NHS Lothian

Director of Public Health Annual Report 2024

Public Health and Health Policy

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Introduction

In the introduction to the 2023 Director of Public Health Annual report we highlighted the importance of our commitment to creating a society where everybody can thrive, be given the best possible start in life and improved life chances throughout the life course. The report recognised the importance of what many have called the building blocks for a healthy life, such as good education, a stable job, good pay and a safe, affordable place to live. These building blocks are essential if we are to improve longer term health outcomes and see an increase in life expectancy, particularly healthy life expectancy.

In this report we provide you with some up-to-date-information about the Lothian population and their health. We use recently updated census data, alongside routine health data and the results of our recent public health survey to give you a rounded picture of the health issues facing our population. We have seen demographic changes in recent years – notably an ageing population, declining birth rate and smaller households - and these are likely to continue. We have seen an increase in poor mental health, particularly amongst young adults and we continue to see the poorest people in our communities living longer in ill-health.

Population health has always benefitted from effective primary prevention: clean water, sewage systems, universal education, universal vaccination programmes, mandatory seatbelts in cars, the back-to-sleep campaign, and legislation on smoking in public places. Crucially, these whole population interventions do not increase inequalities as there are no barriers to entry in terms of money, time and effort. Good public health is always about prevention and has the added benefit of being one of the most cost-effective interventions the NHS and wider health and care system can make to improve population health and reduce health inequalities.

In this report we outline some of our recent work on making the case for prevention, both in terms of its cost effectiveness and its impact on health outcomes. We talk about the different forms of prevention and the importance of strengthening our focus on the building blocks of health (where we expect to see the greatest gains) - much of this work undertaken through local place-based approaches with our partners. The importance of place cannot be emphasised enough; our partners in the local authorities understand this well and we all recognise the importance of creating policies that support the creation of healthy places where people can live and work well together.

The final section of this report talks about prevention within health and care. Our primary care colleagues are embedded in local communities and are often the first point of contact with the health and care system. Their understanding of local health needs and how to intervene early, along with our partners in the community and

voluntary sector, to improve health are essential components of a system wide prevention approach.

I hope that you find this report useful, that it increases your knowledge of our local population and their health needs and is able to convince you of the need for an increased focus on prevention. Many people have said that our current fiscal pressures do not support an increased focus on prevention. This feels short-sighted. We need to focus on prevention more than ever before if we expect to see any degree of health gain within our population, particularly for those experiencing the most disadvantage. A focus on prevention will improve individual and population health outcomes and will also decrease the demand for care and treatment in the future.

Of course, the work of public health in Lothian spans many more areas of work than we have featured here. We have responsibility for the oversight of significant population health initiatives such as all immunisation programmes, pharmaceutical and dental public health, national screening programmes, delivery of an effective health protection function alongside services such as Healthy Respect, Maternal and Infant Nutrition and Quit Your Way, our smoking cessation service. There are reports for all of these services available separately. Those of you that are interested in finding out more about the work of the Public Health Department in Lothian, should visit our webpages.

Dona Milne

Director of Public Health and Health Policy

NHS Lothian

Lothian's Demographics

Population size

Understanding the demographic characteristics of our population such as their age, sex, ethnicity and deprivation is a crucial first step in shaping policy and practice to support health and wellbeing. As of mid-2023 the total population of Lothian was estimated to be 919,060 people (51% female, 49% male). Figure 1 shows the distribution of Lothian's population by age group, and highlights that the largest five-year age group is 20-24 year-olds, comprising 8% of Lothian's total population. The concentration of young working-age people in Lothian reflects the status of the City of Edinburgh as an education and employment hub driving migration to the area for study and work. Lothian's other local authority areas typically have a greater proportion of older people (Figure 2). In East Lothian and West Lothian, the largest age group is 55-59 (both 7.7%), with 35-39 being the largest group in Midlothian (7.4%).

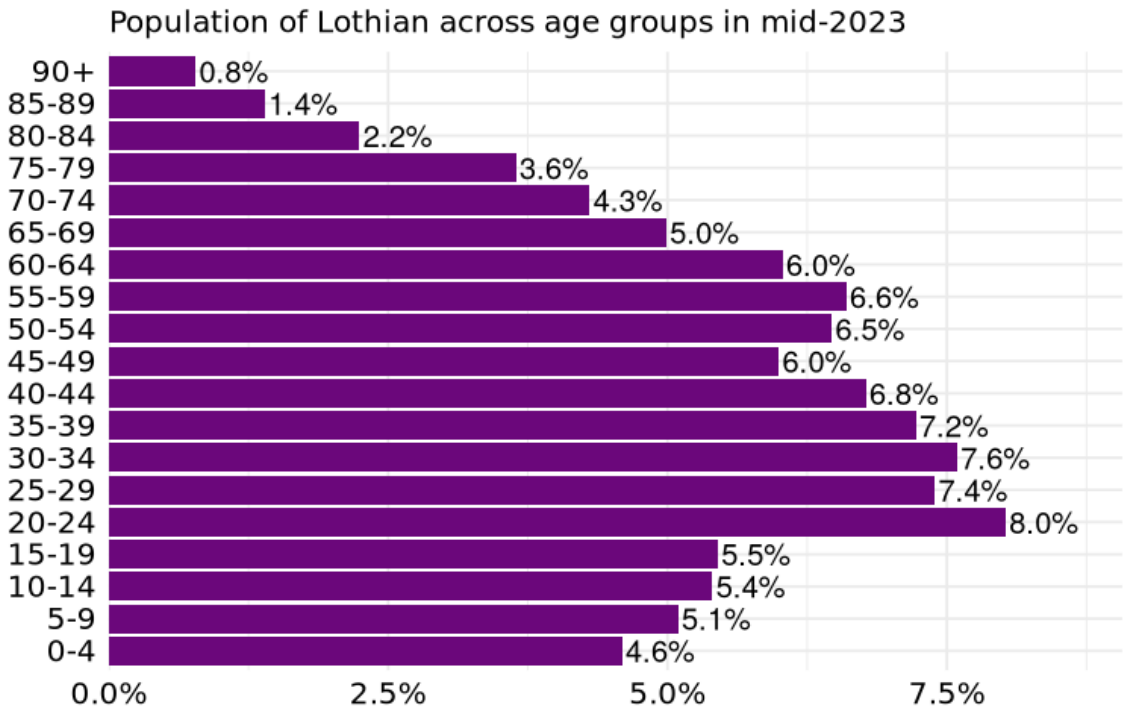

Figure 1 - age and sex distribution of Lothian's population, data source: Mid-2023, Population Estimates Scotland, National Records of Scotland

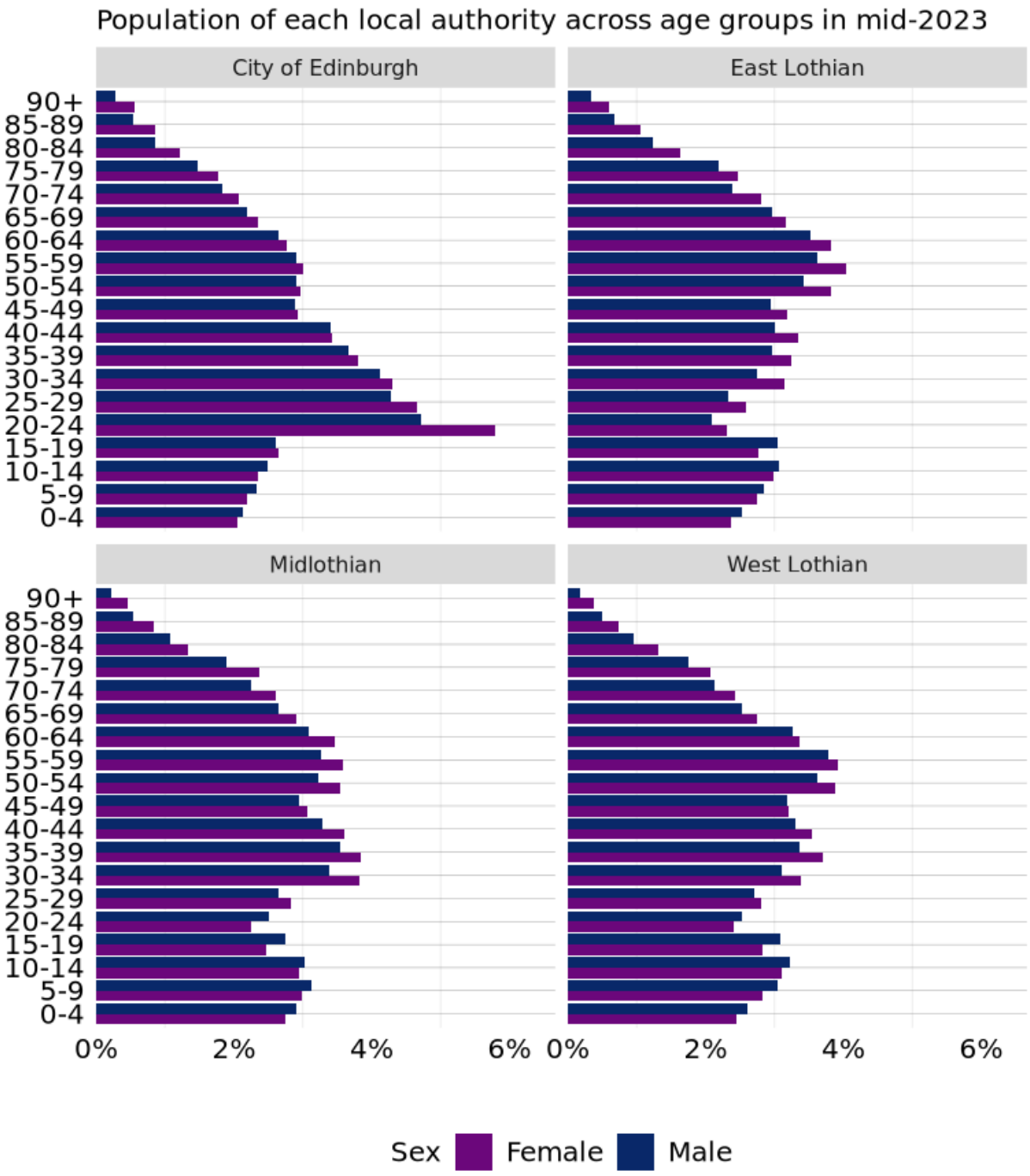

Figure 2 - age and sex distribution of Lothian's local authority areas, data source: Mid-2023 Population Estimates Scotland, National Records of Scotland

Population change

Scottish Census data from 2011 and 2022 can be used to examine change over time in Lothian's population. Over this period, Lothian's population increased by nearly 70,000, but changes were not seen uniformly across the life course. Figure 3 shows the percentage change between 2011 and 2022 by age group, which highlights particular growth in Lothian's population of people aged 55 and over (in absolute

terms 51,043 more people), with the population of 70-74 year olds growing by 26% between 2011 and 2022 (10,560 more people). Conversely, there has been relatively little change in the size of the population aged 15-29 and the number of people aged 0-4 years has decreased by 15% over this period (in absolute terms, 6,317 fewer people).

