Health in a changing city: Glasgow 2021

A study of changes in health, demographic, socioeconomic and environmental factors in Glasgow over the last 20 years

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Executive summary

A range of health and social problems continue to affect Glasgow's residents, but this is not a static situation. As we have experienced in the last 15 months, population health can be directly impacted by the global shock of a pandemic, but government policy and economic forces prior to the pandemic have also shaped health in Glasgow. In a continually changing context it is important that trends in health, health inequalities, and related socioeconomic factors within a city are monitored, interpreted, published, and discussed.

This report is primarily concerned with documenting trends in demographic, socioeconomic, environmental, and health indicators within Glasgow, and in comparison to other places. The report also summarises the emerging evidence on the impact of Covid-19 in the city and makes policy recommendations for how we should 'build back better, greener and fairer'. The main messages are about addressing health and social inequality, tackling gender-based and ethnic and racial inequalities, prioritising mental health especially of children and young people and accelerating action on climate change in order to create a fairer, more inclusive, and sustainable society for everyone.

Demography

Glasgow's population has grown substantially in the last 15 years, but with the strongest population growth in the least deprived parts of the city. The city has become more ethnically diverse; for example, almost a quarter of pupils in Glasgow schools are now from a minority ethnic community. Existing projections of future growth in population and households are fraught with uncertainty given the uncertain future impacts of Brexit and the current pandemic.

Good quality data on ethnicity is often missing or incomplete in many administrative systems, which hampers routine analysis of data by ethnicity, comparisons across ethnic groups, research of ethnic inequalities, and assessment of potential racial discrimination. Yet categorisation by ethnicity alone can dilute and disguise disparities between ethnic groups. Racial discrimination is a recognised social determinant of physical and mental health and a driver of ethnic inequalities in health at a structural and individual level, however, there remains limited information about experiences of racial discrimination in the United Kingdom. The absence of systematic data on racial discrimination in research serves to dismiss the lived experience of people from a non-White or minority population and inhibits further understanding of the drivers of health inequalities. Nevertheless, collection of better and good quality data is only one aspect and action is required across the systems to dismantle systemic racism and drive the development of equitable policy and services. Minority ethnic people and communities should be closely involved in any initiatives for improving ethnicity and racial discrimination recording and in the re-design of services.

The number of household dwellings in the city has grown. The neighbourhoods where housing has increased generally correspond to those where the population has grown also. Despite this growth, over one-quarter of properties need urgent repair. Homelessness has halved in the last two decades but in 2019/20, there were still over 5,200 homeless households in the city, a figure which had risen by over 10% from the previous year and which remained high in 2020/21. A disproportionately high percentage of people experiencing homelessness were children.

Socioeconomic circumstances

Glasgow's population has become relatively less deprived in the last two decades compared to the rest of Scotland, although Glasgow remains the Scottish city with the highest concentration of people living in deprived circumstances. Deprivation and poverty are disproportionately experienced by various groups, including children, lone parents, minority ethnic groups, and

disabled people. For example, in March 2020 it was estimated by Glasgow City Council that over 36,000 children were living in poverty in the city and that over 16,000 of these children were from lone parent families.

A range of other poverty statistics are also a cause for concern. Before the pandemic national levels of in-work poverty had been rising with the latest figures showing that 63% of adults in poverty lived in a working household. In Glasgow, 25% of households were defined as in fuel poverty. It is likely that the pandemic will have caused these figures to rise further. There is good evidence that food insecurity, which was already high in Glasgow compared to other neighbouring local authorities, has risen during the pandemic.

Employment dropped in Scotland and in the UK during the pandemic, but it remained at the same level in the Glasgow City Region (GCR) and rose in Glasgow City. However, low levels pre-pandemic meant that Glasgow's employment rate was still below the Scottish and UK averages and was the second lowest within the region. Additionally, far more people were claiming benefits, suggesting higher levels of in-work poverty.

Covid-19 work, travel and economic restrictions have had an unequal and more detrimental impact on population groups that were already disadvantaged (e.g. those in low pay or precarious work, people who are self-employed, young people, women, minority ethnic groups, and people with disabilities). In Glasgow, where people have been under tighter restrictions for longer, the economic impacts are likely to have been worse.

Post-Covid-19 planning for the city and region has focused on the need for a just and sustainable economy, prioritising secure and Fair Work that can keep people out of poverty and is targeted at those groups who we know face additional barriers to employment. In some sectors of employment, such as care and the food economy, workers suffer low pay contributing to in-work poverty despite these sectors being identified as essential during the pandemic. A greener, more sustainable economy is needed, supported by the principles of Community Wealth Building.

Policy recommendations

Given the connection between health and the economy, we have included recommendations about the direction of economic policy in the health section. However, the discussion within this section has also highlighted these specific policy recommendations:

1. Policy needs to re-evaluate how to better compensate workers in the sectors of the economy that society deems to be essential (in particular in the care and food sectors) which do not currently offer people a wage they can live on.

2. Community Wealth Building and sustainable policies need to be put into practice more widely in economic planning, incorporating economic solutions that prioritise the common good and are not wholly reliant on growth.

3. Benefit increases and the pausing of benefit sanctions, which were instated during the pandemic (e.g. the Scottish Child Payment, increases to Universal Credit) need to be maintained, and to target groups we know are worst hit (e.g. lone parents); but economic policy also needs to take a longer-term, more structural approach to reducing and ending poverty, that encompasses work and housing.

4. To ensure that economic planning works as effectively as possible to reduce poverty, those with direct experience of poverty must be included in decision making.

Education

There are approximately 70,000 pupils attending Glasgow schools and almost a quarter come from a minority ethnic group. There have been expansions to pre-school education and by 2019 over 10,500 children in Glasgow were registered with an early learning or childcare centre. The percentage of school leavers in Glasgow leaving with good qualifications has increased steadily in the last decade; and in 2019/20, 92.8% of school leavers from the city had a positive destination including 71% going onto Higher or Further Education. Nevertheless, there is a widely recognised socioeconomic-related gap in educational attainment.

Covid-19 related disruptions to nurseries and schooling, including school closures, the requirement to learn on-line and not being able to mix with other pupils are likely to have affected many pupils' ability to learn, their educational performance, and their mental health in the short term; longer term impacts may become apparent over time.

We make two specific recommendations for national and local government aimed at supporting the creation of a fairer and more resilient learning and childcare environment for the future.

Policy recommendations

These recommendations are aimed at national and local government and are about creating a fairer and more resilient learning and childcare environment for the future. Additional actions will clearly be needed to tackle educational and work-related inequalities and to adapt to the increasing diversity of school populations.

1. The capacity of childcare services needs to increase, more flexible childcare options are needed for families and funded Early Learning and Childcare (ELC) should be extended to all children aged six months to five years. This will improve the affordability of ELC for low-income groups and to help increase women's participation in the workforce.
2. Steps should be taken to mitigate the impacts of digital exclusion in education for at risk families by ensuring affordable access to digital technology and by enhancing digital skills among those most in need.

Social capital

In addition to the lives lost and direct health impacts, the pandemic has had many negative impacts on people's lives but there have also been some positive effects. While many people have felt cut off, socially isolated and lonely, there is evidence that this period has also brought some people and communities together and many people have chosen to help others through formal and informal volunteering. Rises in voter turnout at recent elections, even most recently during the pandemic, suggest that levels of political engagement have increased. There have also been strong demonstrations of community solidarity and engagement on specific issues during the pandemic. We make two recommendations for government related to social inclusion and volunteering.

Policy recommendations

1. There is an opportunity to harness and build on these examples of solidarity and community cohesion during the pandemic to enhance and build greater cohesion and trust within communities.
2. Similarly, to tackling digital exclusion in education, Government needs to tackle the digital deficit across society to ensure that there is comprehensive and affordable access to digital technology and that there are alternative ways of providing services and information for those people who face difficulties using digital media.

Community safety

There has been relatively little analysis of crime trends in Glasgow during the period of the pandemic, but preliminary evidence suggests that there have been fewer reports of shop lifting, burglaries and vandalism, which correlates with recorded crime trends in England and Wales. These reductions largely coincided with periods of the national lockdown. Meanwhile, gender-based violence in Scotland is increasing. The number of sexual offences against women in Scotland has more than doubled in the last ten years, with the highest numbers occurring in Glasgow. The number of reported domestic abuse charges (of which victims are predominantly female and perpetrators male) and the proportion which result in court proceedings have also increased across Scotland. For women working in prostitution, violence and sexual victimisation are common occurrences yet rates of reported crimes remain low due to stigma, fears of criminalisation, and the assumption that complaints will not be taken seriously by the police. Gender-based violence and issues concerning female safety in Scotland all share two common themes: gender inequalities and under-reporting.

Policy recommendations

1. The Scottish Government should lead a national inquiry into sexual harassment in all aspects of females lives in Scotland (including those who identify as female), like that carried out in Australia in 2020[221.] This should capture the lived experience of females and offer strategies in tackling this issue in the long-term such as confidential reporting mechanisms within the workplace, schools, public spaces etc that give people the confidence that reporting would prevent it happening again. In the interim, preventative educational measures which frame sexual harassment as gender-based violence should be introduced into the curriculum for excellence. It is not only necessary that educational measures change the attitudes and behaviours which drive sexual harassment but that these measures also *shape* the attitudes and behaviours of future generations.
2. A greater focus on gendered perspectives and lived experience is necessary when planning public spaces, transport systems, services etc, and can be achieved via place-based participatory planning with females from the local community. This same approach should be adopted when planning services and any future legislative change for people working in prostitution. Excluding the very people whom the law is designed to protect or excluding those who use the services or public spaces, contributes to defining them as the problem and the key issues in their lives become overlooked.

Environment

Transport trends pre-Covid-19 showed limited signs of a shift toward less travel and more sustainable modes of transport: car use continued to rise, numbers of bus passengers were declining, and levels of walking and cycling remained low. Despite more positive transitory changes during the early phases of the pandemic, including reductions in motor vehicle traffic and more cycling, car use has almost returned to pre-Covid-19 levels and public transport use remains depressed, in part due to concerns over the risk of virus transmission on buses and trains.

The pandemic has shown the importance of local neighbourhood environments for health and wellbeing. Access to green space and the outdoors has become more valued. Many people want to spend more time outdoors for leisure and exercise, and to walk and cycle more. However, inequalities in access and use of green space are apparent: socially disadvantaged people and older people were even less likely than before the pandemic to access green spaces during the Covid-19 restrictions, and nearly a fifth of Scottish adults with long term health conditions or disabilities felt prevented from enjoying nature due to not feeling physically safe/safe from harm.

Issues of safety in relation to active travel also remain, particularly in cycling. In recent years, rates of reported cycling casualties have increased across Scotland and in Glasgow. The new Road Safety Framework has an ambitious vision for reducing transport-related casualties, but strong policies are needed for this to be achieved. Despite progressive and coordinated policies linking climate change, sustainable travel, air quality, health, and placemaking, the pace of change – for example in building new active travel infrastructure – remains slow.

Current policy is focussed on a just and green recovery from Covid-19, recognising that climate change is a human rights issue and that the transition to net zero is an opportunity to tackle inequalities. Elsewhere in this report, we have noted the importance of creating a greener, more sustainable economy and local food system. The following recommendations focus on providing better access to greenspace and making the shift to a safer, more sustainable transport system.

