public Health Survey 2023 was conducted to improve understanding of the health, wellbeing and social circumstances of the Lothian population. Nearly 15,000 respondents across Lothian took part, allowing robust and representative analysis of the Lothian population and key groups within.

The initial analyses presented within this summary report confirm the existence of stark socioeconomic inequalities in health outcomes in Lothian, with those living in areas of deprivation typically experiencing worse health than those in more affluent areas. This is the case across a wide range of areas including mental health, experience of mobility issues and pain/discomfort. Striking socioeconomic inequalities are also observed in individuals' access to, and experience of factors known to affect health outcomes, such as perceptions of community safety, exposure to the private rental market and social supports.

The findings in this report also highlight that young people in Lothian often have worse experiences of many of the building blocks of health, with those aged 16 to 24 being more likely to encounter food and fuel poverty, be exposed to precarious employment, experience loneliness and have less satisfaction with the community they live in.

The report highlights areas where factors influencing health differ between males and females. For instance, females are less likely to feel safe in their community and are more likely to experience work-related stress. Conversely, males were less likely to consume fruit and vegetables and more likely to exceed alcohol consumption risk thresholds.

People's experience of the building blocks of health is also strongly patterned by their ethnicity, with non-white ethnic minorities being more likely to feel lonely, lack social support, experience poor quality housing, be employed on precarious contracts and have lower household income.

The analyses also highlight differences in health determinants between Lothian's local authority areas, such as higher levels of precarious employment in Edinburgh, lower levels of perceived community safety in West Lothian and lower levels of fruit and vegetable consumption in Midlothian and West Lothian.

These findings and further analyses of this rich survey dataset will be used alongside routine data to inform the strategic plans of NHS Lothian and its partners, ensuring that they reflect the current and future needs of local populations.

The analyses presented in this report highlight both an urgent need for short term mitigation and longer-term action targeting the building blocks of health. To address socioeconomic inequalities in health and its determinants, actions are needed by the health and care system and local partners to reduce poverty and mitigate its impacts, for example by ensuring easy access to specialist financial advice, crisis support and referral pathways.

As an [anchor institution](#), NHS Lothian has significant potential to influence the health of the local population for instance: through conscientious purchasing of goods, services and facilities; by using its buildings to support local communities; and by widening access to good quality employment.

Addressing the challenges posed by the consumption of unhealthy commodities such as alcohol and tobacco requires a multifaceted approach including recognition of the commercial influences on health. Action in this area could involve regulation of premises selling these commodities in addition to action on promotional activities which fall within local jurisdictions. Clear referral pathways to interventions such as smoking cessation services are also essential. Our survey data on perceived barriers to smoking cessation will help inform future delivery of such services.

Poor mental health outcomes, particularly among Lothian's young adult population are observed in the context of [long-term deterioration of child and adolescent mental health and wellbeing nationally](#). There is clear evidence to show that addressing this challenge requires action across the building blocks of health such as improving the security, quality and affordability of housing, providing opportunities for people to connect with others in their communities, as well as delivery of high-quality specialist mental health services. A preventative approach also requires early identification and treatment of mental health problems during pregnancy, with [maternal mental health being a vital foundation for child health and development](#).

NHS Lothian will continue to engage with partners in the local health and care system and provide leadership to help improve equitable access to the building blocks of health across the region, to reduce the burden of disease and inequalities in health and wellbeing.

Introduction



Introduction

In order to enable NHS Lothian and its partners to act on the building blocks of health, it is important to understand the nature and distribution of social and economic factors which influence health, alongside information about inequalities in population health and wellbeing outcomes. NHS Lothian routinely uses information on access to its services, and national statistics to understand population health. However, there are gaps in our knowledge, particularly relating to how the building blocks of health vary within and across Lothian.

The Lothian Public Health Survey 2023 was conducted to fill some of these knowledge gaps by providing a snapshot of the health, wellbeing and social circumstances experienced across and within its four local authority areas. The survey was commissioned by NHS Lothian in partnership with the University of Edinburgh. Survey fieldwork was conducted by ScotCen between March and September 2023.

The 2023 survey was completed by 14,825 individuals and included questions on the following topics:

- demographics (e.g., age, sex, ethnicity)
- income, employment and education
- housing and the local area
- mental well-being
- health-related quality of life
- exercise, diet, alcohol and smoking
- physical and mental health conditions
- accessing health services (including screening)
- coronavirus (COVID-19)

The survey was designed to produce accurate estimates for Lothian and its individual local authority areas. Full information on the survey methodology, including a copy of the questionnaire itself, is available on NHS Lothian's website as a separate technical report.

This summary report presents key findings from the survey, focusing on differences in people's experience of the building blocks of health, and in health outcomes by age, sex, deprivation and local authority.

This report presents initial descriptive analyses using data from the Lothian Public Health Survey 2023. Future work by NHS Lothian and its partners in academia and the public sector will be conducted to further understand associations between health outcomes and the building blocks of health.

Understanding this report

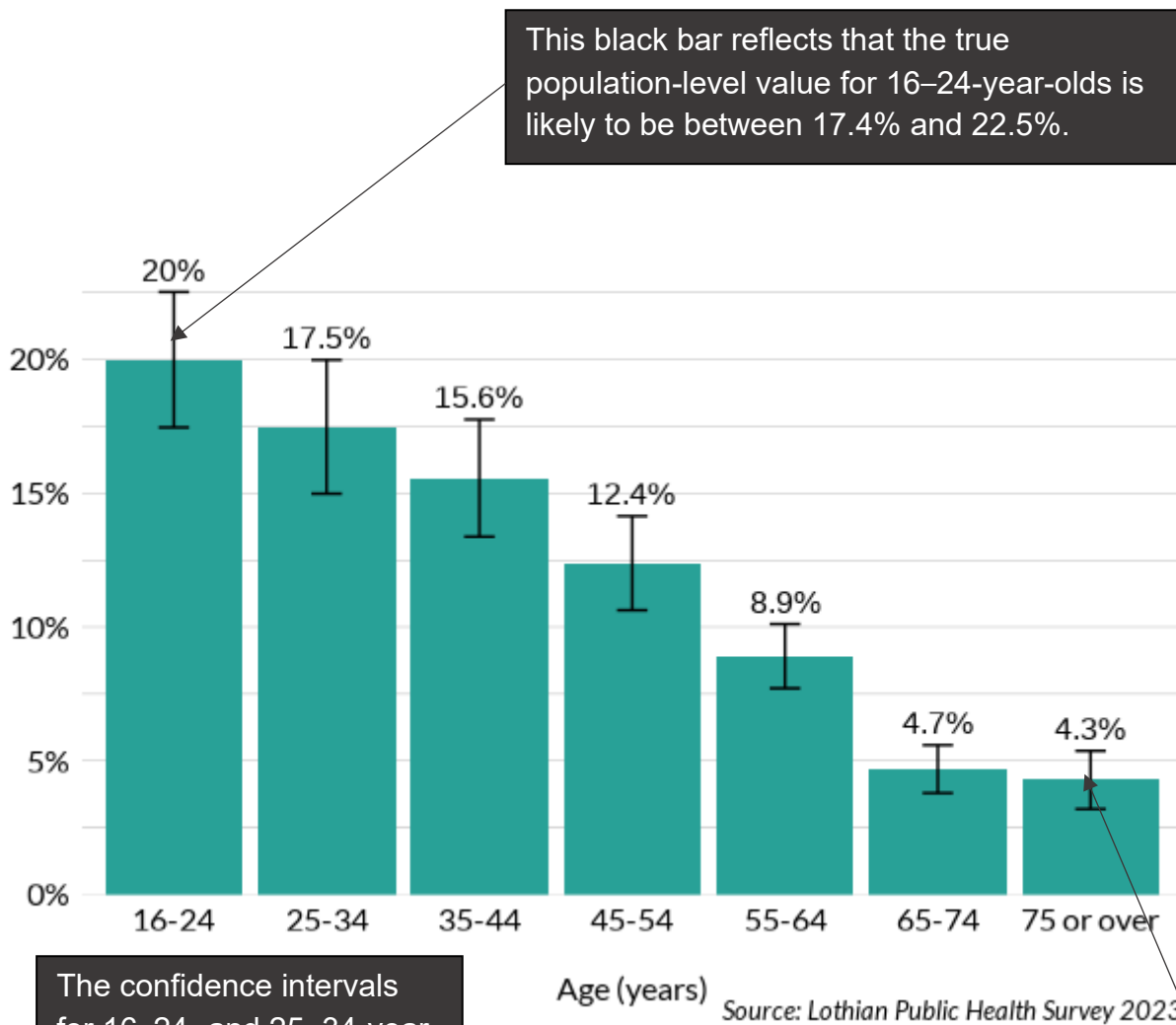
The Lothian Public Health Survey 2023 was completed by a representative sample of Lothian's population.

Where analyses are presented by deprivation categories, responses are grouped by [2020 Scottish Index of Multiple Deprivation \(SIMD\) national rankings](#), either as deciles (ten groups from the most deprived 10% to the least deprived 10%) where the number of responses permits, or quintiles (five groups of 20%). It is important to note that SIMD is an area-based measure, rather than an individual-based measure. As such, it does not necessarily reflect the socioeconomic deprivation of individuals (i.e., a proportion of individuals living in more affluent areas may themselves be socioeconomically deprived, and vice-versa).

The analyses presented in this report are estimates of results for the whole population, around which there are boundaries of precision (called confidence intervals) within which the 'true' result lies. 95% confidence intervals are used throughout this report. 95% is commonly used as a standard confidence level in significance testing, which strikes a balance between precision and the ability to draw conclusions from a given dataset. A higher degree of confidence (e.g., a 99% confidence interval) would necessitate wider intervals to encompass the range of values that we are 99% confident that true population value lies in.

Graphs throughout this report indicate the precision of estimates with small black bars (see example in Figure 1). The width of confidence intervals is influenced by the sampling methodology, and the distribution and number of responses in a certain category (with fewer responses leading to wider/less precise estimates, and vice-versa). Where the confidence intervals for two groups (age groups in the example below) overlap, this indicates that we cannot be sure there is a 'true' population difference between these groups. Descriptions of findings throughout this report focus on where these intervals indicate that any differences are likely to be genuine population differences (i.e., a statistically significant difference and not due to random or chance variation).

Figure 1 – Confidence interval example (percentage reporting food insecurity in the last 12 months, by age group)



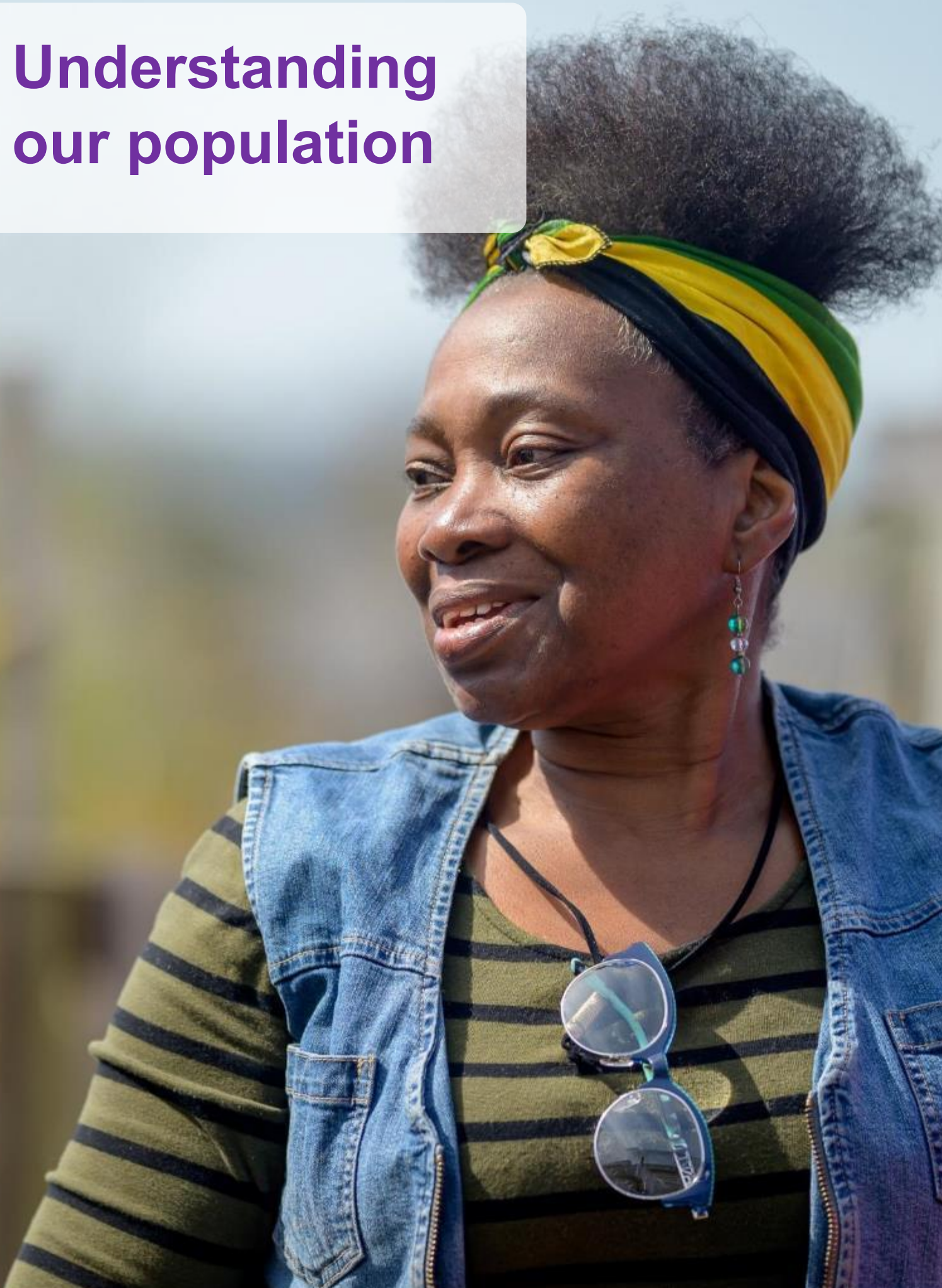
This black bar reflects that the true population-level value for 16–24-year-olds is likely to be between 17.4% and 22.5%.

The confidence intervals for 16–24- and 25–34-year-olds overlap, meaning we cannot be sure there is a true difference between these groups.

This black bar reflects that the true value likely lies between 3.2% and 5.4% for those aged 75 or over.

As the confidence interval for 16–24-year-olds does not overlap with that for those aged 75 or older, we can be confident that there is a true difference in the experience of food insecurity between these two age groups.

Understanding our population



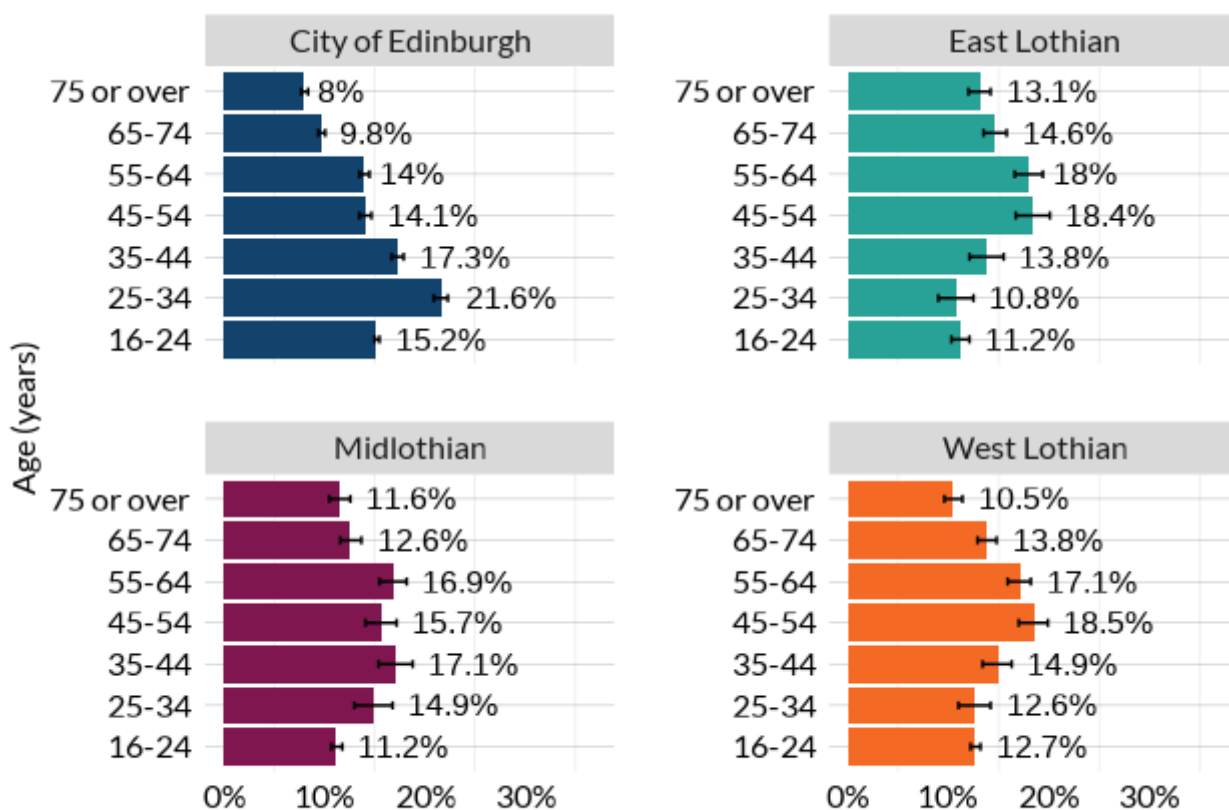
Understanding Lothian’s population

All estimates used in this report are based on weighted responses to ensure representativeness of Lothian’s population with respect to its age, sex, deprivation and local authority distribution. This section provides a brief overview of the weighted sample’s demographic characteristics which, by virtue of the weighting applied, approximate the characteristics of the Lothian population as recorded in the [2022 Scottish census](#).

Age

Figure 2 shows the age distribution by local authority. The average age ranges from 44.9 years in City of Edinburgh to 51.5 years in East Lothian. Midlothian and West Lothian have approximately equal average ages of 49.5 years. Females were on average slightly older at 47.5 years compared to the male average of 46.6 years.

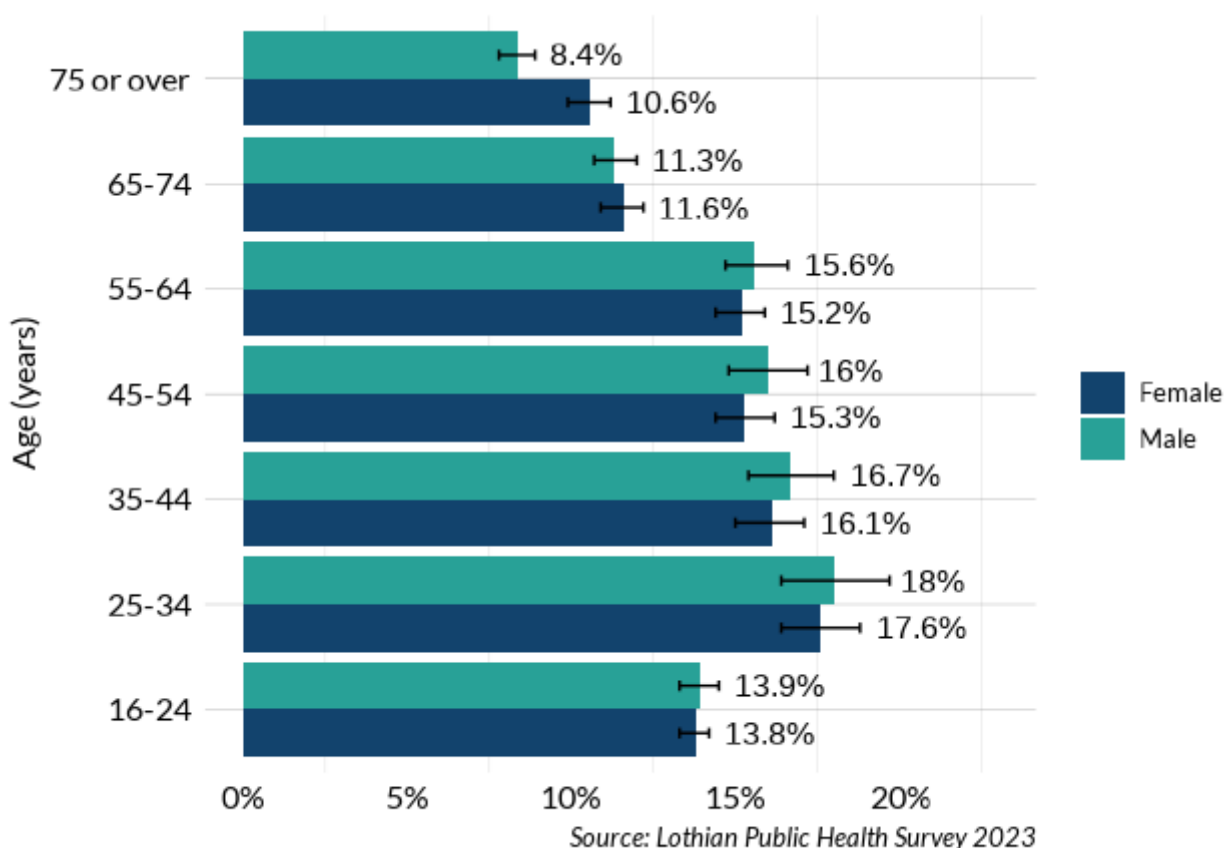
Figure 2 - Percentage in each age group, by local authority



Source: Lothian Public Health Survey 2023

Across Lothian, the proportion of males and females in each age group is similar (Figure 3), except in the oldest age group, where 10.6% of females are aged 75 or over compared to 8.4% of males.

Figure 3 - Percentage in each age group, by sex



Sex

Females make up a slight majority of the total sample (52.0% compared to 48.0% being males). A similar sex distribution is observed across local authority areas, and across SIMD quintiles (except within the most deprived areas (SIMD quintile 1), where the sex distribution is closer to being equal between males and females).

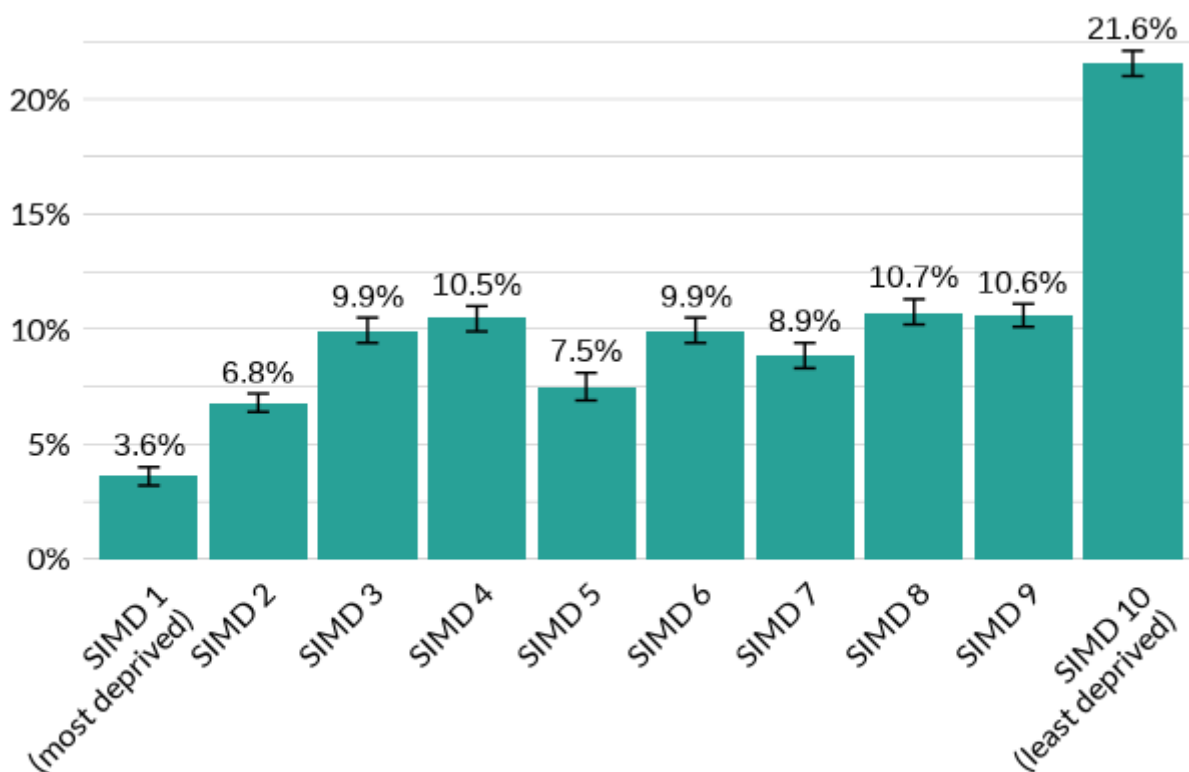
Transgender history

Overall, 135 people identified as transgender, which ranges from 0.5% of the population in East Lothian to 1.1% of the population in City of Edinburgh and West Lothian. Owing to the relatively small sample of trans individuals, there are wide margins of uncertainty around any estimates for this group, making applicability to the whole trans population in Lothian difficult. Further, with most trans people (79.4%) being aged under 35 years, analyses of this group may be largely driven by age (i.e., the findings may reflect the patterns shown by Lothian's population of under 35 year-olds, rather than reflecting any unique association with transgender status). Where analyses by trans status are conducted with data from this survey, it is important to bear these limitations in mind. Internal analyses are being conducted amongst the sample of trans individuals to help inform Lothian's services and policies.

Deprivation

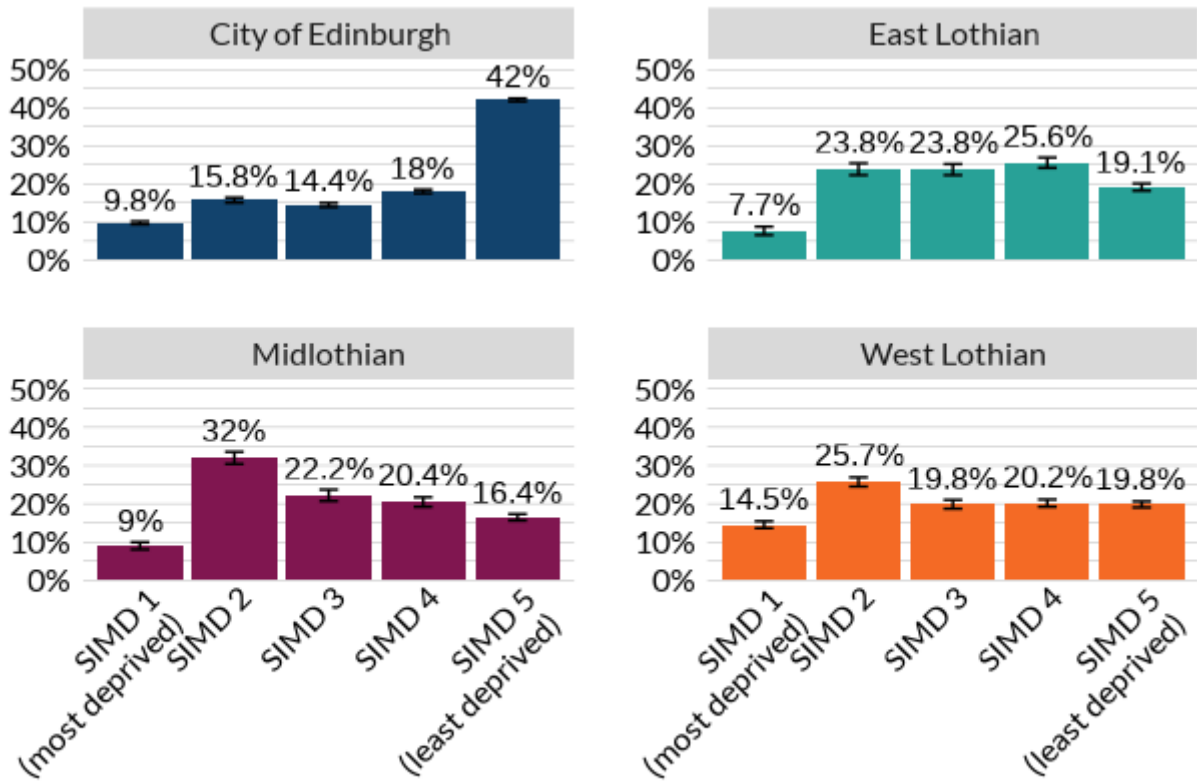
Figure 4 shows the proportion residing within each deprivation decile, with the largest proportion (21.6%) of Lothian’s population living in Scotland’s least deprived areas (SIMD decile 10). Figure 5 highlights that the Lothian-wide distribution of deprivation is skewed by the high proportion from City of Edinburgh living in Scotland’s least deprived areas (SIMD quintile 5), with proportionately more individuals living in Scotland’s most deprived areas (SIMD quintiles 1–2) in Midlothian and West Lothian.