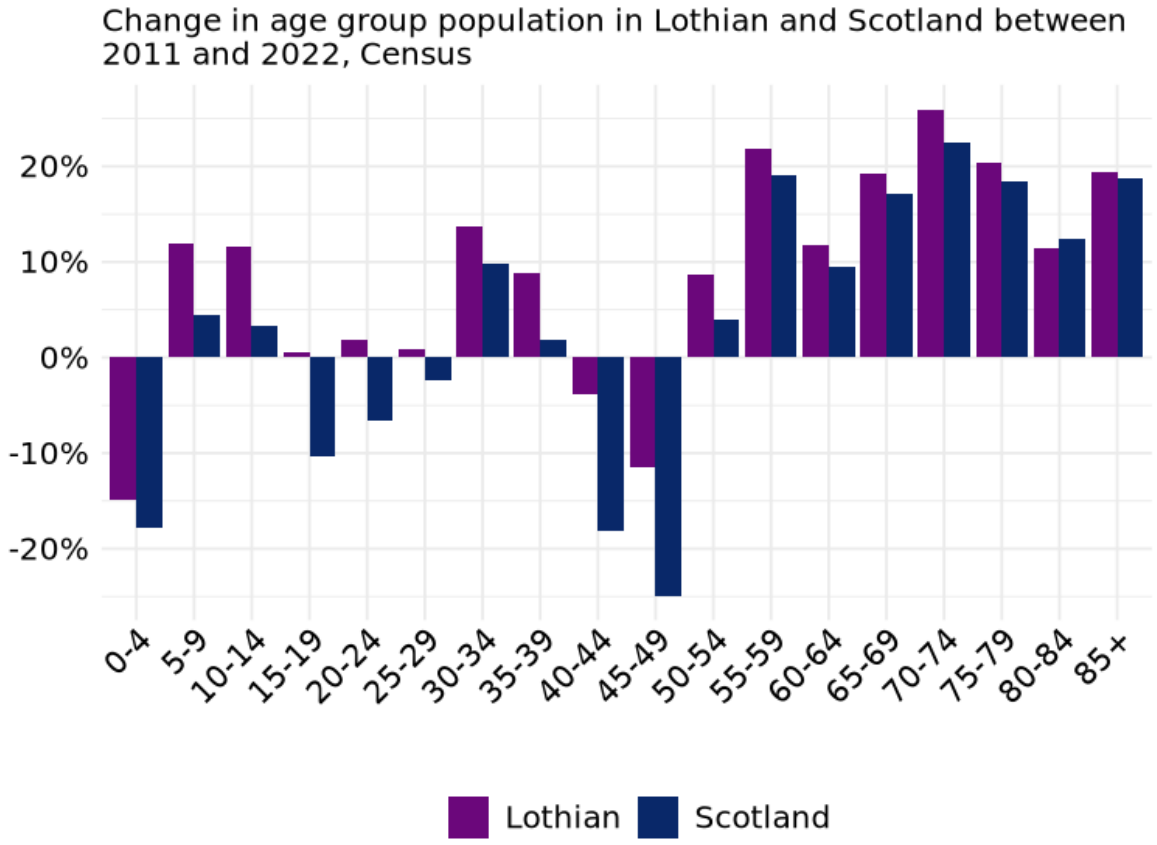

Figure 3 - the percentage change in population between 2011 and 2022 by age group, data source: Scotland's census

Distribution of deprivation

Whilst most of Lothian's residents live in areas of low deprivation (22.1% of Lothian's population live in Scotland's 10% least deprived areas), 34,620 people in Lothian live in Scotland's 10% most deprived areas. The distribution of deprivation is not equal across Lothian's local authority areas, with 25.7% of Edinburgh's and 33.3% of East Lothian's populations living in Scotland's 40% most deprived areas, compared to Midlothian and West Lothian which are closer to Scotland's distribution of deprivation in this respect (40.2% and 41.5%, respectively).

Ethnicity

According to the 2022 Scottish Census, the largest ethnic group in Lothian is those who identify as white, who comprise approximately 89% of the total population. Figure 4 presents the distribution of ethnicity by age across Lothian. The most ethnically diverse age group (as a proportion of its total population) is those aged 16-

24, of whom approximately 82.8% are white, 3.0% (3,314 individuals) are from mixed or multiple ethnic backgrounds, 11.2% (12,533) are Asian, Scottish Asian or British Asian, 1.2% (1,339) are African, 0.2% (271) are Caribbean or black, and 1.6% (1,815) identify as other ethnic groups. The least ethnically diverse age group is those aged 65 and over, of whom approximately 97.8% are white.

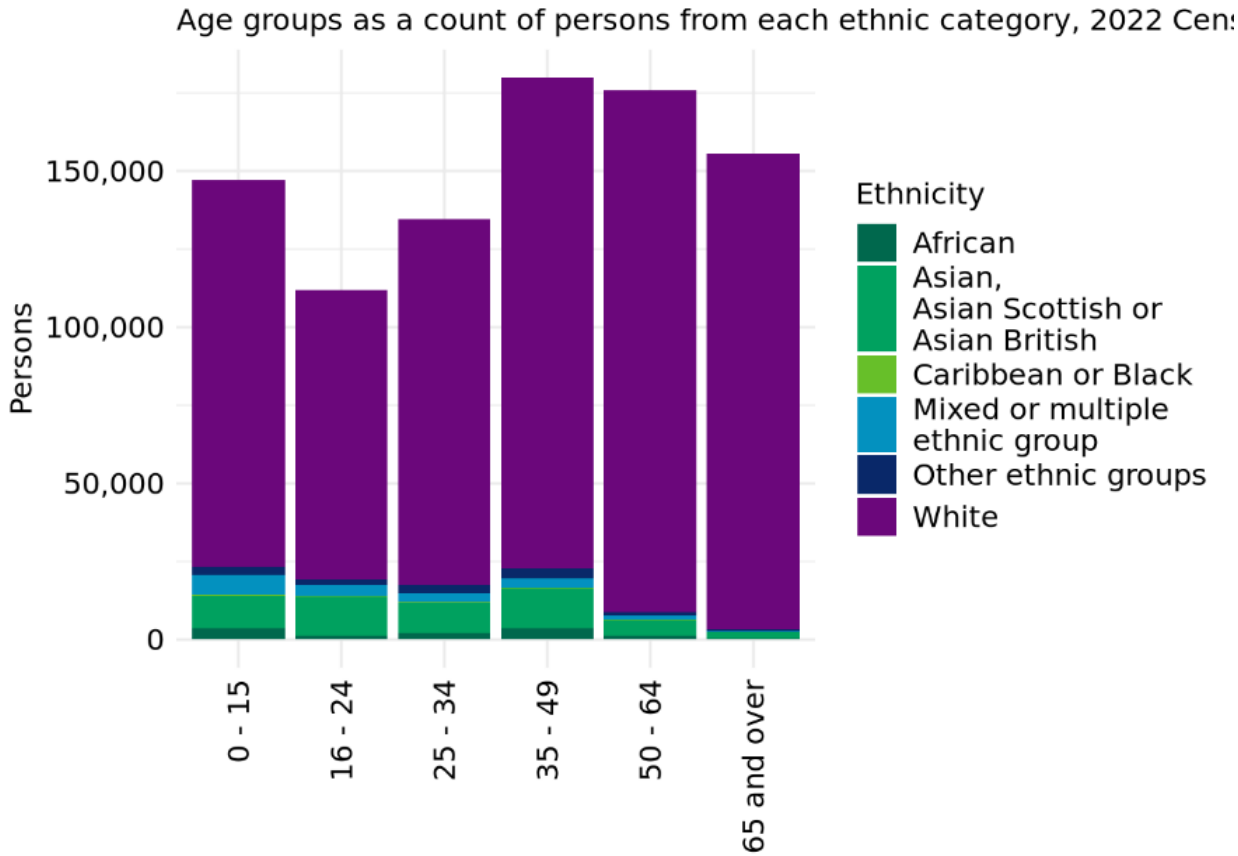

Figure 4 - distribution of ethnicity by age across Lothian, data source: Scotland's census

Mortality

8,852 people died in Lothian in 2023 with the leading causes being: cancers (27.7% of total deaths), circulatory diseases (24.4%), respiratory diseases (10.4%), diseases of the nervous system and sense organs (8.9%), and external causes such as injury and poisoning (6.2%). All-cause mortality is an important summary statistic which can be used to highlight possible changes over time in population-level health status and its determinants. Figure 5 shows trends in age-standardised all-cause mortality rates for Lothian and Scotland between 2006 and 2023 (age-standardisation accounts for differences in age distribution over time and between geographic regions so these changes cannot be attributed to ageing). While Lothian's mortality rate as of 2023 (1,101.1 persons per 100,000) continues to be lower than that seen across Scotland as a whole (1,165.5 persons per 100,000), both areas show little

evidence of returning to pre-pandemic levels, with Lothian's rate growing by 5.7 persons per 100,000 since 2022 and Scotland's increasing by 9.8 persons per 100,000.