Policy recommendations

1. Equitable access to good quality greenspace is needed in every community.
2. An equitable geographic distribution of new facilities and infrastructure for active travel, supported by meaningful community engagement and additional support for 'behaviour change', is required to enable people from all communities to shift to more sustainable transport modes.
3. In order to increase safety in travel we need make progress in a number of areas, including: better designed, safe and accessible cycle routes and paths; reduced speed limits on roads; and, comprehensive safety awareness training for all road users.
4. Improved information on transport users and their equalities characteristics is required to enable a better understanding of transport inequalities, to monitor increased investment in active travel and to gain a better understanding of the risks associated with different modes of transport.
5. Progress needs to be accelerated on changing our transport systems, including building active travel infrastructure, and on the repurposing of vacant and derelict land for more socially productive and sustainable purposes.
6. Post-Covid-19, concerted efforts will be needed to encourage people back onto public transport and to drive less, if we are to meet our targets for reducing climate change

Health

In Scotland, mental ill health is at its highest level since 2008-09. Suicide has become the leading cause of death among 15-34-year-olds and the number of adults who have ever self-harmed is increasing. In Glasgow, the rate of prescriptions and psychiatric hospitalisations associated with mental ill health is higher than the national rate. There are also extensive inequalities in the experience of mental ill health and mental health outcomes associated with gender, age, socioeconomic status, and ethnicity. Mental health services have long been recognised as being underfunded and overstretched and there is evidence of a growing inequality in service provision between children and young people and adults. The impact of the pandemic on mental ill health and service provision has been profound and may take years before it is fully understood.

With respect to mental health services:

Policy recommendations

1. Increased investment in community-led groups and organisations, including the youth work sector, to support positive mental health and support people before they hit crisis point.
2. A national mental health training programme should be made available to support organisations. This should be modularised from low-level general mental health awareness training to high level crisis management and suicide prevention. This ought to be renewed regularly and given the same status as First Aid training.
3. There needs to be greater and sustained investment in community mental health care to cope with rising cases of mental ill health across the population and alleviate the pressure on existing mental health services. This should include criteria free community-based therapies for all, including family therapy for children and young people and their families.
4. It is vital that the number of regional CAMHS inpatient facilities is increased to ensure children and young people are not living far from home, isolated from friends and family, when receiving mental health treatment.
5. The 18-week wait for mental health treatment ought to be reassessed, particularly the inequalities in waiting times for treatment between children and young people and adults. In the interim the following should be introduced:
   a. Protocols for community health monitoring by primary and secondary care providers during the waiting period to ensure individuals' mental health does not deteriorate further.
   b. More immediate monitoring of rates of anxiety, depression, self-harm and other mental health issues at local and national level to better understand the mechanisms and inform interventions, particularly for minority groups and those worst affected by Covid-19.

Life expectancy is considered "the most important social statistic that any country produces about itself" and so any reduction in life expectancy is often a marker of wider societal problems[249]. Stalling improvements in life expectancy have been evident in Glasgow, across the city region, in other Scottish and UK Cities, and in the different countries of the UK since 2011. In Glasgow female life expectancy has reduced in recent years, and male and female life expectancy have reduced in the most deprived areas of the city. As a result, in Glasgow, the gap in life expectancy at birth between the least and most deprived deciles has widened to a 15-year gap for males and a 12-year gap for females. These trends, which pre-date Covid-19, have been causally associated with the effects of UK Government austerity policies.

Since the beginning of the pandemic, over 10,300 deaths have been recorded in Scotland with a Covid-19 diagnosis and the pandemic has exacerbated existing health inequalities. The impacts of austerity policies linked to stalling life expectancy have led to a greater vulnerability to the direct and indirect impacts of the pandemic. As society emerges from the pandemic, the impact of recurrent deaths due to inequality will quickly surpass those due to Covid-19.

An economic recovery that focuses on reducing inequality-related ill-health and deaths, which had grown worse pre-Covid-19 due to austerity policies, will be vital for population health in the future. This requires progressive policies to tackle poverty, exclusion and inequality in society, which Covid-19 has exacerbated.

Policy recommendations

These recommendations for *population health* focus on addressing structural inequalities in society and mark a shift away from austerity policies that have contributed to widening health inequalities toward policies that commit to the common good for all in society.

1. Progressive fiscal and welfare policies and more radical action from the Scottish and UK governments are needed to reduce educational, income and wealth inequalities.
2. A range of local policies built upon the principles of social inclusion, poverty reduction and sustainability need to be enacted, including support for living wage employment, income maximisation initiatives, poverty-proofing policy, proportional targeting of services and investment, inclusive housing and regeneration strategies, improvements to the built and natural environment and accelerated investment in active and sustainable travel for all communities.

This report describes how Glasgow has changed in the last two decades, highlighting existing health and social inequalities, many of which have widened. Living through a pandemic has further highlighted the problems that need to be addressed. Despite this, the pandemic period has also shown some positive examples of what can be achieved when policy prioritises health above all else and focusses on the most vulnerable, such as in the actions taken to protect people at risk of homelessness.

We hope this report can be used to inform post-pandemic policy. It is even clearer now than prior to the pandemic, that concerted action at the local, national and UK level is needed to address the underlying structural inequalities in society that have led to ingrained poverty and widening health inequalities. In making decisions about how we progress, it is important that a broad range of perspectives are heard and that those people who are most marginalised and most affected by inequalities and the pandemic are involved in setting and designing recovery agendas to ensure just, equitable and sustainable recovery.

We have to move beyond policy rhetoric – beyond what some have called the 'implementation gap' – to ensure that those policies we require to address inequalities are properly resourced and enacted. We need to act swiftly to shift *'from word to deed'*.

Abbreviations/glossary

Organisations

NRS
National Records for Scotland (https://www.nrscotland.gov.uk) is a Non-Ministerial Department of the Scottish Government which gathers and publishes a range of vital statistics about Scotland's people, including data on births, deaths, population, migration and life expectancy.

ONS
The Office for National Statistics (https://www.ons.gov.uk) is the UK's main producer of official statistics.

ScotPHO
The Scottish Public Health Observatory (https://www.scotpho.org.uk) is a collaboration led by Public Health Scotland, and includes the Glasgow Centre for Population Health, the MRC/CSO Social and Public Health Sciences Unit, National Records of Scotland and the Scottish Learning Disabilities Observatory. It aims to provide a clear picture of the health of the Scottish population and the factors that affect it via the ScotPHO website (https://www.scotpho.org.uk/) and related publications.

Terms

Absolute and relative poverty
Absolute poverty is defined as individuals living in households whose *equivalised income is below 60 per cent of inflation adjusted median income in 2010/11.* This is a measure of whether those in the lowest income households are seeing their incomes rise in real terms.

Relative poverty is defined as individuals living in households whose *equivalised income is below 60 per cent of median income in the same year*. This is a measure of whether those in the lowest income households are keeping pace with the growth of incomes in the economy as a whole. Where this report refers to poverty, unless otherwise defined (e.g. fuel poverty), the measure is of relative poverty.

Active Travel
Active travel is the transport of people or goods through non-motorised means using human physical activity. Examples typically include walking, cycling, wheeling and scooting. Running, skateboarding, and skating may also be considered as active travel.

CAMHS
Children and Adolescent Mental Health Services are provided by NHS, private and third sector organisations via specialist or community care to children and young people aged 0-18 years.

Children in low-income families
This figure refers to children living in families in receipt of child tax credits and with a reported income of less than 60% of the median income, or in receipt of income-based Jobseeker's Allowance (JSA). The figures are given as proportions of all children in the area, counted using Child Benefit data, and then rounded to the nearest 5 for data zones. This is a measure of relative poverty.

Claimant count

The claimant count is a measure of all people who are in receipt of an unemployment-related benefit in a given area. It is does not give a full picture of unemployment, as there may be people looking for work but not claiming benefits. For small areas, the figures are rounded to the nearest 5 to protect anonymity.

Core paths

Every local authority in Scotland has a designated network of core paths – see NatureScot website. These paths are designed to give 'the public reasonable access throughout their area' (section 17 of the Land Reform (Scotland) Act 2003). There is a much more extensive paths network that is not recorded or mapped.

Data zones

Data zones are the key geography for the dissemination of small area statistics in Scotland. Composed of aggregates of Census Output Areas, data zones are designed to have populations of 500 to 1,000 household residents and nest within Local Authorities. Aggregations of data zones are often used to approximate a larger area of interest. There are 6,976 data zones covering the whole of Scotland and 746 data zones in Glasgow.

Deprivation deciles

Deciles are ten equal groups into which a population can be divided according to the distribution of a particular variable. In this report, deprivation deciles refer to groups of data zones ranked into 10% population shares according to the Scottish Index of Multiple Deprivation or a Glasgow specific version of this. The most deprived decile refers to the population living in the 10% of most deprived areas, while the least deprived decile – at the other end of the distribution – refers to people living in the 10% of least deprived areas.

Employment

The Labour Force Survey (LFS) definition of employment is anyone aged 16 or over who does at least one hour's paid work in the week prior to their LFS interview, or has a job that they are temporarily away from (e.g. on holiday). Also included are people who do unpaid work in a family business and people on government supported employment training schemes, in line with International Labour Organization definitions.

Employment and unemployment rate

The employment rate is the proportion of the working-age population who are in employment; the unemployment rate is the proportion of the working-age population who are not in employment, but also not classed as 'economically inactive' (due to being in full-time education, retired or otherwise not seeking work). For these measures the working-age population is defined as comprising men aged 16-64 and women aged 16-59.

Fair Work

The Fair Work Framework defines Fair Work as work that offers effective voice, opportunity, security, fulfilment and respect; balancing the rights and responsibilities of employers and workers, to generate benefits for individuals, organisations and society.

The Furlough Scheme

During the lockdown measures taken to slow the spread of Covid-19, the Coronavirus Job Retention Scheme allowed employers to place their employees on furlough or temporary furlough – meaning they did not work or worked fewer hours. Under this scheme, the UK Government paid

a proportion of employees' wages, which employers could top up to 100%. The scheme was designed to protect jobs in shut down sectors and make sure that affected employees still had income.

Food insecurity
Measurements of food affordability continue to develop, and different terms and measurements are used in different ways. Previous reports looked at 'food poverty', which was defined by the proportion of income households spent on food. This report draws on surveys of 'food insecurity' and 'extreme food insecurity', which have asked respondents about their ability to regularly afford healthy food. Respondents have experienced food insecurity if they have eaten less than they think they should, or less healthily, because of a lack of money or resources, or if they are worried about running out of money for food. They have experienced extreme food insecurity if they have gone hungry or not eaten for a full day because of a lack of money or resources.

Fuel poverty
The Scottish Government defines a household as being in fuel poverty "if, to heat a home to a satisfactory standard, they need to spend more than 10% of their household income on fuel". They are in 'extreme fuel poverty' if they need to spend more than 20% of their household income on fuel. The likelihood of a household experiencing fuel poverty is influenced by income, fuel costs and the energy efficiency of the dwelling.

The Glasgow City Region (GCR)
A region in west of Scotland at which a range of strategic planning is developed, for example in relation to the economy, spatial planning and greenspace. The region comprises eight local authorities: East Dunbartonshire, East Renfrewshire, Glasgow City, Inverclyde, North Lanarkshire, Renfrewshire, South Lanarkshire and West Dunbartonshire.

Glasgow Index of Multiple Deprivation (GIMD)
The Glasgow Index of Multiple Deprivation is a Glasgow version of the Scottish Index of Multiple Deprivation. It is based on SIMD rankings of Glasgow data zones and weighted to ensure equal population in each 'Glasgow' deprivation decile.