Figure 4 - Percentage in each SIMD decile



Source: Lothian Public Health Survey 2023

Figure 5 - Percentage in each SIMD quintile, by local authority



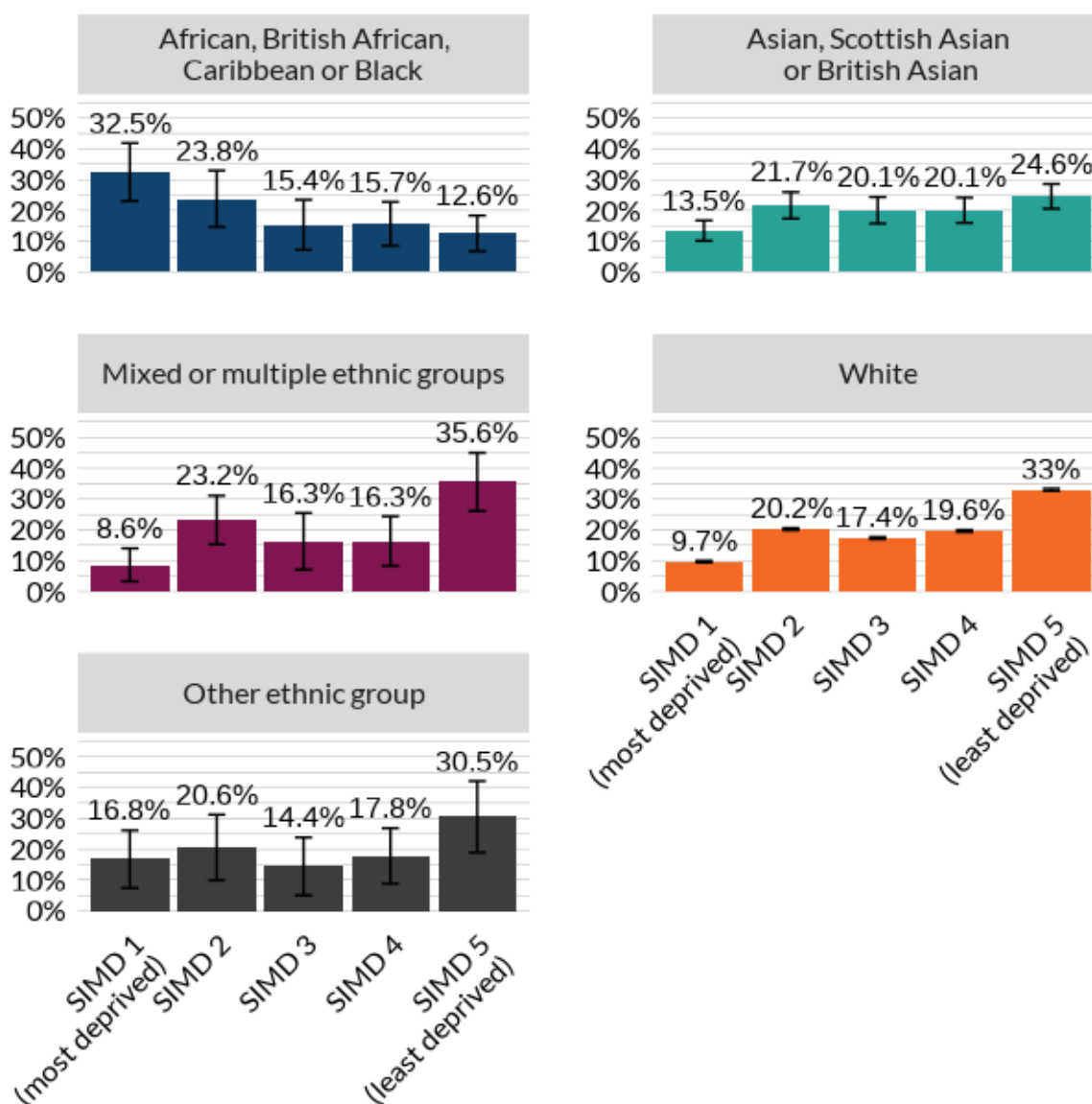
Source: Lothian Public Health Survey 2023

Ethnicity

In terms of the ethnic background of the entire population, 89.6% are white, and the next largest ethnic group is Asian, Scottish Asian or British Asian comprising 6.1%. The other ethnic groupings each comprise less than 2%. The smaller number in non-white ethnic groups means that there is a high degree of imprecision, and risk of disclosure when splitting analyses by ethnic group. Where possible, ethnic groups represented by fewer people are combined to allow comparison with white people.

Figure 6 shows the distribution of deprivation by ethnicity. While white people are disproportionately more likely to live in the least deprived areas (SIMD quintile 5), this pattern is reversed for African ethnicities, and not as pronounced for Asian ethnicities.

Figure 6 - Percentage in each SIMD quintile, by ethnicity



Source: Lothian Public Health Survey 2023

Building blocks of health



Building blocks of health

The building blocks of health are a wide range of factors that together form the foundations of good health and wellbeing. There are often stark inequalities in access to, and experience of these factors across the population, for example by age, sex and deprivation.

This section focuses on how key building blocks are distributed across Lothian, with the aim of identifying gaps in access to these fundamental supports of population health and wellbeing.

This section includes analyses on levels of loneliness and social support, which have been affected by the COVID-19 pandemic and the cost of living crisis, and are [intimately related to mental health](#). Aspects of housing such as quality and ownership are explored as there is good evidence that poor housing conditions (such as damp, mould and noise) are associated with [mental and physical health conditions](#). Perceptions of individuals' local communities are presented, with aspects such as [perceived safety](#) having implications for mental health, physical health and access to the various supportive elements of one's local area. Elements of poverty and material deprivation ([fuel](#) and [food](#) poverty) are examined, which are key risk factors for negative health consequences, particularly respiratory and cardiovascular diseases and poor mental health. Aspects of individuals' economic and employment circumstances are also explored as important causes of health inequalities, with [educational attainment](#), and fair-paying, rewarding [employment](#) being closely linked with health outcomes.

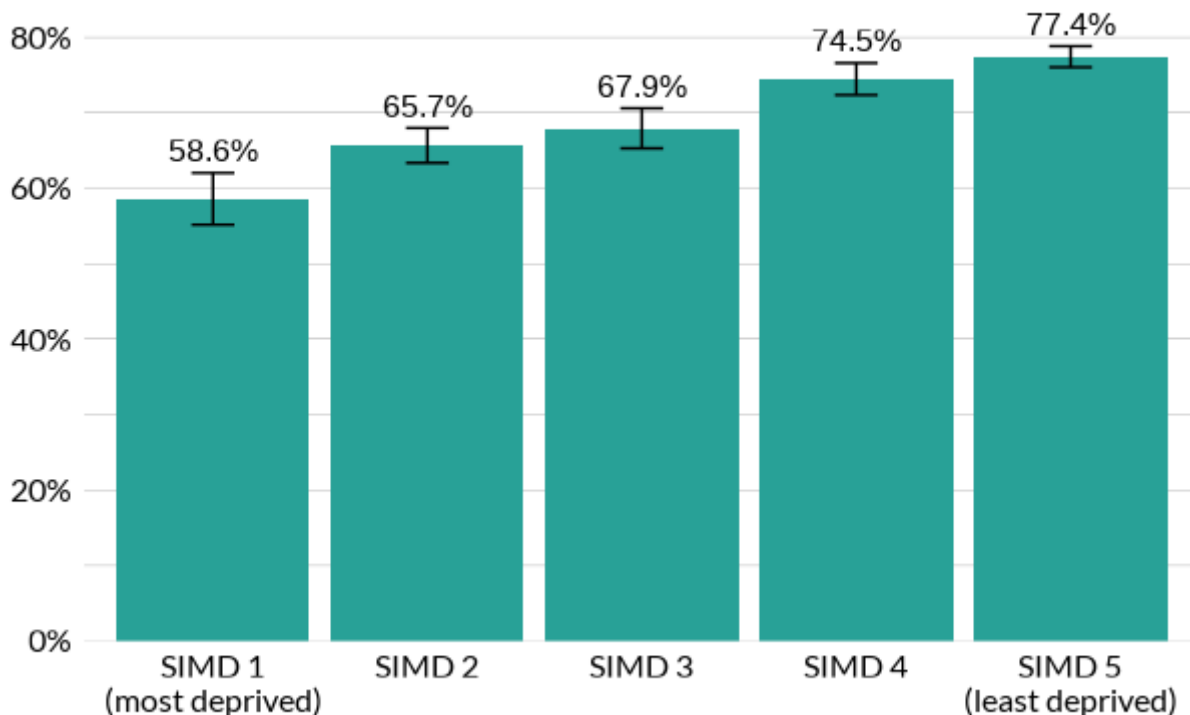
Social support

When asked how many people they could rely on for support in a personal crisis, 70.9% reported having a support group of three or more, and 2.8% reported having nobody they could rely on. Levels of reported social support were slightly lower in West Lothian than in Edinburgh and East Lothian (68.1% in West Lothian versus over 71% in City of Edinburgh and East Lothian).

Females were more likely than males to report having a social support network, with 73.3% of females reporting having three or more people to rely on, compared to 68.2% of males. Social support was lowest in people aged 45–54 years (65.9%), who were less likely than every other age group except people aged 34–44 to report having a social support group of three or more. Other age groups ranged from 70.8% in the 55–64 age group to 75.4% in the 65–74 age group.

Having a social support network was negatively associated with deprivation (Figure 7). In the most deprived areas (SIMD quintile 1), 58.6% reported having a social support network of three or more compared with 77.4% of those living in the least deprived areas (SIMD quintile 5).

Figure 7 - Percentage reporting a social support group of three or more, by SIMD quintile



Source: Lothian Public Health Survey 2023

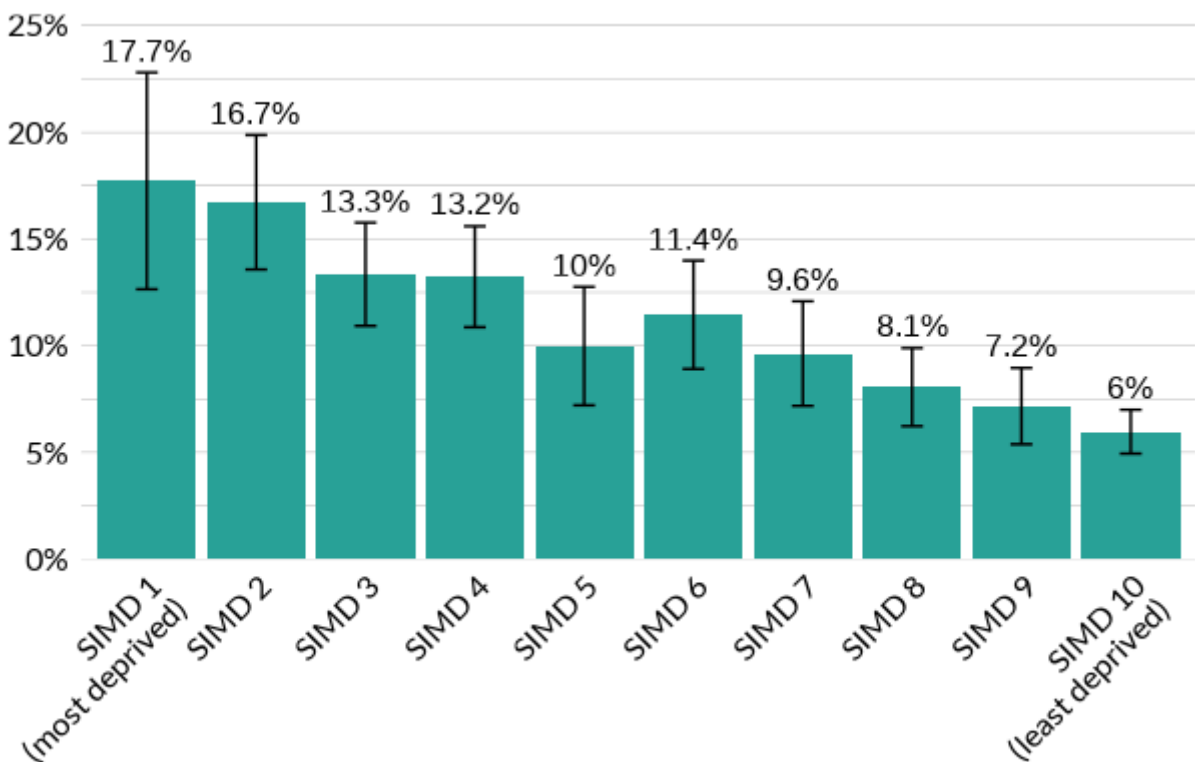
There was some evidence of differences in social support by ethnicity, with white people being more likely to have a social support network of three or more than those from Asian, African and other ethnic backgrounds. Nearly three quarters of white people (72.8%) reported having a social support group, compared with 55% of Asian people, 49.4% of African people, and 51.2% of those from “Other” ethnic groups.

Loneliness

While over half reported feeling lonely none or almost none of the time (55.9%), over one in three people in Lothian (33.9%) reported feeling lonely some of the time and 10.1% reported feeling lonely most or all of the time, mirroring national statistics collected by the [2022 Scottish Health Survey](#). Also reflecting the national picture, younger people were more likely to feel lonely most or all of the time than older people (18.3% of 16–24 year olds, compared to values ranging from 5.0% in the 65–74 age group to 11.7% in the 25–34 age group).

People living in the most deprived areas (SIMD decile 1) were more likely than people living in the least deprived areas (SIMD decile 1) to report feeling lonely most or all of the time (17.7% versus 6.0%, respectively, Figure 8). Differences in loneliness by deprivation were equivalent across all local authority areas. There were no differences by sex or local authority in reported loneliness.

Figure 8 - Percentage reporting feeling lonely “most” or “all of the time”, by SIMD decile

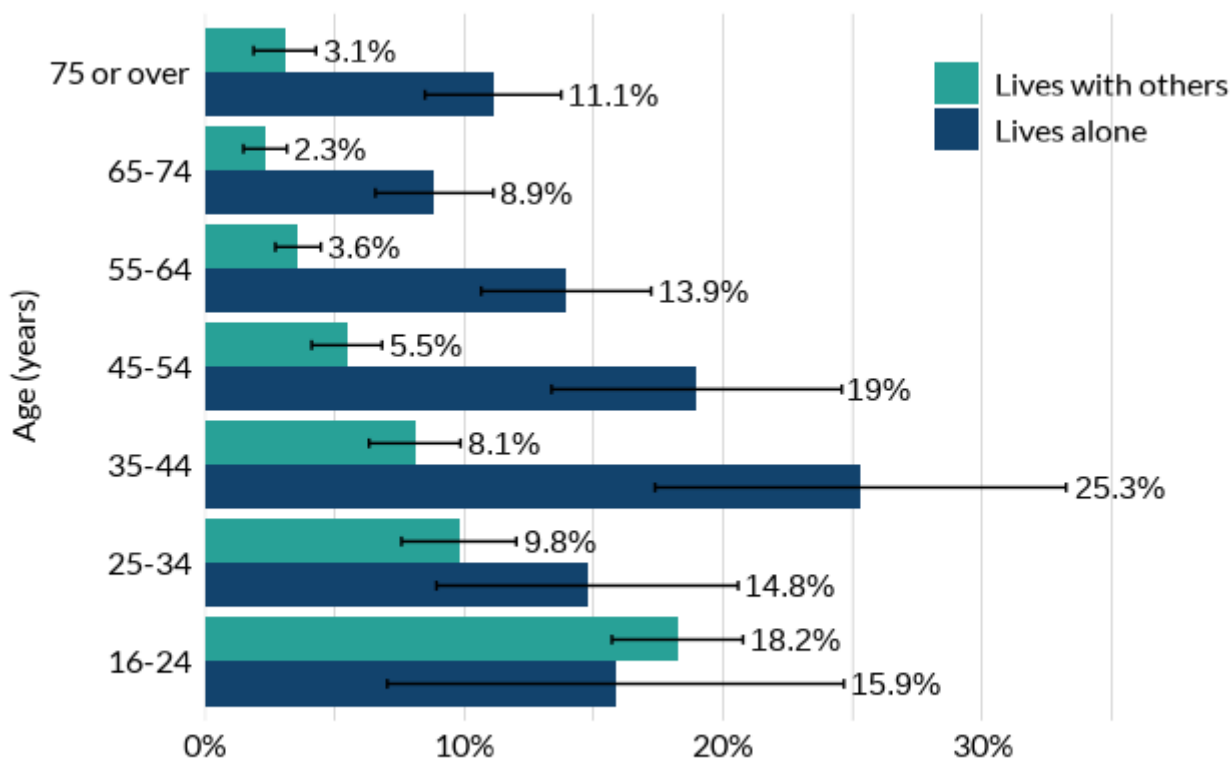


Source: Lothian Public Health Survey 2023

There was evidence that people from some ethnic backgrounds were more likely to report feeling lonely when compared with white people. 15.2% of Asian people and 21.4% of those from “Other” ethnic groups reported feeling lonely most or all of the time compared with 9.5% of white people. Around one quarter (26.0%) of transgender people reported feeling lonely most or all of the time compared to 9.9% of those that did not identify as transgender.

Amongst younger people (aged 16–34 years), loneliness did not differ depending on whether they lived alone or with others, but frequent loneliness was higher among older individuals (aged 34 or over) living alone, compared to those that lived with others (Figure 9).

Figure 9 - Percentage reporting feeling lonely “most” or “all of the time”, by age group and household composition

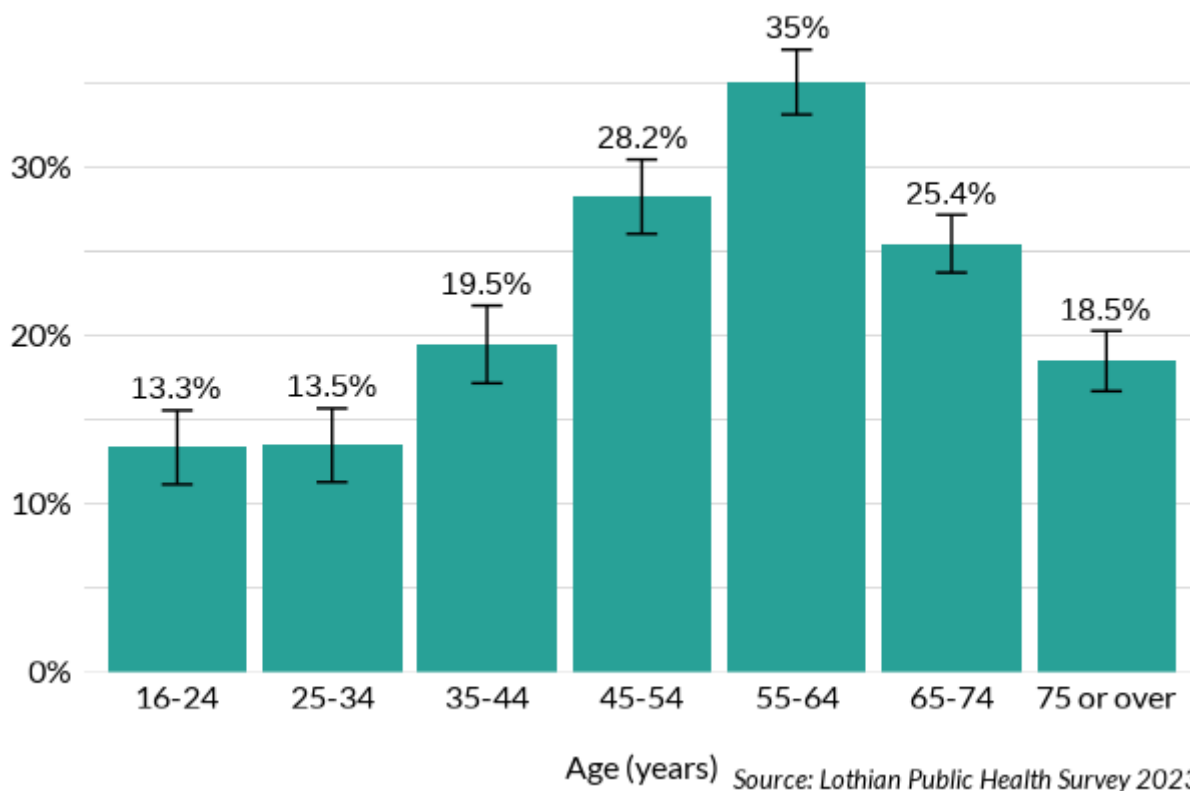


Source: Lothian Public Health Survey 2023

Caring responsibilities

Around one in five (22.0%) said they provided weekly care to someone for long-term physical or mental ill-health, disability or problems relating to old age, with 5.4% of reporting that they provided 20 or more hours of weekly care. More females (23.6%) than males (20.2%) reported that they provided any level of weekly care. The proportion providing regular care was greater in older age groups, peaking at 35.0% in the 55–64 years age group before decreasing again in those aged 65 or over (Figure 10).

Figure 10 - Percentage providing any level of regular care, by age group



Those living in City of Edinburgh were less likely to provide regular care compared with people living elsewhere in Lothian. Around one in five (19.3%) of those living in City of Edinburgh reported being carers, whilst this ranged from 24.8% in Midlothian to 26.7% in East Lothian. These differences remained when the different age profile of each local authority area was taken into account (via age standardisation), therefore the differences do not appear to be solely due to the higher proportion of working-age population in City of Edinburgh.

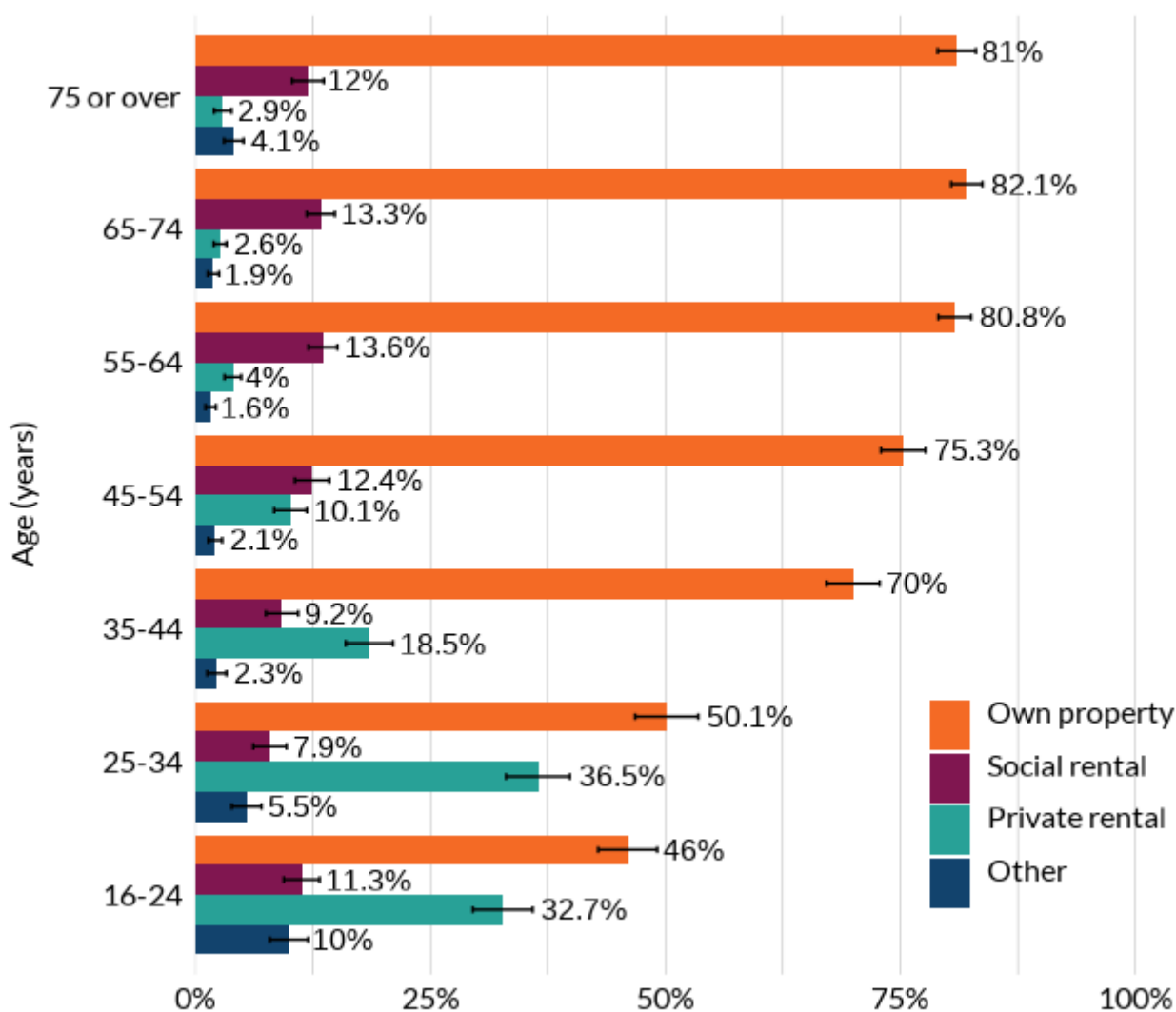
A higher proportion of white people (22.5%) provide regular care compared to African (11.0%) and mixed/multiple (14.8%) ethnic groups. There were small differences in caring status by SIMD decile with those living in the second-most deprived areas (26.6%) being more likely to provide regular care than those living in the fifth-most (19.0%), seventh-most (19.3%) and least deprived areas (21.2%).

Home ownership

Most people in Lothian (68.3%) reported living in owned accommodation (including either owning outright or through a mortgage), 16.6% lived in private rentals, 11.2% in social rentals, and 3.8% in other types of housing.

Those living in owned accommodation were older, with over 80% of those aged 55 years or over living in owned accommodation, compared to less than half of those aged between 16 and 34 years (Figure 11). Older people were also less likely to be living in private rentals (4% or less for those 55 and over), with living in social rental accommodation being more common (around 12% or higher) after the age of 55 years. There were no differences in housing tenure by sex.

Figure 11 - Percentage of housing tenure types, by age group



Source: Lothian Public Health Survey 2023

Those living in City of Edinburgh were less likely than those living in all other localities to live in owned accommodation (62.0% in City of Edinburgh versus between 74.9% and 79.5% elsewhere in Lothian). People in City of Edinburgh were also the most likely to be living in private rentals, with 24.4% living in private rentals compared to 4.6% in Midlothian, 6.1% in West Lothian and 6.2% in East Lothian. Outside of City of Edinburgh, where a person is renting, they were more likely to be renting socially rather than privately. Conversely, in City of Edinburgh, renters were far more likely to be renting privately.

Those living in less deprived areas were more likely to live in owned accommodation when compared with people living in more deprived areas. Around one third (30.7%) of those living in the most deprived areas (SIMD decile 1) lived in owned accommodation compared to 79.1% of people living in the least deprived areas (SIMD decile 10).

White people were more likely to live in owned accommodation when compared to all other ethnicities. The majority (71.8%) of white people lived in owned accommodation compared to other ethnic groups, which ranged from 24.9% of African, British African, Caribbean or Black people to 43.6% of those from mixed or multiple ethnic groups. All ethnic groups were more likely to live in private rentals than social rentals except for Black, African, Caribbean or Black renters, who were equally as likely to be in either kind of rental.

Housing quality

Most people in Lothian reported that their housing quality was good or very good (90.7%). Those living in City of Edinburgh (88.7%) and West Lothian (91.1%) were less likely to rate their house quality as good/very good when compared with people living in East Lothian (95.0%) or Midlothian (95.5%).

People living in the least deprived areas were more likely to rate their housing as good/very good. While 95.6% of those living in the least deprived areas (SIMD decile 10) reported living in good quality housing, this was 73.8% of those living in the most deprived areas (SIMD decile 1). The relationship between deprivation and housing quality was present across all local authorities (Figure 12).

Older people reported that they lived in good quality housing more often than younger individuals, with 86.7% of those aged 16–24 years reporting good or very good housing, compared to 97.3% of those aged 75 or over. There were no differences in reported housing quality when stratifying by sex.

White people were more likely than those from all other ethnicities to report living in good or very good housing. 92.3% of white people lived in good quality housing compared to other ethnicities, which ranged from 63.3% of those from “Other” ethnic groups to 80.0% of Asian people.

Figure 12 - Percentage reporting good housing quality, by local authority and SIMD quintile



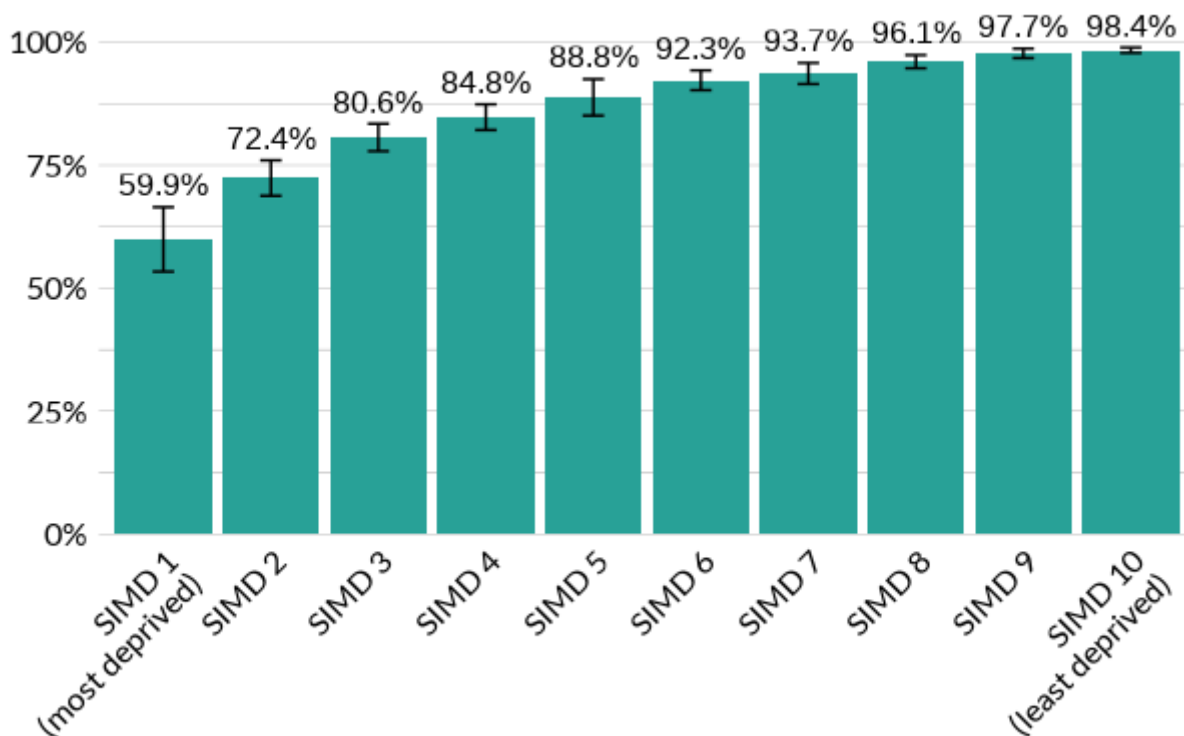
Source: Lothian Public Health Survey 2023

Community satisfaction

Most people in Lothian reported that their community was a good or very good place to live (90.0%). Those aged over 55 were more likely to rate their community as a good place to live when compared with younger age groups. This ranged from 92.5% of 55–64 year-olds to 93.8% amongst over 75s. Comparatively, this ranged from 86.8% in the 25–34 years age group to 89.0% amongst those aged 16–24 years. There were no differences in community satisfaction by sex.