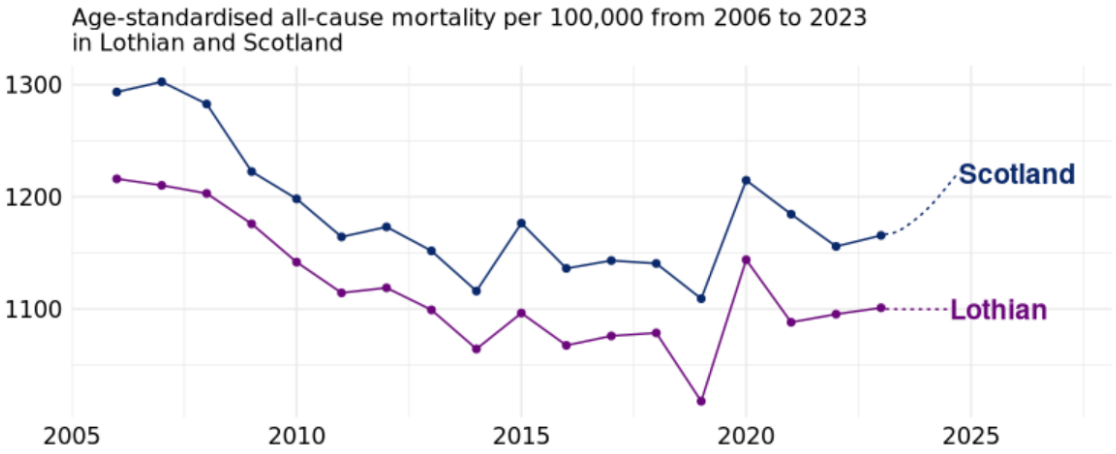

Figure 5 - trends in age-standardised all-cause mortality, data source: Vital Events Reference Tables 2023 - National Records of Scotland (NRS)

Early all-cause mortality

In addition to overall mortality, early all-cause mortality (deaths occurring before the age of 75) is important to monitor at a population level as it represents an opportunity to highlight and act on causes of unfulfilled life expectancy. Many of the 3,174 deaths that occurred in Lothian's under 75s in 2023 are avoidable with early preventative action on the social, economic and commercial determinants of health, such as those caused by suicide, alcohol or drugs.

Figure 6 shows trends in early all-cause mortality for Lothian and Scotland between 2006 and 2023. Similarly to overall mortality, Lothian's age-standardised rate has been lower than the Scottish average every year since 2006. The rate of premature mortality saw a sharp increase in both Lothian and Scotland after 2019, before beginning to fall in 2022; neither rate has returned to a pre-pandemic level, with Lothian currently seeing an age standardised rate of 408.8 persons per 100,000 in 2023, compared to 441.5 persons per 100,000 in Scotland.

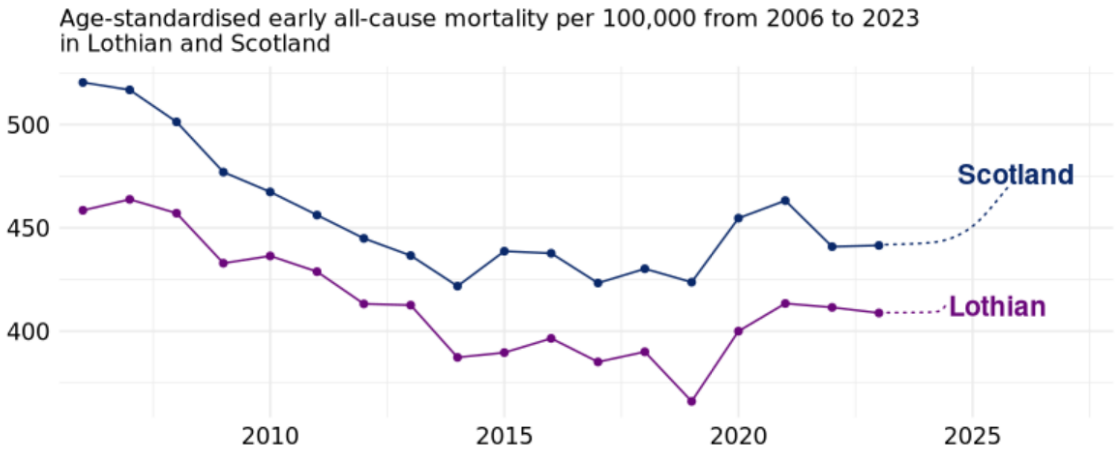

Figure 6 - trends in early all-cause mortality, data source Vital Events Reference Tables 2023 - National Records of Scotland (NRS)

Life expectancy

Life expectancy is a further vital summary statistic in understanding overall population health. Following decades of increasing life expectancy and healthy life expectancy (the number of years that a person is expected to live in good health), the number of people dying early has been increasing since 2019 (Figures 6 and 7). Our 2023 Director of Public Health Report highlighted that national patterns in stalling life expectancy from 2013 onwards were reflected within Lothian up until 2020. Scotland's public health challenges mean that the poorest in our society are more likely to die early and live more years in ill health, compared to the wealthiest, and this gap is widening. Continuous monitoring of data on life expectancy is important to alert us to the possibility of changes in factors (such as the building blocks of health) that are known to influence the health and longevity of the population at large.

Figure 7 shows trends in life expectancy for Lothian and Scotland between 1993 and 2023. Life expectancy for both males and females in Lothian has consistently been greater than the Scottish average since 1993. Although life expectancy fell slightly in both Lothian and Scotland after 2019, both geographies have seen a slight uptick in life expectancy since 2022. In 2023, life expectancy in Lothian was 81.7 years for women (an increase of 0.02 years since 2022) and 77.8 years for men (an increase of 0.12 years since 2022). By comparison, the average life expectancy in Scotland was 80.8 years for women (an increase of 0.11 years since 2022) and 76.8 years for men (an increase of 0.26 years since 2022).

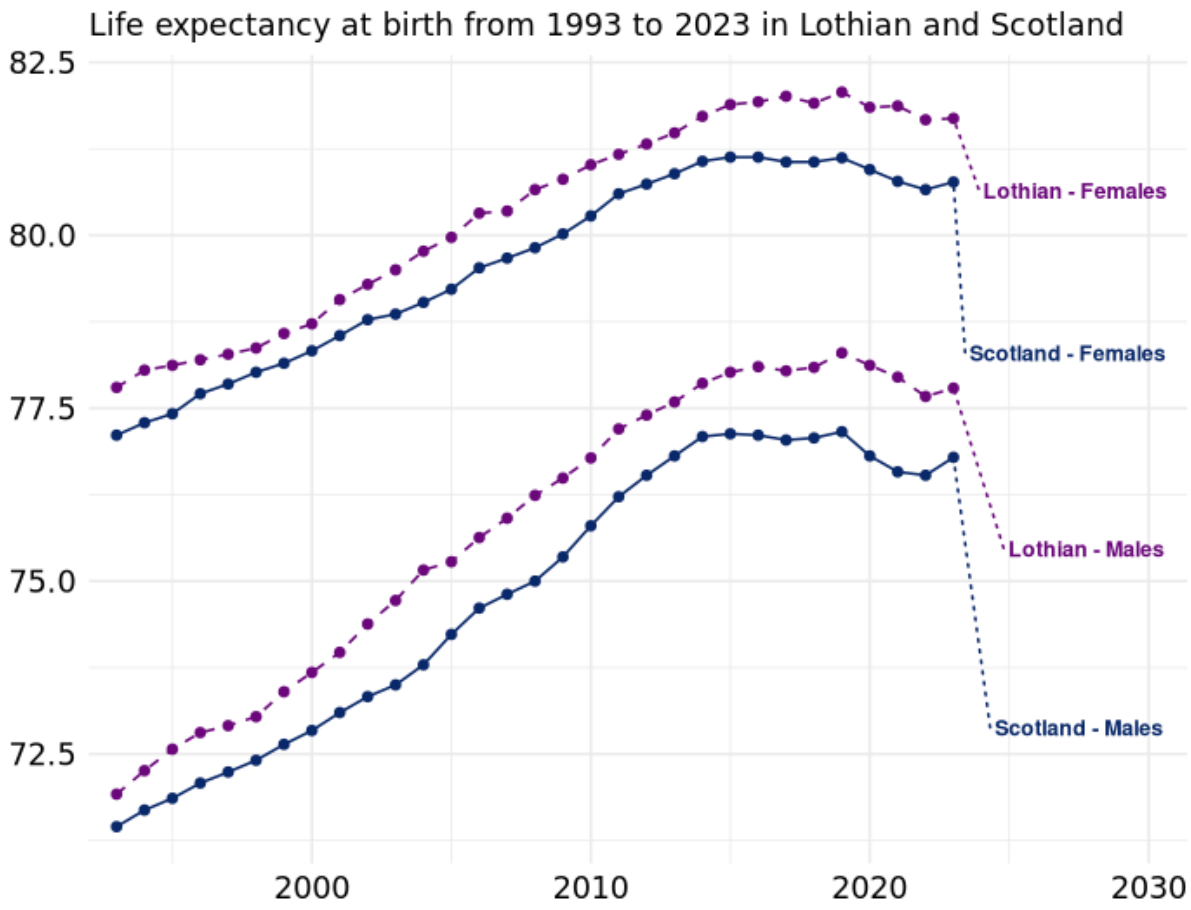

Figure 7 - trends in life expectancy, data source: Vital Events Reference Tables 2023 - National Records of Scotland (NRS)

Self-reported health status

Self-reported health is another important metric in understanding the level of need in a population which is particularly valuable in the identification of opportunities for prevention and early intervention.

The Scottish census records the proportion of the population reporting a range of specific health conditions. Figure 8 shows the proportion of Lothian's population reporting each of a series of health conditions in 2011 and 2022, with nearly 1 in 5 (19.4%) of Lothian's population currently reporting that they have a long-term illness (compared to 21.4% in Scotland). A particularly large increase was seen between 2011 and 2022 in the proportion of people reporting a mental health condition, rising from 4.2% to 11.6% for Lothian (mirroring changes observed nationally). It is important to note that changes in reporting of mental health conditions may in part reflect changes in awareness and stigma around mental wellbeing. However, increases in specific mental health conditions have been reported elsewhere and

decreases in mental wellbeing as a result of the COVID19 pandemic have also been reported.