Health inequality gap
A health inequality gap is a measure of the gap in health status between specified groups. It can be based on different measures of health and can be measured against different characteristics and in different ways. For example, in this report the term is used to denote the difference in life expectancy between different groups e.g. between the most and least deprived deciles of Glasgow or between men and women or across different neighbourhoods.

Healthy life expectancy
Healthy life expectancy (HLE) is an estimate of the number of years lived in 'very good' or 'good' general health, based on how individuals perceive their health at the time of completing the Annual Population Survey (APS).

Homelessness
A household is homeless if they have no accommodation in the UK or elsewhere or have accommodation but cannot reasonably occupy it. A household is threatened with homelessness if it is likely they will become homeless within two months. Further information is available on the [Scottish Government website](#).

In-work poverty

The *rate of in-work poverty* is defined as all individuals living in households where at least one member of the household is working, either full or part-time, but where the household income remains below the relative poverty threshold.

Job density

The job density is the number of jobs per working age resident in a specified area and is used as indicator of labour demand. A job density greater than 1 indicates that there is more than one job per person for the working age population.

LGBTQ+

LGBTQ+ is an acronym to describe the lesbian, gay, bisexual, transgender, and queer communities. The 'plus' represents other sexual identities including pansexual, asexual, and omnisexual.

Life expectancy

All of the estimates presented in this report are of 'period' life expectancy at birth. They are calculated assuming that mortality rates for each age group in the time period (e.g. 2017-2019) are constant throughout a person's life. Thus, future changes in medicine, life circumstances, etc. are not taken into account and so this measure should not be considered an accurate prediction of how long a person will actually live. It is nevertheless a useful measure of population health.

Minority ethnic communities

For the purposes of this report, we refer to all minority ethnic groups in the UK, including White minorities such as Gypsy Roma and Irish Traveller, but excluding White British.

NO_2

Nitrogen dioxide. An air pollutant that increases the likelihood of respiratory problems. In cities most of the nitrogen dioxide comes from motor vehicle exhausts.

Open space

Open space is a term used in planning to encompass green space (parks, playing fields, allotments/growing space, natural/semi-natural areas, etc), grey or civic space (squares, areas of urban realm, etc) and blue space (streams, rivers, lochs, bogs, etc).

PM

Particulate matter (PM) is a term used to describe the mixture of solid particles and liquid droplets in the air, either human-made or naturally occurring. Examples include dust, ash and sea-spray. Particulate matter (including soot) is emitted during the combustion of solid and liquid fuels, such as for power generation, domestic heating and in vehicle engines. Particulate matter varies in size (i.e. the diameter or width of the particle).

$PM_{2.5}$

Particulate matter of diameter less than or equal to 2.5 micrometers (microns), also known as fine particulate matter.

PM_{10}

Particulate matter of diameter less than or equal to 10 micrometers (microns).

Prostitution

For the purposes of this work, prostitution refers to the activity of buying and selling sex by men and women (including those who identify as men and women) from 'on-street' or indoor environments.

Scottish Index of Multiple Deprivation (SIMD)

The Scottish Index of Multiple Deprivation (SIMD) provides a *relative* measure of deprivation by combining 38 indicators across seven domains, namely: income; employment; health; education, skills and training; housing; geographic access; and crime. The overall index is a weighted sum of the seven domain scores. Every data zone in Scotland is then ranked from most to least deprived, and these individual rankings are sorted into groups such as the deprivation decile groups. There have been six different revisions usually denoted by the year of revision, e.g. SIMD 2004 refers to the 2004 initial version of the index; the latest revision, SIMD 2020, refers to the 2020 revision. For further information see: https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/

Transport Poverty

Transport poverty influences people who find it difficult to make necessary journeys due to income, cost, and service availability.

Vacant and Derelict Land (VDL)

Vacant Land is land which is unused for the purposes for which it is held and is viewed as an appropriate site for development. It is generally not in need of rehabilitation before new development can progress.

Derelict Land (and buildings) is land which has been so damaged by development that it is incapable of development for beneficial use without rehabilitation.

1. Introduction

Health in Glasgow has been a focus of attention for many years and reported on extensively. Glasgow's poor health profile in comparison to other comparable cities, the wide health and social inequalities in the city, and its legacy of environmental issues, are well-known.

Nevertheless, health in Glasgow is dynamic and is affected by multiple global, national and local processes and policies. National and local government are continually developing new policies that aim to improve aspects of life in the city, whether this is to address health and social inequality, to improve air quality, to make neighbourhoods more liveable, or to reduce carbon emissions. In this changing context it is important that trends in health indicators and related factors in the city are monitored, interpreted, published, and discussed. This report is primarily concerned with documenting trends in population, housing, poverty, economic factors, the environment, and health at a city and neighbourhood level.

Although most of the data presented in this report precedes the Covid-19 pandemic, we use 'Covid-19 context' sub-sections throughout the report to summarise emerging evidence of the impact it has had, and will continue to have, on health and social trends for years to come.

1.1 Health trends and 'excess mortality'

In the last five years there has been a wealth of academic research pertaining to 'excess mortality' in Glasgow and Scotland that predates the Covid-19 pandemic and its impacts. This excess mortality has been defined as a higher mortality in Scotland compared to the rest of the UK over and above that which can be explained by socioeconomic deprivation. Research shows that premature mortality in Glasgow is 30% higher than in other UK cities with comparable socioeconomic status and a history of deindustrialisation (e.g. Liverpool and Manchester)[1]. This report builds on many previous publications[2,3] including a GCPH synthesis report which identified the most likely underlying causes of Scotland's and Glasgow's levels of excess mortality[4]. That report reaffirmed that the causes of excess mortality are multiple, complex, and interwoven; but are largely attributed to a greater vulnerability among the Scottish population to the main drivers of poor health in any society – poverty and deprivation – caused by a series of historical decisions and processes.

This report updates and expands on a previous similarly named GCPH report – 'Glasgow: health in a changing city'[3] – which described life expectancy trends in Glasgow from the early 1990s and pointed to growing health inequalities between affluent and deprived communities in the city. More recently, studies have focussed on stalling improvements in mortality from around 2011-2013 throughout the UK for all adult age groups and for men and women. It is apparent that mortality has increased among the most deprived populations in the UK, in constituent countries and cities (including Glasgow), and for most causes of death. This has led to widening absolute and relative mortality inequalities[5]. The timing, geography and socioeconomic gradients associated with these changes have been linked, at least in part, to UK Government austerity measures which have disproportionately affected our poorest communities.

1.2 Economy, governance and policy

The introduction to the previous report[3] summarised some of the profound changes in the economy, governance and policy that had occurred in recent decades and impacted on health. A brief updated recap is provided below.

Since the 1980s, Glasgow has made a transition from an industrial to a service-based economy accompanied by dramatic and rapid changes in Glasgow's population, economic base and

housing. While not unique among UK cities, these changes stand out due to their magnitude and the rapidity of change. Furthermore, as noted above, many of these changes were driven by a series of historical decisions and processes taken by national and local governments from the 1950s onwards which contributed to greater vulnerability and, ultimately, to excess mortality[4].

The re-establishment of a Scottish Parliament in 1999 has driven major changes in political governance and policy. The parliament has responsibility for a broad range of matters including education, housing, sport, the arts, environment, local government, (many aspects of) transport, social care, and health. Despite the recent transfer of further powers to the Scottish Parliament, most aspects of fiscal policy and the welfare system remain reserved to the UK Parliament.

In the last 12 years the consequences of the global financial crash of 2007/2008 have been felt. The financial crisis led to a UK-wide recession, a collapse in the housing market, rises in unemployment, and the implementation of austerity measures over a longer period. Austerity measures instigated by the UK Government have focused on reducing public sector spending, including changes to the welfare system and related reductions in its budget; in the UK alone, it is estimated that post 2010 measures will have reduced spending on social security by £47billion by 2020/21[6]. The adverse impacts of austerity have disproportionately affected the poorest and (as noted above) are associated with increased mortality and a widening of health inequalities[5,7-8].

1.3 Covid-19

The first cases of Covid-19 were reported in the UK in late January 2020 with the number of cases rising rapidly leading to a UK wide 'lockdown' on 23rd March 2020. This encompassed restrictions on social interaction, work and movement across the population in an effort to slow the spread of the virus and protect lives. Since this first lockdown, the UK population has continued to face a range of severe restrictions affecting work, travel, and everyday living.

At the time of writing, 16 months after the first lockdown, over 129,000 people in the UK have died within 28 days of a positive Covid-19 test[9] and there have been over 7,900 deaths under this measure in Scotland[10]. However, the mortality impact of the Covid-19 pandemic is likely to be much greater and estimates of excess mortality during the pandemic (compared to the pre-pandemic period) are significantly higher. Evidence is amassing of the direct and indirect health impacts associated with the Covid-19 pandemic – excess deaths increase sharply with age and for men[11] and worse Covid-19 outcomes are linked with care home settings[12], occupation[13], non-White ethnicity[14], disability[15], socioeconomic disadvantage[15], overweight/obesity[16] and higher population density[16].

There is growing evidence of the mental health impacts of the pandemic. One UK study reported that people experiencing anxiety had almost doubled during the pandemic compared to the pre-pandemic period, rising from 13% to 24%[17]. Another study reported that in the early phase of the pandemic, women, young people (18–29 years), those from more socially disadvantaged backgrounds and those with pre-existing mental health problems had worse mental health outcomes, and suicidal thoughts rose, especially among young adults[18].

It has also been pointed out that the public health response to the pandemic – lockdowns including severe restrictions on travel, work and social contact – is likely to have affected some population groups disproportionately (e.g. older people, younger people, women, people with a disability, people on low income, etc.) and had have wide effects on personal and family economic circumstances (work, financial insecurity, etc), social isolation, family relationships, health-related behaviours, disruption to essential services, disrupted education, transport and green space, social disorder, and psychosocial effects[19].

In writing this report we have attempted to reflect the latest knowledge and emerging evidence of the impact of Covid-19 and the associated restrictions on health, poverty and other aspects of people's lives. However, clearly this is a rapidly evolving situation and further Covid-19 based studies are continually being published.

The next section of this report **(Section 2)** outlines the study aims, data and methods used, and limitations of the analysis. **Section 3** then provides an overview of changes in demography, socioeconomic and environmental factors and health indicators in Glasgow. A discussion (**Section 4**), including policy recommendations follows this, and a final section provides conclusions (**Section 5**).

2. Aims and methods

2.1 Aims

This report seeks to summarise and describe key demographic, socioeconomic, environmental and health trends in Glasgow over the last two decades.

We also comment on the Covid-19 context and implications for specific policy areas as the country emerges from lockdown restrictions.

2.2 Methods

Much of the report focusses on presenting and describing trends in key indicators drawn from various administrative sources. Although the majority of data referred to and presented precede the Covid-19 pandemic, a commentary is made on the Covid-19 context and the likely health and social impacts of the pandemic and associated restrictions. This is based on a rapid review of emerging evidence.

For the health section, life expectancy calculations were made which required population and mortality data (sourced from NRS). Data were pre-processed and reformatted via SPSS (a statistical software package). Abridged life tables (based on five-year age groups) were constructed using standard methods[20] and a macro-driven Excel workbook was used to make the life expectancy calculation.

2.3 Data sources

The data used and referred to in the report come from a variety of administrative sources. Graphs are labelled to indicate the sources used in each analysis.