People living in West Lothian (87.7%), Midlothian (89.8%), and City of Edinburgh (90.1%) were less likely to rate their community as a good place to live than people living in East Lothian (93.3%). The proportion rating their community as a good place to live rose sharply with decreasing deprivation, with 59.9% of those living in the most deprived areas (SIMD decile 1) reporting this, compared to around 90% or above in less deprived areas (SIMD deciles 6 to 10, Figure 13).

Figure 13 - Percentage rating their community as a “good” or “very good” place to live, by SIMD decile



Source: Lothian Public Health Survey 2023

Those with a transgender history (73.4%) were less likely to rate their community as a good place to live when compared with people that did not identify as transgender (90.4%), however this may in-part reflect that the sample of transgender people is on average younger than those that did not identify as transgender.

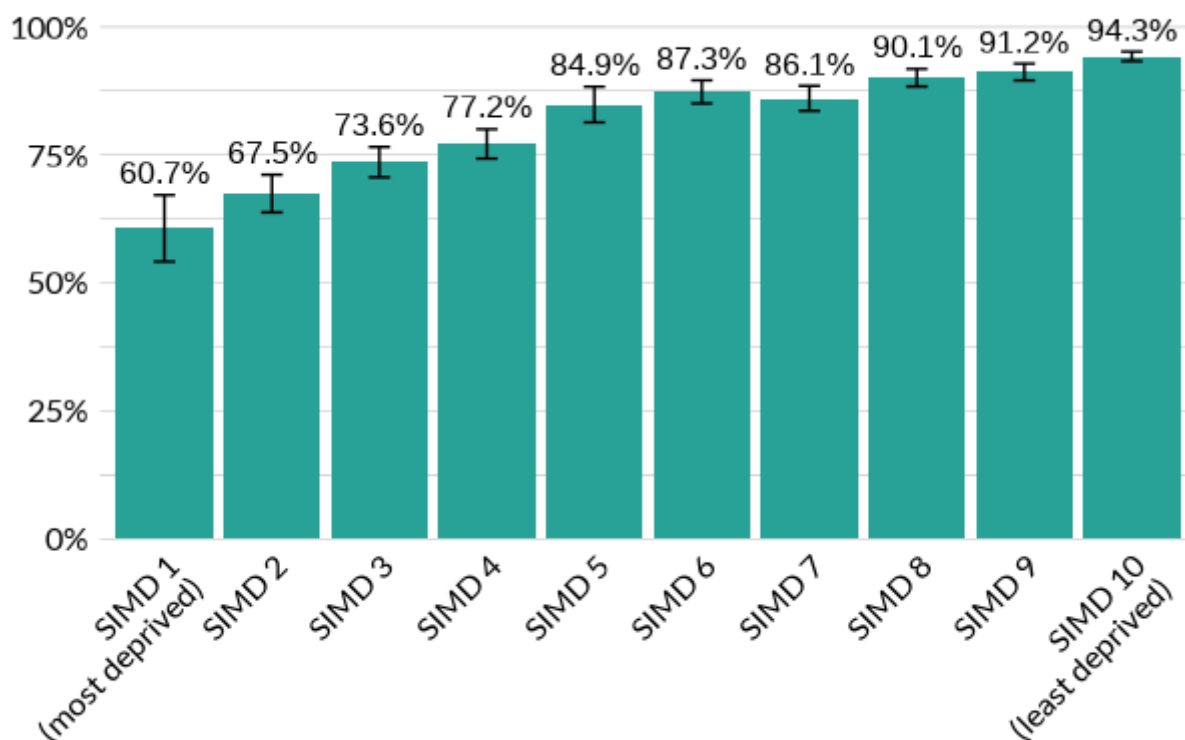
Asian people (84.3%) were less likely to rate their community as a good place to live when compared with white people (90.6%). There were no differences between white people and "Other" ethnic groups.

Community safety

Across Lothian, 84.6% rated their local community as a safe or very safe place to live. People living in East Lothian were more likely to perceive community safety (88.7%) when compared to those living in other Lothian local authorities. Conversely, people living in West Lothian (80.0%) were less likely to rate their community as safe or very safe.

The proportion of people rating their community as safe or very safe rises as deprivation decreases (Figure 14). This pattern is observed across all of Lothian’s local authority areas. Note that recorded crime rate is one of [eight factors that determines SIMD deprivation rankings](#) (specifically including the rate of assault, domestic break-ins and vandalism). Therefore an association between SIMD and the perception of community safety is likely to be slightly reduced if the crime component were to be removed.

Figure 14 - Percentage rating their community as “safe” or “very safe”, by SIMD decile



Source: Lothian Public Health Survey 2023

Males (90.9%) were more likely than females (78.7%) to rate their community as a safe or very safe place. People with a transgender history (69.1%) were less likely to rate their community as safe or very safe when compared with those that did not identify as transgender (84.9%). There were no differences in perceived community safety by ethnicity.

Fuel poverty

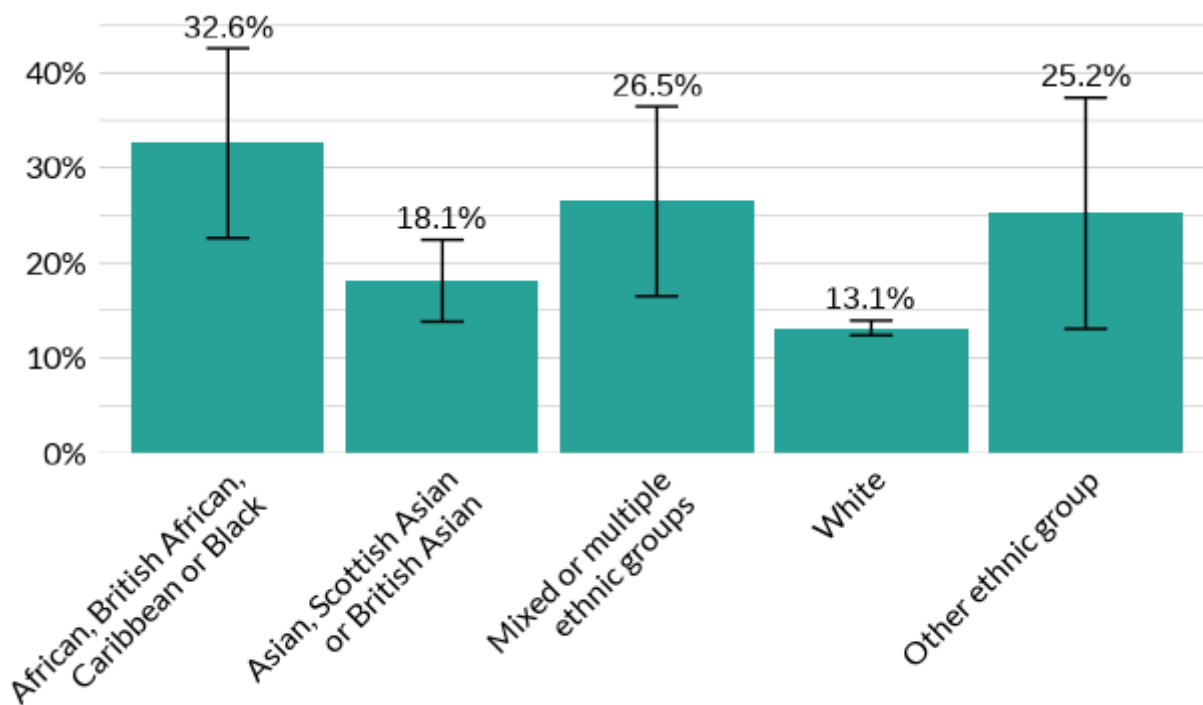
Across Lothian, 14.2% reported that there was a time when they felt unable to heat their home or cook food in the past 12 months, because of a lack of money or resources. Fuel poverty was highest in West Lothian at 15.3% and lowest in East Lothian at 11.8%. By comparison, the [2022 Scottish House Condition survey](#) (using an objective measure of fuel poverty based on income and fuel costs) found that 31% of all households in Scotland were in fuel poverty, with 18.5% in extreme fuel poverty.

Fuel poverty is strongly associated with deprivation in Lothian, with 27.0% of those living in the most deprived areas (SIMD quintile 1) feeling unable to heat their homes or cook in the past 12 months, compared to 8.7% in the least deprived areas (SIMD quintile 5).

The proportion experiencing fuel poverty decreases with age from 18.8% of those aged 16–24 years to 7.7% of those aged 75 years and over. There was no difference in the experience of fuel poverty by sex, overall or in any of Lothian’s local authority areas.

Fuel poverty is also associated with ethnicity, with all other ethnicities being more likely than white people to experience fuel poverty. While 13.1% of white people experienced fuel poverty, this was higher for African, Scottish African, British African, Caribbean or black people (32.6%, Figure 15).

Figure 15 - Percentage experiencing fuel poverty in the last 12 months, by ethnicity



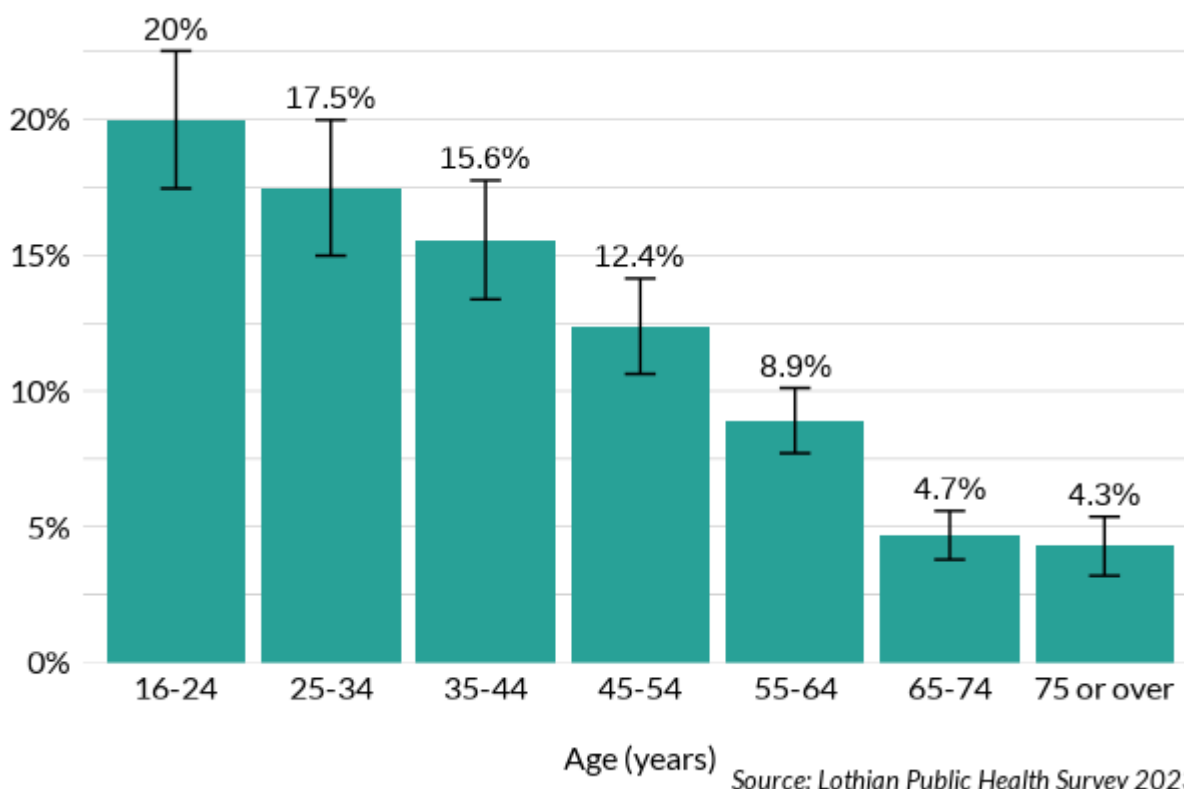
Source: Lothian Public Health Survey 2023

Food insecurity

Overall, 12.6% reported that during the last 12 months there was a time when they were worried they would run out of food because of a lack of money or resources. The proportion experiencing food insecurity was slightly different between East and West Lothian with 10.5%, versus 14.4% reporting food insecurity, respectively. For comparison, the most recent national data on food insecurity from the [Scottish Health Survey \(2021\)](#) indicate that 9% of adults in Scotland had concerns about food insecurity.

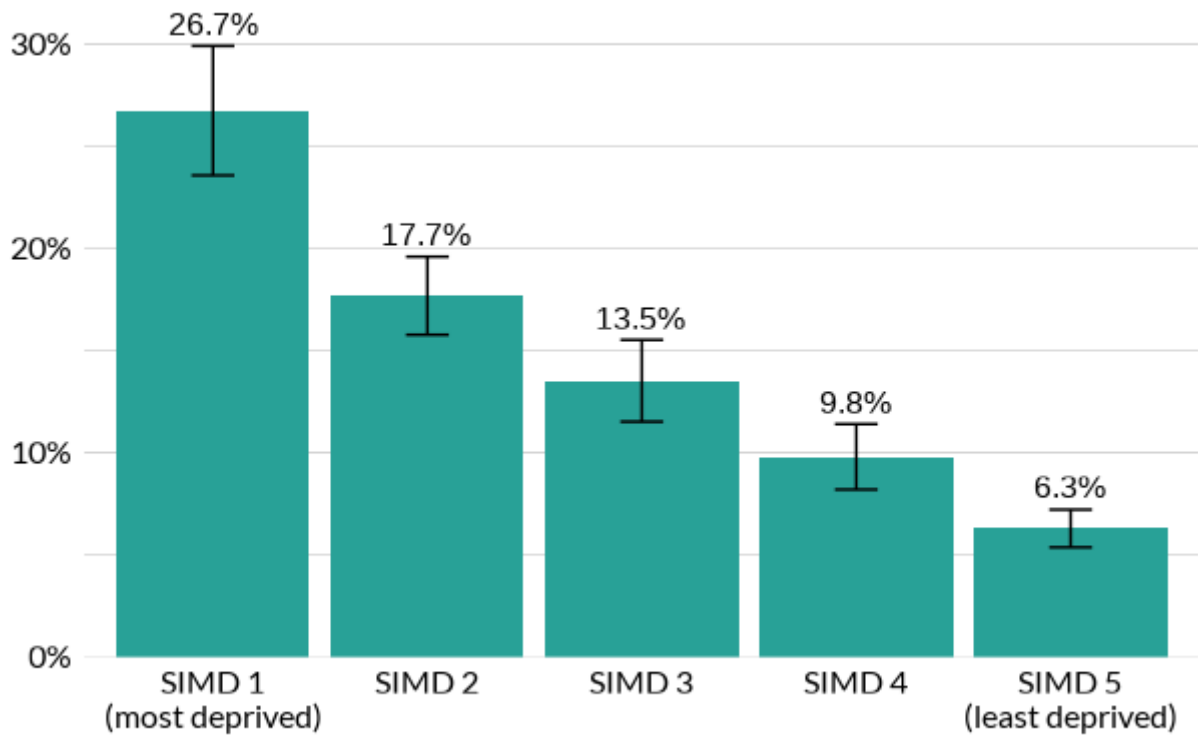
There was no difference by sex with equivalent numbers of males and females experiencing food insecurity across Lothian, and this was the case across all local authority areas. Food insecurity steadily decreases with age (Figure 16), with 20.0% of 16–24 year olds reporting food insecurity compared with 4.3% of those aged over 75 years.

Figure 16 - Percentage experiencing food insecurity in the last 12 months, by age group



Area deprivation was strongly associated with food insecurity (Figure 17), with 26.7% of those living in the most deprived areas (SIMD quintile 1) experiencing food insecurity, compared with 6.3% of those living in the least deprived areas (SIMD quintile 5).

Figure 17 – Percentage experiencing food insecurity in the last 12 months, by SIMD quintile



Source: Lothian Public Health Survey 2023

Compared to white people, all other ethnic groups (except mixed/multiple ethnicity) were more likely to experience food insecurity. While 11.5% of white people reported that they experienced food insecurity in the last 12 months, over one third (33.8%) of the African, Scottish African, British African, Caribbean or black ethnic group did so.

Education

Across Lothian, 7.6% stated that they had no formal education, 12.6% obtained standard grade, GCSE or equivalent education as their highest level of education, 16.9% obtained higher or 'A' level education and 53.8% have a university degree or professional qualification.

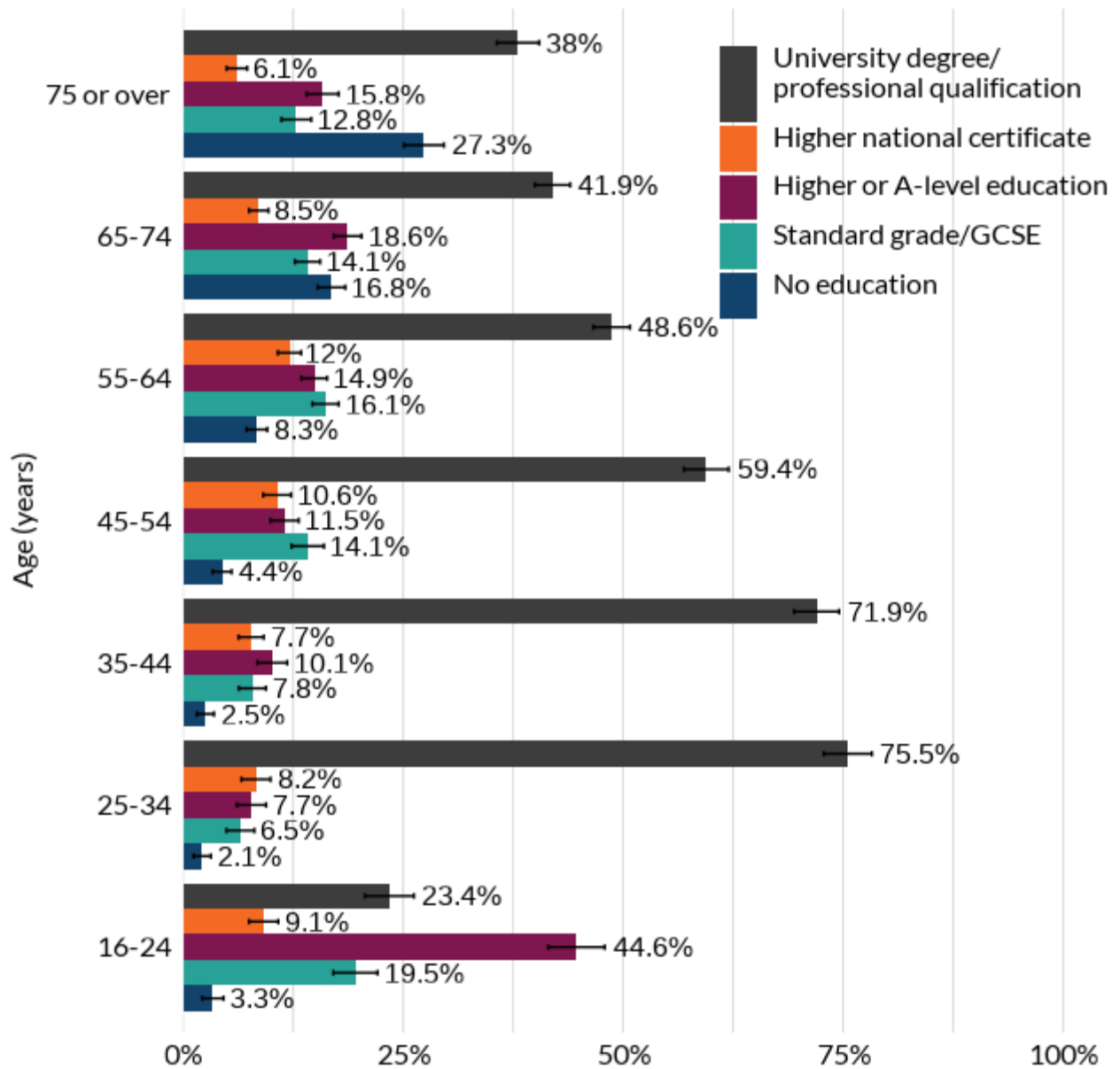
There was no difference in the proportion having a university or professional degree by sex. Those living in City of Edinburgh were more likely to have a university or professional degree with 62.2% having this type of qualification. The lowest proportion was seen in West Lothian (39.2%).

Figure 18 shows educational level by age. Over one quarter (27.3%) of those aged 75 years or older reported they have no formal education, larger than in any other age group (particularly 25–34 year olds where 2.1% reported having no formal education). With the exception of 16–24 year olds (many of whom are still likely to be in education) those aged 75 and over are least likely to have a degree-level qualification at 38.0% compared to 75.5% of 25–34 year olds.

Deprivation is negatively associated with reported educational attainment. Around one third (31.4%) of those living in the most deprived areas (SIMD quintile 1) report having a degree compared with 65.2% of those living in the least deprived areas (SIMD quintile 5). Conversely, 18.4% of those living in SIMD quintile 1 report having no formal education compared with 3.7% of those in SIMD quintile 5. Note that education (specifically school attendance, attainment, qualifications and post-school destinations) forms a minor part of the SIMD 2020 ranking criteria, therefore an association between SIMD and educational level is likely to be slightly reduced if the education component were to be removed.

By ethnicity, those who selected "Other" were most likely to have a degree or equivalent qualification, with 75.3% reporting this. These individuals, and Asian ethnic groups (66.3%) were more likely to have a university or professional degree as their highest level of education than white people (52.7%).

Figure 18 - Percentage of highest educational level attained, by age group



Source: Lothian Public Health Survey 2023

Paid employment

Across Lothian, 63.3% reported being in paid employment, and this ranged from 60.2% in East Lothian to 64.8% in City of Edinburgh. Overall males were slightly more likely to be in paid employment (65.2%) compared to females (61.6%). When presented by local authority, a sex difference in paid employment was only observed in West Lothian.

Figure 19 - Percentage in paid employment, by age group

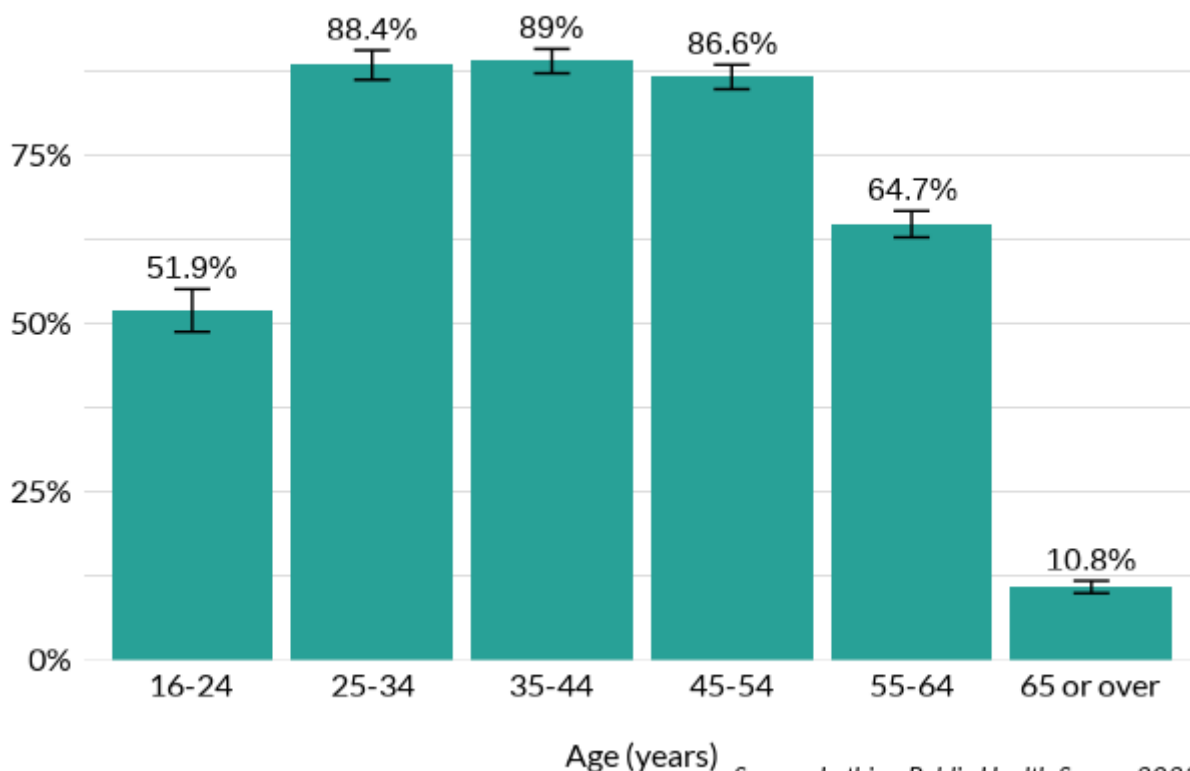


Figure 19 shows that those aged 65 years or over have the lowest paid employment rates at 10.8% overall. The highest paid employment rates are approximately equivalent across the 25–54 age groups between 86.6% and 89.0%.

Paid employment rates are generally lower in more deprived areas, with 59.0% of those living in the most deprived areas (SIMD quintile 1) being in paid employment, compared to 66.8% in the second-least deprived areas (SIMD quintile 4). However, the rate is slightly lower in the least deprived areas (SIMD quintile 5), with 62.3% reporting being in paid employment. The gap in paid employment status between most and least deprived was largest in Midlothian where 54.4% of those living in the most deprived areas reported being in paid employment, compared to 73.0% of those in the second-least deprived areas (SIMD quintile 4). Paid employment rates did not vary by deprivation in East Lothian. There was no difference in paid employment status by ethnicity.

Zero-hour contracts

Of those in any form of employment in Lothian, 6.7% reported being employed on zero-hour contracts. The majority of these individuals are younger, with 22.6% of those aged 16–24 years reporting being employed on this type of contract, compared to 3.5% of those aged 45–55 years. The proportion reporting working on zero-hour contracts was similar across sex, ethnicity and deprivation groups. Zero-hour contract employment was most prevalent in City of Edinburgh (7.7%) compared with West Lothian (4.7%) and Midlothian (4.5%). The rate of zero-hour contract employment in East Lothian was 7.1% which is statistically similar to the other local authority areas.

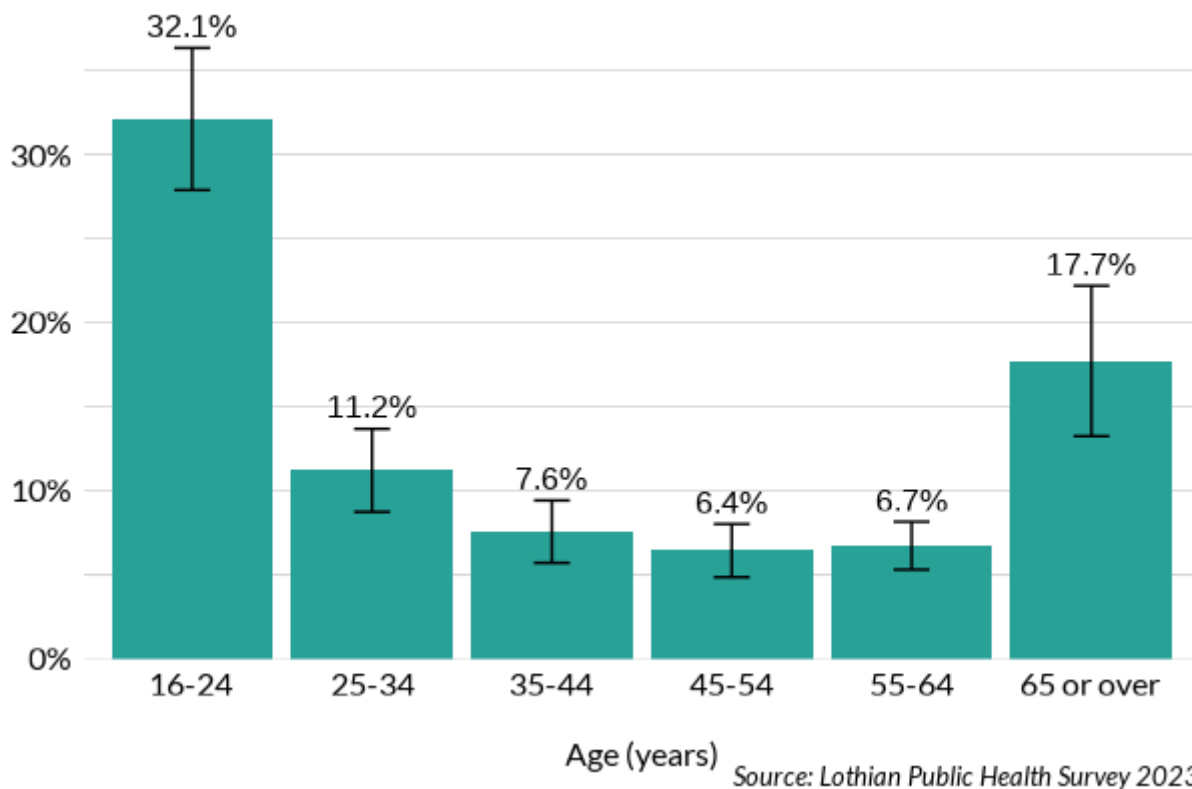
Work contract type

Of those reporting being employed, 88.8% reported being on permanent work contracts, whereas 11.2% reported working on temporary contracts. While rates are equivalent by sex, temporary contracts were more common among younger people, with 32.1% of those aged 16–24 working on temporary contracts, compared to less than 8% of those aged 35–64 years (Figure 20).