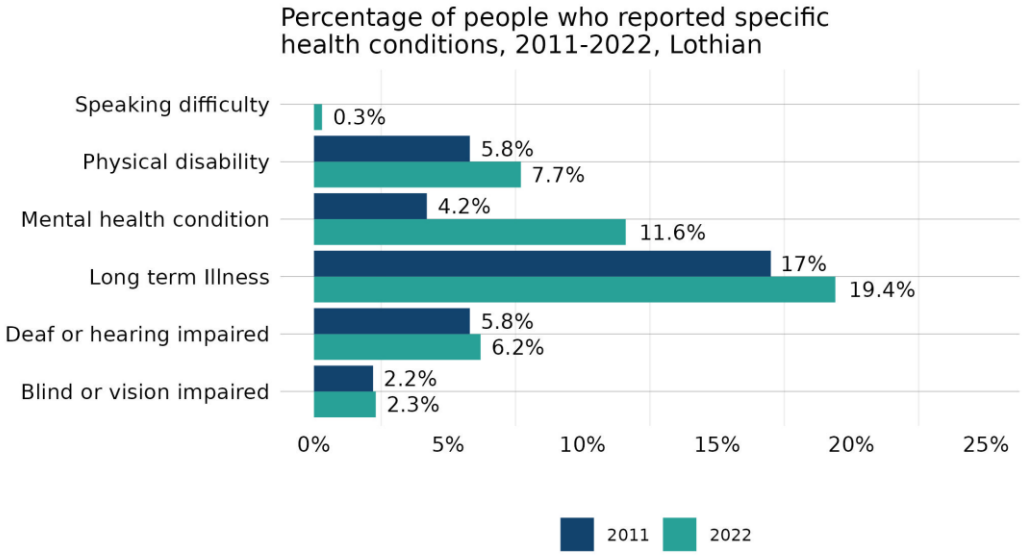

Figure 8 - proportion of Lothian's population reporting health conditions, data source: Scotland's census (Note: Speaking difficulty was not measured as a long-term condition in the 2011 census)

While the rate of people reporting mental health conditions increased across all age groups from 2011 to 2022, the largest increase was in the 16-24 age group which rose from 2.5% to 15.4% for all-Scotland and from 2.5% to 16.9% for Lothian (Fig. 9).

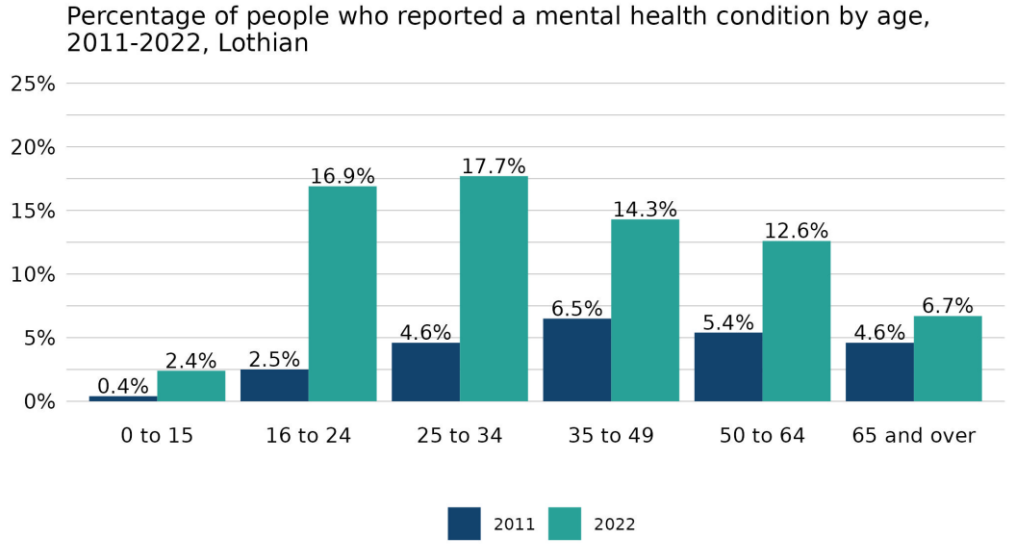

Figure 9 - rate of reporting of mental health conditions, data source: Scotland's census

Mirroring national patterns, females are more likely than males to report mental health conditions. These trends are, however, strongly patterned by age (Figure 10), with around double the prevalence of self-reported mental health conditions among females aged 16-24 (22.2%) compared to males this age (11.2%)

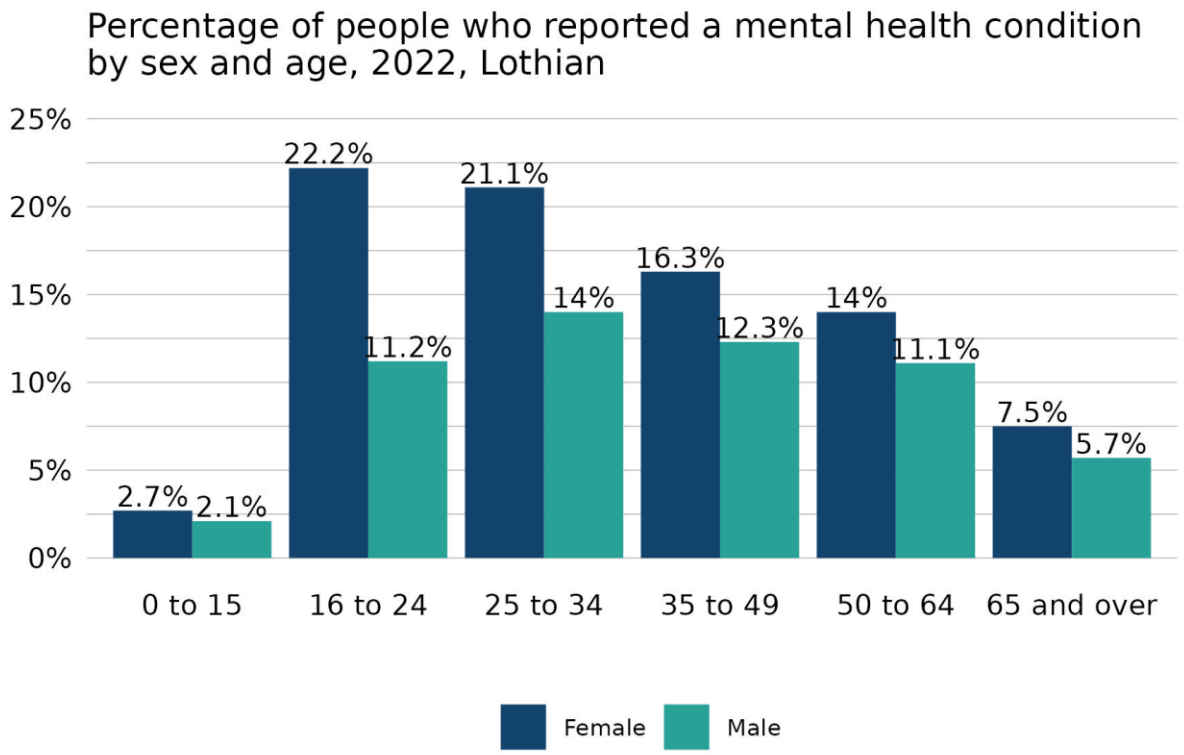

Figure 10 - rate of reporting of mental health conditions by sex and age, data source: Scotland's census

The changing demographics of Lothian's population and its health presents unique challenges and opportunities for improvement. The region attracts young and working-age people for education and work, and while outcomes relating to physical health and longevity are typically slightly better than those seen nationally, the changing context of an ageing population needs to be anticipated in the design of policy and practice.

Data from the 2022 census highlight particular challenges for the current generation of younger people (especially females) in terms of mental health outcomes. Given the apparent trend of this situation worsening over time, it is vital we understand and act on the determinants of mental health. This is especially the case in the context of inequalities in population health in the region. To facilitate better understanding and measurement of the building blocks of mental health, Public Health Scotland have developed sets of mental health indicators for adults and children, which can be used as a basis for identifying opportunities to prevent poor mental health outcomes before they emerge.

The case for prevention

The burden of disease

The Scottish Burden of Disease study is a population health surveillance programme which monitors the diseases, injuries and risk factors which prevent people living longer lives in better health.[1] This study forecasts that the burden of disease will increase in Scotland by 21% over the next 20 years, even though the number of people in Scotland is expected to decline (although, in Lothian, the population is expected to continue increasing due to net migration). The overall burden of disease will be largest for cardiovascular diseases, cancers and neurological conditions, which are expected to account for over two thirds of the increase.[2] These estimates only account for projected demographic changes and do not factor in changes in disease prevalence and mortality that could occur due to changing risk factor profiles, reduced access to services, or advances in prevention and treatment.

To reduce the forecast burden of disease, it is essential that we prevent the underlying causes of these diseases. Prevention activity will help to improve population health outcomes, reduce inequalities in health and support the sustainability of health and social care services.

What is prevention?

Prevention in public health terms is about keeping people healthy and reducing the risk of ill health, injury or early death. We noted in the introduction the productive history between population health and primary prevention and particularly its effectiveness in reducing inequalities. But primary prevention can be supported by complementary prevention work within the NHS and wider health and care system, which focuses on early interventions and better mitigation of illness and disease.

Public Health Scotland outlines how three types of prevention can address poor outcomes:

1. **Primary** prevention stops the problem occurring in the first place. Activity includes acting on the building blocks of health, such as income, employment, housing and education, or interventions such as vaccination.
2. **Secondary** prevention (or **early intervention**) focuses on identification of problems to support early intervention and treatment. This includes screening for breast, bowel or cervical cancer, and early years health visitor checks.

[1] Scottish Public Health Observatory. Burden of Disease Study. Overview - ScotPHO (accessed 17 October 2024).
[2] McAdams R. Public health approach to prevention and NHS Scotland. Public Health Scotland: Edinburgh; 2023.