Many of the trends and comparisons are taken from the Understanding Glasgow web resource (www.understandingglasgow.com) and where appropriate, a weblink is provided for the relevant section of the website.

2.4 Geography

Some of the analysis presented is shown at a neighbourhood level, based on 56 neighbourhoods within Glasgow. These neighbourhoods, previously known as housing forum areas, were originally devised by staff in Development and Regeneration Services, Glasgow City Council, in consultation with housing associations.

They are designed to reflect real neighbourhoods which residents would recognise. Many of the neighbourhood boundaries are delineated by roads, railways or river systems, which create natural/man-made barriers between communities. The Glasgow Centre for Population Health has used these neighbourhoods as the basis for neighbourhood profiles in 2008[21], 2014[22] and 2016[23].

Neighbourhood populations vary considerably in size. For example, just over 900 people live in Carmunnock in the south of the city, while over 23,000 people live in Hyndland, Dowanhill and Partick East. Due to Carmunnock's small population, some statistics for that neighbourhood cannot be calculated with accuracy and are omitted e.g. life expectancy.

The map in Figure 1 below illustrates the geographic locations of Glasgow's 56 neighbourhoods.

Figure 1. Glasgow – Community Health and Social Care Partnership Sectors and Neighbourhoods.

Glasgow - Community Health Partnership Sectors and Neighbourhoods
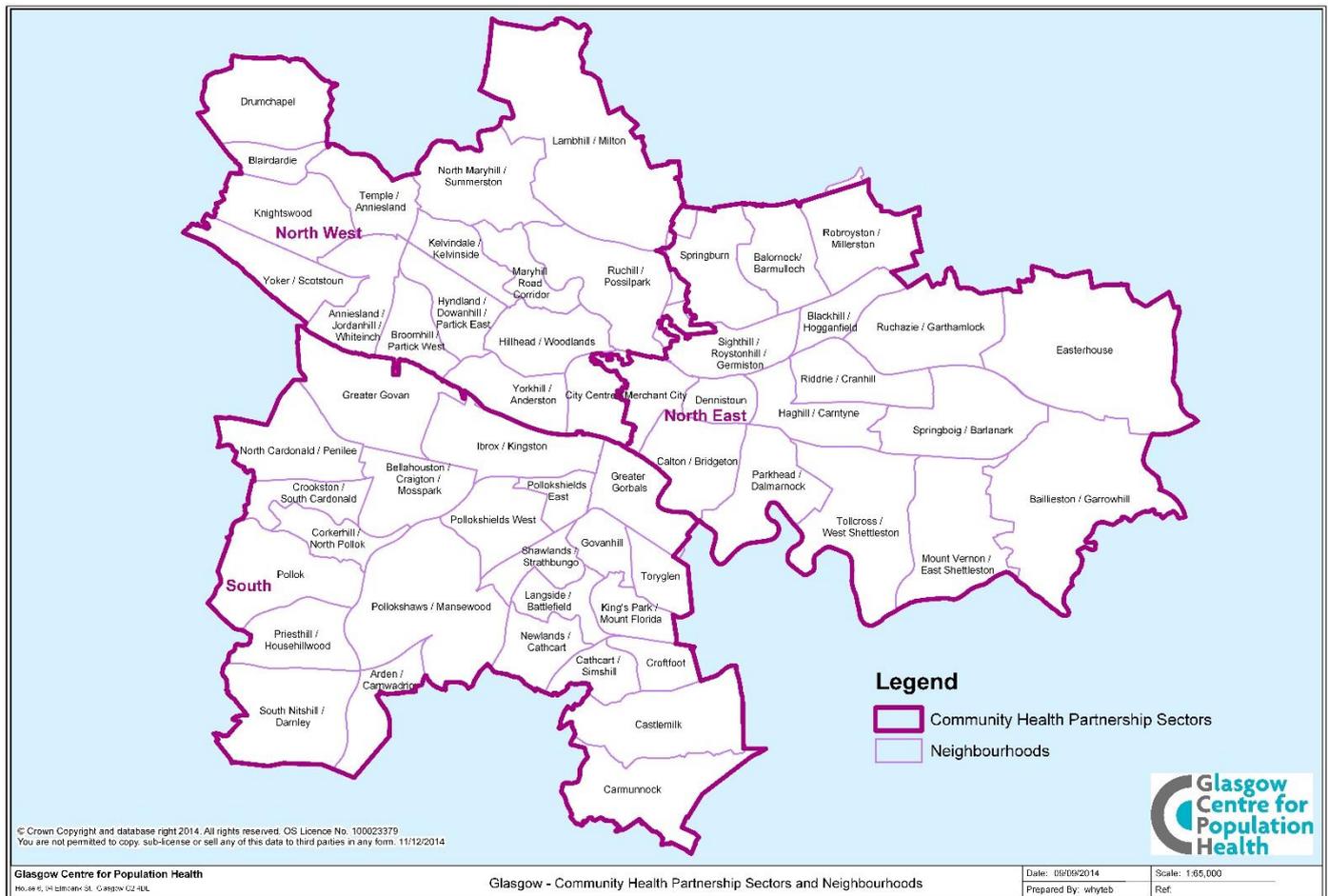
2.5 Limitations

There are caveats worth noting in relation to this study. Firstly, the quantitative data used comes from administrative sources and is limited to data that is published or readily available to be analysed. Secondly, the trends shown are relatively short, going back in most cases to the beginning of the 2000s at the earliest point. Thus, the impact of earlier events, such as the de-industrialisation period of the 1970s and 1980s, is not measured directly, although the impact of these earlier processes is still being seen in the health and socioeconomic trends in the city. Finally, the analysis presented is not comprehensive in its breadth or depth of coverage of the social determinants of health. That said, an overview of key demographic, housing, socioeconomic and environmental trends in Glasgow is given and the impacts of other pertinent national and global stresses such as changes to the social security system, the impacts of austerity, the climate emergency and the effects of the Covid-19 pandemic are commented upon.

3. Overview of demographic, socioeconomic, environmental and health trends

3.1 Demography

This section provides an overview of trends in population, households and housing, homelessness and projections of the future population and household numbers within the city.

3.1.1 Population

3.1.1.1 Citywide trends

Glasgow's population grew rapidly during the 19th and early 20th centuries. The city's population peaked in 1925, remained stable until the early 1950s and then a long-term decline began. In the early 1960s Glasgow's population fell steeply, by 1% or more per year and this decline continued through the 1980s and 1990s[i]. However, since 2006 there have been annual rises in the city's population as a result of inward migration and births exceeding deaths in the city. In 2019, the population of the city was estimated to be 633,120, which represented a rise of 1.1% (+6,710 people) on the previous year's estimate. The recent rise in Glasgow's population mirrors that seen in many other UK cities since the early 2000s.

Despite consistent population increases within Glasgow City in recent years, the same trends have not been seen across local authorities within the wider city region. While the population of East Renfrewshire has increased by one-fifth since 1982, over the same period (1982-2019) Inverclyde's population declined by 23% and West Dunbartonshire's by 15%.

Since the early 1980s, the proportion of children and older people (65+ years) in the city have reduced as the working age population (aged 16-64 years) has increased. In 2019, 71% of the population were aged 16-64 years, compared to 63% in 1981. Children now make up 16% of the population, and older people account for 13.5%.

3.1.1.2 Child population trends

The size and structure of Glasgow's child population has fluctuated over time. During the city's period of industrialisation Glasgow grew rapidly, and the children's population peaked at over 310,000 in 1921. Since then, the number of children in Glasgow has dropped substantially. In 2019, there were estimated to be just over 100,000 children in Glasgow.

The birth rate in Glasgow has followed a similar downward trajectory in the last 90 years but has risen slightly over the last ten years. The infant death rate has reduced steadily over the last 160 years and in 2019 stood at 3.1 per 1,000 live births.

3.1.1.3 Neighbourhood trends

Recent population trends within Glasgow's neighbourhoods have been mixed. In the majority of Glasgow's neighbourhoods, populations increased over the period 2001-2019; in some cases, the increase was substantial, with the population increasing by over 2,000 people in 12 neighbourhoods. The largest increases in population were in Yorkhill & Anderston (+81%), City Centre & Merchant City (+65%), South Nitshill & Darnley (+49%) and Calton & Bridgeton (+44%).

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[i] https://www.understandingglasgow.com/indicators/population/trends/historic_population_trend

In contrast, in 17 neighbourhoods the population reduced over the same period, with the largest reduction of 20%, in Sighthill, Roystonhill & Germiston (Figure 2).

Figure 2. Percentage change in population of Glasgow's neighbourhoods, 2019 versus 2001
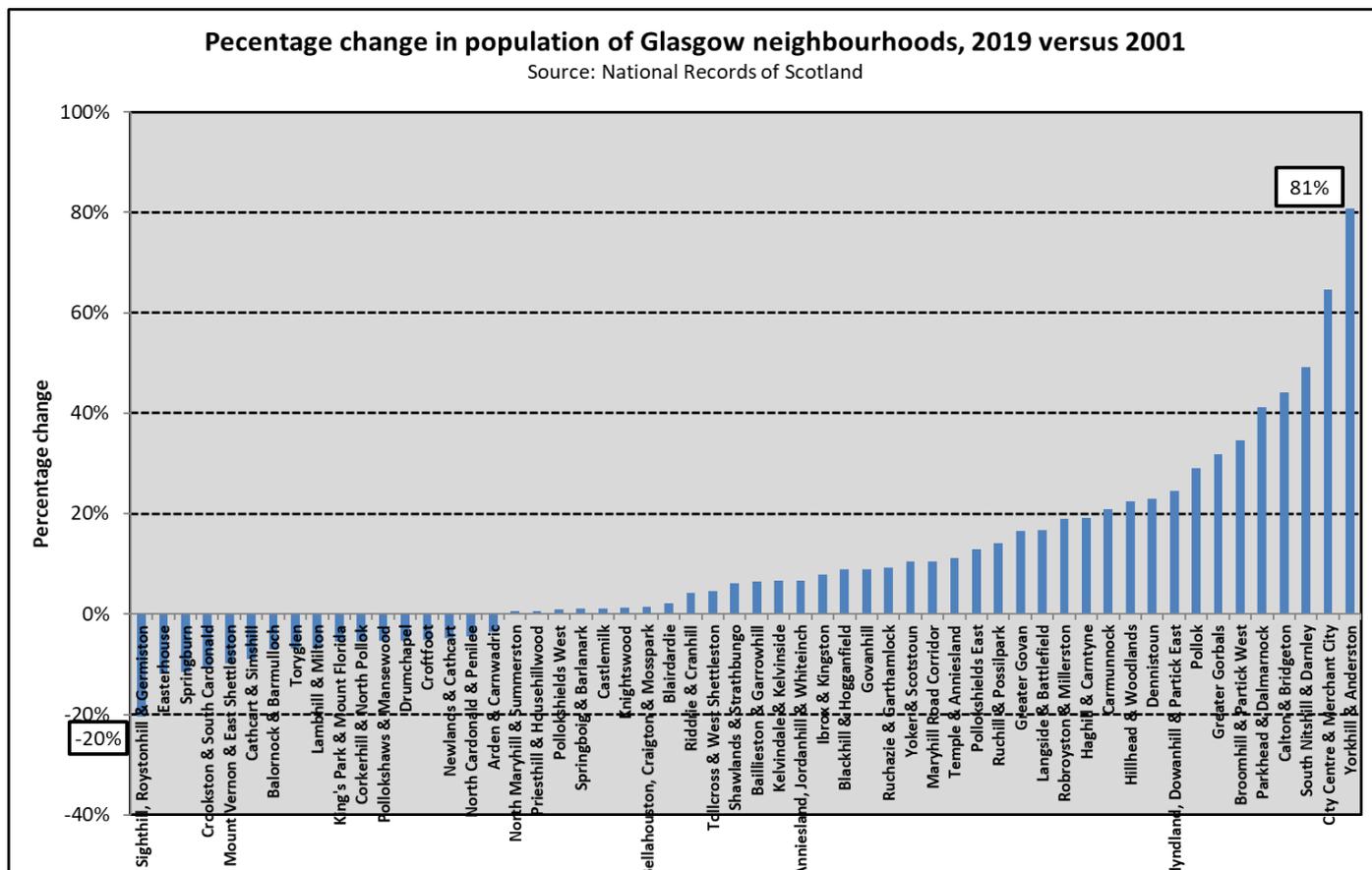
3.1.1.4 Population trends by deprivation decile

The analysis described here has used small area population estimates[ii] for Glasgow in the period 2001-2019 applied to Glasgow specific deciles of deprivation (termed GIMD)[iii]. This allows changes in population by deprivation decile to be described. Figure 3 shows that while Glasgow's population grew by 9% overall between 2001 and 2019, there was a clear deprivation-related gradient in growth. Population growth has been much stronger in the least deprived deciles in comparison to the most deprived deciles; while the population of the least deprived decile grew by nearly a third, the population of the most deprived decile dropped by 5% over the period.