Those on temporary contracts were more likely to reside in City of Edinburgh (13.4%, compared to no more than 8.7% in Lothian's other local authority areas). Over one in ten (13.6%) of those living in the least deprived areas (SIMD quintile 5) reported working on temporary contracts. Similar levels of temporary contract employment were seen across categories of area deprivation, except for slightly lower levels in the second and third- most deprived areas (SIMD quintiles 2 and 3, with rates of 9.4% and 8.5% respectively).

One in ten white people (9.9%) in Lothian reported being employed on a temporary contract, compared to over a quarter (26.5%) of the African ethnic group, and one in five (21.4%) of Asian people. Those of "other" ethnic origin were also more likely to report being employed on a temporary contract (36.6%).

Figure 20 - Percentage of employed people in temporary work, by age group



Job satisfaction

Overall, 85.5% reported being satisfied or very satisfied with their job. There were no clear differences in job satisfaction by age, sex, local authority or deprivation.

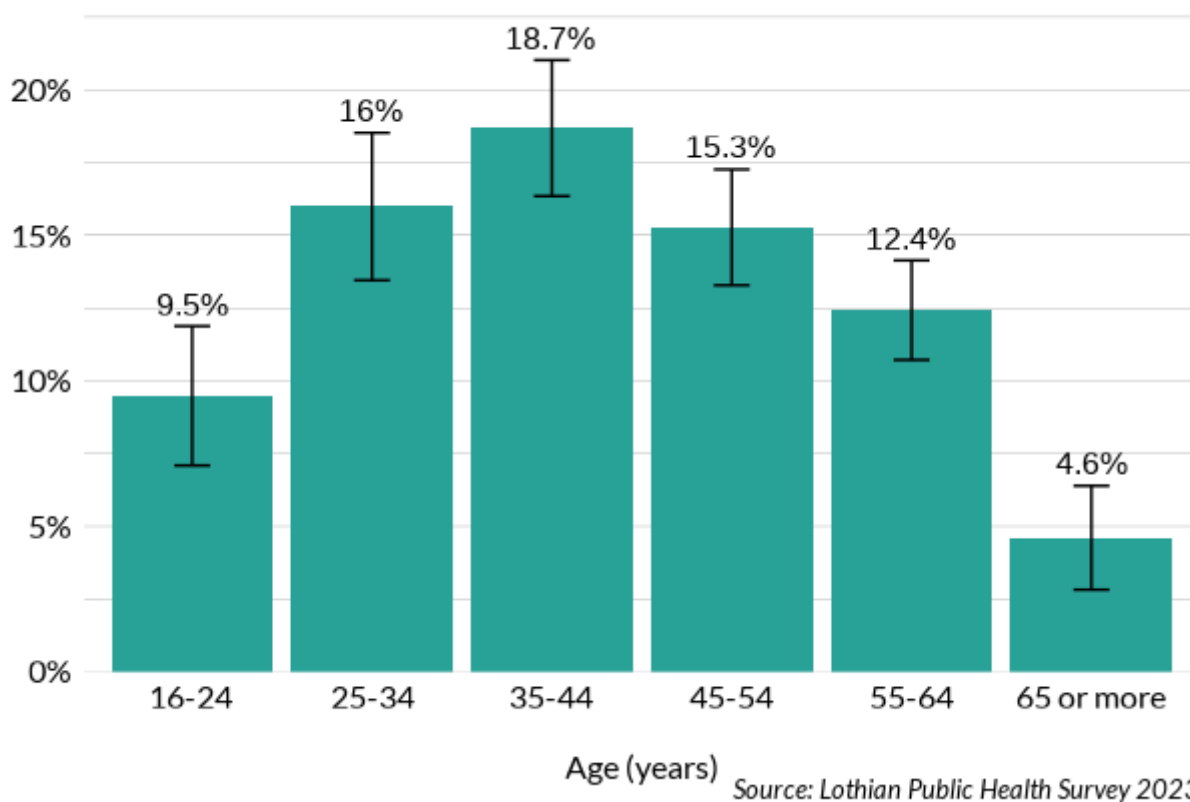
Work-related stress

Around half of employed people across Lothian indicated that their job was mildly or not at all stressful (47.3%). However, 37.9% reported that their job was moderately stressful and 14.8% reported that their job was very or extremely stressful.

Females were more likely than males to report that their job was very or extremely stressful (17.2% versus 12.3%, respectively). This difference was most pronounced in City of Edinburgh (18.2% for females versus 11.4% for males), with no sex differences in high work-related stress being observed in other local authority areas.

No differences in work-related stress were observed across local authority areas, deprivation groups or ethnicities. Reported work-related stress was, however associated with age, peaking in the 35–44 years age group (Figure 21).

Figure 21 - Percentage reporting that their job is “very” or “extremely stressful”, by age group



Household income

Table 1 shows the percentage who reported living in each household income band. One in five (21.0%) reported living in households earning £78,000 or more. There was a slight sex difference in the percentage reporting living in households earning £78,000 or more (19.2% of females versus 22.9% of males). There were no notable differences in the proportion of households earning £78,000 or more by local authority.

Table 1 - Percentage who reported living in each household income band

Income band	Percentage of Lothian population
less than £5,200	2.9%
£5,200 to £10,399	4.4%
£10,400 to £15,599	7.1%
£15,600 to £20,799	5.9%
£20,800 to £25,999	8.9%
£26,000 to £36,399	13.2%
£36,400 to £51,999	17.5%
£52,000 to £77,999	19.1%
£78,000 or more	21.0%

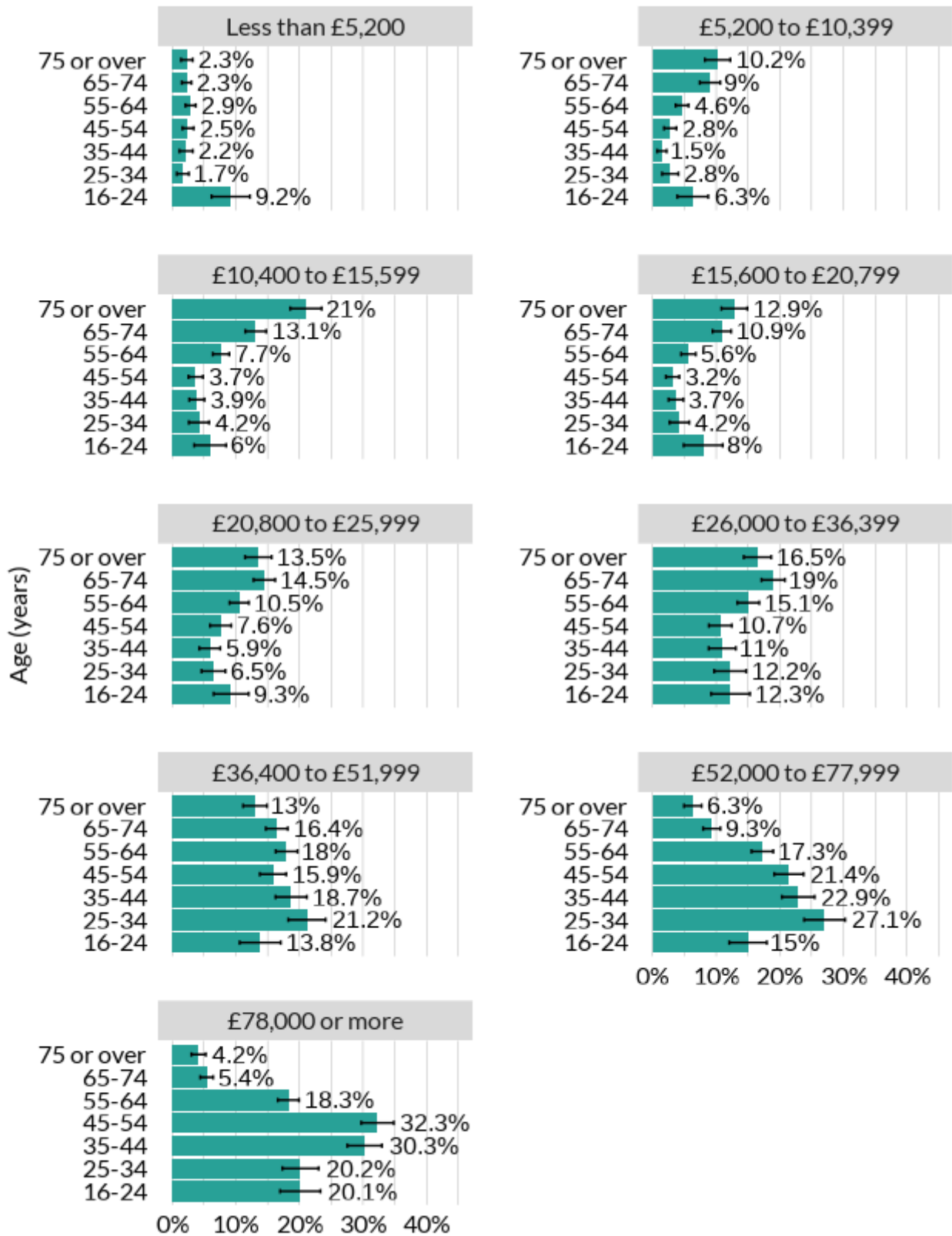
Figure 22 shows household income by age. The 16–24 years age group was the most likely to be living in a household earning less than £5,200 (9.2%) whereas the proportion was below 3% in all other age groups, which likely reflects a high proportion of students in the youngest age band. However, a relatively high proportion in the youngest age group were living in households earning the highest income band (20.1%), possibly reflecting that many people in this age group were still living at home with family. Those aged 35–44 years and 45–54 years had the highest proportion of people living in households earning over £78,000 (30.3% and 32.3%, respectively).

Figure 23 shows that people living in less deprived areas were more likely than those in more deprived areas to be living in households in the top two income groupings. Note that indicators of household income (specifically the number receiving various forms of social support) forms part of the SIMD 2020 ranking criteria, therefore an association between SIMD and household income is likely to be reduced if the income component were to be removed.

White people (22.0%) were more likely to live in households earning £78,000 or more when compared with people from Asian (13.9%), African (8.9%) and “Other” ethnic (10.2%) groups. The percentage of people from mixed and multiple ethnic groups living in households earning the highest income band did not differ from white people.

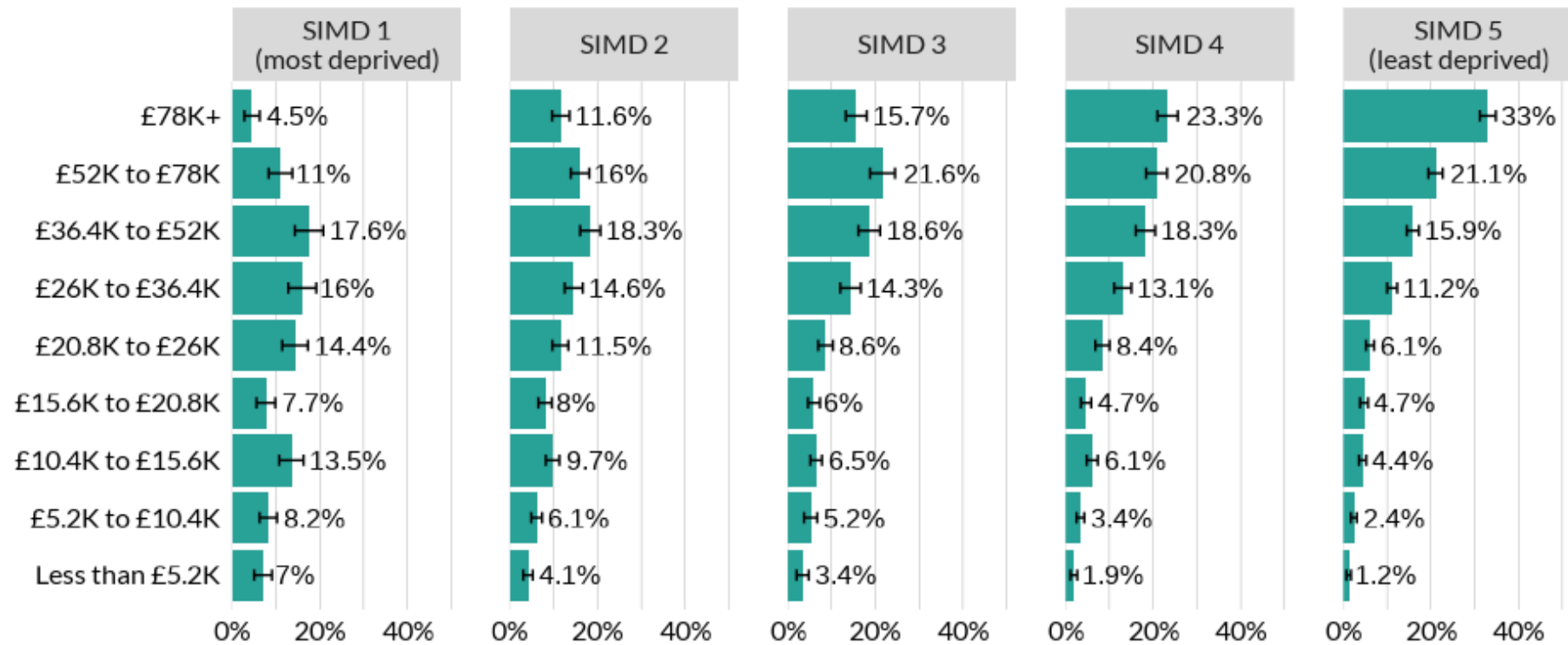
Household income was also explored by household composition, using self-reported number of adults and children in a person’s household (Figure 24). People living in households composed of two or more adults with at least one child had the highest proportion of people living in households with incomes over £78,000 (38.4%) and single adult households had the lowest proportion of people earning the highest income band (8.4%).

Figure 22 - Percentage in each self-reported household income band, by age group



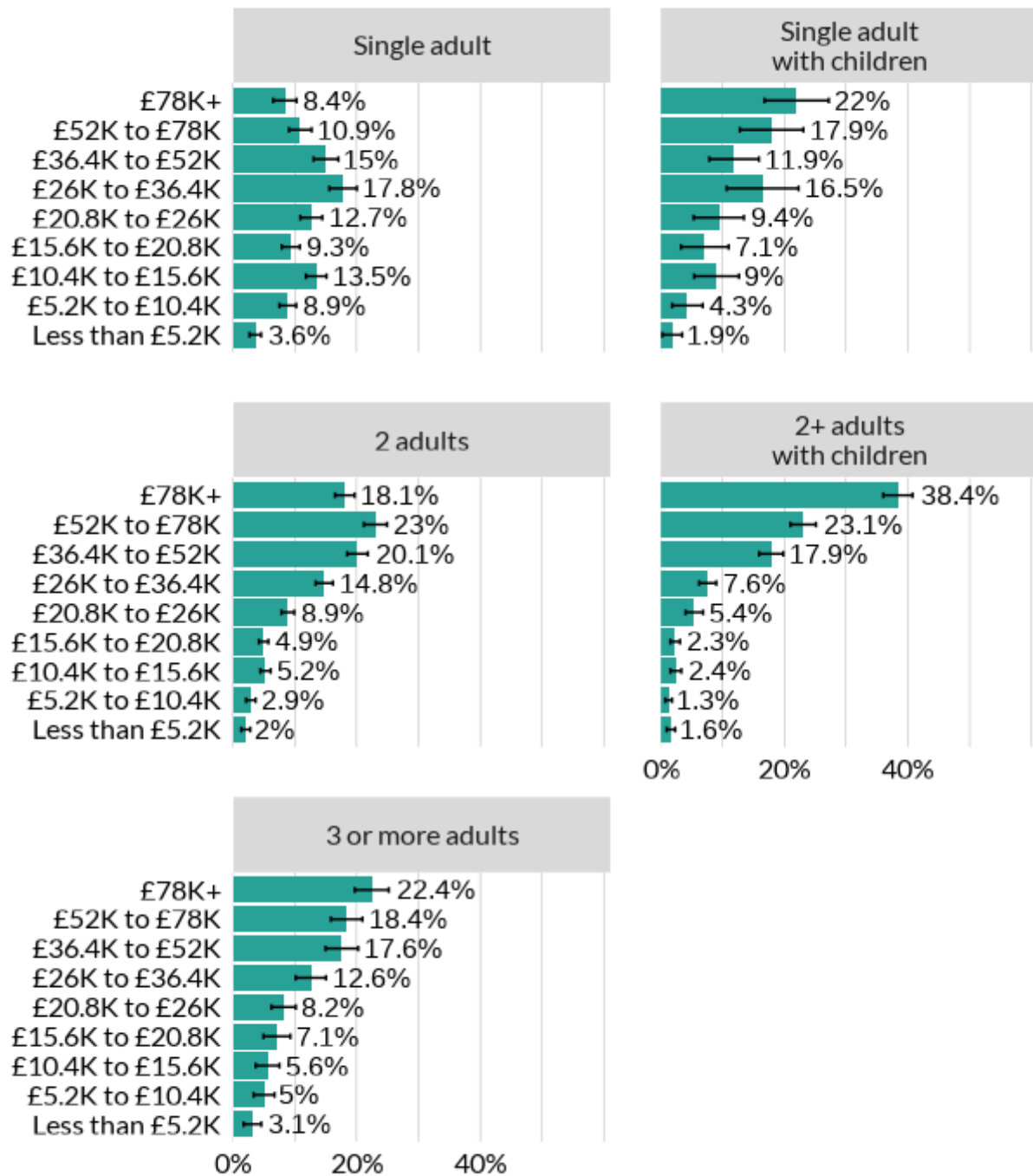
Source: Lothian Public Health Survey 2023

Figure 23 - Percentage in each self-reported household income band, by SIMD quintile



Source: Lothian Public Health Survey 2023

Figure 24 - Percentage in each self-reported income band, by household composition



Source: Lothian Public Health Survey 2023

Mental wellbeing



Mental wellbeing

Mental wellbeing is fundamental to good health and quality of life and is distinct from clinically diagnosable or sub-clinical mental health problems (which can significantly interfere with social, emotional and cognitive functioning). Mental wellbeing encompasses aspects of life such as positive relationships, sense of control, resilience, sense of belonging and life satisfaction. Good mental wellbeing is associated with physical health status and enables individuals to fulfil their potential emotionally and intellectually, in society and in personal relationships.

The [Scottish Government's health and wellbeing strategy](#) aims to tackle inequalities in mental wellbeing through a health-promoting, preventative approach to create the best social circumstances possible for positive mental health and wellbeing. Work to achieve this must recognise that a wide [range of factors are associated with mental wellbeing](#), particularly social disadvantage, which is linked to stressful experiences such as material deprivation, poor housing and unemployment. Actions and interventions to improve mental wellbeing should focus on reducing individuals' exposure to harmful factors and mitigate the impact of them, while capitalising on [the positive building blocks of mental health](#) such as social support, good employment and economic resources.

Self-assessed mental wellbeing is one of the key measures of health status, forming one of Scotland's [national performance indicators](#). The following section examines self-reported mental wellbeing and inequalities in these measures.

Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS)

The short version of the Warwick-Edinburgh Mental Wellbeing Scale ([SWEMWBS](#)) was used to assess the mental wellbeing of Lothian's population. Scores across the 7-item scale were combined into a total wellbeing score, which was split into three categories (high, medium and low wellbeing) [based on the distribution of total responses](#). Overall, 68.4% of people across Lothian were categorised as having a medium wellbeing score, with 16.2% having low and 15.5% high scores. There were no sex differences in the proportion with high, medium or low wellbeing scores.

Figure 25 shows the association between wellbeing category and age. Mental wellbeing tends to increase with age, with 10.4% of 16–24 year olds being categorised as having high wellbeing, compared to over 22.7% of those aged 65 or over. The reverse pattern is true of low wellbeing, which reduces with age.

Figure 25 - Percentage experiencing low and high wellbeing, by age group

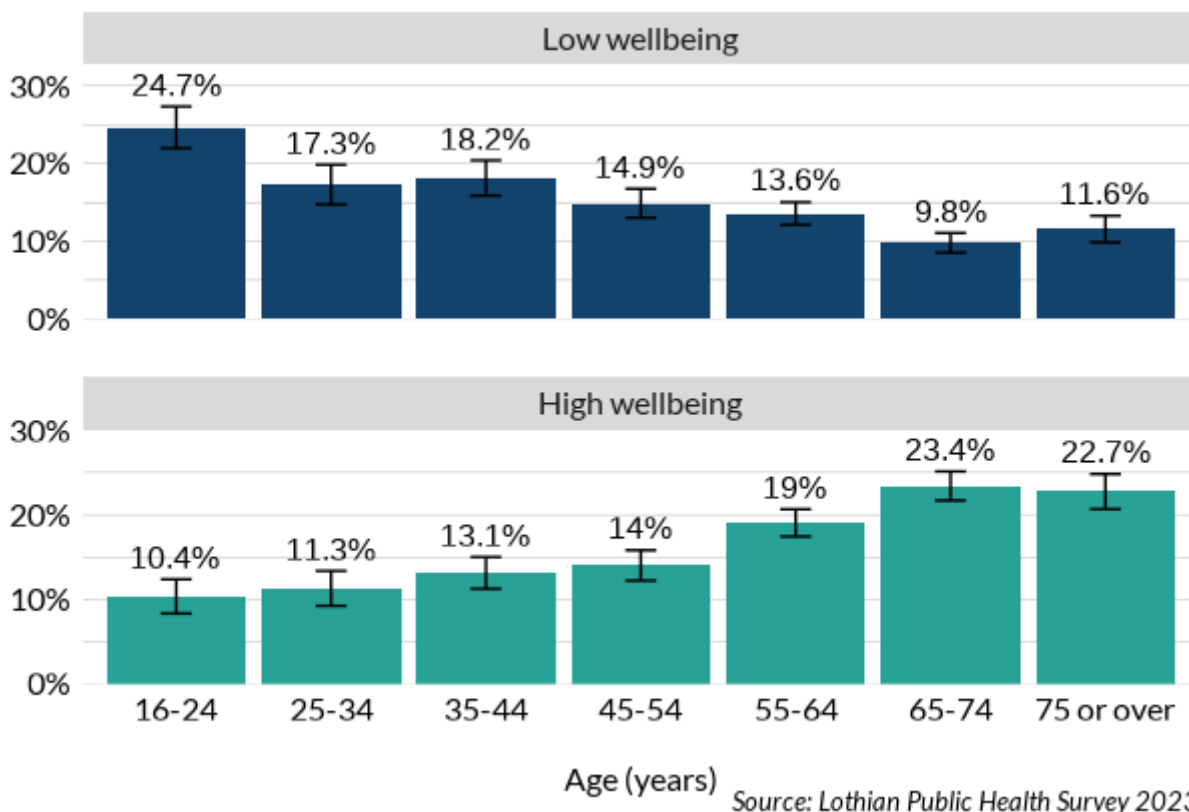
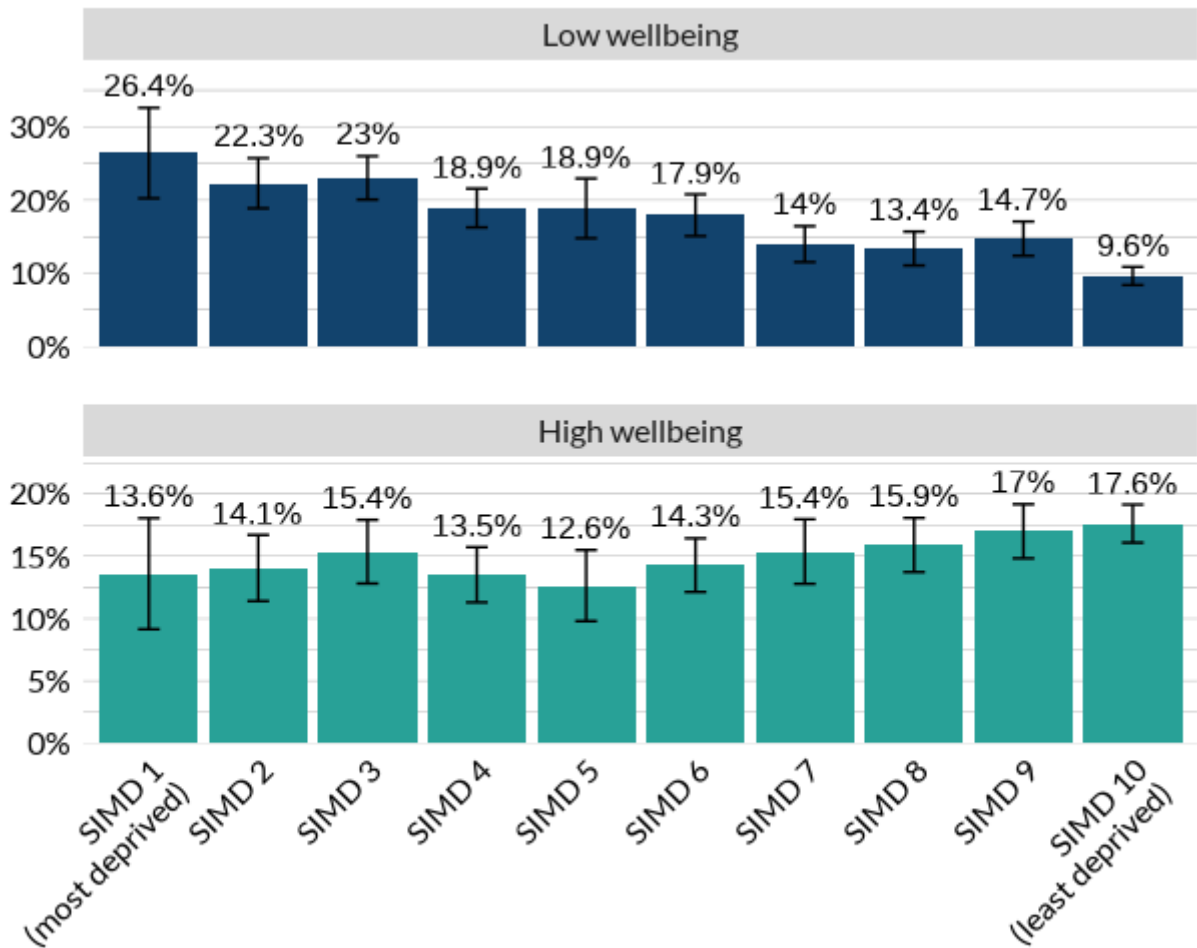


Figure 26 shows that wellbeing is negatively associated with deprivation in Lothian, with 26.4% of those living in the most deprived areas (SIMD decile 1) experiencing low wellbeing, compared to 9.6% of those living in the least deprived areas (SIMD decile 10). A similar pattern is observed across Lothian’s local authority areas.

Figure 26 - Percentage experiencing low and high wellbeing, by SIMD decile



Source: Lothian Public Health Survey 2023

Life satisfaction

People reported their “satisfaction with life nowadays” on a scale from 0 (not at all satisfied) to 10 (completely satisfied). Across Lothian, the average life satisfaction score was 6.8. By comparison, Scotland-wide scores were 7.38 (2020/21) and 7.45 (2021/22) in recent years according to ONS’s [“Personal well-being in the UK”](#) report. Meanwhile, the [OECD Better Life Index](#) reported similar values to the Lothian population for the UK average score (6.8) and the overall OECD average (6.7). Similar levels of life satisfaction were observed across Lothian’s local authority areas and between males and females.

Average life satisfaction increases with age, with the average score for 16–24 year olds being 6.4, compared to scores of over 7.0 for those aged 65 and over. Figure 27 shows the proportion reporting low (score 0–4), medium (score 5–6), high (scores 7–8) or very high (score 9–10) life satisfaction by age.

Life satisfaction was negatively associated with deprivation, with scores ranging from 6.3 in the most deprived areas (SIMD decile 1), to 7.1 in the least deprived areas (SIMD decile 10). Figure 28 shows the association between life satisfaction category and deprivation decile.