3. **Tertiary prevention (or mitigation) aims to make sure an ongoing health** problem is well managed to avoid crises and reduce the harmful consequences, such as foot care for people with diabetes.

Primary prevention is incredibly cost effective -- up to three or four times more cost effective than investing in treatment. Primary prevention provides an average of £14 return for every £1 invested. The return is higher for interventions such as vaccinations (£34 return for every £1 invested) and legislative measures (£46 return for every £1 invested). Secondary and tertiary prevention returns £5 for every £1 invested.

Improving population health and reducing health inequalities

Our health is shaped by a combination of social, economic and environmental factors. Where we live, our work conditions, our housing and education are fundamental building blocks and the primary drivers of our health and wellbeing. The health and care system, as public health leaders, should prioritise work on addressing the building blocks of health alongside the direct delivery of healthcare. More detail can be found on these actions in the next section Importance of Place in Prevention.

Interventions in the early years have been shown to be particularly cost effective and yield significant return on investment. The Royal College of Paediatrics and Child Health states that a focus on improving children and young people's health is one of the best investments we can make to maximise future population health. Access to effective contraception, supporting the physical and mental health of women before, during and after pregnancy, supporting infant feeding and child development, will all help children have the best start in life.

The health and care system should continue supporting interventions that tackle modifiable disease risk factors, including obesity and tobacco and alcohol use. Services that tackle respiratory and cardiovascular conditions and diabetes can benefit significantly from an enhanced focus on primary and secondary prevention. These interventions should be delivered alongside screening and immunisation programmes as part of an effective whole population prevention plan. We also know that there is most health gain from focusing our prevention activity on the population groups at greatest risk of poorer health, such as those living in areas of deprivation. The section on 'Accessing Local Preventative Healthcare' sets out some of the work underway to improve population health outcomes through delivery of local healthcare services.

Embedding prevention

There are some important steps to embedding prevention across the health and care system to ensure this becomes a standard part of what the health and care system does.

1. We need to **make prevention a system wide priority**, embedding prevention across services and plans
2. We need to use our role as an Anchor Institution to promote good health and highlight our commitment to **primary prevention**
3. We need to **spend more of our money on prevention activity**, shifting the balance of care from acute or crisis provision to prevention and primary care focused activity. This will require a longer-term commitment to a preventative approach to improving population health, and the need to make difficult decisions about where we spend our finite resource
4. We need to use data and evidence to understand and shape our prevention work, and ensure we **measure the impact of implementing prevention activity** (in the short and longer term) so that we know it is working, allowing things to change if they are not.

We need to support local services and partners to **embed prevention** in all the work that they do.

Importance of place in prevention

The places in which we live - our communities, homes, workplaces, greenspaces and streets - play a crucial role in shaping our health and wellbeing. When we talk about “place” we mean more than geography; place encompasses the social, economic and physical structures that influence health outcomes. A place-based approach acknowledges the interaction between the physical and economic environment around us and its impact on the people who live, work and learn within that environment (the social environment). Public health efforts increasingly recognise that addressing the building blocks of health through place-based approaches can prevent disease and improve quality of life across communities. This requires collaboration across public, voluntary, business sectors and communities. This approach is especially critical as we face society’s toughest challenges, from the climate emergency to issues of health equity and commercial influences that have a negative impact on health.

Partnerships for place-based prevention

Tackling inequalities and population health improvement is a task extending beyond the NHS. Adopting a health in all policies approach means that population health improvement is a shared objective for the whole public, private, community and voluntary sector. As defined by The Health Foundation, ‘Health in all policies is an established approach to improving health and health equity through cross-sector action on the wider determinants of health: the social, environmental, economic and commercial conditions in which people live’. It is vital to prioritise action on social causes of ill health such as low income, homelessness, poor housing and unemployment or underemployment. Improvements in these social factors will have benefits for individual-level risk factors associated with poor health such as smoking, high blood pressure, obesity, poor diet, low physical activity and excessive alcohol consumption. Despite the compelling evidence that most activity tackling inequalities in health must be focused on the building blocks of health, there has been a tendency for population health policy and practice to prioritise or revert to behavioural and lifestyle interventions which focus on individuals rather than systems and structures. An effective public health approach needs to maintain focus on the fundamental determinants of health and inequalities.

Public health action needs to balance carefully the need for overall health improvement with targeted support for those with greatest need. This need to balance universal and targeted approaches is why the principle of proportionate universalism underpins much public health work and equitable health and care service provision.

> *'To reduce the steepness of the social gradient in health, actions must be universal, but with a scale and intensity that is proportionate to the level of disadvantage. We call this proportionate universalism.'* [3]

Partnership and Place work is about action – mostly in partnership – that seeks to reduce inequalities and improve population health. There are global, international or national factors such as economic cycles, global pandemics and wars or government policies such as austerity, that influence employment, income, housing, education and other building blocks in a more profound way than most actions within the gift of public health professionals. Public health priorities can be advanced by activity that focuses on legislation (bans on smoking in public places or minimum unit pricing for alcohol) and strategic influence on policymaking. Our Public Health Partnership and Place teams, set up to work locally with partners on the building blocks of health, seek to influence policy and decision-making at a local level with a particular focus on work with community planning partners. Our work in community planning provides opportunities to join with other public bodies such as local authorities, Police Scotland, colleges and universities alongside our community, voluntary and private sector allies to focus on joint action tackling complex problems that contribute to poverty and inequalities.

Healthy places

Spatial planning and the thoughtful use of land and resources can profoundly influence population health by creating spaces that promote physical activity, reduce pollution and offer access to essential services. Effective spatial planning involves coordinating local policies to foster environments that prioritise health.

By improving access to greenspaces and designing safer streets, spatial planning enables communities to benefit from physical activity and mental relaxation. Additionally, well-planned spaces can reduce social isolation by enhancing walkability and providing safe, accessible options for active travel. An example of this is our Public Health input into the Midlothian Local Development Plan 2.

A Local Development Plan (LDP) forms the policy basis for decisions on planning applications over a 10-year period. The first stage in the preparation of a new plan is the compilation of an Evidence Report. The Midlothian Partnership and Place team collaborated with Midlothian Council, Midlothian Health and Social Care Partnership

[3] Marmot M *et al* , 2010; Fair Society: Healthy Lives (The Marmot Review)

and Public Health Scotland to develop the health chapter of this report, supporting a "health in all policies" approach. This included providing evidence on the:

- health of Midlothian communities;
- relationship between health and place;
- capacity of the health and social care infrastructure;
- impact of rapid population growth; and
- creation of healthier places.

The evidence report also relied upon the Place and Wellbeing Outcomes and the Place Standard Tool. This collaborative approach aims to influence local planning policies that promotes a healthy built environment, as demonstrated by Figure 11 below.

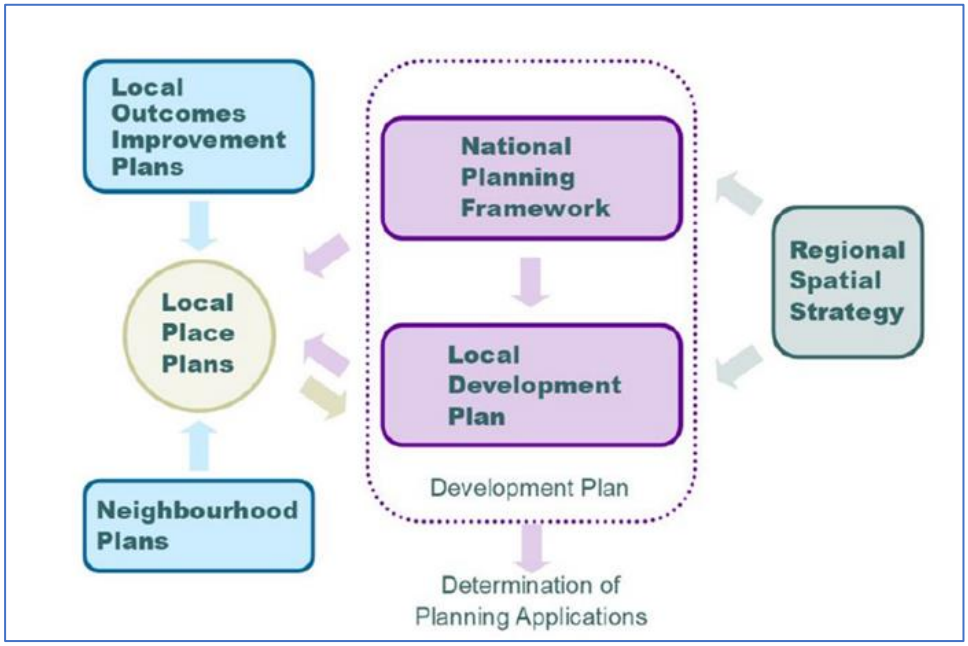

Figure 11 - Links Between LDP and Local Planning

To further promote healthy places, we need to consider the commercial determinants of health, which make harmful products like alcohol, tobacco and unhealthy foods, as well as gambling and sexual entertainment, readily available and accessible in our communities. These determinants often disproportionately affect vulnerable populations and can exacerbate health inequalities. Addressing these is essential to promoting healthier communities and environments.

"Working to address the commercial determinants of health can reduce the availability, accessibility, and affordability of health-harming products such as alcohol, tobacco and food and drinks high in fat, sugar and salt."[4]

Looking specifically at alcohol as a commercial determinant of health, there has been good evidence for over a decade that increased alcohol availability (outlet density) is associated with harms to health.[5] High alcohol availability creates harm by directly increasing opportunities for purchases, and influences the perceived normality of alcohol consumption, including the exposure to children and young people. It also makes it more difficult for people to recover from alcohol dependence.[6] Alcohol related mortality and morbidity are significantly higher in neighbourhoods with a greater density of alcohol outlets, especially alcohol off sales.[7]

The Centre for Research on Environment Society and Health (CRESH) explored how physical and social environments can influence population health, for better and for worse. The CRESH data shows the density of alcohol, tobacco, food (takeaways and supermarkets) and gambling retailers in our communities. We analysed the alcohol density data and our NHS Lothian Public Health Survey data across Lothian which shows that when looking at all alcohol outlets (on-sales and off-sales) people living in the 25% of areas with highest alcohol outlet density had 42% higher odds of risky drinking than those living in areas having no alcohol outlets. This relationship holds when controlling for factors that might otherwise explain this relationship, such as age, sex, deprivation and local authority.