[ii] Population estimates published by National Records of Scotland at a data zone level.
[iii] GIMD denotes the Glasgow Index of Multiple Deprivation. It is built up using only Glasgow data zones assigned to deciles of deprivation of equal population size based on their ranking in the 2020 revision of the Scottish Index of Multiple Deprivation (SIMD 2020). This mapping of data zones to deprivation deciles is based on SIMD 2020 and may have changed from previous SIMD versions.

Figure 3. Percentage change in population in period 2001-2019, Glasgow, deprivation deciles

Percentage change in population in period 2001-2019, Glasgow, deprivation deciles
(Glasgow Index of Multiple Deprivation (GIMD) - based on SIMD 2020)
Source: NRS

% Change in population

Deprivation decile (GIMD)

- 1 - most deprived: -5%
- 2: 2%
- 3: 1%
- 4: 5%
- 5: 9%
- 6: 15%
- 7: 13%
- 8: 9%
- 9: 22%
- 10 - least deprived: 32%
- Total: 9%
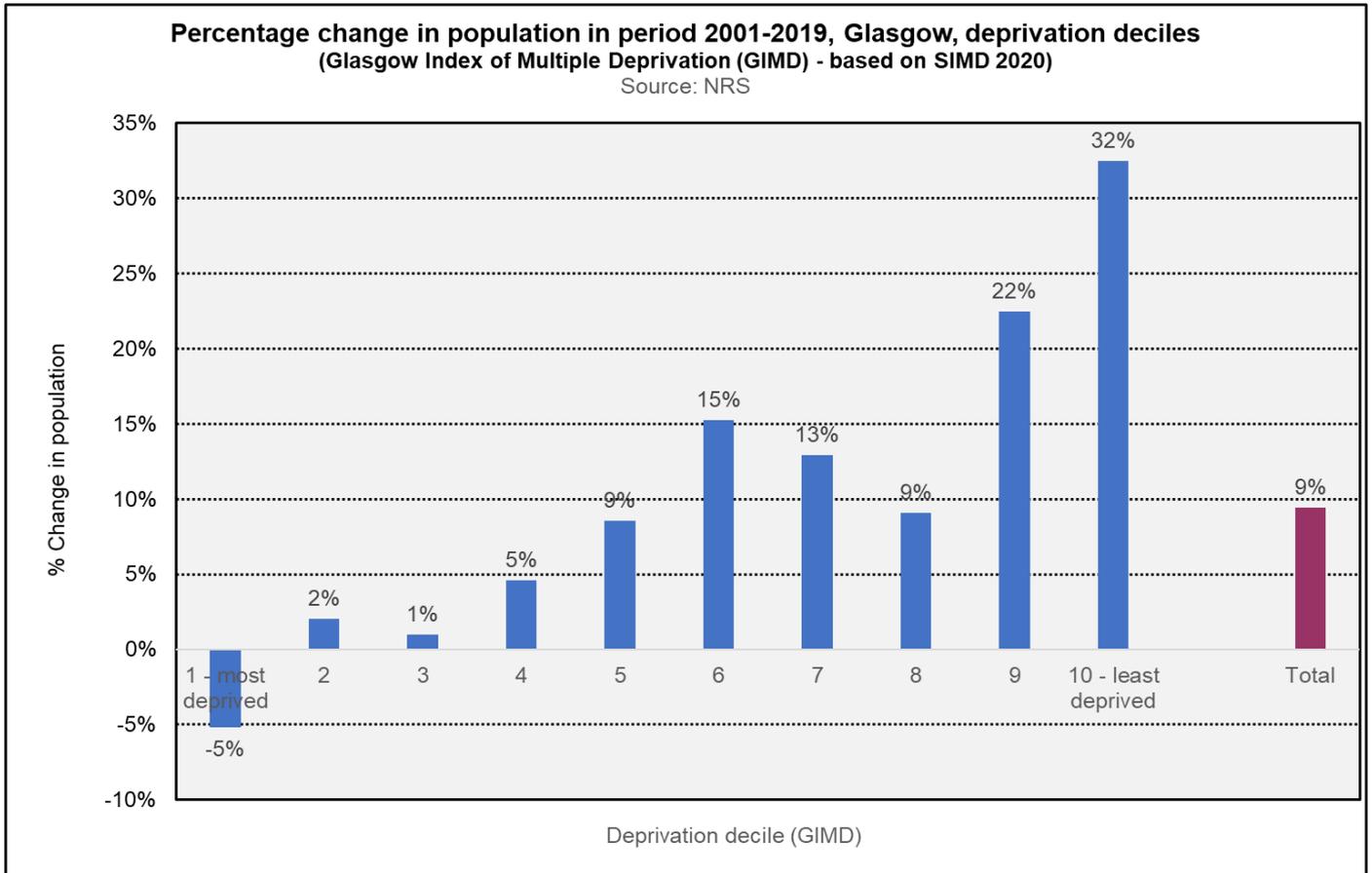
Assessing population changes by age group and by deprivation decile reveals a more nuanced picture (Figure 4).

Figure 4. Percentage change in population by age group in period 2001-2019, Glasgow, deprivation deciles
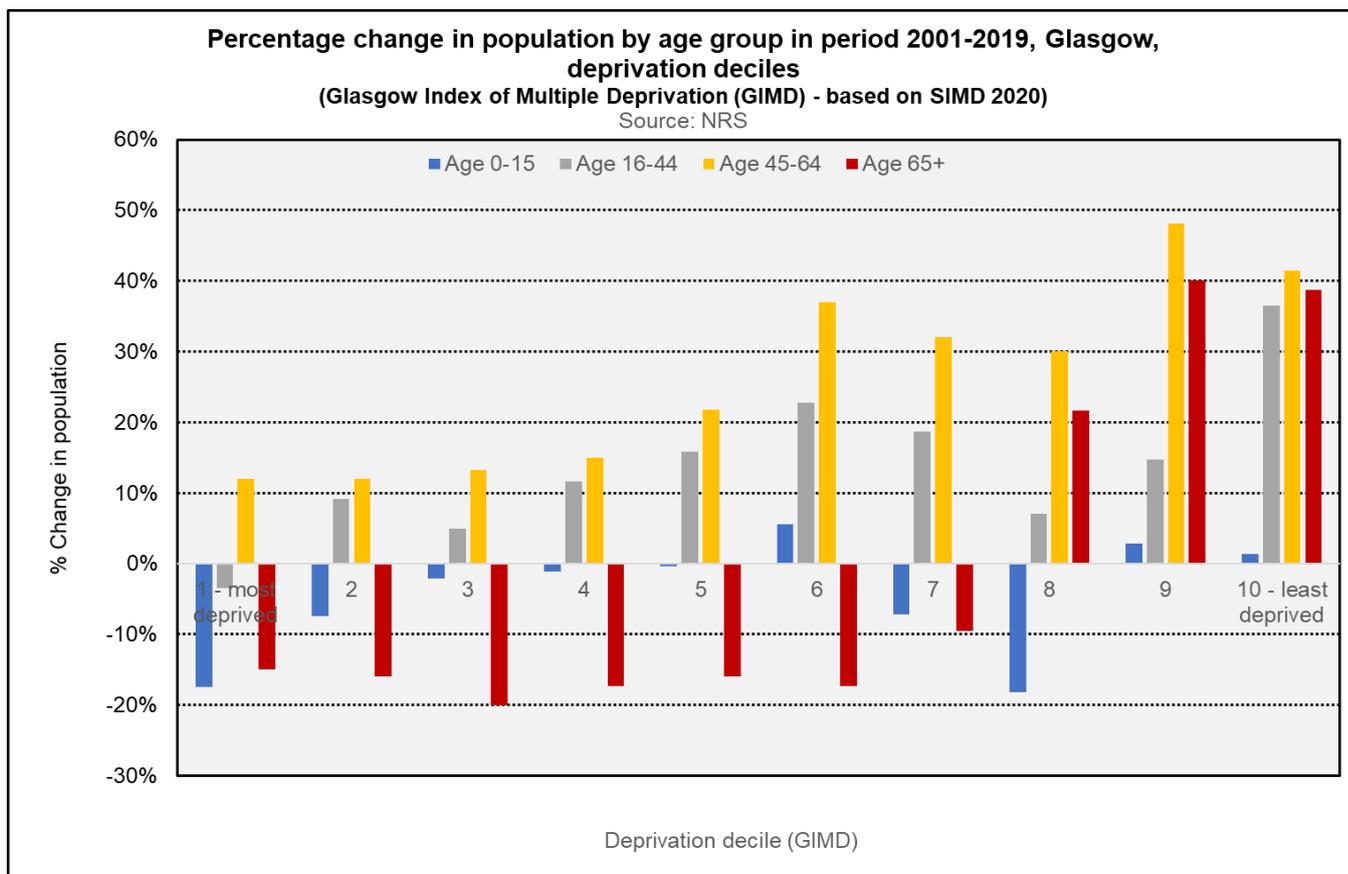
The child population of Glasgow (aged 0-15 years) reduced overall by 5% in the period 2001-2019, but the populations of the two least deprived deciles grew slightly while the child populations in the most deprived deciles dropped. A pattern of stronger growth in the least deprived deciles can be observed for the young working age (16-44 years) and the older working age (45-64 years) groups. In the latter, every decile showed an increase in population in this age group of at least 10%, rising to above 40% in the two least deprived deciles over the 19-year period. In the older age population (people aged 65 years and over), there was an 8% decline in population but as with the other age groups there was a deprivation related pattern. The three least deprived deciles showed strong growth in population (of 20-40%), while older populations of the remaining more deprived deciles reduced by 10%-20%.

Although the data is not shown, there was strong growth in the overall working age population (16-64 years), which increased by 17% across Glasgow between 2001 and 2019 with growth being strongest in the least deprived deciles and weakest in the most deprived decile. Additionally, among the youngest working age group (16-24 years) overall population growth was only 2%, but there was a striking rise in the least deprived decile of this age group of 42%, while the population of the most deprived decile reduced by 22% (not shown).