Figure 27 - Percentage in each life satisfaction category, by age group

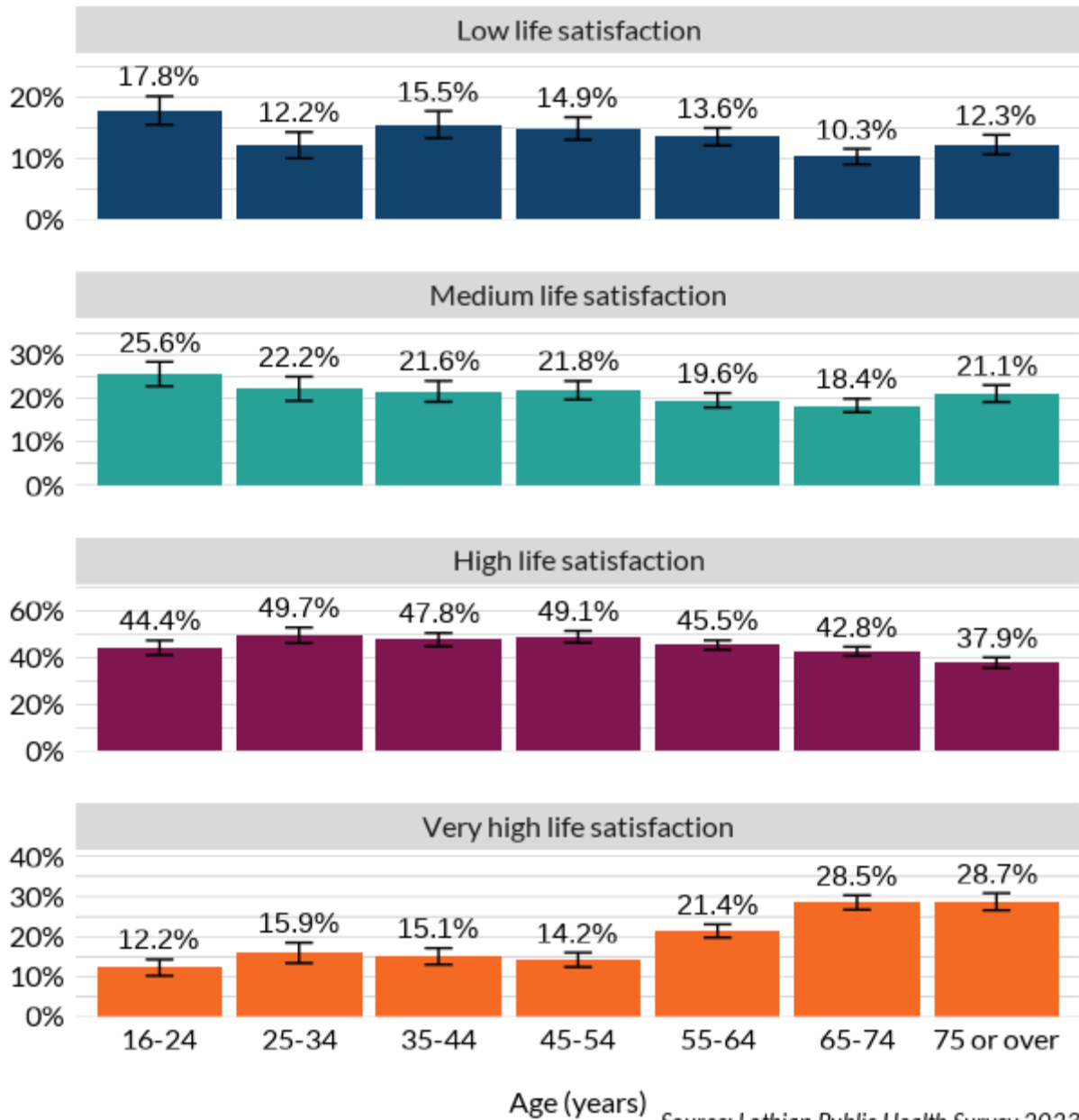
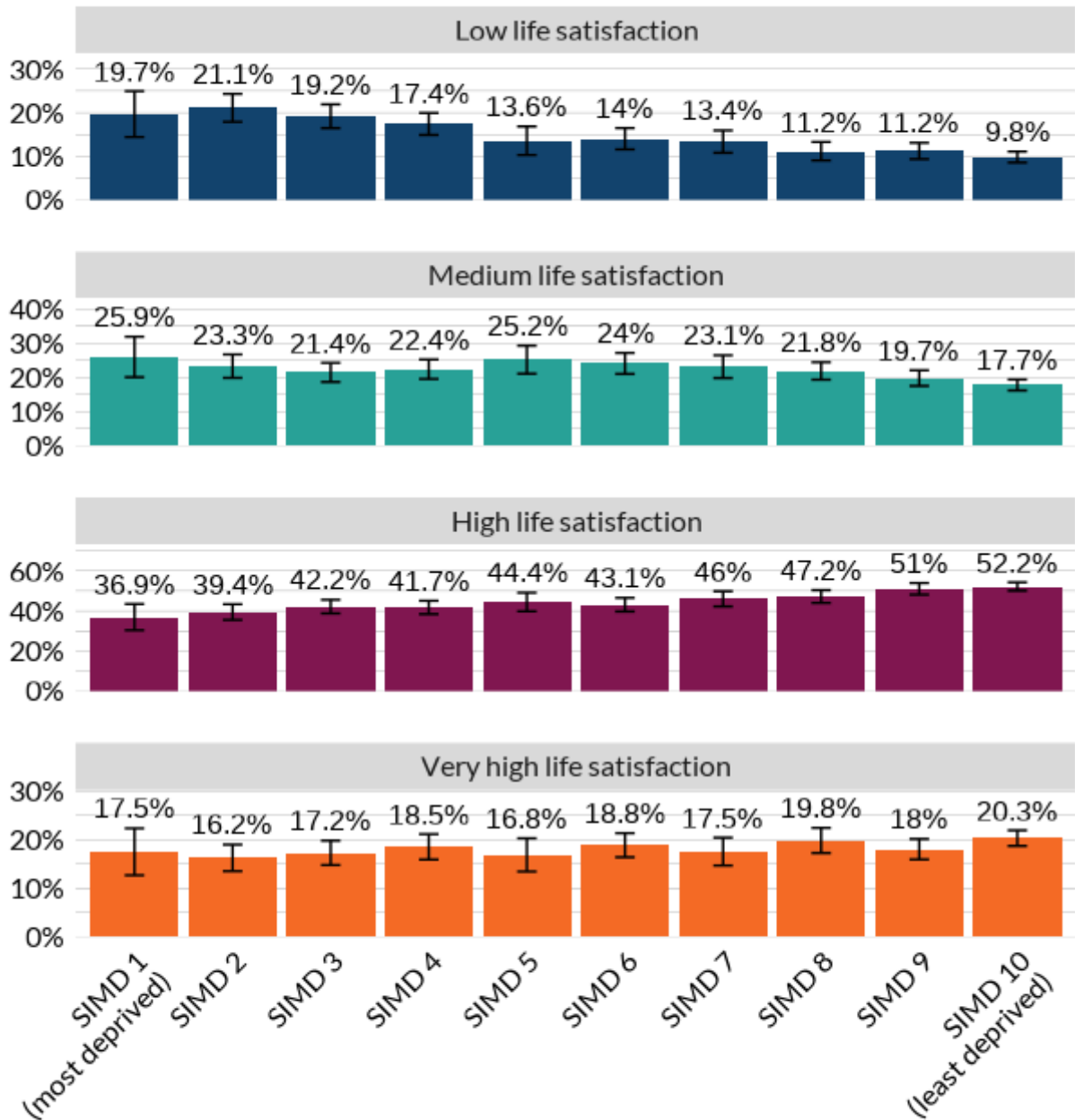


Figure 28 - Percentage in each life satisfaction category, by SIMD decile



Source: Lothian Public Health Survey 2023

Life satisfaction scores showed strong relationships with building blocks of health such as loneliness (those that reported being lonely most/all of the time had an average life satisfaction score of 4.2, compared to 7.6 for those that reported being lonely none/almost none of the time) and household income. The average life satisfaction score of those living in households earning £10,399 or less was 5.7, compared to 7.4 for those living in households earning £78,000 or above (as shown in Table 2).

Table 2 – Average life satisfaction score by self-reported household income

Household Income	Average life satisfaction score
£10,399 or less	5.7
£10,400 to £20,799	6.3
£20,800 to £36,399	6.7
£36,400 to £77,999	7.0
£78,000 or more	7.4

Health related quality of life



Health status and health-related quality of life

[Disability](#) can be defined as physical or mental impairments where there is a substantial and long-term adverse effect on one's ability to carry out normal day-to-day activities. A long-term condition is a health condition or illness which can be treated and controlled with medication but cannot be cured. Those living with disability or one or more long-term health conditions typically require a greater degree of health and social care support and are less able to work compared to those without long-term conditions.

[Health-related quality of life](#) is a related concept which includes the various elements of physical and mental health, and how these influence people's overall functioning and wellbeing. A [five-dimension scale](#) was used to assess individuals' overall health status, encompassing their mobility, ability to care for themselves, participate in usual activities, pain and discomfort, and experience of anxiety or depression.

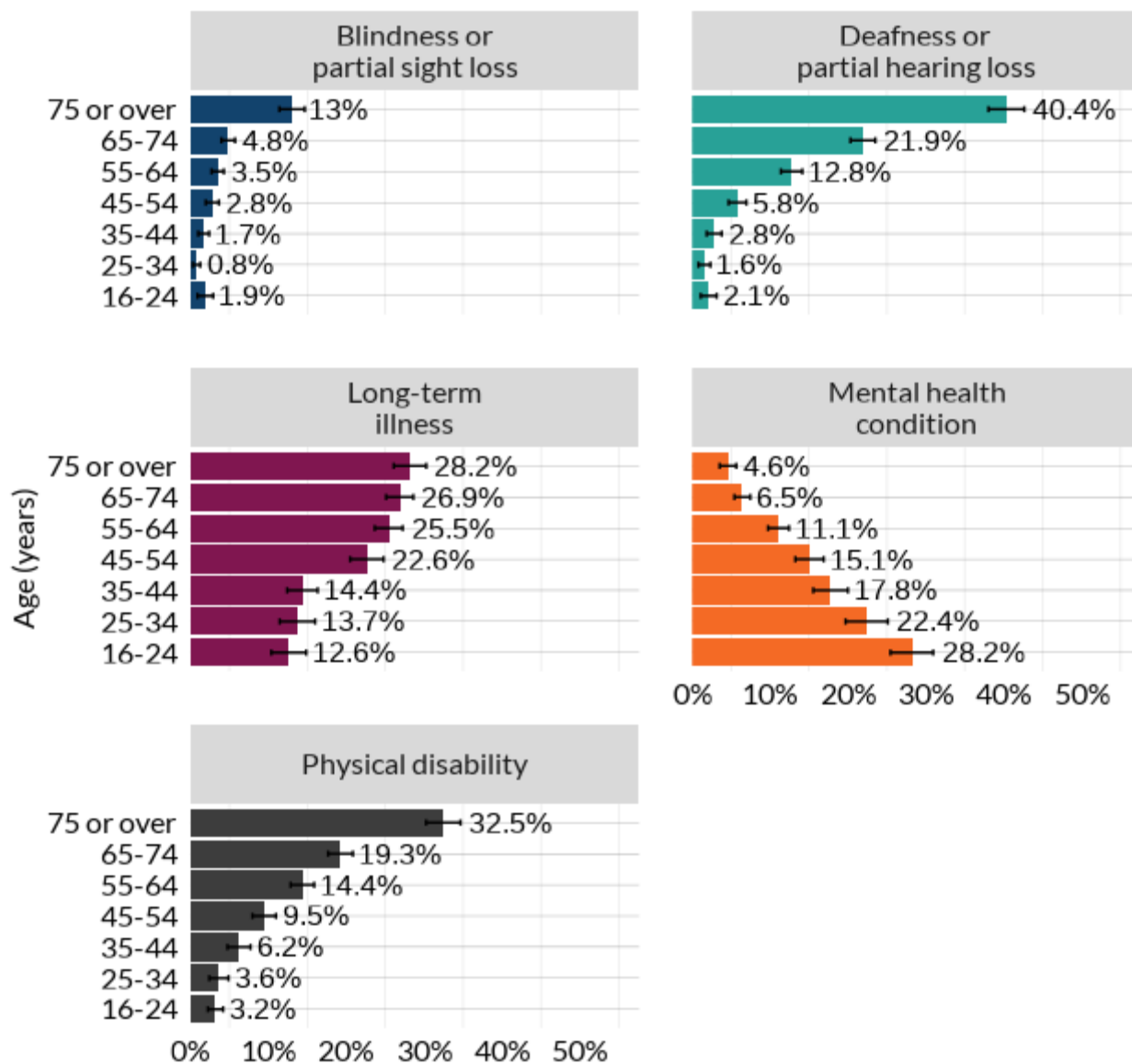
This section presents information on the distribution of disabilities, health conditions (lasting 12 months or more) and health-related quality of life across Lothian's population.

Long-term conditions

People across Lothian were asked to report which types of long-term conditions they have had for (or expect to last) 12 months or more. Overall, approximately half (48.8%) reported that they had no long-term conditions, with 31.5% having a single long-term condition and 12.8% with two long-term conditions. The remaining 6.9% reported having three or more conditions. The most commonly reported categories of condition were long-term illness (19.8%), mental health conditions (16.0%), physical disability (11.1%) and deafness/partial hearing loss (10.3%).

Figure 29 shows the prevalence of types of long-term conditions by age group, highlighting increases associated with age for many conditions, particularly deafness and physical disability, which affect 40.4% and 32.5% of those aged 75 years or over, respectively. Conversely, reported mental health conditions decline with age (from 28.2% among 16–24 year olds to 11.1% or less among those aged over 55 years).

Figure 29 - Percentage experiencing each long-term condition, by age group



Source: Lothian Public Health Survey 2023

Sex differences in long-term conditions were observed for mental health conditions (18.1% of females, 13.8% of males), deafness (9.5% of females, 11.2% of males) and other types of long-term condition (12.2% of females, 9.9% of males). Sex differences were not observed in the remaining categories of long-term condition.

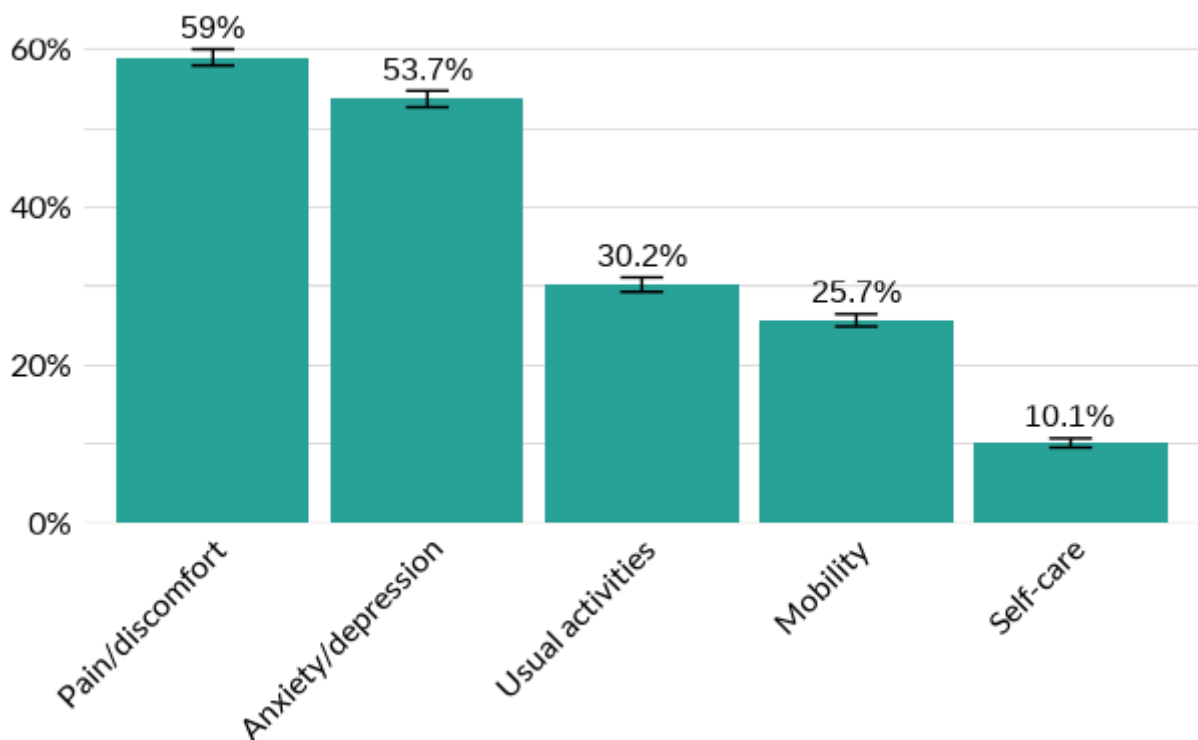
Associations with deprivation were observed for some of the common long-term conditions, particularly mental health conditions, with 18.0% of those living in the most deprived areas (SIMD decile 1) reporting a mental health condition, compared to 11.2% of those living in

the least deprived areas (SIMD decile 10). Similarly, 15.5% of those living in the most deprived areas reported having a physical disability, compared to 7.7% of those in the least deprived areas, and 10.2% of those living in the most deprived areas reported having a learning disability, compared to 2.3% of those in the least deprived areas. There was less variability across deprivation groups for other categories of long-term conditions.

Health-related quality of life

Figure 30 shows the proportion across Lothian that report having any level of difficulty across five domains of health (encompassing slight difficulties through to an inability to function). The most common domains in which people reported difficulties were pain/discomfort (59.0%) and anxiety and depression (53.7%), with relatively fewer reporting difficulties with self-care (10.1%).

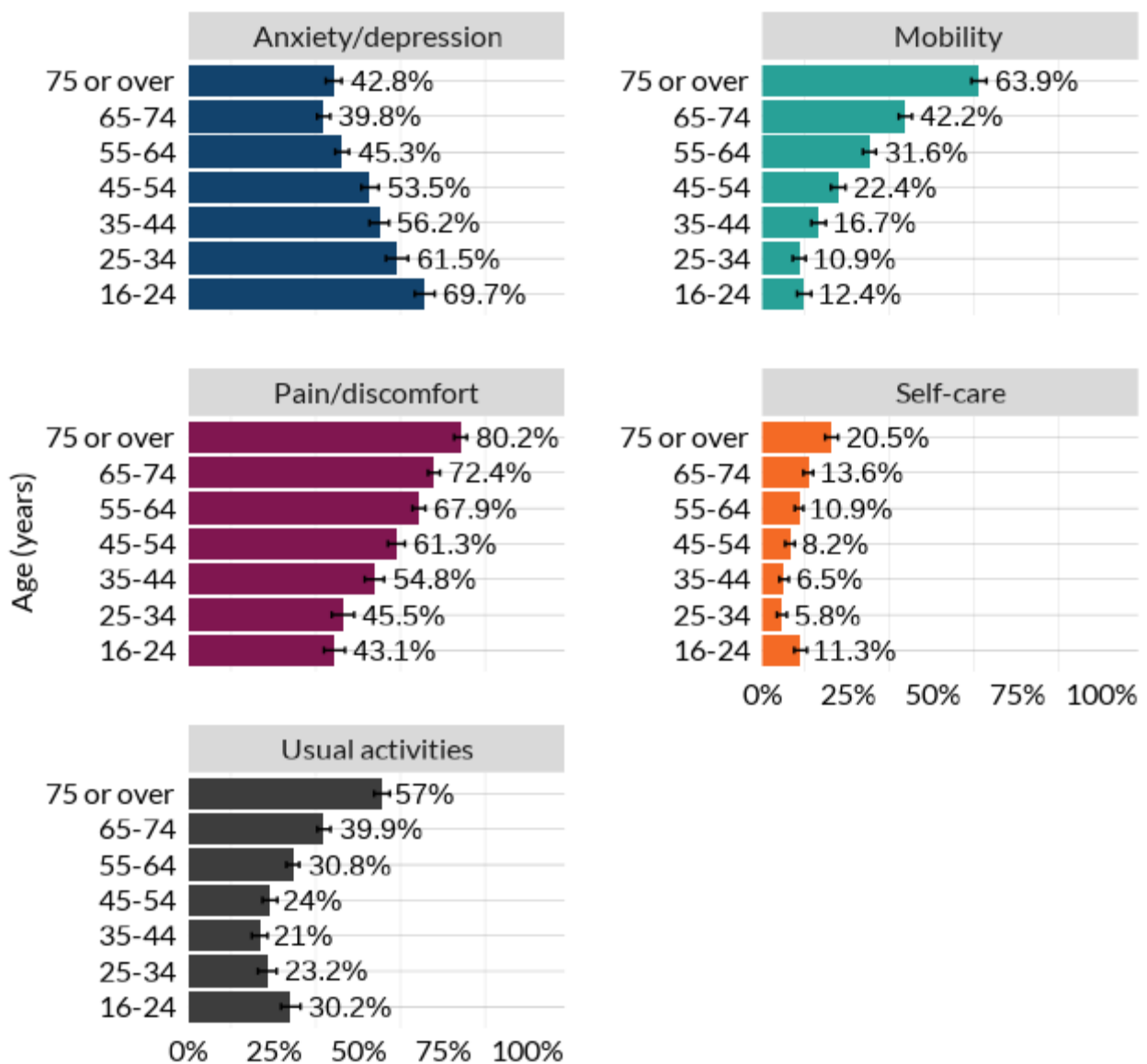
Figure 30 - Percentage experiencing any level of difficulty in each health domain



Source: Lothian Public Health Survey 2023

Figure 31 shows the association between health-related difficulties and age. While most of the five domains see increases in the proportion reporting difficulties with age, the proportion reporting any level of anxiety or depression reduces with age, from 69.7% of 16–24 year olds, to 42.8% or less among those aged over 65 years

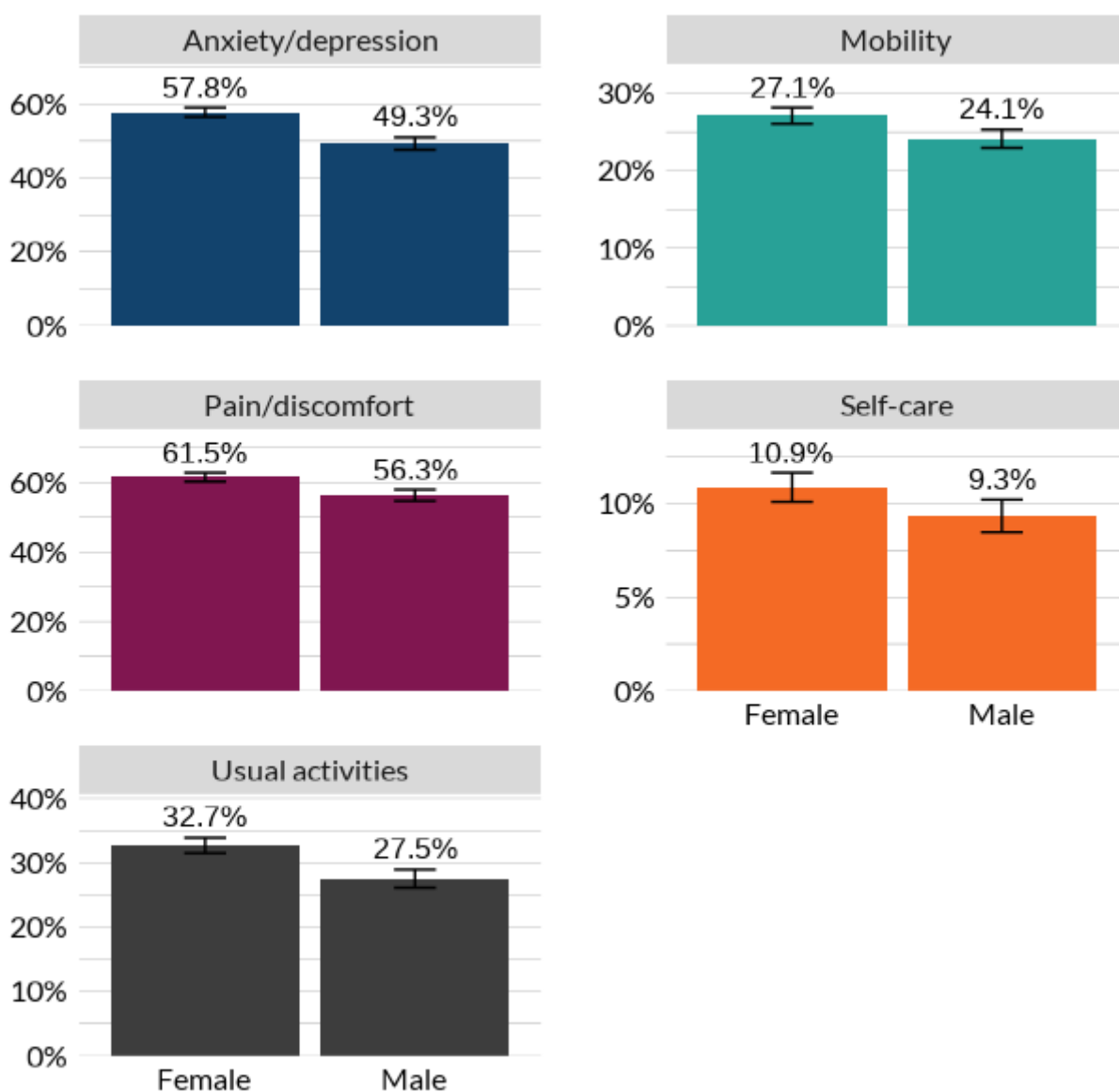
Figure 31 - Percentage experiencing any level of difficulty in each health domain, by age group



Source: Lothian Public Health Survey 2023

Differences by sex are evident across most domains of health, with females being more likely to report any level of difficulty (Figure 32). Self-care is an exception where a similar proportion of males and females report at least some level of difficulty.

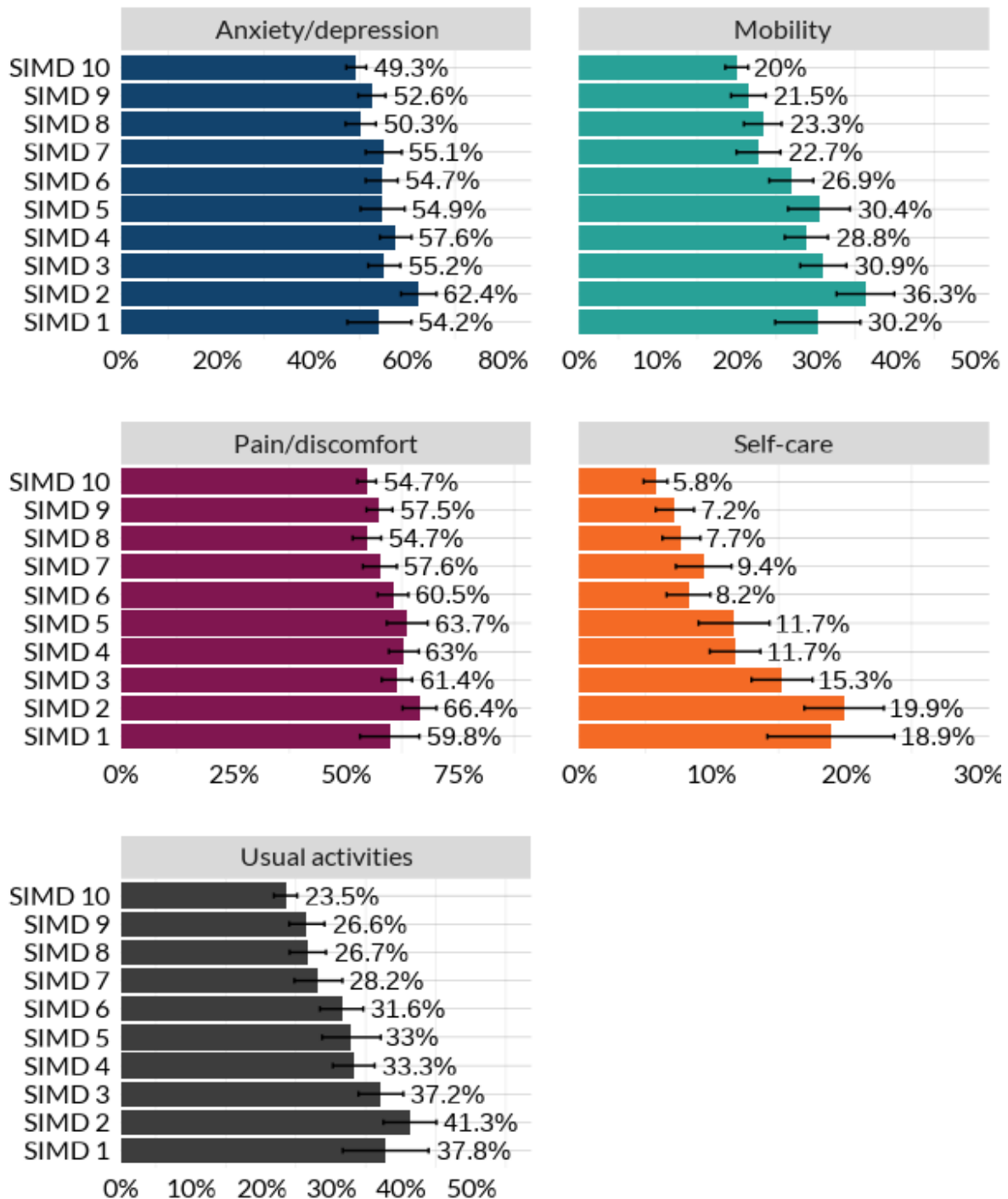
Figure 32 - Percentage experiencing any level of difficulty in each health domain, by sex



Source: Lothian Public Health Survey 2023

While the association between deprivation and anxiety/depression and pain/discomfort is less clear, Figure 33 shows that for other health domains, those living in less deprived areas are typically less likely to report any level of difficulty than their peers in more deprived areas.