Our Partnership and Place teams continue to advocate to local authority alcohol licensing boards on the harmful effects of increasing alcohol availability in our communities.

[4] NHS Lothian Public Health and Health Policy - A strengthened approach to prevention across the Lothian health and care system

[5] Campbell C, Hahn R, Elder R et al. The effectiveness of limiting alcohol outlet density as a means of reducing excessive alcohol consumption and alcohol-related harms. American Journal of Preventive Medicine 2009; 37(6):556–569.

[6] https://pubmed.ncbi.nlm.nih.gov/28886441/

[7] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415114/#:~:text=An%20IQR%20increase%20in%20off,%2C%2015%25%20higher%20mortality).

Local Place - priorities for action

- **Influence Local Development Plans**: Collaborate with local authorities to influence planning policies that promote healthy built environments, including walkable green spaces.
- **Policy Advocacy**: Support policy changes at national and local levels to regulate alcohol, tobacco, gambling and food products high in sugar, salt and fat.
- **Reducing Exposure to Health-Harming Commodities**: Influence local policies around licensing, advertising and other controls on harmful products.

Anchor organisations focus on prevention

NHS Lothian also recognises that its responsibilities extend beyond the delivery of high-quality health and social care. We employ more than 25,000 people in the region, we have influence in spending substantial amounts of money on goods and services, and own, lease and operate numerous buildings. With staff and services in almost every community across the region, NHS Lothian is a key anchor organisation. Our Anchor Institution commitment means we need to use our influence in spending decisions, capital investment and disposals, and our status as the biggest employer in the region to impact positively the health of the local population. NHS Lothian's approach to its Anchors work is on our website. And, crucially, in keeping with a focus on partnership and place, our Anchors Institution work so far has relied on alliances and joint work with organisations such as NHS Lothian Charity, the four Local Employability Partnerships (LEPs) and the Third Sector Interfaces across Lothian.

Funding provided by NHS Lothian Charity for five years is the basis for a more sustainable Anchors-inspired approach to our hospital income maximisation services. Community Health Advice and Information, Citizens Advice Edinburgh, Citizens Advice West Lothian, Penicuik Citizens Advice and Musselburgh Citizens Advice have been commissioned to deliver hospital income maximisation services at six sites in Lothian. These services are available to any patient, carer/family member or Lothian staff on these sites who require financial information or advice. Income problems can impact the health and care system by resulting in delayed discharges, inappropriate use of clinical staff time, increased recovery period and risk of readmission. In two years, £2,400,000 has been gained for people using these services – this means money in the pockets of people experiencing low incomes and poverty. Taking action to reduce poverty and maximise incomes reduces financial stress and provides people with a standard of living that protects and promotes their health.

The Lothian Community Benefits Gateway is a service facilitated by public health teams and Third Sector Interfaces in each local authority which aims to link NHS suppliers with local community need. NHS Lothian has delivered the most benefits via the Benefits Gateway across all of NHS Scotland. Partnership work continues with Third Sector Interfaces to identify social enterprise partners to develop sustainable catering facilities within NHS Lothian, whilst supporting employability opportunities for local communities.

Work with the four LEPs has established an innovative work placement programme within NHS Lothian. Twelve, six-month placements have been established across the Lothian health and care system. Crucially, our placements are supported by NHS Lothian Workforce Development and LEP link workers with expertise in employability. This represents a new approach to supporting people who have been furthest from employment into work. Working alongside Workforce Planning colleagues, we hope to expand our understanding of future opportunities for this type of work.

Anchors - priorities for action

- **Workforce**: continue to support the delivery of the NHS Lothian Employability Plan and to scale up the Lothian LEP-NHS Gateway placement programme; expand innovative and inclusive recruitment practice such as the co-ordinated recruitment approach in Estates and Facilities to other parts of NHS Lothian. This includes recruiting for multiple vacancies across similar jobs in one campaign with centralised support, resulting in a more efficient recruitment process.
- **Expenditure**: work with NHS Lothian Charity and colleagues across the NHS and Health and Social Care to expand our income maximisation service model so that all pregnant women and families with young children have easy access to income maximisation services
- **Land and Assets**: establish a sustainable model for health facilities catering with social enterprises so that patients, staff and visitors can get food and drink while people develop skills and experience that support them into the labour market.

Climate emergency and environmental sustainability

Increasing community resilience to climate change can protect people from the effects of severe weather, infectious disease and other health impacts of climate changes. The wide range of preventative and adaptive actions that should be taken, are set out in the NHS Scotland Climate Emergency and Sustainability Strategy 2022-26 and echoed in the NHS Lothian Sustainable Development Framework 2023.

Our focus is on areas where changes will result both in reduced greenhouse gas emissions, and health benefits, with transport and housing being two key examples.

Sustainable travel supports people to be physically active as well as reducing population exposure to road danger, air and noise pollution, and creating public spaces that are better for communities and businesses. In parallel, work to identify and remedy properties with poor quality insulation can support health directly by reducing exposure to cold and damp, which can exacerbate cardiovascular and respiratory disease, as well as reducing the amount of home energy used, and greenhouse gases emitted. As domestic transport and fuel for heating buildings are two of the largest contributors to Scotland's greenhouse gas emissions, as shown in Figure 12, these are important areas to address.

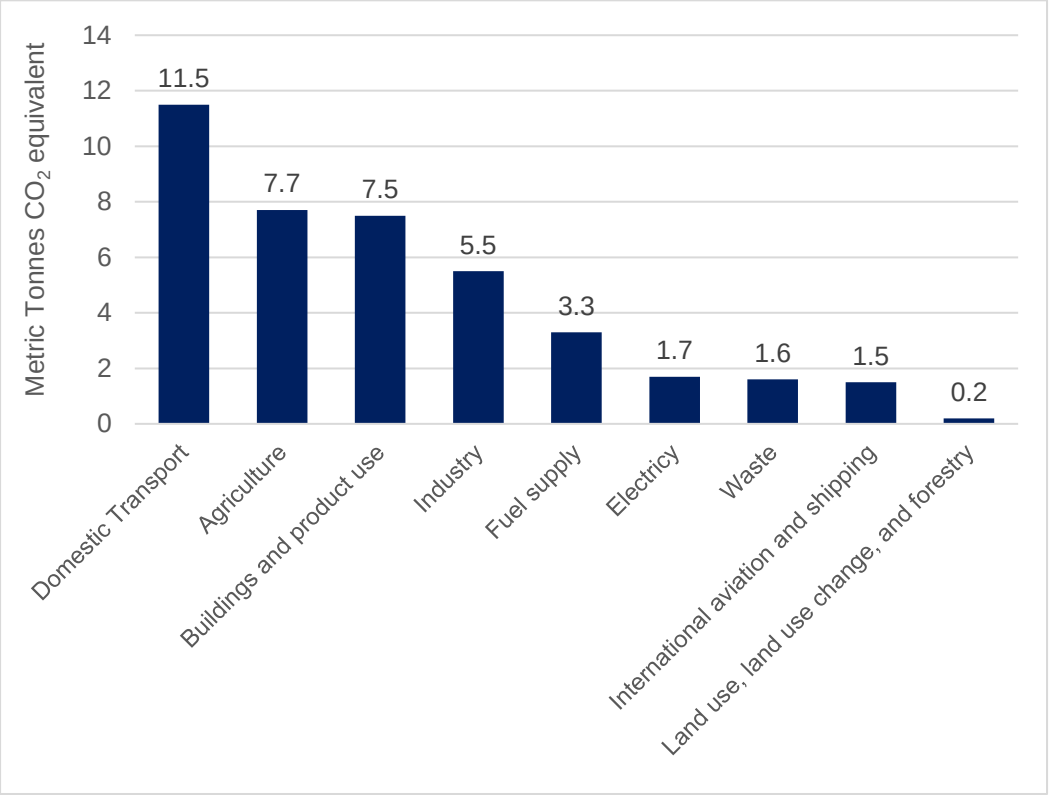

Figure 12 - Scottish Greenhouse Gas Emissions by Territorial Emissions Statistics Sector 2022[8], data source: Scottish Greenhouse Gas Statistics 2022 - gov.scot

In relation to transport, those on the lowest incomes, as well as young and older people, are less likely to have access to private cars, as shown in Figure 13, therefore supporting access to safe, sustainable and affordable transport is important to reduce inequalities.