In summary, this analysis shows that as Glasgow's population has grown over the last two decades, the greatest growth across all age groups has been in the least deprived areas of the city. Given that the child population of the city has reduced in this period, a rise in the birth rate is not the reason. It is likely that the rise has been due to selective inward migration to these areas,

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combined with some areas where there was population growth also improving their SIMD ranking and being re-classified as a lower deprivation area.

3.1.1.5 Population born outside the UK

This measure tells us about the impact of inward migration to Glasgow and the increasing diversity of the population within the city. Figure 5 shows that 18% of Glasgow's population were born outside the UK in 2019-20, compared to 7% or less in the other local authorities of the Glasgow City Region.

Figure 5. Percentage of population born outside the UK compared across the Glasgow City Region, 2019-20[24].
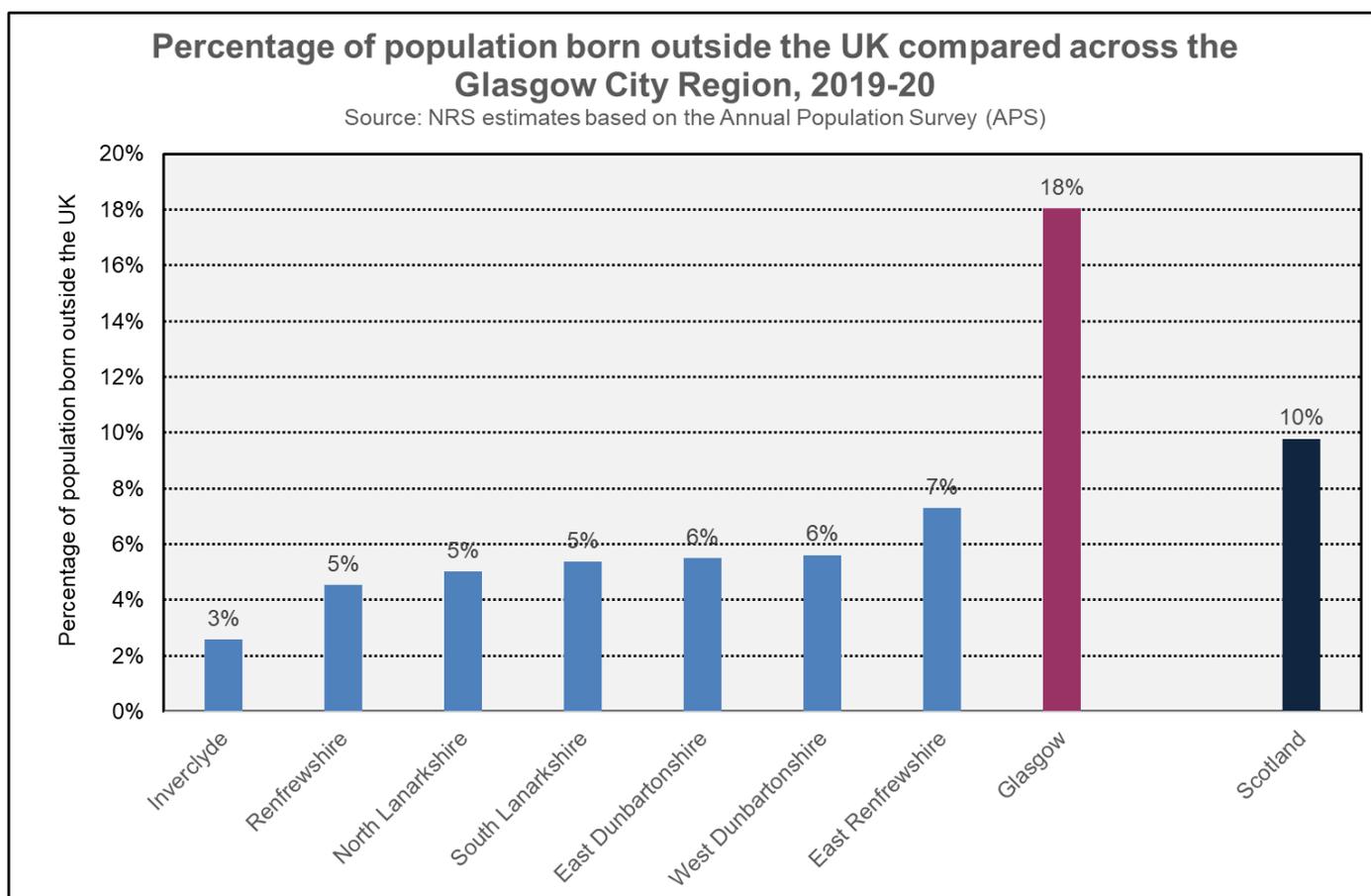
Between 2015-16 and 2019-20, there was a steady rise in the number and percentage of Scotland's population who were born outside the UK. This is a continuation of a longer upward trend from the early 2000s observed in Scotland and in Scotland's largest cities. In Scotland, people from the EU make up over half of non-UK nationals and Poles make up the largest grouping of non-UK nationals[iv].

[iv] These estimates are based on survey data and exclude certain population groups (students in halls who do not have a UK resident parent and people in most other types of communal establishments e.g. hotels, boarding houses, hostels and mobile home sites).

3.1.2 Households and housing

3.1.2.1 Household dwellings

In April 2018[v], there were estimated to be 301,245 household dwellings in Glasgow[25], which, in relation to Glasgow's population, equates to approximately two people per dwelling on average. At the same point in time, 98% of dwellings were occupied and 2% unoccupied.

The number of dwellings in each neighbourhood varies and is broadly proportional to the population of each neighbourhood. Carmunnock in the south eastern outskirts of the city has 371 dwellings, the smallest number of dwellings of any neighbourhood, while in the west of the city, Hillhead & Woodlands and Hyndland, Dowanhill & Partick East have the largest number of dwellings, 10,356 and 11,375, respectively (Figure 6).

Figure 6. Household dwellings by neighbourhood, 2018, Glasgow
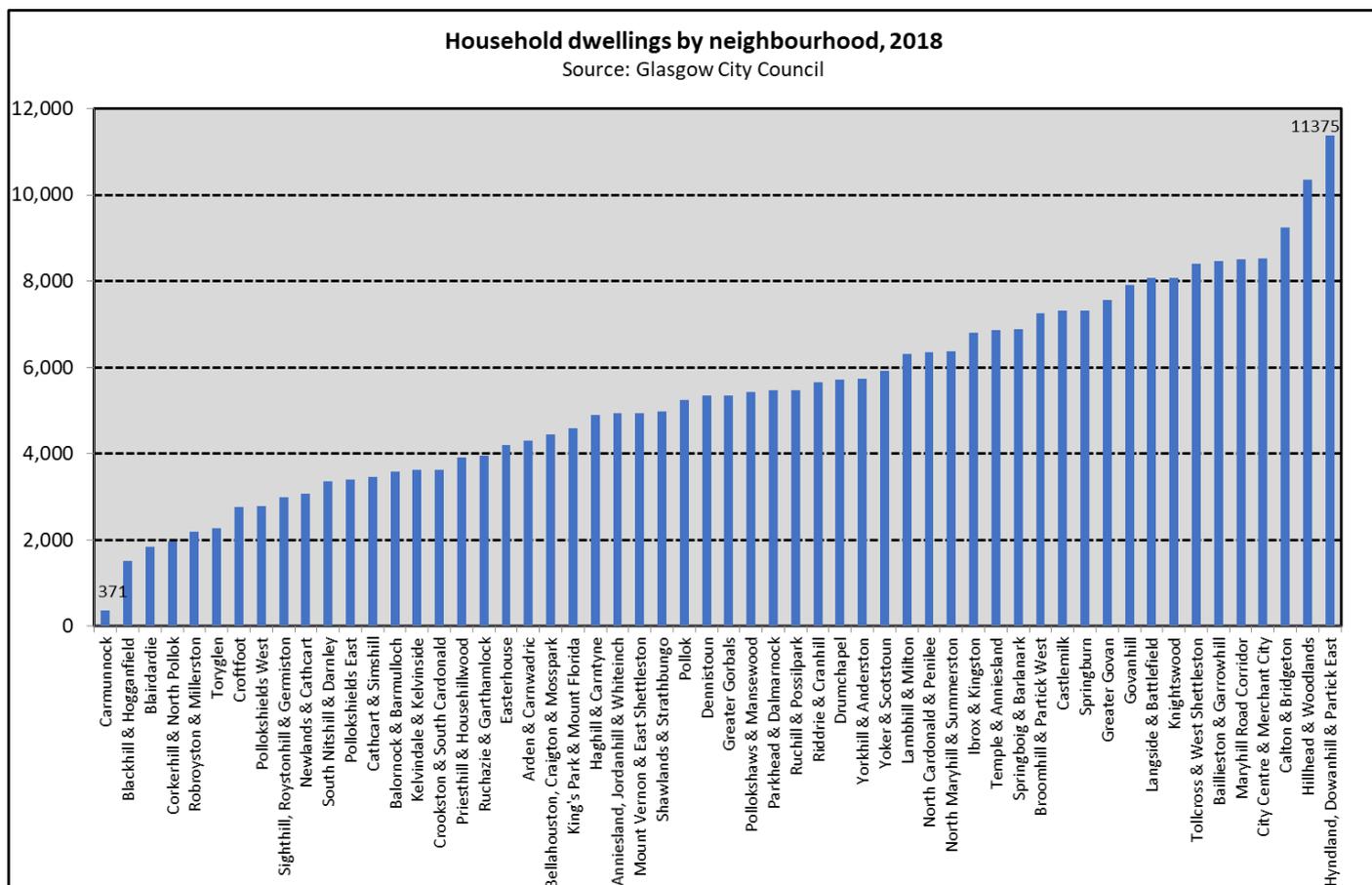
The number of dwellings in the city grew by 6% in the period 2001-2018. The neighbourhoods that experienced the largest percentage growth in dwellings were the City Centre & Merchant City (+43%), Calton & Bridgeton (+39%) and Yorkhill & Anderston (34%). In contrast, in the same period, over half of the housing stock in Sighthill, Roystonhill & Germiston (-55%) was lost and the housing stock of Toryglen reduced by a fifth (-22%).

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[v] Data from Glasgow City Council only available up to 2018

Figure 7 shows that there is a moderately strong positive linear relationship between change in population and change in the number of households (Pearson's correlation coefficient, R = 0.6) i.e. a neighbourhood population tends to rise as household numbers rise and vice versa. As an example, the City Centre had a 65% growth in population between 2001 and 2019 and the number of households in this neighbourhood had risen by 43% by 2018. South Nitshill & Darnley, Yorkhill & Anderston and Calton & Bridgeton also show similar strong rises in population and household numbers. In contrast, in the communities of Easterhouse, Toryglen and Sighthill, Roystonhill & Germiston both household numbers and populations have reduced over the same period.