Figure 33 - Percentage experiencing difficulty in each health domain, by SIMD decile



Source: Lothian Public Health Survey 2023



Health-related behaviours

Health-related behaviours

Day-to-day behaviours, such as those relating to consumption of food, physical activity, tobacco use and consumption of alcohol have the potential to significantly affect both physical and mental health. It can be inappropriate to conceptualise these behaviours purely as “lifestyle choices” as they often strongly correlate with elements of environments over which individuals have little direct control, such as economic deprivation and city planning. This includes factors often referred to as “[commercial determinants](#)”. These involve the impact that for-profit companies have on population health, for instance via the sophisticated marketing of unhealthy commodities (such as alcohol, tobacco and foods high in fat, salt and sugar) using strategies such as pricing, promotions, placement and product design.

A healthy balanced diet can help reduce the risk of a wide range of health conditions including type 2 diabetes, high blood pressure, coronary heart disease, stroke, some cancers and obesity. Adequate levels of physical activity are supportive of both physical and mental health and can help in addressing high levels of obesity in Scotland. The [Scottish Health Survey 2022](#) reported that 67% of all adults in Scotland (70% of males compared with 63% of females) were living with overweight including obesity. Obesity is defined as a Body Mass Index of 30 and over which is calculated using height and weight. There are also harms associated with being underweight.

Alcohol related harm is a major [public health challenge in Scotland](#). Alcohol consumption is linked to mental health problems including alcohol dependency and increased risk of suicide. It is also associated with a range of physical health conditions including high blood pressure, some cancers, stroke and liver disease. It can also lead to weight gain and have a negative effect on sleep. There are additional health risks related to binge drinking (drinking a large amount of alcohol in one session), including by accidental injury through accidents or violence. The impact of alcohol related harm can also be seen socially, for example, absenteeism from work and the disruption of relationships with family and friends. There are also strong links between [alcohol and interpersonal violence and violent crime](#).

Smoking tobacco represents one of the main preventable causes of premature death and ill health in Scotland, particularly owing to cardiovascular and respiratory diseases and cancers of the lung, mouth and oesophagus. Smoking remains a significant contributor to Scotland’s [health inequalities](#), which can also have a significant impact on the health of unborn children during pregnancy.

This section summarises findings relating to health-related behaviours and their distribution across the Lothian population. Whilst the Lothian Public Health Survey assessed a broad range of health-related behaviours, this is not a comprehensive assessment, with particular gaps being sexual health and substance use.

Fruit and vegetable consumption

Around one quarter of people across Lothian reported that they consumed three portions of fruit and/or vegetables per day (24.1%), around one in five (18.3%) reported consuming none or one portion per day, and 19.7% reported meeting the [WHO dietary recommendations](#) of five or more portions per day. This is similar to the national proportion of adults eating five or more portions per day, according to the [2021 Scottish Health Survey](#).

People living in Midlothian (17.1%) and West Lothian (14.1%) were less likely to meet the WHO recommendation than those living in City of Edinburgh (21.8%). Those living in West Lothian were also less likely to meet the dietary recommendations than their East Lothian counterparts (19.2%). These figures have been age standardised because prior to standardisation it appeared that some differences between local authority areas were being driven by differences in the age distribution of each area.

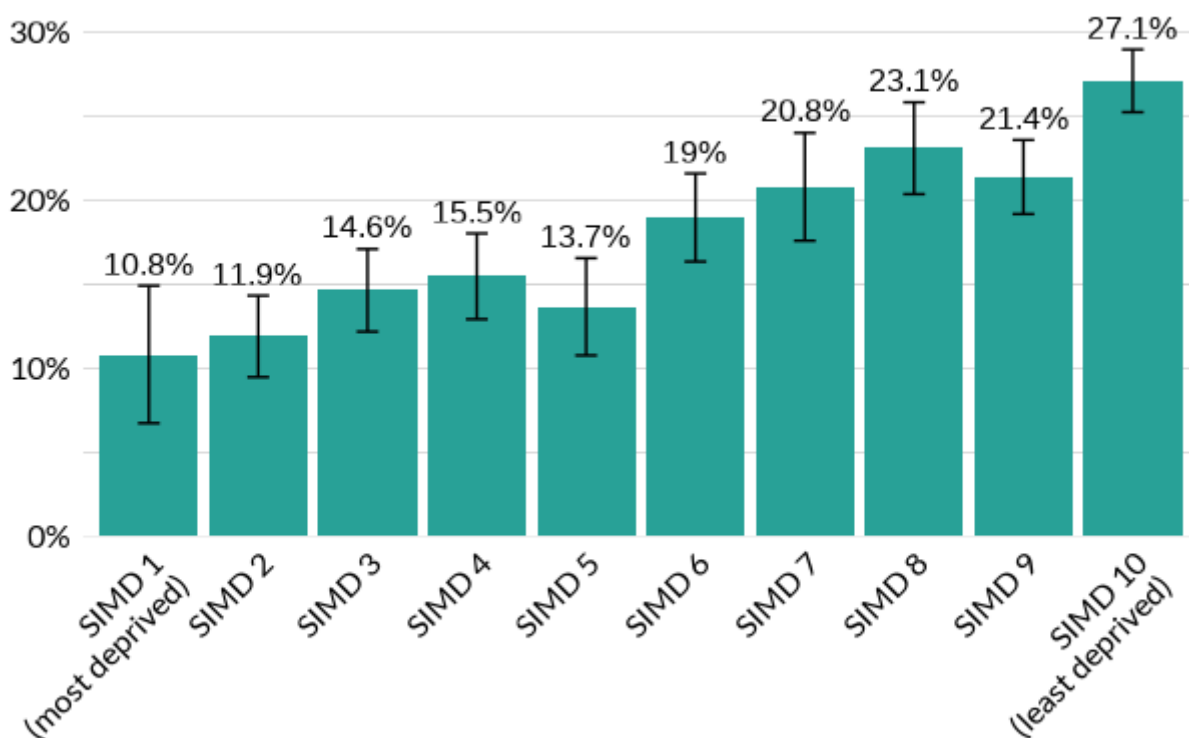
Females were more likely to report meeting the five-a-day recommendation (22.6%) than males (16.4%). Similar sex differences were observed across all local authorities.

Younger people tended to be less likely to consume an adequate amount of fruit and vegetables when compared to older people. One in eight (12.5%) of those aged 16–24 years met dietary recommendations, with older age groups ranging from 18.4% (25–34 year olds) to 22.9% (45–54 year olds). A similar pattern was observed across all local authorities.

Asian people were less likely (12.2%) than white people (20.3%) to meet the dietary recommendations. There were no differences identified between other ethnic groups.

There was evidence of a negative association between deprivation and fruit and vegetable consumption (Figure 34), with 10.8% of those living in the most deprived areas (SIMD decile 1) consuming five or more portions of fruit and vegetables daily compared to 27.1% of those living in the least deprived areas (SIMD decile 10). A similar pattern by deprivation was observed across all local authorities. Additionally, people living in households with higher incomes were more likely to meet the dietary recommendations than those living in lower-income households. This ranged from 27.7% of people earning £78,000 or more to 11.6% of people in the £10,400 to £15,599 income bracket. People who reported facing food insecurity were also less likely to meet the dietary recommendations than people who did not report facing food insecurity (13.2% versus 20.8%, respectively).

Figure 34 - Percentage eating five or more portions of fruit and vegetables per day, by SIMD decile



Source: Lothian Public Health Survey 2023

Physical activity

Table 3 shows reported weekly physical activity. It is notable that 13.0% report engaging in 30 minutes or less weekly activity, with 44.4% of people across Lothian meeting the [UK Chief Medical Officers' recommendations](#) of 2.5 or more hours of activity per week.

Table 3 – Percentage engaging in each amount of weekly physical activity

Weekly physical activity	Percentage of Lothian Population
Not at all in the last 7 days	7.1%
Less than half an hour	5.9%
Between half an hour and 1 hour	11.3%
Over 1 hour up to 1.5 hours	10.6%
Over 1.5 hours up to 2 hours	10.0%
Over 2 hours up to 2.5 hours	10.7%
More than 2.5 hours	44.4%

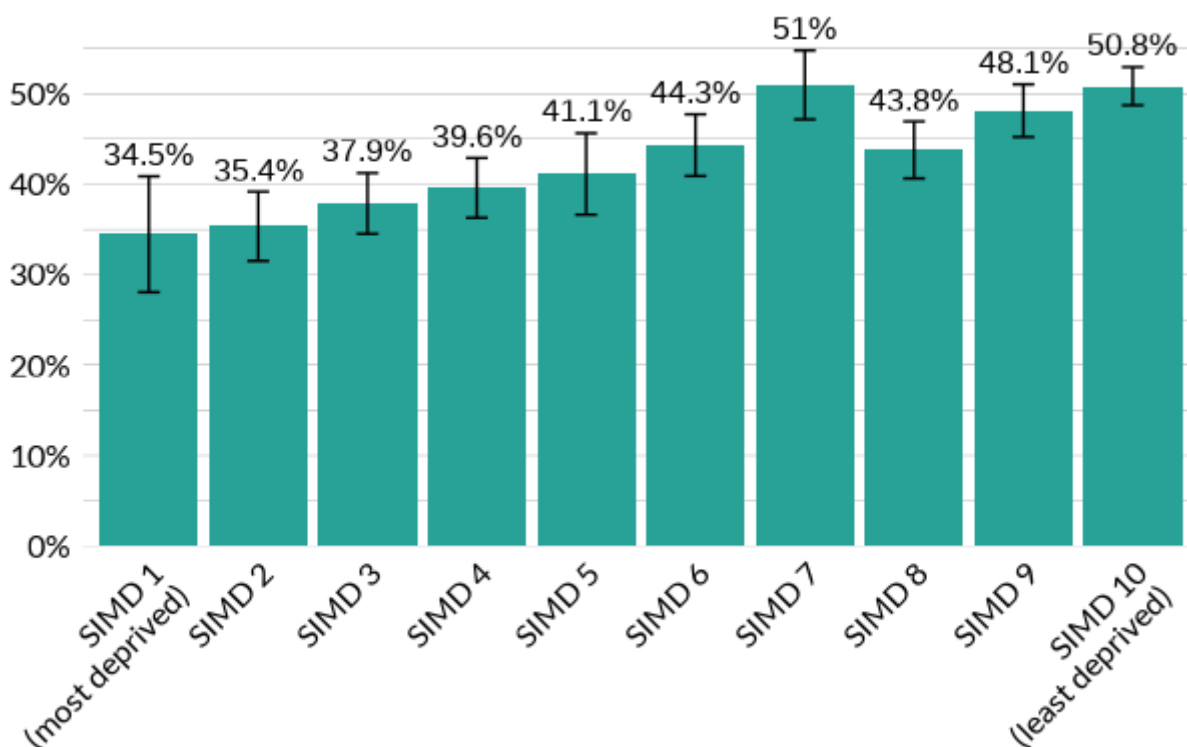
Males were slightly more likely (46.5%) than females to meet weekly activity recommendations (42.4%). There were no differences in physical activity levels by local authority.

Asian people were less likely (30.4%) to meet weekly recommendations for activity when compared with white people (45.6%). There were no differences identified between other ethnic groups.

Those over 75 years were less likely (33.5%) than all other age groups to meet weekly activity recommendations, which ranged from 41.5% of 35–44 year olds to 48.1% of 55–64 year olds. Additionally, people aged 35–44 years (41.5%) were slightly less likely to meet the weekly activity requirements when compared with people aged 45–54 years (47.1%) and 55–64 years (48.1%).

People living in less deprived areas were more likely to meet the weekly activity guidelines compared with those living in more deprived areas (Figure 35). Over half (50.8%) of those living in the least deprived areas (SIMD decile 10) areas met the recommendations compared to a third (34.5%) of people living in the most deprived (SIMD decile 1) areas.

Figure 35 - Percentage reporting 150 minutes or more of moderate to vigorous physical activity per week, by SIMD decile



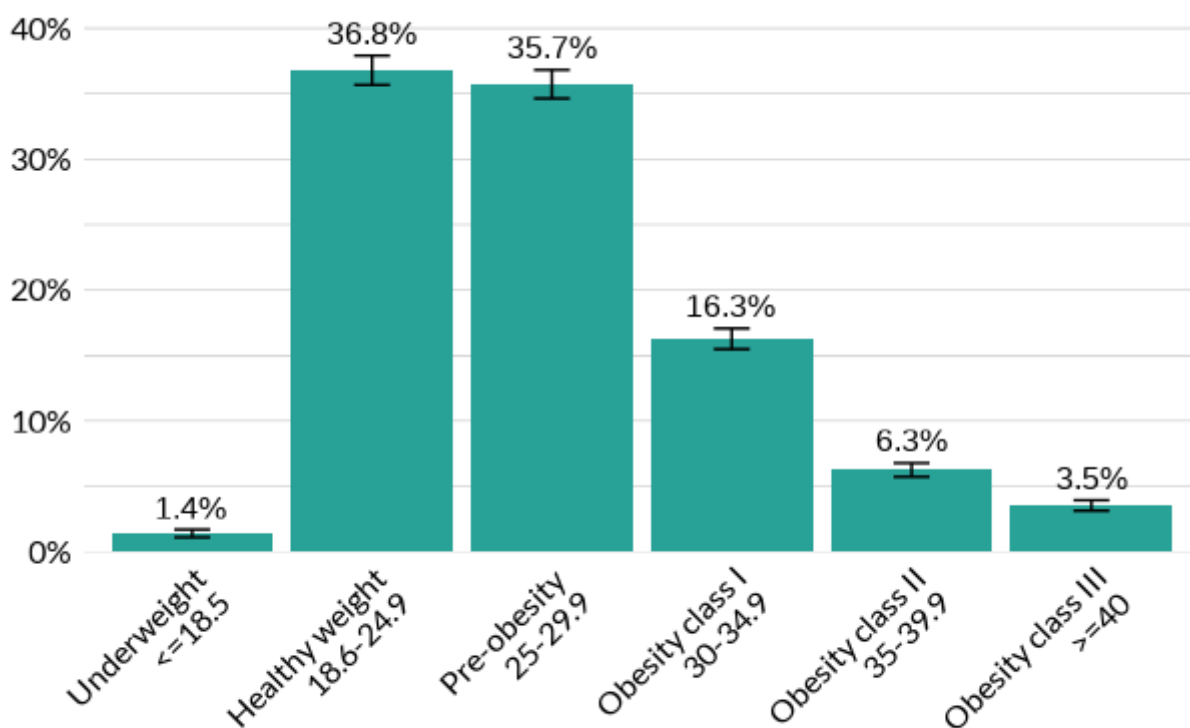
Source: Lothian Public Health Survey 2023

People reporting a physical health condition were less likely to meet activity recommendations compared with those without a physical condition (26.1% versus 46.7%, respectively). Perception of safety in the local area was also related to whether people reported meeting weekly activity recommendations, with 50.3% of those feeling “very safe” in their area meeting guidelines compared to 29.9% of those feeling “very unsafe”. This link may be explained, in part, by perceived safety being associated negatively with deprivation, see Figure 14).

Healthy weight

Across Lothian, average body mass index (BMI), based on self-reported height and weight was 27.4, with 36.8% of people being classed as having a healthy weight according to their BMI (Figure 36). By comparison, the [2022 Scottish Health survey](#) found that the average adult BMI was 28.0, with 32% being classed as having a healthy weight. A higher proportion of City of Edinburgh’s population was classed as having a healthy weight (42.2%) than in the other local authority areas, each of which had 31.1% or a smaller proportion being a healthy weight.

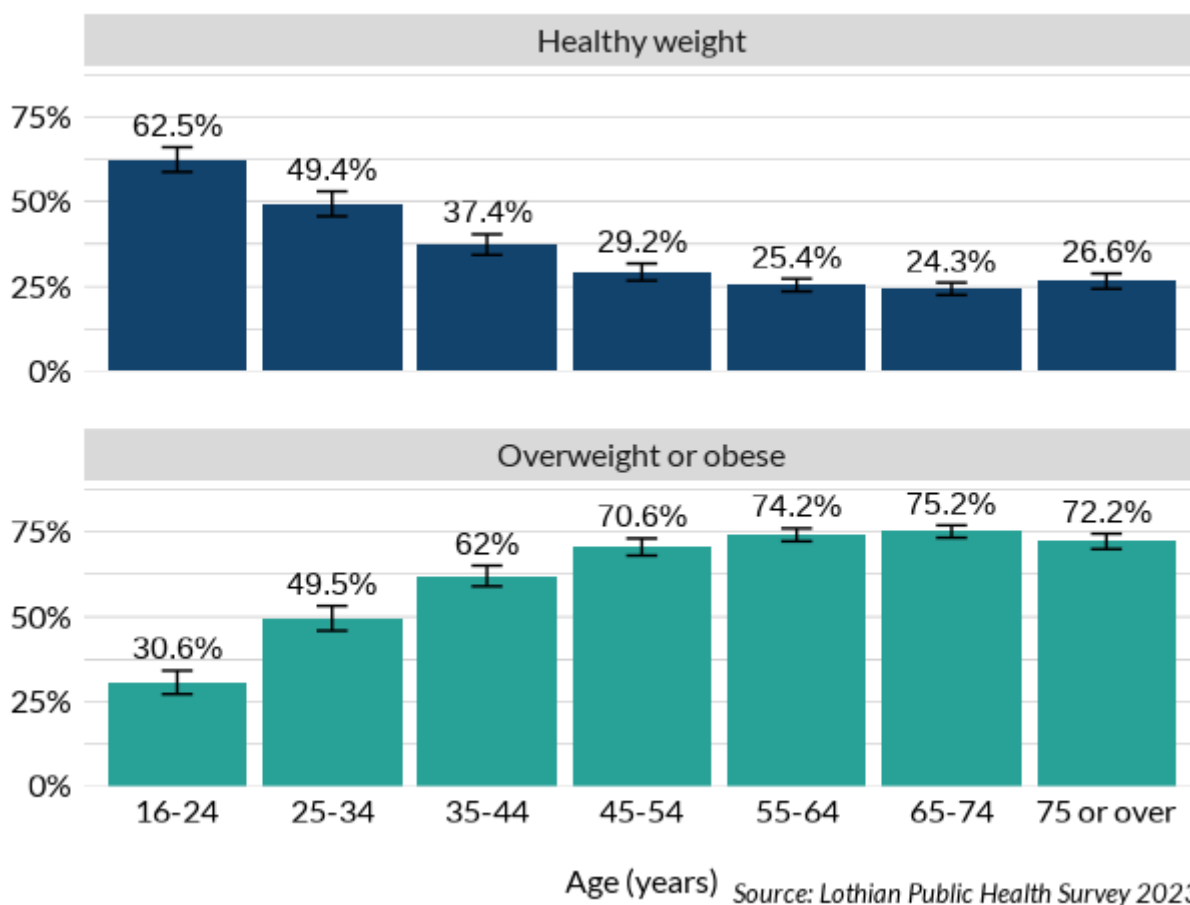
Figure 36 - Percentage in each weight category according to body mass index (BMI, cut-off values provided below category labels - Kg/M²)



Source: Lothian Public Health Survey 2023

The proportion of people reporting having a healthy weight reduces with age (Figure 37), from 62.5% of those aged 16–24 years to less than 30% of those aged 45 or over. A similar relationship between healthy weight status and age is seen for males and females, with a higher proportion of females overall reporting being a healthy weight (41.6%) than males (31.9%).

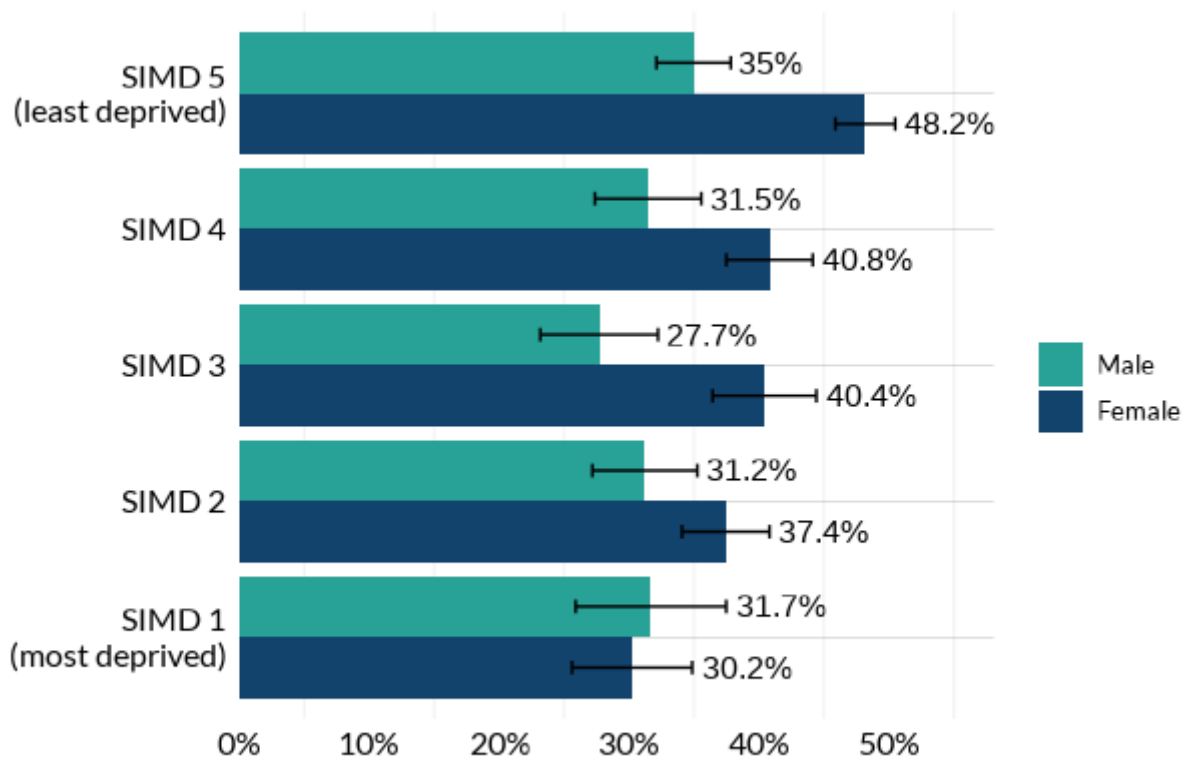
Figure 37 - Percentage categorised as being healthy weight and overweight or obese, by age group



Healthy body weight was negatively associated with deprivation, with 31.0% of those living in the most deprived areas (SIMD quintile 1) reporting a healthy weight, compared to 41.7% of those living in the least deprived areas (SIMD quintile 5). Similar relationships between weight status and deprivation are seen within each local authority area.

The difference by sex in healthy weight status appears to be largely due to differences observed for those living in less deprived areas (particularly SIMD quintiles 3 to 5), with smaller sex differences in more deprived areas (Figure 38).

Figure 38 - Percentage categorised as being healthy weight, by SIMD quintile and sex

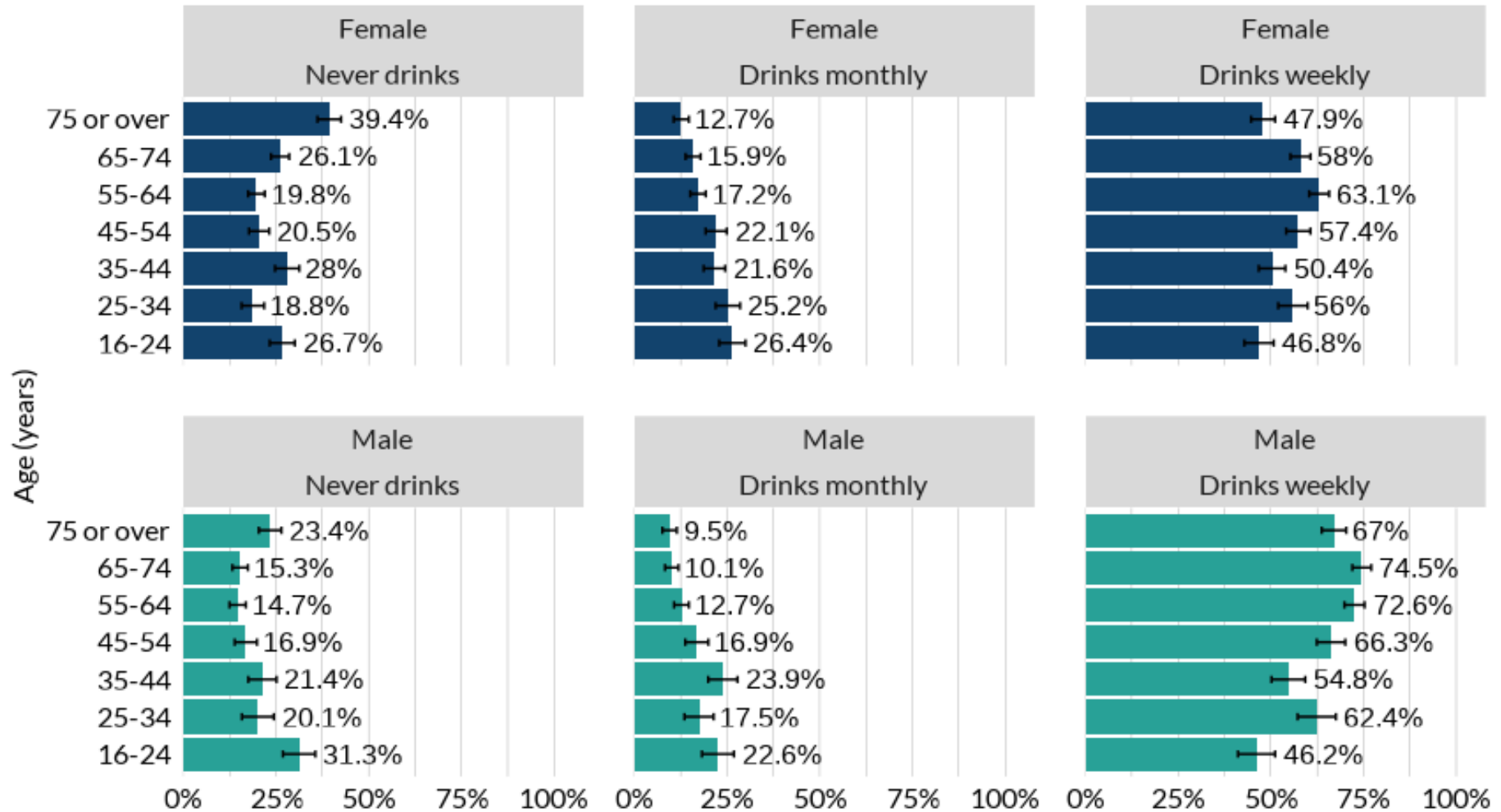


Source: Lothian Public Health Survey 2023

Alcohol consumption

Overall, 58.5% of the Lothian population report drinking alcohol at least weekly, with 10.4% reporting drinking alcohol four or more times a week. Figure 39 shows alcohol consumption frequency by age and sex. Weekly drinking frequency rises with age more steeply for males than it does among females, with 46.2% of 16–24 year old males consuming alcohol at least weekly, compared to 74.5% of males aged 65–74 years (46.8% and 58.0% in the equivalent age groups for females).

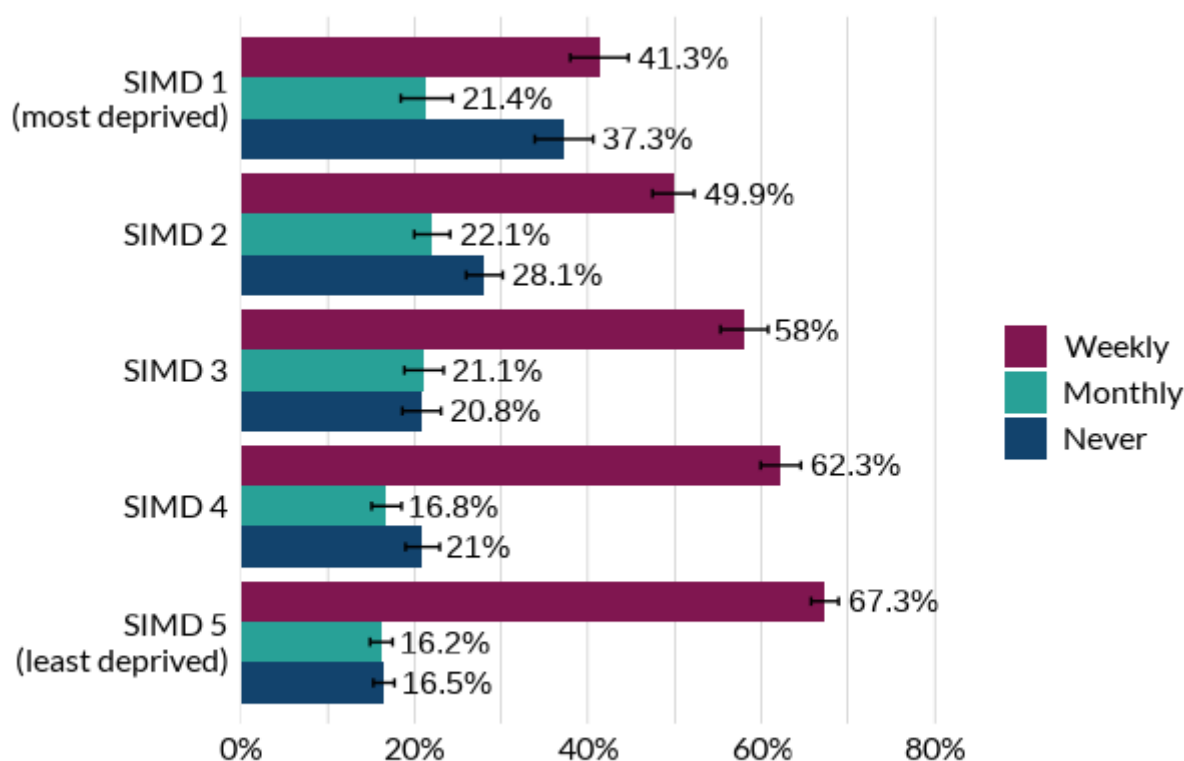
Figure 39 - Percentage drinking alcohol never, monthly and weekly, by age group and sex



Source: Lothian Public Health Survey 2023

Those living in City of Edinburgh are more likely to drink alcohol at least weekly (61.5%) compared to Midlothian (55.1%) and West Lothian (51.6%), with East Lothian having similar levels of weekly alcohol consumption to City of Edinburgh (58.6%). Alcohol consumption frequency is negatively associated with deprivation (Figure 40), with those living in the least deprived areas (SIMD quintile 5) being more likely to consume alcohol weekly (67.3%) than those living in the most deprived areas (41.3% in SIMD quintile 1).