[8] Section B. Results - Scottish Greenhouse Gas Statistics 2022 - gov.scot

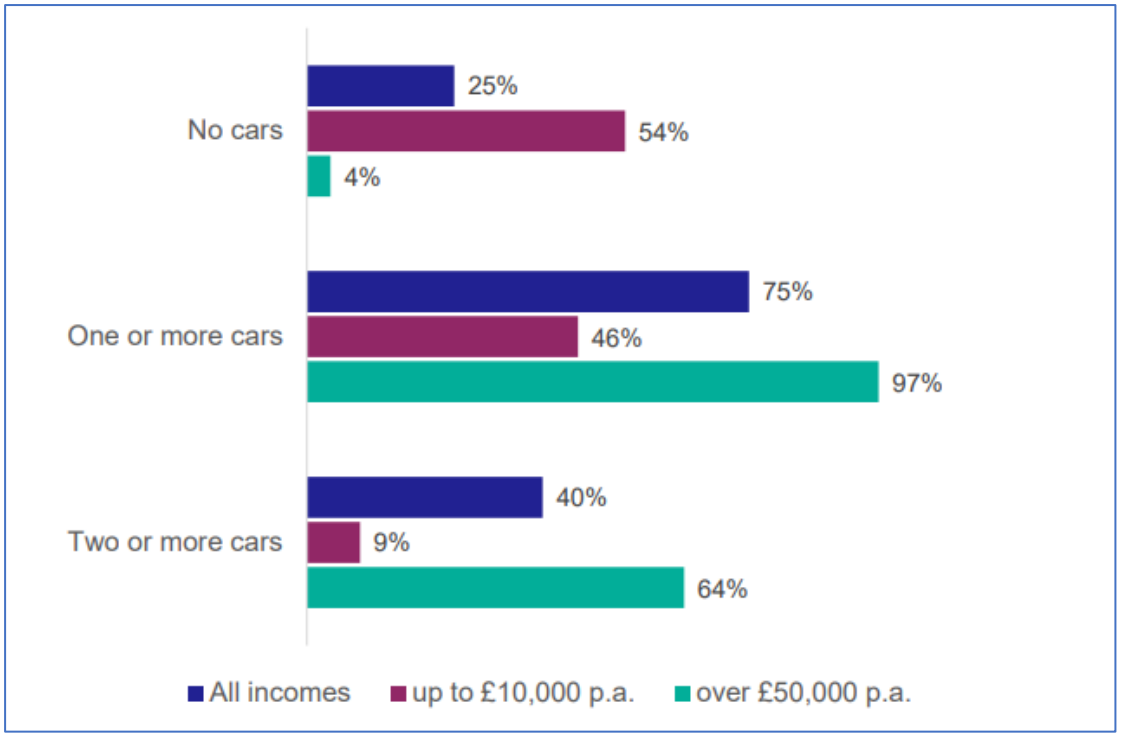

Figure 13 - Household Access to Cars or Vans by Household Income Band 2022, data source: Transport and Travel in Scotland[9]

In 2024 NHS Lothian provided public support for the City of Edinburgh Council's implementation of key aspects of the City Mobility Plan - the enforcement of the Pavement Parking Ban and the Low Emission Zone – while also ensuring NHS Lothian's fleet is compliant. We have also worked with primary care staff to better understand their concerns in relation to Controlled Parking Zones and to emphasise the overall importance to population health of reduced levels of private vehicle use.

Within housing, a range of welfare rights and debt advice providers, including those commissioned within our NHS hospitals, routinely signpost people to Home Energy Scotland's advice on ways to make homes warmer and reduce energy bills. In Edinburgh, work is also taking place to inform the best deployment of a limited number of 'damp sensors' within social housing properties, to alert the local authority when poor quality home insulation or property maintenance is causing levels of damp which could harm health.

Our recent NHS Lothian Public Health Survey 2023 identified that younger people are more likely to be living in poor quality housing and more likely to experience fuel poverty, in contrast to a historic view that these issues may predominantly affect older people, emphasising the importance of routinely asking about money and housing worries in conversations with a wide range of service users.

[9] Transport and Travel in Scotland

Climate emergency and environmental sustainability - priorities for action

- Continue to take action to **reduce the greenhouse gas emissions** associated with the provision of healthcare services and support the resilience of our communities against the impacts of climate change.
- Continue to **design services located close to where people live**, or be digitally inclusive, to reduce the need for people to travel, ensuring sustainable transport options are provided, including reducing the proportion of staff who travel by unsustainable modes and the transport impact of the goods and services we procure.
- Continue to **advocate for the importance of stable, affordable, good quality homes** that are appropriately insulated to enable people to stay warm without excessive spending on fuel, ensuring that support is targeted at groups who are more likely to be suffering from fuel poverty.

Accessing local preventative healthcare

Missingness in healthcare

The emerging body of research around the concept of 'missingness' in health care systems and hardly reached populations has led to this priority to address the gaps in care and reduce the impact of health inequalities on health outcomes. Missingness can be defined as the repeated tendency not to take up offers of care such that it has a negative impact on the person and their life chances.

Public Health staff supported the NHS Lothian outpatient redesign to ensure that services meet the needs of our populations. The Public Health Intelligence Team are researching populations who do not attend outpatient appointments, commonly referred to as DNAs (Did Not Attends). Understanding the factors that contribute to non-attendance helps to make a systematic shift from punitive to supportive service design and delivery. It is increasingly clear that language and terminology play a significant role and understanding missingness as a concept allows our structures to be proactive and promote a compassionate patient-centred approach. When we better engage and help patients to access healthcare, the whole system benefits.

Preventative healthcare services, such as immunisation or support to quit smoking, are already embedded across a range of primary care services within local communities. These can provide opportunities to engage our populations and contribute to improving outcomes. Maintaining a health equity focus to increase engagement with hardly reached populations is a key objective for the public health healthcare team.

NHS Lothian services provided 2,766,441 outpatient appointments in 2023/2024 over a wide range of clinical specialties and at numerous locations, including hospital sites. Around 8% of outpatient appointments are not attended and this rate has remained similar over time. Missed appointments can prevent or delay people from accessing healthcare at the right time, which can lead to declining health and quality of life and a higher risk of all-cause mortality. Missed appointments also have the knock-on effect of reducing the number of available appointments and increasing waiting times for other service users. Further exploration of the causes and factors for these missed appointments can help us to identify the needs of our population to support them to receive care at the right time and in the right place.

There are strong relationships between a person's characteristics and their likelihood of missing their scheduled outpatient appointment. Exploration of data by the Public Health Intelligence Team has revealed several factors outside of individual patients' control which are associated with the likelihood of missing scheduled outpatient appointments. The data seen in the figure below shows that men were more likely to miss their appointment than women. Looking across all age groups, the age-standardised DNA rate in 2023 was 11.7% for male patients and 9.3% for female patients. In 2024, the age-standardised DNA rate was 11% for male patients and 8.7% for female patients. Some research suggests that men may be more reluctant to seek help, and this may make them more likely to miss appointments. Men are

also more likely to work in jobs that have no fixed place of work than women, which could contribute to a more unpredictable lifestyle and increased difficulty accessing services. Young people were also more likely to miss their appointments than older people, possibly due to work and study commitments and experiencing better overall health.

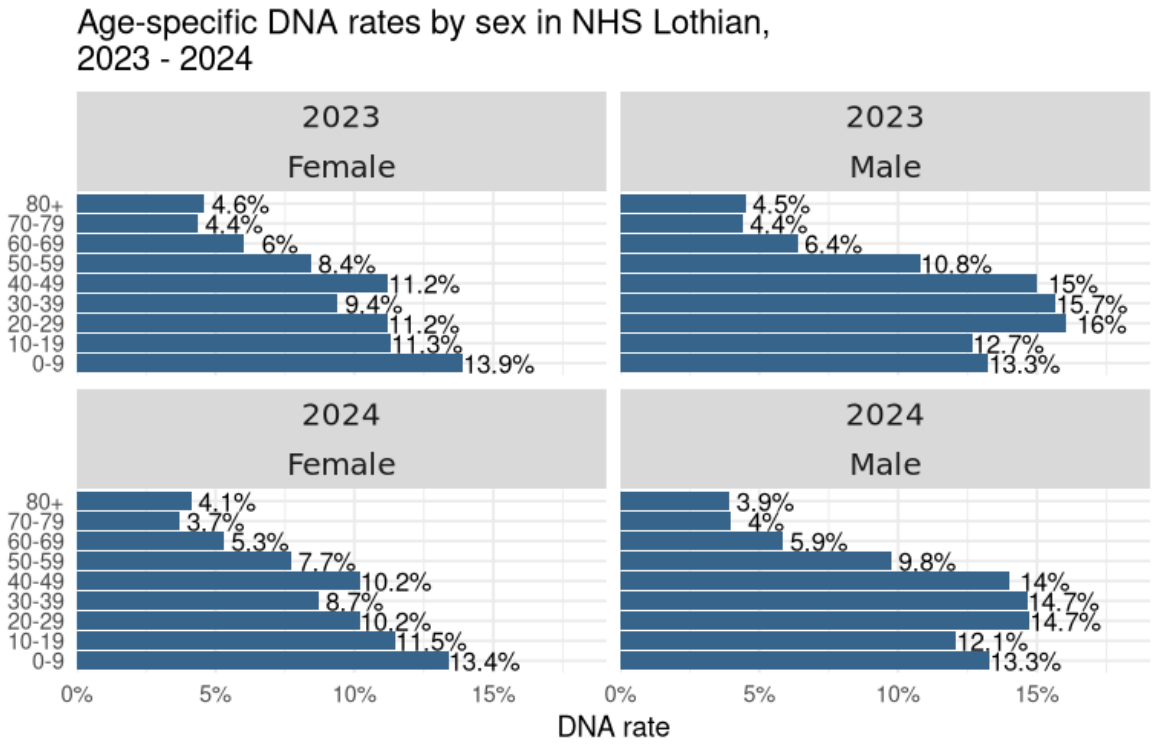

Figure 14 – Age specific DNA rates by sex, data source: NHS Lothian

People from Black and Asian ethnic groups were more likely to miss their appointments compared to white patients, which could be due to language or cultural barriers. Additionally, people living in the most deprived areas were more likely to miss an appointment than people living in the least deprived areas. Research suggests that people from more deprived backgrounds face barriers to accessing healthcare that less deprived people do not experience, possibly due to less predictable or more demanding daily routines, ineffectiveness of established types of reminders and communication issues with their providers. There are already clear inequalities in health outcomes between many of these population groups and delays in getting help for health problems by missing appointments could contribute to a widening gap in health outcomes.