Figure 7. Change in the population and households across Glasgow neighbourhoods, 2019 versus 2001[vi]

Change in the population and households across Glasgow neighbourhoods, 2019 versus 2001
Source: GCPH based on data from Glasgow City Council and National Records of Scotland
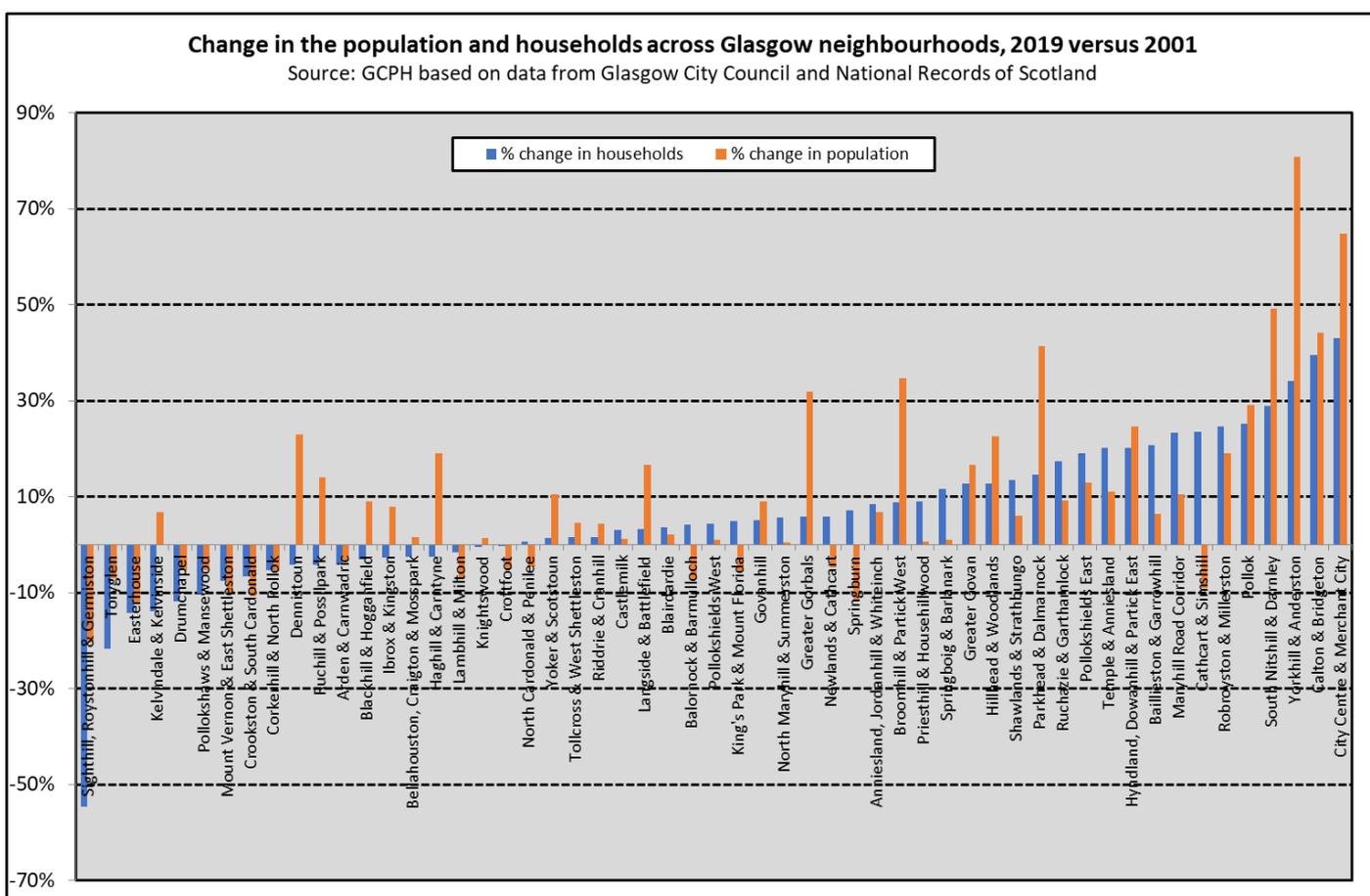
3.1.2.2 Household type

Using data derived from Council Tax administration, it is possible to get approximate estimates of the number of single person households[vii] and student households[viii] in Glasgow. Approximately 44% of households were single person households across Glasgow in 2018, but this percentage varied significantly by neighbourhood from 57% of households in Sighthill, Roystonhill & Germiston to 27% in Robroyston & Millerston.

[vi] While the change in population is between 2019 and 2001, the change in households is between 2018 and 2001.
[vii] These figures are based on information on Council Tax exemptions provided by Glasgow City Council. Single person households could include a single parent with children under 18 but would not include students.
[viii] The student households figure includes households where all the occupants are students, either as single students or multiple students, but excludes those students living as part of an otherwise non-student household. These figures also exclude 9,584 purpose-built properties (2018 figure), such as halls of residence or university flats entirely occupied by students.

Student households make up just 2% of households in Glasgow as a whole, but proportions of student households are much higher in some neighbourhoods, mainly in the west of the city. In 2018, student households made up 8% of all households in Yorkhill & Anderston and 11% of households in both City Centre & Merchant City and Hillhead & Woodlands.

3.1.2.3 Housing tenure

In 2018, 45% of dwellings were owner occupied, 20% were privately rented and 36% were socially rented[ix]; of those that were socially rented, 36% were rented from Glasgow Housing Association and the rest from other social housing providers.

The distribution of tenure by neighbourhood differs greatly across Glasgow. In 2018, in Sighthill, Roystonhill & Germiston 17% of dwellings were owner occupied, while 77% were socially rented. In contrast, in Robroyston & Millerston, 89% of dwellings were owner occupied, 11% privately rented and less than 1% was socially rented (Figure 8).

Figure 8. Housing Stock Estimates – Glasgow City 1st April 2018 by tenure by neighbourhood
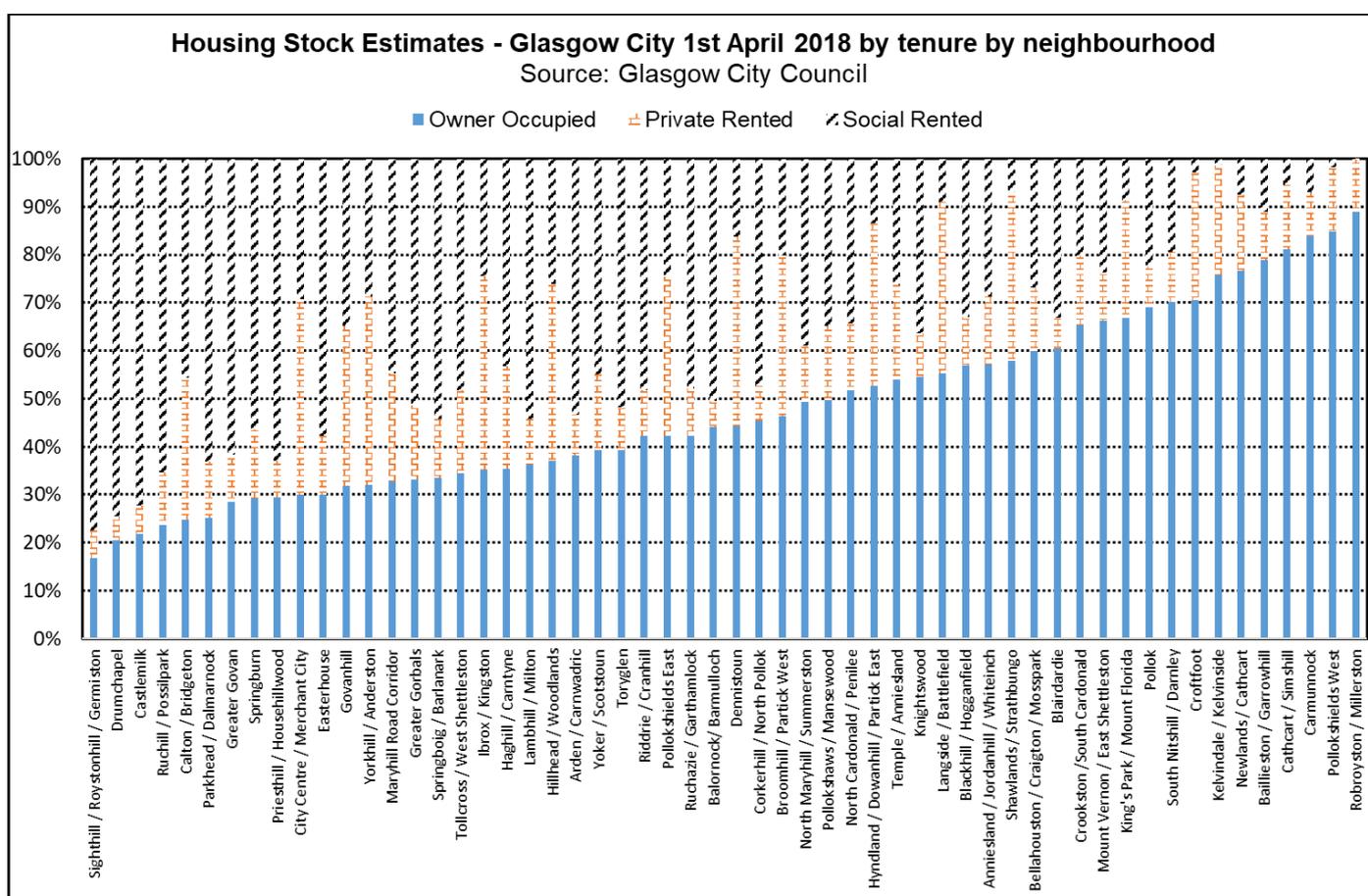
The numbers of dwellings that are privately rented has risen over the last 20 years in Glasgow. In 2001, 8% of dwellings were estimated to be privately rented[3] while in 2018 the figure had risen to 20%. Nevertheless, the levels of private renting vary substantially across Glasgow – from 5% of dwellings in Drumchapel to 41% in the City Centre and Merchant City.

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ix Due to rounding these figures do not total to 100% exactly.

3.1.2.4 Housing Quality[x]

In the period 2016-2018, 26% of properties in Glasgow were estimated to be in need of urgent repair[xi], around 3% lower than the figure for Scotland as a whole. The rates of housing in need of urgent repair are higher in some other parts of the city region e.g. in Inverclyde, Renfrewshire, South Lanarkshire and East Renfrewshire[xii].

3.1.3 Homelessness

The number of households in Glasgow assessed as homeless or at risk of homelessness has halved in the last two decades[26]. In 2020/21, 5,210 households were assessed as homeless or threatened with homelessness. This was similar to the previous year's figure, but there had been a 12% increase between 2018/19 and 2019/20. These 5,210 households encompassed 7,632 people, including 5,743 adults and 1,889 children. The latter figure shows that a disproportionate number of children are affected by homelessness in the city; children represented 25% of people assessed as homeless, despite only making up 16% of the city's population.

There were 2,668 households in temporary accommodation in Glasgow on 31st March 2021, 0.5% of the city's population. The average number of days spent in temporary accommodation was 225 days which equates to over seven months. Again, these figures were similar to those measured in 2020 but had increased since 2019, by 477 households (22%) and 27 days (14%). Households with children were likely to spend longer than average periods in temporary accommodation.

Based on Scottish data for 2020/21, the characteristics of homeless households can be summarised as follows:

- 58% male and 42% female;
- 70% were single person households, of which over two-thirds were single men;
- 21% were single parent households, and over three-quarters of those were headed by a female;
- 26% were households with children;
- 87% were White;
- 51% identified one support need and 27% identified a mental health problem.