Figure 40 - Percentage drinking alcohol never, monthly and weekly, by SIMD quintile



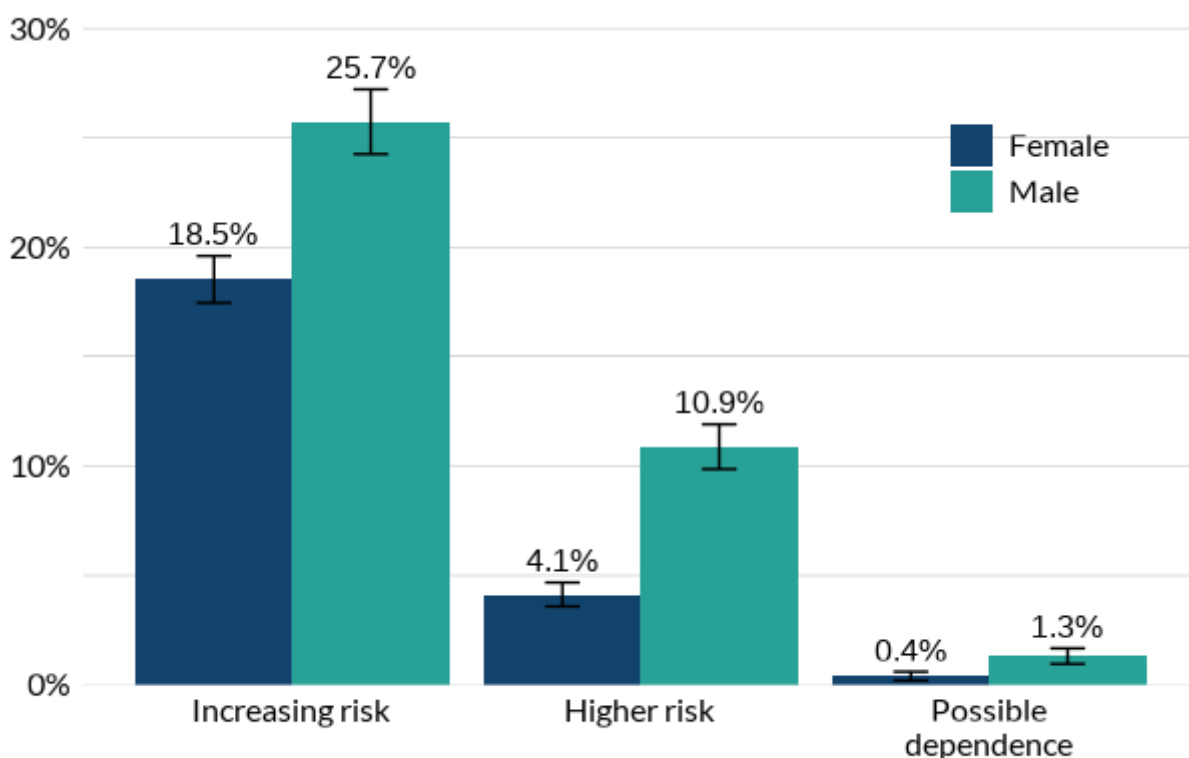
Source: Lothian Public Health Survey 2023

Alcohol consumption frequency was combined with additional questions on the number of drinks consumed per drinking day and the frequency of binge drinking (more than five drinks on one occasion) to identify heavy drinking and/or active alcohol abuse or dependence as per the Alcohol use disorders identification test consumption ([AUDIT-C](#)) methodology (see technical report for full details).

While the majority (69.8%) of the Lothian population were identified as low risk according to this classification, over a quarter (29.4%) were at increasing or higher levels of risk, with 0.8% being at risk of possible dependence. Similar levels of risk are seen across Lothian's local authority areas, with no clear pattern of alcohol-related risk observed by age. By comparison, the [2021 Scottish Health Survey](#) found that the prevalence of hazardous, harmful or possibly dependent drinking behaviour among adults in Scotland was 14%.

Figure 41 shows that males are more likely than females to be at risk of heavy alcohol consumption and/or alcohol abuse or dependence (e.g., 10.9% of males, versus 4.1% of females are at "higher risk"). Similar to alcohol consumption frequency, alcohol-related risk reduces with deprivation, with 24.3% of those living in the most deprived areas (SIMD quintile 1) being at increasing or high risk, compared to 31.6% of those living in the least deprived areas (SIMD quintile 5).

Figure 41 - Percentage meeting alcohol consumption risk thresholds (AUDIT-C), by sex



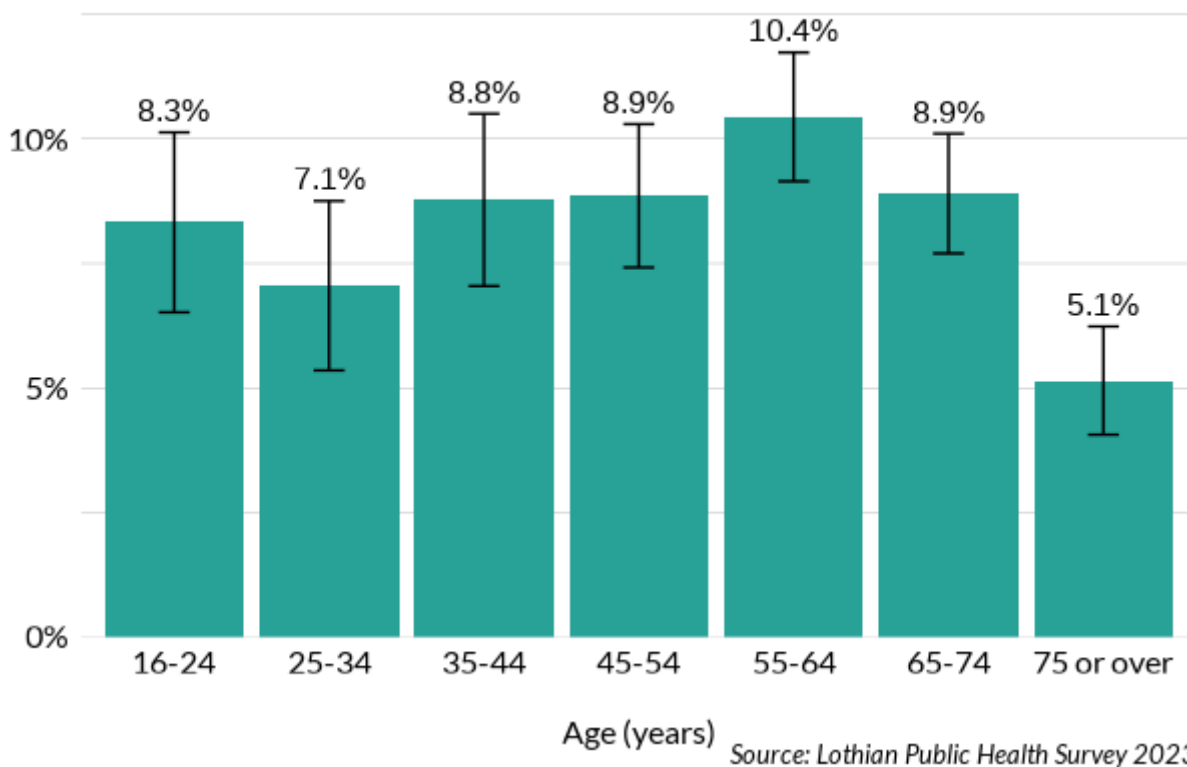
Source: Lothian Public Health Survey 2023

Tobacco smoking

Across Lothian, 8.3% report currently smoking any form of tobacco (including cigarettes, hand-rolled tobacco, pipes, cigars and heat-not-burn cigarettes). By comparison, the [2022 Scottish Health Survey](#) found that 15% of adults in Scotland reported being current tobacco smokers (note that the discrepancy between the 2023 Lothian Public Health Survey and the 2022 Scottish Health Survey may, in part, reflect differences in the demographic profiles of Lothian compared to Scotland, given the relationship between tobacco use and deprivation, see Figure 43). The rates of tobacco smoking are similar across all four local authority areas.

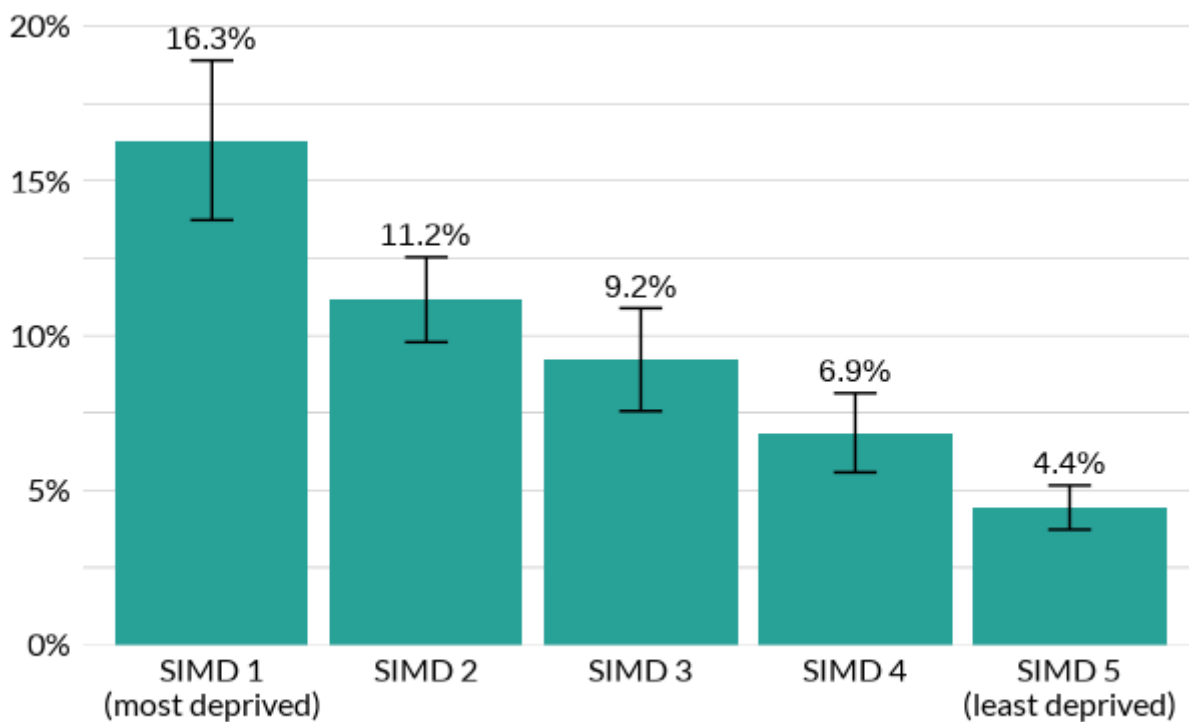
The percentage of people who smoke tobacco is highest at age 55–64 years (10.4%), decreasing with age thereafter (Figure 42).

Figure 42 - Percentage currently smoking tobacco, by age group



More males than females report smoking tobacco (9.9% vs 7%, respectively). Tobacco smoking prevalence was higher among those living in more deprived areas (Figure 43) and ranges from 16.3% for those living in the most deprived areas (SIMD quintile 1) to 4.4% for those living in the least deprived areas (SIMD quintile 5). This pattern is similar across all four local authority areas in Lothian.

Figure 43 - Percentage currently smoking tobacco, by SIMD quintile



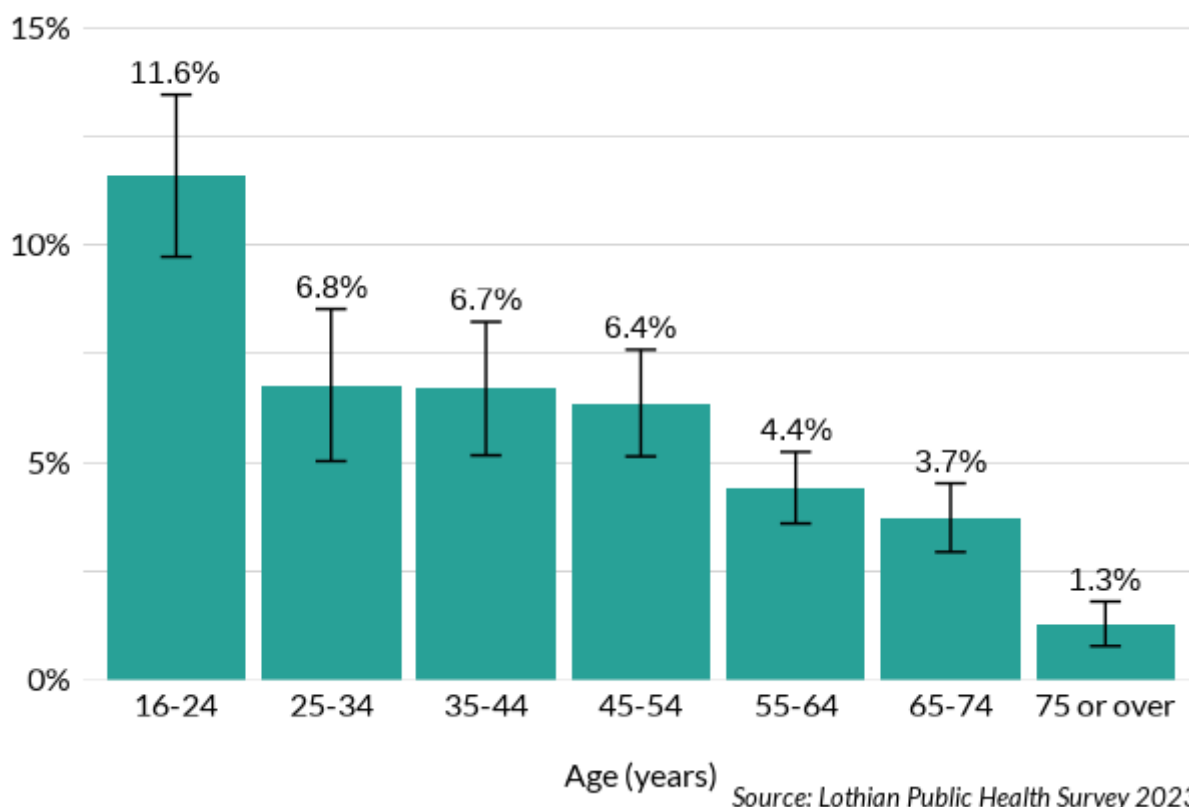
Source: Lothian Public Health Survey 2023

e-cigarette use

Across Lothian, 6.1% report currently using e-cigarettes (vaping). By comparison, the [2022 Scottish Health Survey](#) found that 10% of adults in Scotland reported being current e-cigarette users. The use of e-cigarettes is higher in West Lothian (7.8%) than in Edinburgh (5.5%).

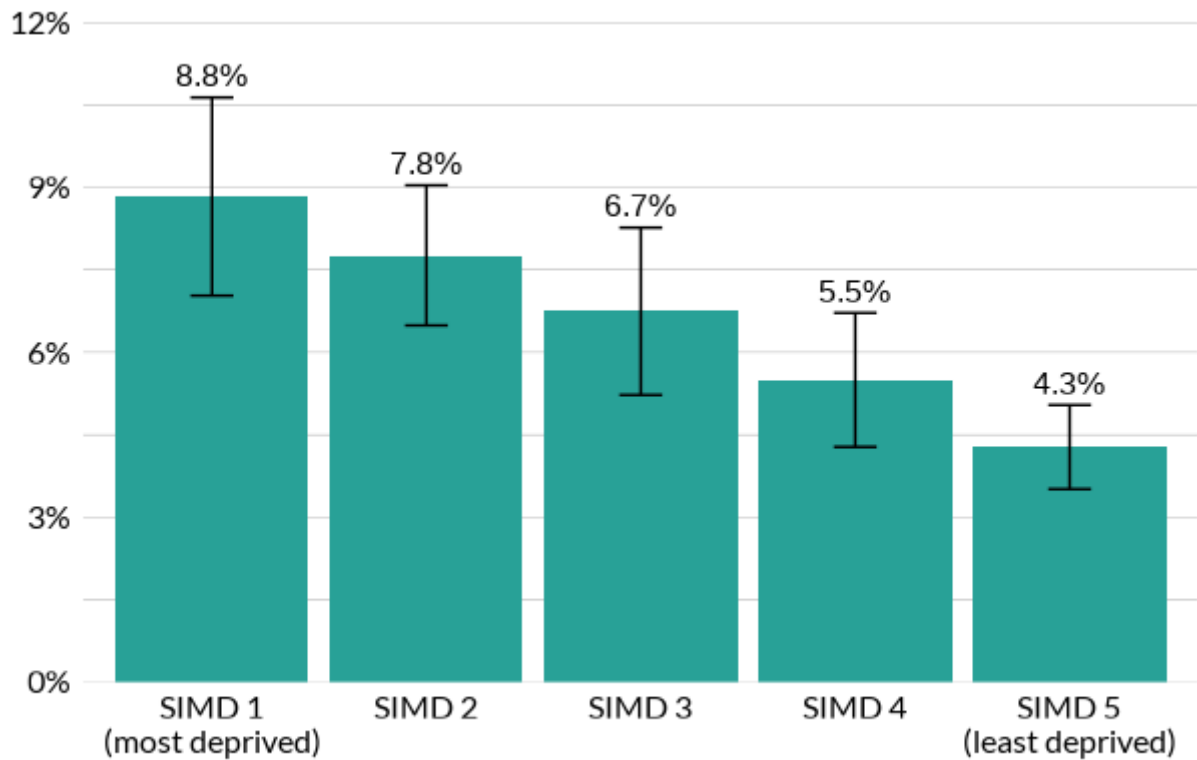
Use of e-cigarettes is highest in the 16–24 years age group (11.6%) and decreases with age to 1.3% of those aged 75 years or over (Figure 44). As e-cigarettes are a relatively new product, it is not yet clear whether the pattern observed here represents a true decline in e-cigarette use with age, or whether it is a cohort effect that will be sustained as the current generation of younger Lothian residents become older.

Figure 44 - Percentage currently using e-cigarettes, by age group



Use of e-cigarettes was similar between males and females. Use of e-cigarettes was higher among those living in more deprived areas (Figure 45) and ranges from 8.8% for those living in the most deprived areas (SIMD quintile 1) to 4.3% for those living in the least deprived areas (SIMD quintile 5). This pattern is similar across all four local authority areas in Lothian.

Figure 45 - Percentage currently using e-cigarettes, by SIMD quintile



Source: Lothian Public Health Survey 2023

Dual use

Across Lothian, 7.3% smoke tobacco without e-cigarette use, 5.1% use e-cigarettes but don't smoke tobacco, and 1.1% are dual users of both cigarettes and e-cigarettes. The percentage of people who use both tobacco and e-cigarettes is highest in the youngest age group (3.3%), and at a low level (1.1% or lower) across all other age groups.

Health services



Health services

The [NHS Scotland: national access policy](#) sets out a national approach for health boards to ensure equitable, safe, clinically effective and efficient access to services for their patients. NHS Lothian has a [Local Access Policy](#) which it implements to achieve these aims locally.

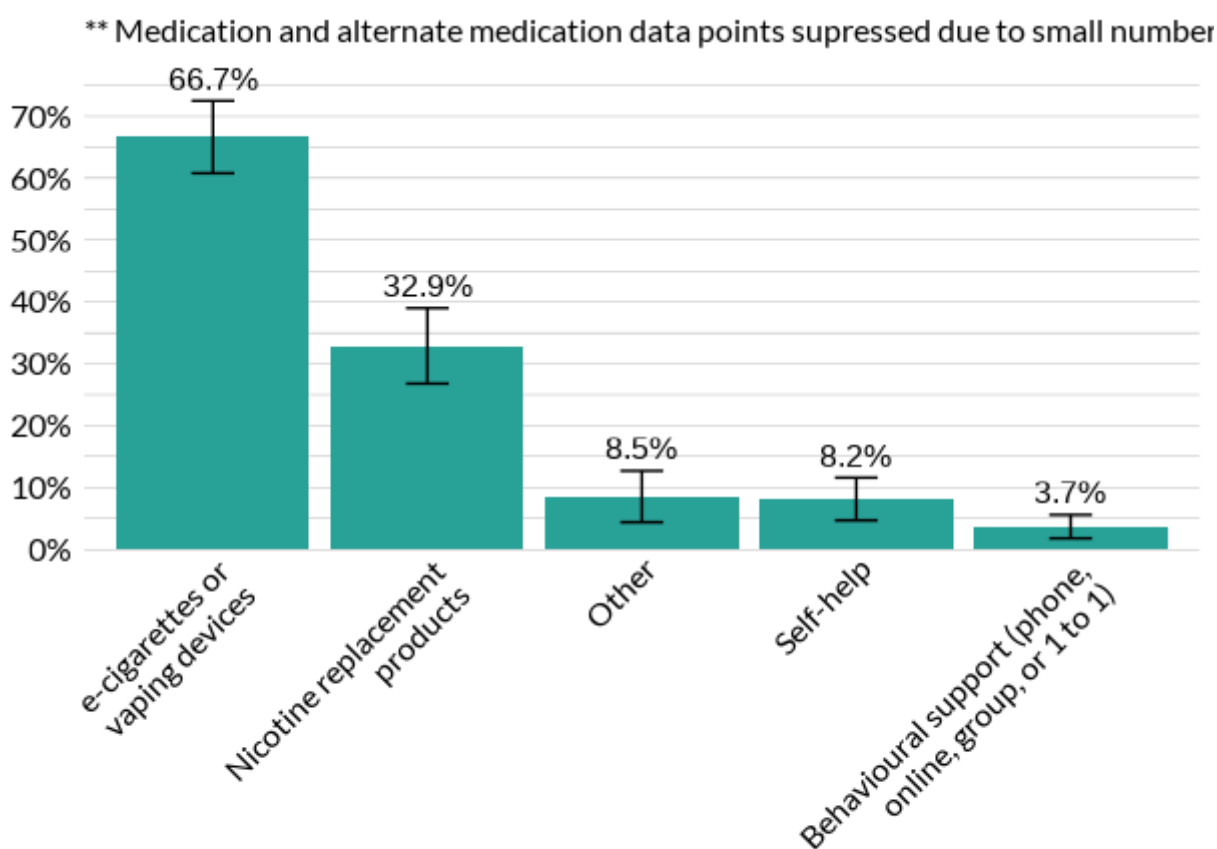
This section presents a snapshot of health service utilisation by participants over the past 12 months, which can help us identify where there may be inequalities in access, for example by age, sex or deprivation categories.

The services offered by NHS Lothian include [screening tests](#), which can identify some diseases and conditions before symptoms appear, and therefore are a vital tool in primary prevention efforts. Eligibility for screening for each specific disease or condition is based on age and/or sex. However, not everybody who is eligible will receive and/or take up an invitation for screening. Uptake of screening is known to be subject to inequalities, for example, uptake of breast, bowel and cervical cancer screening is lower in more deprived areas of Scotland. This section presents information on perceived barriers to screening access.

Smoking cessation

Of the 8.3% who reported smoking any form of tobacco, one third (33.9%) reported using some form of help to stop smoking in the last 12 months, which was approximately equal across Lothian’s local authority areas. Figure 46 presents the proportion of each type of support accessed by tobacco smokers to help stop smoking.

Figure 46 - Percentage of tobacco smokers accessing forms of cessation support

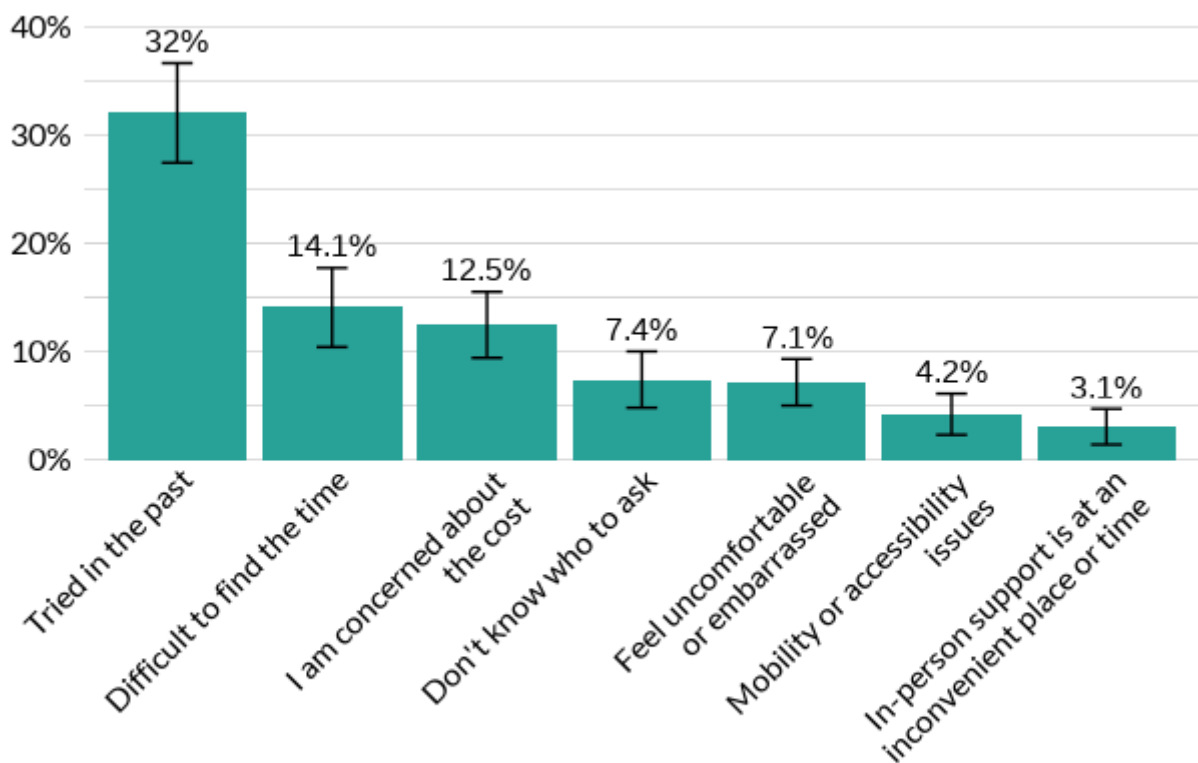


Source: Lothian Public Health Survey 2023

Tobacco smokers in the youngest age group (16–24 years) were more likely than those aged 75 years or older to have used some form of help to quit smoking in the last 12 months (45.3% versus 21.5% respectively). There was no difference in the proportion accessing any form of tobacco cessation by sex.

Around half (47.4%) of tobacco smokers reported that they had experienced at least one barrier to accessing smoking cessation support in the past 12 months. Figure 47 presents the prevalence of specific barriers, with the most common being having tried unsuccessfully to quit smoking in the past (32.0%).