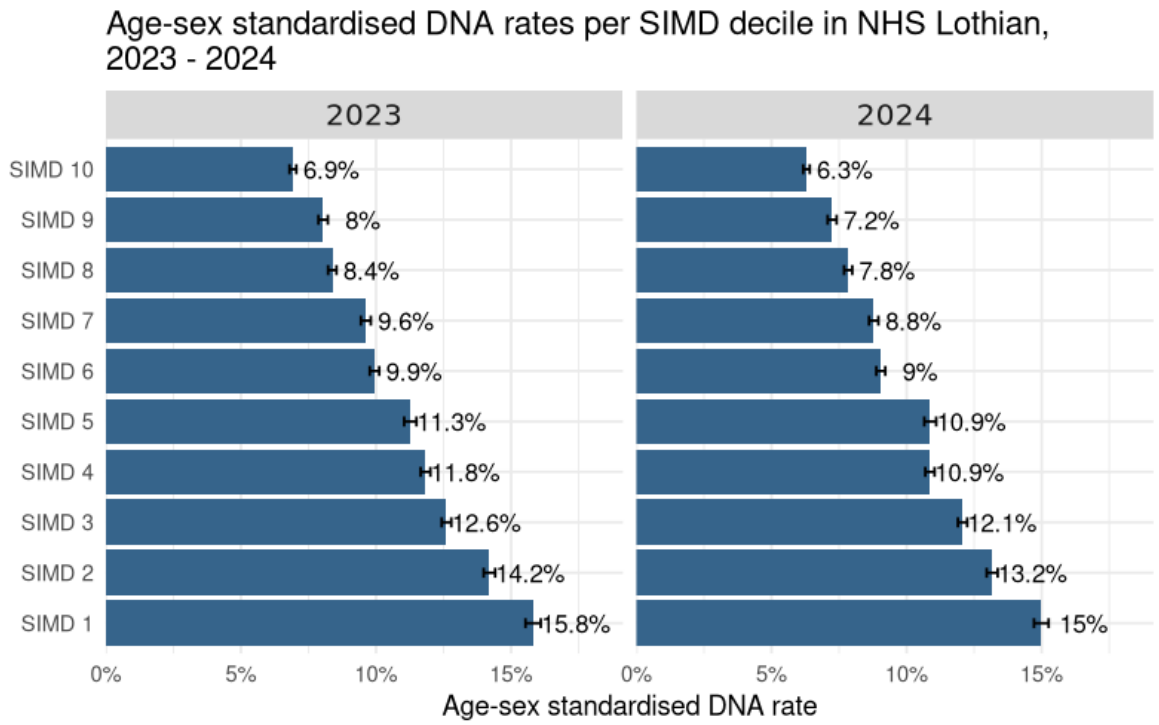

Figure 15 - Age - sex standardised DNA rates, date source: NHS Lothian

Our data also show that people who waited longer to access outpatient care were more likely to miss their appointments. Other research suggests that as patients wait longer for their appointments, they are more likely to forget, experience symptom improvement or seek care somewhere else (e.g. private care).

People who have many appointments or who have previously missed appointments were also more likely to miss an appointment. These patients could have multiple health conditions and having to keep track of many appointments, may make them more prone to forgetfulness. Return patients were also more likely to miss an appointment compared to patients having their first appointment with a service. Follow-up appointments are generally scheduled based on specific time intervals (e.g. 6, 9 and 12 months) rather than clinical need. This could mean that the patient weighs the costs and benefits of travelling to their appointment and decides that it is not worth going, especially when they have other family and work commitments.

Improved attendance at primary and secondary care appointments improves health outcomes and leads to improved professional experience for our healthcare workers, which in turn will aid retention and reduce staff burnout. NHS Lothian Public Health is working to embed a patient centred approach to understanding what drives gaps in access to health care.

Waiting Well

NHS Lothian is committed to supporting people who are waiting for treatment through the NHS Scotland '[Waiting Well]' programme. These efforts should also help to reduce missed appointments.

The aim of Waiting Well is to take a preventative and proactive approach to ensure that a person's health and wellbeing does not deteriorate in the waiting period, together with identifying opportunities to stabilise or enhance health and wellbeing.

Supporting people on waiting lists is important for the individual themselves but also to maximise the sustainability, efficiency, and effectiveness of our services. There is good evidence that people who have been waiting long periods of time for their appointments are at risk of deconditioning or experiencing deteriorating mental and physical health. This leads to longer recovery times, worse health outcomes and in some cases cancellation of appointments due to modifiable risk factors having not been adequately addressed, for example before surgery. Indeed, the focus on Waiting Well is to switch from a passive period of waiting to a time where proactive action can take place, both by the person and the system. For some people, this may simply keep them in a stable position of health (avoiding preventable deterioration and thus higher unscheduled demand for services in the interim). For others, they may even optimise their health to a point which leads them to delay/even negate the need to join or stay on a waiting list, or for surgery, allowing them to have enhanced recovery.

Therefore, using a Waiting Well approach can be vital to support people in their health and wellbeing during this waiting period. Optimising access to good information as well as support in a setting close to home and across a range of health and social care pathways can also strengthen this approach. A toolkit has recently been developed which will allow NHS Lothian to undertake self-assessment and identify areas of focus for implementation of this programme. Collaboration across primary and secondary care together with inclusion of all multidisciplinary teams will be key to successful implementation.

Primary and community services

Primary care services provide opportunities for preventative interventions for people within their own local community and often utilising local resources. An example of this is community pharmacy which, due to its accessibility and local presence, can be a key asset in improving the health of the local population. Community pharmacy has some unique aspects including walk-in access to a team of highly skilled health care professionals. Community pharmacies are situated within all of our communities and are often the first point of contact for people who otherwise may face social and economic barriers to care. Pharmacy teams, as experts in medicines, can provide free advice, treatment and onward referral for a range of conditions, and support people to access the right care in the right place without having to go to their GP or local Emergency Department for non-urgent treatment. For example, the NHS Pharmacy First Scotland service enables symptomatic patients convenient access to care at community pharmacies for clinical conditions such as earache or urinary tract infections. Community pharmacy can also ensure access to key preventative interventions such as the structured support programme to stop smoking. Medicines have a significant role to play in both treating and relieving the symptoms of disease as well as preventing ill health. Pharmacy teams are ideally situated to ensure equitable expertise and access to medicines and healthcare, optimising benefit and preventing harms. A key approach to optimise the role of community pharmacy is continued collaboration by NHS Lothian and the four local health and social care

partnerships with other stakeholders in the development and implementation of the local Pharmaceutical Care Services Plan.

A further example of services sited within primary care with a health equity focus is the growth of the Deep End GP movement. Deep End GP practices serve the most deprived communities with a high proportion of patients in the 15% most deprived data-zones. This highly local hub and spoke work within primary care and GPs in particular, provides a high impact public health benefit. The GP Lead for Health Inequalities within Public Health and Health Policy has had a key role in leading in strategic, education and advocacy spheres across Public Health and GP colleagues contributing to improved outcomes for our vulnerable people within our populations.

Accessing local preventative healthcare - priorities for action

- Continue work on reducing inequalities in access to healthcare through developing our understanding of did not attend data and ‘missingness’, and developing actions to support engagement with healthcare services.
- Work across services to develop and deliver a person-centred approach to Waiting Well, and our prehabilitation services.
- Harness role of community pharmacy in provision of preventative healthcare through development and implementation of the Pharmaceutical Care Services Plan

Conclusion

We hope that this report has made a clear case for continued and increased investment in prevention. The evidence is strong enough to justify increased use of resources but where those resources come from will be our biggest challenge. The public and community and voluntary sectors that drive much of this effort are under increasing pressure to deliver more with less. In these circumstances it would be easy for all of us to retrench to our individual statutory duties not what our populations need.

This would be a short-sighted approach, one that would increase poor health in our most deprived communities and increase the demand for health and social care in the future – at an even greater cost to the public purse. We have strong public and community and voluntary sector networks to build on in Scotland and at times like these we need to increase our partnership efforts towards delivering common goals more than ever.

Scottish Government's public service reform programme recognises a pressing requirement for reform to ensure fiscal sustainability. However, the route to achieving that fiscal sustainability is not about a focus on reduction in service, it is about reducing the demand for public services ('prevention') and changing the model of service delivery for better results. In short this is about focussing on improving outcomes, and ultimately improving people's lives is committed to a public sector reform programme.[10]

As part of the prevention focused reform agenda; we expect the Scottish Government to publish a ten-year Population Health Framework for Scotland in the Spring. This will be the first time we have had a national framework of this kind. We need to imagine what that could achieve for Scotland with prevention at the core of our work. This is not a job for public health teams alone (whether local or national) but it is for the whole system to identify where we put our collective effort for the benefit of our populations. From a public health perspective, we will continue to prioritise partnership working in Lothian and Scotland with a focus on prevention and reducing inequalities. We hope that we can convince many of our partners to join us in that effort.

[10] Letter from the Minister for Public Finance to the Convener of 23 September 2024

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Improving and protecting the health of the people of Lothian

The Role of the Public Health Department in Lothian
Approximately 175 people are employed in the department. We operate four divisions as illustrated below. We provide specialist advice and leadership to NHS Lothian, the four Lothian local authorities and the voluntary and community sector to shape services and create healthy communities for everyone.

- **Health Care Public Health**

The Health Care Public Health team provide:
> Leadership and oversight across the pathways of the six National Screening Programmes (breast cancer, bowel cancer, cervical cancer, diabetic eye screening, abdominal aortic aneurysm, pregnancy and new-born)
> Dental Public Health expertise to assess and improve the oral health needs of the population
> Strategic leadership and assurance for Immunisation Programmes
> Professional expertise on pharmaceutical public health

- **Business and Administration**

The Business and Administration team provide flexible administrative and clerical support across the Department. They play a critical governance role ensuring that the Department has robust processes and business procedures to meet strategic and operational objectives and priorities. The team also monitor and track workforce performance.

- **Health Protection**

The Health Protection team work to protect the health of the local population from communicable and infectious diseases and environmental hazards. The team provides specialist public health advice, direction and operational support to NHS Lothian, local authorities and other agencies.

- **Population Health**

The Population Health division includes:
> Partnership and Place teams for each of Lothian's four local authority areas focusing on tackling inequalities and improving population health.

Other population health functions cover the whole of Lothian:
> a Public Health Intelligence Team providing high-quality, rigorous evidence and data for public health strategy and policy
> Maternal and Children's Public Health, including the Maternal and Infant Nutrition team

> a Sexual Health Improvement team (Healthy Respect) and
> a Tobacco Control team which includes NHS Lothian's Quit Your Way smoking cessation service.

- **Board wide hosted programmes**

Public Health and Health Policy hosts four services that deliver Board-wide remits: (i) Resilience (ii) Equalities and Human Rights (iii) Safe Haven, and (iv) Child Health Commissioner.

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NHS Lothian