Figure 47 - Percentage of tobacco smokers experiencing barriers to smoking cessation



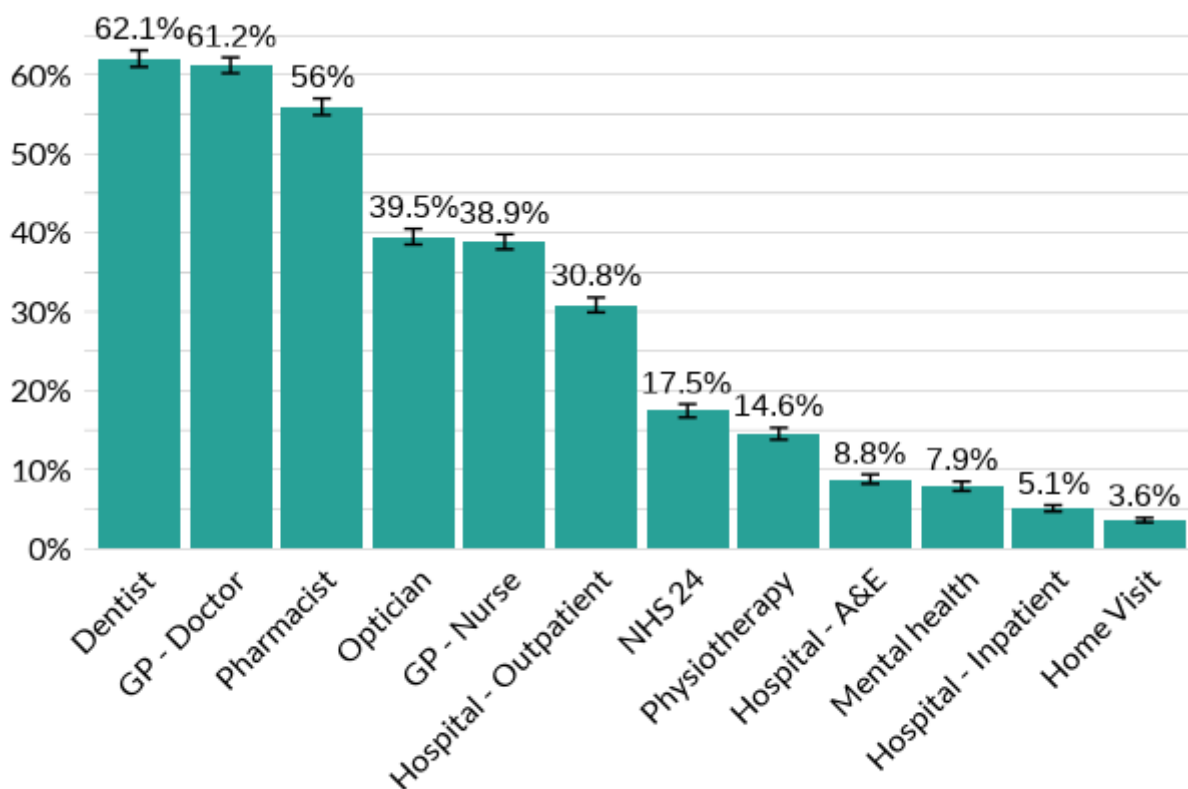
Source: Lothian Public Health Survey 2023

Access to healthcare services

People were asked which of a list of healthcare services they had used in the past 12 months for treatment or advice. Note that people were not explicitly instructed to include only NHS services, so responses in this section may in part reflect access to private healthcare.

Figure 48 presents the proportion accessing each type of service, with dentistry (62.1%), doctor's appointment at a general practice (61.2%) and pharmacy (56.0%) being the most commonly accessed services. Use of any of these types of service tends to increase with age, with 88.4% of 16–24 year olds having accessed any, compared to 96.4% of those aged 75 years or over.

Figure 48 - Percentage accessing each type of health service in the last 12 months



Source: Lothian Public Health Survey 2023

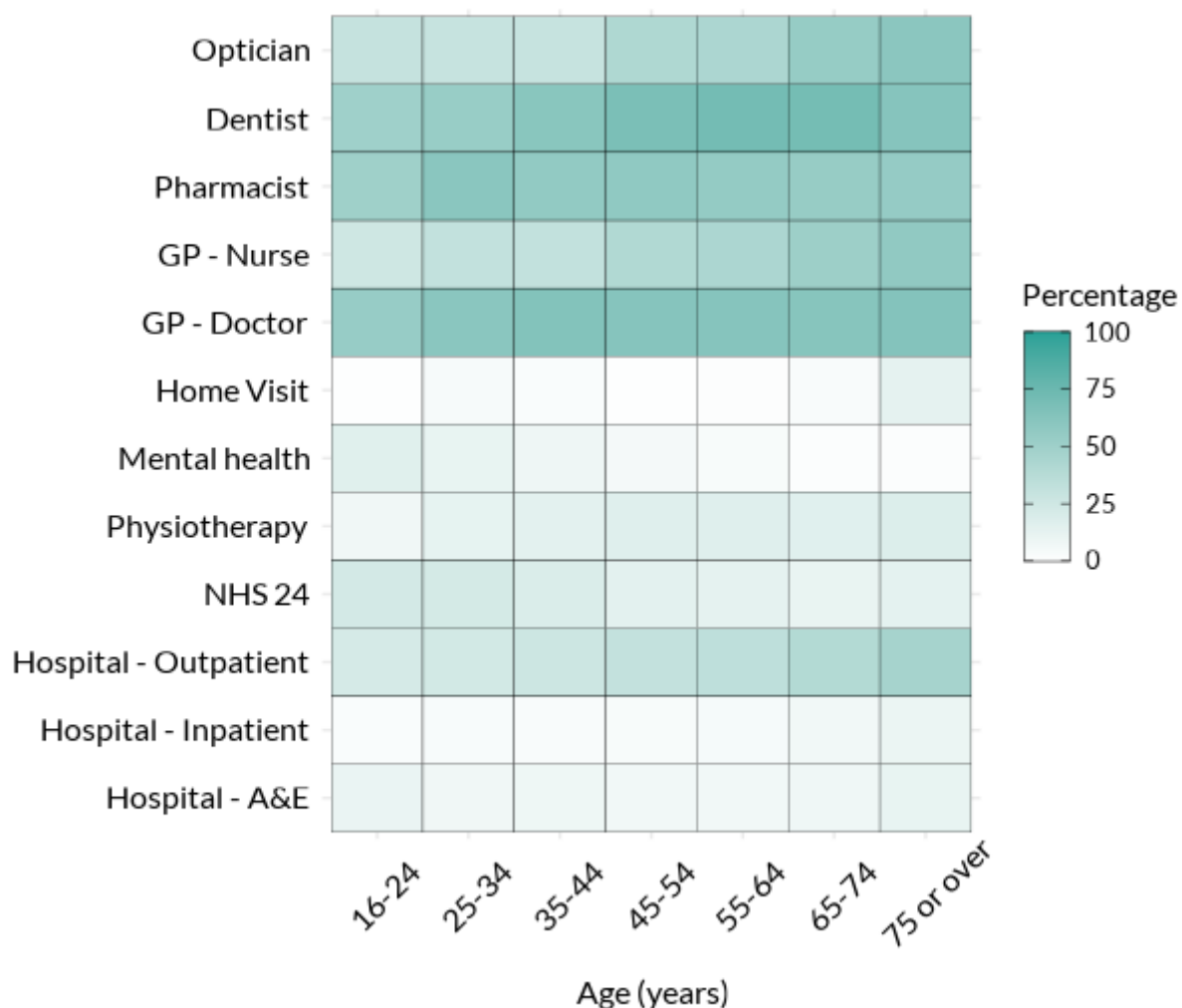
Different services show different access patterns with age, as summarised in Figure 49. The proportion who reported accessing dentists increased with age until 71.3% at 55–64 years, then decreases in later life. Optician access increased gradually with age, with 60.2% of those aged 75 or over reporting having accessed these services in the past year. NHS 24 use is most common for those aged 16–44 years (around 20%), with mental health services most likely to be used by those aged 16–24 years (16.4%, dropping to 4.3% or less by the age of 55 and older).

Outpatient services were the most commonly reported hospital service accessed for each age group, when compared to A&E attendance or inpatient hospital stays. Those aged 45–74 years were most likely to report outpatient service use (between 31.6% and 46.5%), with A&E attendance being most likely amongst those aged 16–24 years (11.2%) or 75 and over (12.2%). The likelihood of accessing a general practice nurse increases with age, from 25.7% of those aged 16–24 years to 57.1% of those aged 75 years and over. Home visits (by a doctor, nurse or midwife) are relatively rare (less than 4%) until later life, with 13.4% of those aged 75 and over reporting using this type of service.

Use of at least one type of health service was more common amongst females (95.3%) compared to males (90.9%). Differences by sex were observed for most individual services (except A&E attendance) and is particularly evident for GP nurse access (46.4% of females, compared to 30.7% of males).

Differences in healthcare service access by deprivation are most pronounced for access to dentistry, with 46.3% of those living in the most deprived areas (SIMD decile 1) reporting access in the past 12 months, compared to 71.3% of those living in the least deprived areas (SIMD decile 10). Equivalent patterns of healthcare service use overall, and by deprivation groupings are seen across Lothian's local authority areas.

Figure 49 - Percentage accessing each type of health service in the last 12 months, by age group

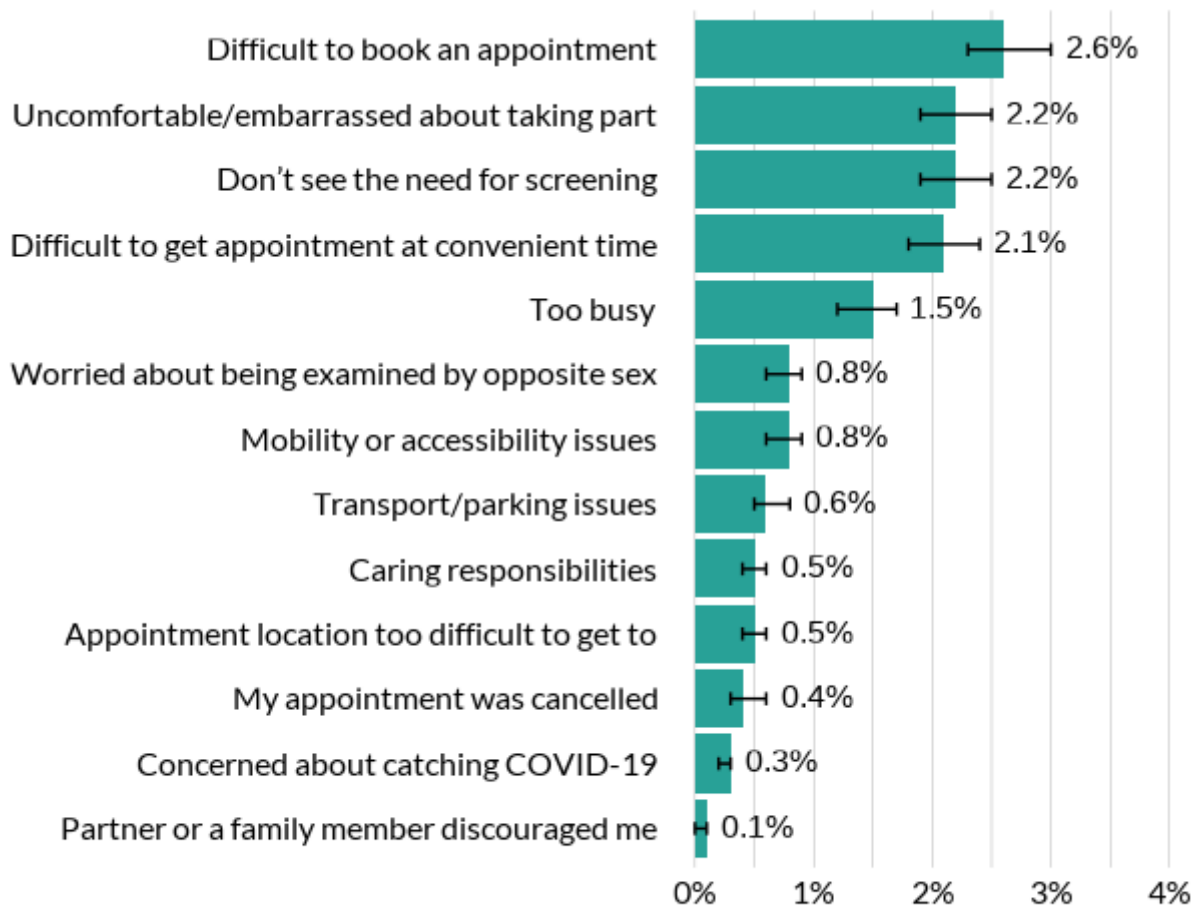


Source: Lothian Public Health Survey 2023

Screening programmes

People were invited to select from a list of factors which may have prevented them from participating in specific screening programmes. Nearly one in ten (9.5%) reported one or more barriers. Figure 50 presents the proportion experiencing each of the specific barriers. Note that people also had the option of adding their own perceived barriers in an open text field, which are not included in the analyses below. As such, the estimate of the proportion experiencing barriers to screening is likely to be an underestimate.

Figure 50 - Percentage experiencing barriers to accessing screening services



Source: Lothian Public Health Survey 2023

Those aged over 65 years were less likely (around 7% to 8%) to have experienced a barrier than those aged between 25 and 44 years (around 11% to 12%). Perceived barriers to screening also showed qualitative changes with age, with 16–24 year olds being most likely to not see the need for screening (5.4%), 25–44 year olds finding it difficult to book an appointment (ranging from 4.2% to 4.3%), being too busy (ranging from 2.1% to 3.1%), or not being able to find an appointment at a convenient time (ranging from 2.8% to 3.4%), and those aged over 55 years old being more likely to experience mobility or access issues (ranging from 1.3% to 2.3%).

Females were more likely than males to have experienced a barrier to screening programmes (11.3% versus 7.6%, respectively). The nature of barrier experienced was also qualitatively different by sex, with females being more likely to be uncomfortable or embarrassed about taking part (3.3% versus 0.9%), or worried about being examined by a member of the opposite sex (1.3% versus 0.1%). An association with deprivation was also observed, with those living in the least deprived areas (SIMD quintile 5) being less likely to experience barriers (5.9%) to screening than those living in the most deprived areas (15.5%, SIMD quintile 1).

COVID-19



COVID-19

Emerging in late 2019, the coronavirus (COVID-19) pandemic had significant implications for population health. The impacts were both [direct](#) – reflecting the morbidity and mortality caused by the virus itself, and [indirect](#) – reflecting the impact of disease control measures on the social, economic, cultural and political factors affecting health. These impacts were not felt equally across populations, with those already at increased risk of poorer health outcomes generally being affected to the greatest extent.

The World Health Organization formally declared the [end of the COVID-19 global health emergency](#) in May 2023; however, there remain significant direct and indirect influences on population health.

Contracting COVID-19

Overall, 72.3% of people across Lothian reported that they had ever tested positive or suspected COVID-19 (between local authorities this ranged from 69.5% in East Lothian to 73.3% in Edinburgh). Across Lothian 27.7% reported that they are not aware of ever having had the virus. Note that there was little discernible difference in COVID-19 related survey findings when we restricted this analysis to only those that reported having tested positive for COVID-19.

A higher proportion of females (74.6%) compared with males (69.7%) reported that had confirmed or suspected COVID-19. The sex difference in COVID-19 status was widest in City of Edinburgh (where 76.2% of females versus 70.3% of males reported having had COVID-19).

The proportion reporting confirmed or suspected COVID-19 decreased with age (Figure 51), with 82.8% of 25–34 year-olds reporting this, compared with 45.9% of those aged 75 or over. A similar age pattern is observed across Lothian's local authority areas.

COVID-19 status was negatively associated with area-level deprivation, with 61.1% of those living in the most deprived areas (SIMD decile 1) reporting confirmed or suspected infection, compared with 74.8% of those living in the least deprived areas (SIMD decile 10). Figure 52 shows that the gap between most and least deprived is widest in City of Edinburgh (62.7% of those in the most deprived areas (SIMD quintile 1), versus 76.0% in the least deprived areas (SIMD quintile 5). A wider gap is observed in Midlothian between SIMD quintiles 1 and 4 (65.7% versus 80.5%, respectively).

Figure 51: Percentage having confirmed or suspected COVID-19, by age group

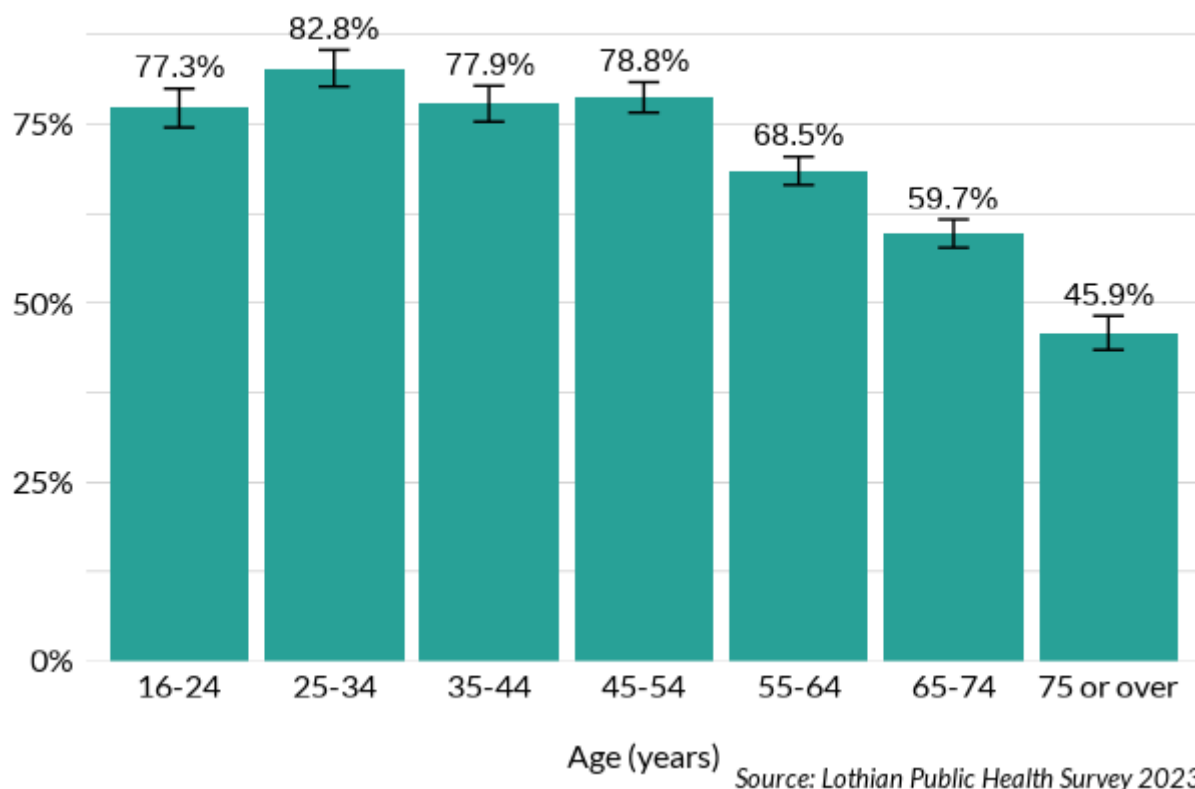
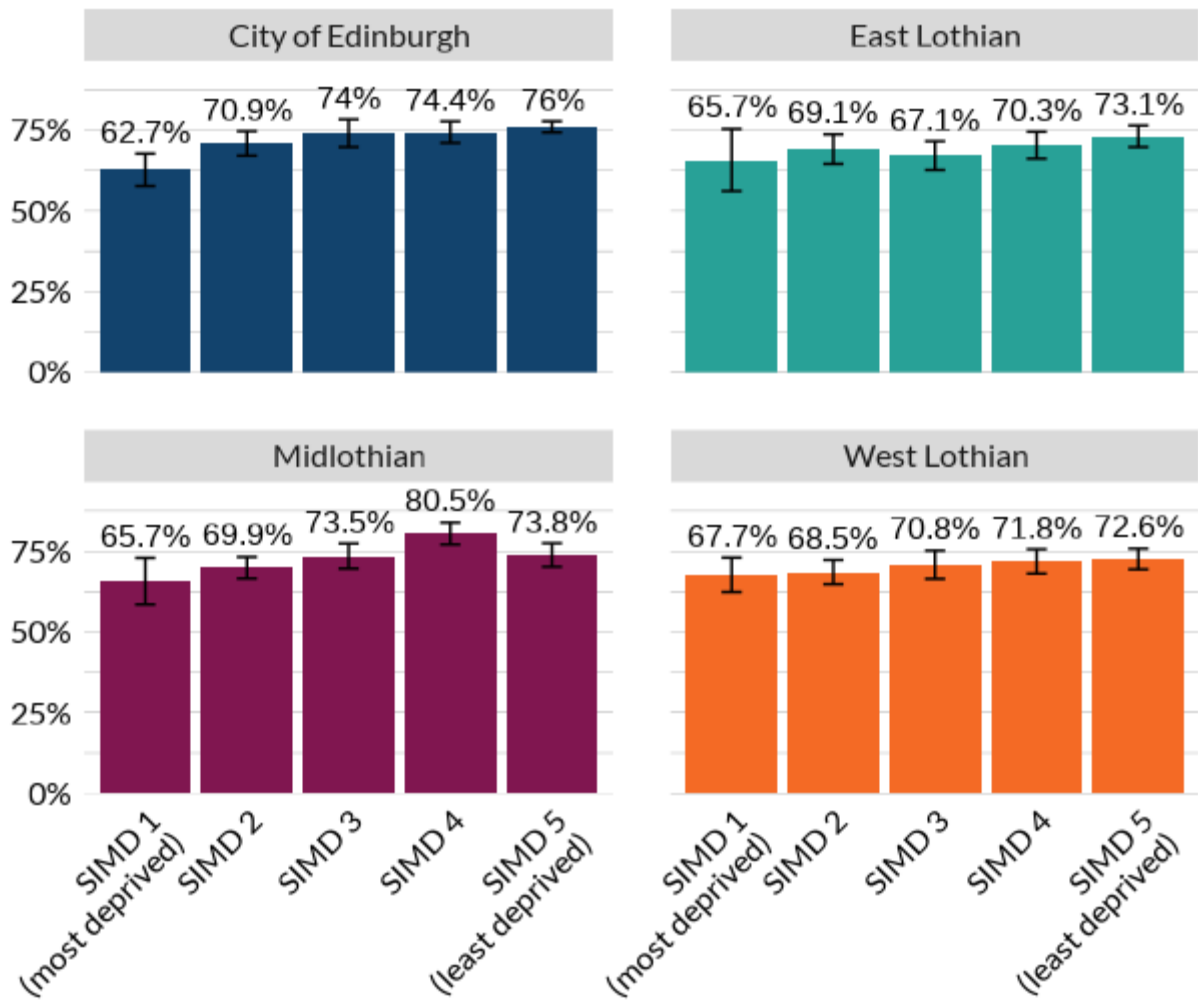


Figure 52: Percentage having confirmed or suspected COVID-19, by local authority and SIMD quintile



Source: Lothian Public Health Survey 2023

Long COVID

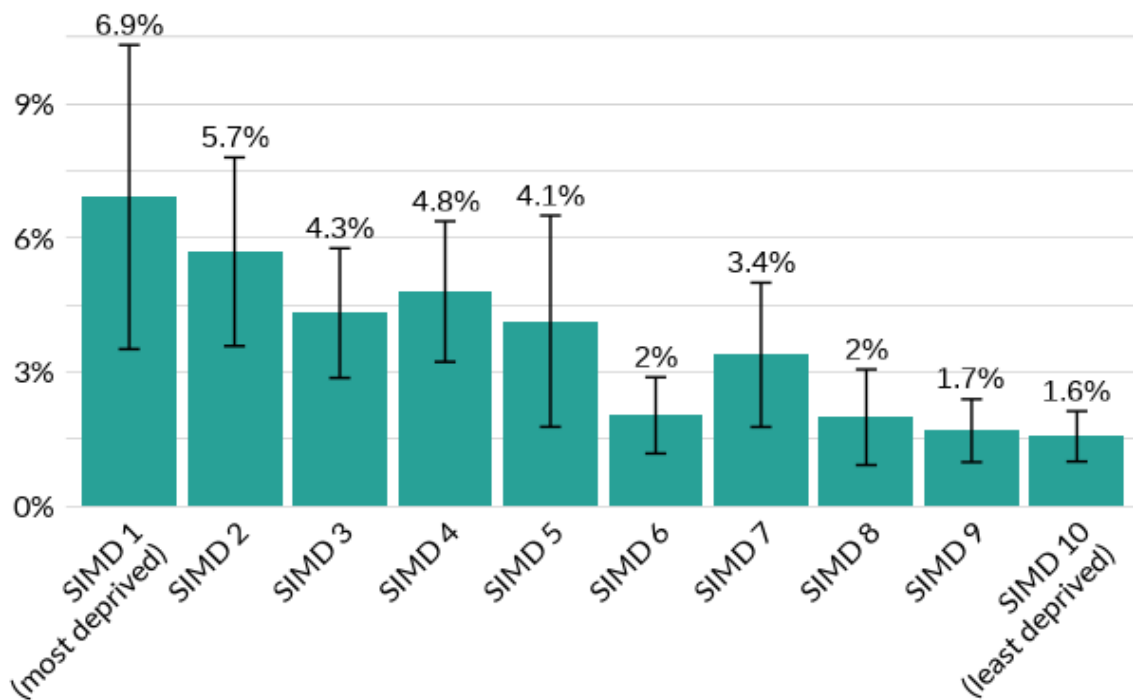
Of those reporting confirmed or suspected COVID-19, the vast majority (92.7%) report that they did not have COVID symptoms for more than four weeks (the definition of long COVID used by the [Office for National Statistics](#)). The proportion of those infected who reported long COVID was slightly higher amongst females (8.7%) compared with males (5.6%), with no clear pattern by age or deprivation. Around one in ten (9.2%) of those reporting having had COVID-19 in West Lothian report long-COVID symptoms, which is slightly higher than observed in City of Edinburgh (6.4%).

COVID-19 vaccination

The vast majority of people in Lothian report having had at least one COVID-19 vaccination (96.9%), with 2.5% reporting not wanting a vaccine, 0.3% reporting that they hadn't been offered vaccination and 0.2% planning to get the vaccine in the future. COVID-19 vaccination rates were approximately equivalent across Lothian's local authority areas. A similar proportion of males and females report not being vaccinated. The proportion reporting being unvaccinated decreases with age, with 4.9% of 16–24 year olds being unvaccinated, compared to 0.6% of those aged 75 or over.

COVID-19 vaccination rates are negatively associated with deprivation (Figure 53), with 6.9% of those in the most deprived areas (SIMD decile 1) reporting being unvaccinated, compared to 1.6% in the least deprived areas (SIMD decile 10), a pattern which is reflected across each of Lothian's local authority areas.

Figure 53 - Percentage unvaccinated for COVID-19, by SIMD decile

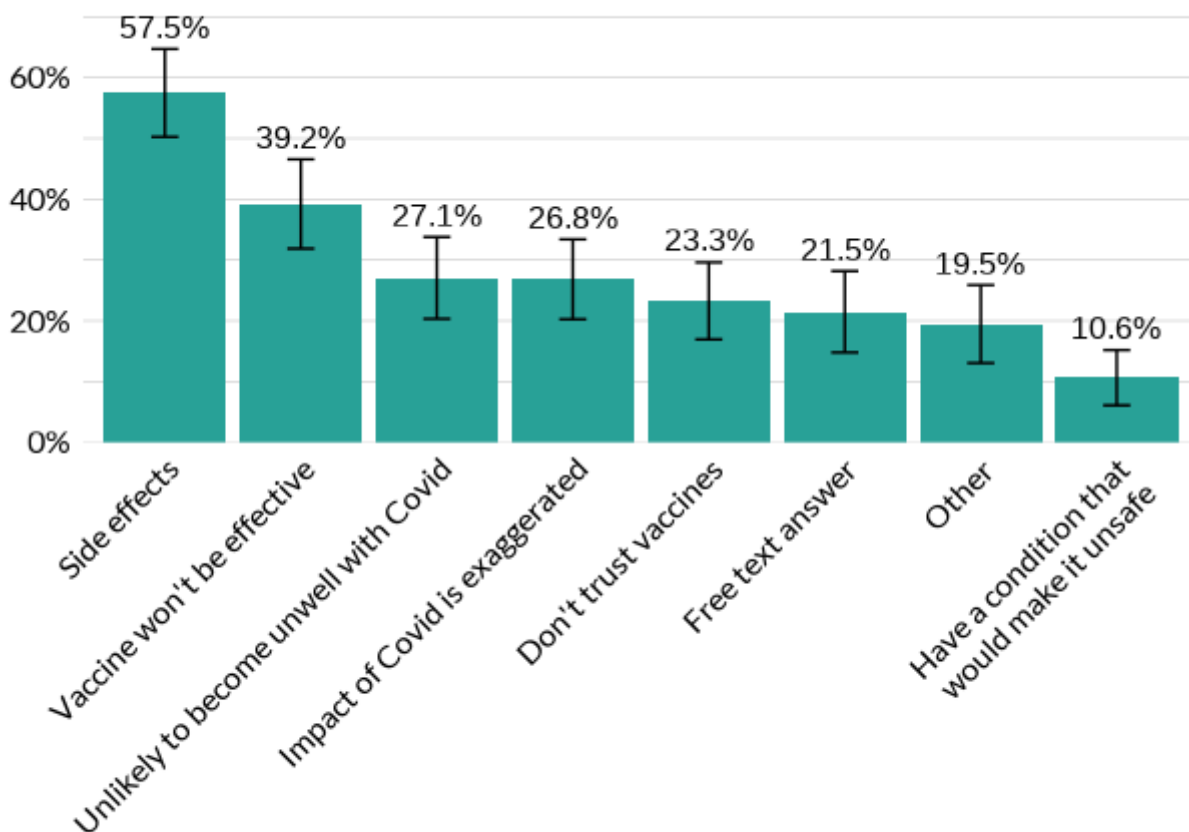


Source: Lothian Public Health Survey 2023

Vaccine hesitancy

Among the 2.5% reporting they were unvaccinated and did not want a COVID-19 vaccine, the most commonly cited reasons for not wanting the vaccine (Figure 54) were: concern about side effects (57.5%); a belief that the vaccine would not be effective (39.2%); and a belief that they were unlikely to become seriously unwell with the virus (27.1%).

Figure 54 - Percentage of reasons for not wanting the COVID-19 vaccination, among those unvaccinated and not wanting the vaccine



Source: Lothian Public Health Survey 2023