The Hard Edges Scotland[27] study found that in 2019, 191,000 people in Scotland experienced at least one of three core disadvantages (homelessness, substance dependency and criminal offending), with 5,700 experiencing all three in the same year. Glasgow had the highest number, and the fourth largest proportion, of people facing multiple disadvantages among all Scottish local authorities. Those at highest risk were aged 24-40 years, White, male, disabled or had a long-term illness, unemployed, and from a deprived area.

The Joseph Rowntree Foundation estimated that over one million UK households were destitute[xiii] during 2019[28], with higher risk for lone parents, young adults, disabled people, and migrant populations. Glasgow had the tenth highest rate of destitution among UK cities, with 1.3% of Glaswegians destitute in 2019, and a comparatively high proportion of migrants. Most cities with

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[x]https://www.understandingglasgow.com/indicators/environment/housing/housing_quality/houses_in_need_of_urgent_repair/scottish_cities

[xi] Urgent disrepair: housing requiring immediate repair to prevent further damage or health and safety risk to occupants. Urgency of disrepair is only assessed for external and common elements.

[xii]https://www.understandingglasgow.com/indicators/environment/housing/housing_quality/houses_in_need_of_urgent_repair/glasgow_clyde_valley

[xiii] Destitution is defined as being unable to afford two of six essential items: housing, food, heating, lighting, clothing and footwear, basic toiletries.

the highest levels of destitution were in the North of England, and Glasgow had the highest rate among Scottish cities.

Many of those who are housed are in insecure or unsafe housing. A survey of 13,000 people, commissioned by Shelter UK[29], suggests that around one-third of adults in the UK are currently impacted by the housing emergency, and do not have access to affordable, safe and secure housing. Almost a quarter (23%) of the people surveyed were living in homes with significant damp, mould and condensation, or could not keep warm in winter.

Black and Asian people were at least 50% more likely to be affected by housing issues or homelessness than White people and were also more likely to have experienced discrimination when looking for a safe, affordable home. More than half (54%) of people with a significant disability and nearly two-thirds (65%) of single mothers did not have a safe or secure home[30]. The figures impacted were also higher for gay (40%) and bisexual (49%) respondents than for heterosexual respondents (32%)[31].

Covid-19 context

During the Covid-19 pandemic, governments across the UK pursued 'everyone in' strategies – aiming to end rough sleeping and make sure everyone had Covid-19 safe accommodation through partnership with third sector and lived experience experts. These 'everyone in' strategies were successful in massively reducing rough sleeping. Offering people the support they needed alongside housing was more challenging, with some frontline workers unable to source Personal Protective Equipment (PPE)[32]. The use of new spaces, such as tourist hotels, for housing asylum seeking and refugee groups and people facing destitution heightened people's feelings of isolation and added to the trauma that they already faced[33].

The Scottish Government provided new funding and updated legislation on homelessness and renting, with regards to rent arrears and evictions. They re-convened the Homelessness and Rough Sleeping Action Group to provide recommendations on tackling homelessness during the pandemic, drawing on the experiences of front-line staff and people with experience of homelessness[34].

Across Scotland, lockdown restrictions reduced movement in housing, including through homelessness routes. The numbers of homeless applications and assessments reduced, while the number of open applications and households in temporary accommodation rose. In Glasgow, there was a 9% reduction in assessments between April and September 2020, and a 37% increase in temporary accommodation on September 30th 2020, compared to the same date in 2019 – the largest increase of any local authority in Scotland. Compared to 2019, there were more single males, 18-24 years olds, and people of White Scottish ethnicity assessed as homeless or threatened with homelessness[35].

Homelessness was prevented by the furlough scheme, the pause in benefits sanctions, the uplift in benefits payments and increases to local housing allowance[32]. Evictions from private and social rented properties were halted throughout the UK. In Scotland, this applied in all areas until January 2021, and in Covid-19 tier 3 and 4 areas thereafter[36]. Mortgage holidays helped homeowners from falling behind on payments, but rent arrears grew in both social and private housing across the UK[37]. In 2019, almost a third of Scottish renters had no savings at all, with another 21% having less than £1,000. Lacking these resources to fall back on, renters accrued arrears or debt[38] – with 9% having borrowed from family and friends by June 2020, according to a YouGov survey[38,39].

3.1.4 Population and household projections

The most recent NRS projections[40] (with a base year of 2018) forecast that the Glasgow City Region's population is likely to increase by 3% over the next 25 years, rising to 1.88 million by 2043. At a city level, Glasgow's population is forecast to grow by 6% over the next 25 years, an increase of 36,000. Its population is also predicted to become older – in line with the rest of Scotland – with a forecast of an increase in the aged over 50 population of 44,000 by 2043. The population of the city that is aged 65-74 and 75+ is predicted to increase by 23% and 55% respectively over the next 25 years.

Future household numbers over the same 25-year period (2018-2043) are forecast to rise by 9% to 921,000 in the city region and by 12% in Glasgow City to just over 328,000[41]. The number of single adult households in Glasgow is forecast to rise by 20,170 and is expected to represent 45% of all households in the city by 2043, while the number of single parent households is predicted to remain steady at just over 21,400 (in 2043). However, due to a predicted rise in households overall, single parent households will account for a lower proportion of all households by 2043 (6.5%).

> *Covid-19 context*
>
> The immediate population impacts of the Covid-19 restrictions have limited population movement within Scotland and travel in and out of the country[42]. Some relevant statistics on migration are not currently available. However, it is clear that international travel has reduced significantly and there has been a large decrease in overseas workers and in refugees resettling in Scotland. Applications for National Insurance numbers (NINo) allocated to adult overseas nationals for the purpose of working and accessing benefits in the UK reduced by 65% on the previous year in the year ending December 2020. Over the same period, there were 128 refugees (a 78% decrease from previous year) resettled in Scotland with only 17 being resettled in Glasgow. However, despite the decrease in refugees resettling in Scotland, in the year to June 2020, the number of non-British nationals living in Scotland stood at 409,000 people, which is an increase from the previous year.
>
> Further indirect impacts on population movements can be seen in the property market. There was a fall in property sales, particularly early in the pandemic when restrictions on home moves were in force, and the supply of affordable housing has been suppressed[43]. Since then, property sales have picked up with stamp duty relief likely to have had an influence as well as changes to working conditions.

3.2 Socioeconomic circumstances

In this section we describe patterns and trends for a range of socioeconomic factors: deprivation, poverty, economic participation, education, social capital and community safety.

3.2.1 Deprivation

3.2.1.1 Scottish Cities Comparison

Deprivation in Scotland is measured using the Scottish Index of Multiple Deprivation (SIMD). The index was introduced in 2004 and there have been five revisions since then, in 2006, 2009, 2012, 2016 and 2020. It ranks every data zone in Scotland, and then assigns them into ten groups, showing varying levels of deprivation, with decile one being the most deprived and decile ten the least deprived group.

Based on SIMD2020, over one-quarter of Glaswegians live in the most deprived Scottish decile, the highest figure among the Scottish cities (Figure 9). Just over 5% of people in Glasgow live in the least deprived decile in Scotland, which, by contrast, holds 30% of the residents of Edinburgh. Glasgow and Dundee both have high proportions of their populations in the more deprived deciles. Edinburgh and Aberdeen by contrast, have a particularly low proportion of residents in the most deprived decile.

Figure 9. Proportion of population in each SIMD decile, Scottish Cities, 2019

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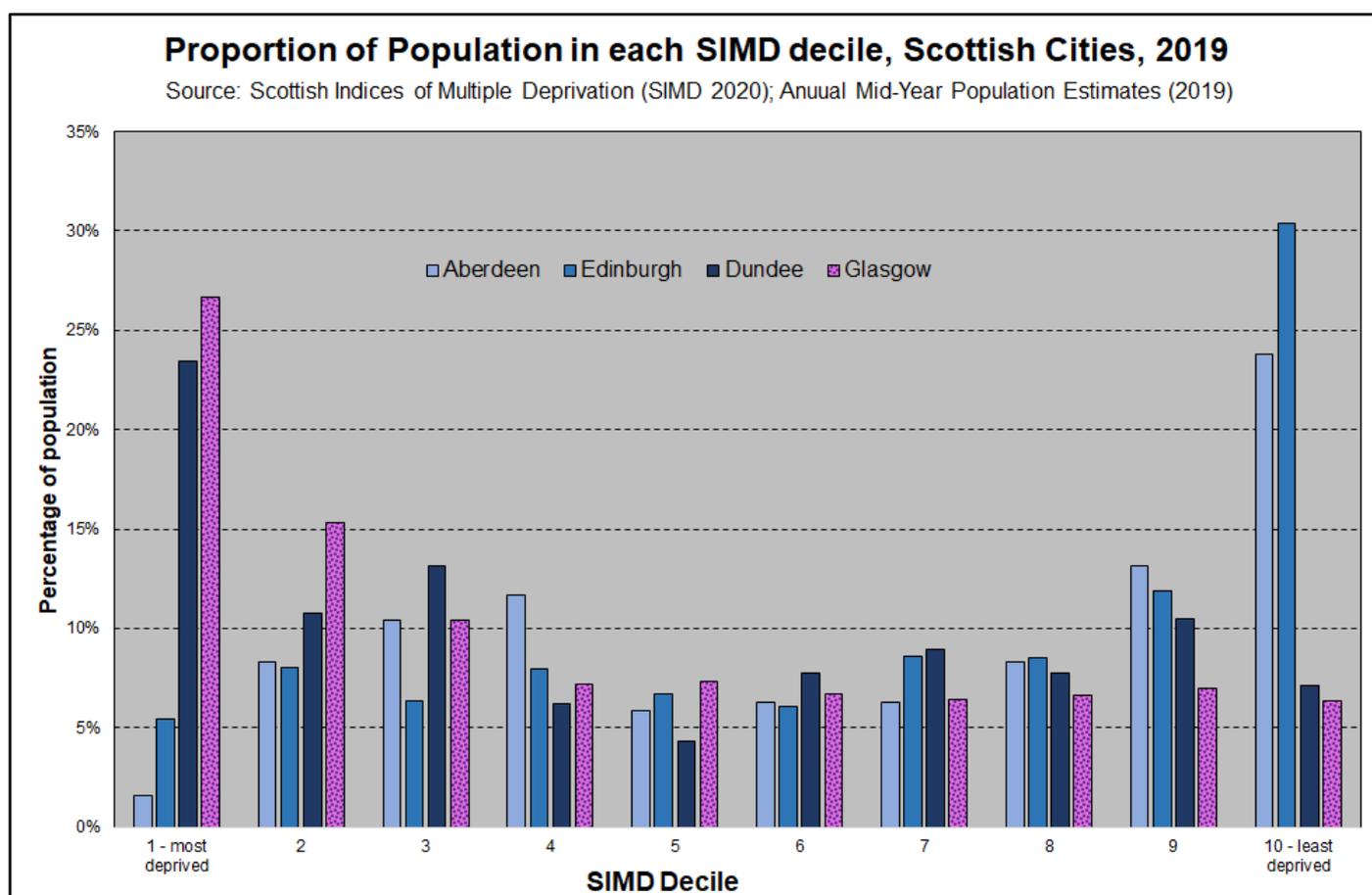
Although Glasgow continues to have a higher proportion of residents in the most deprived decile than other cities, this proportion has reduced over time (Figure 10). In 2004, nearly half of Glasgow's population resided in the most deprived Scottish decile compared to 28% in 2020. There has also been a gradual increase in the proportion of people living in the five least deprived deciles, although the proportion of the population living in these areas remains much lower than in Aberdeen or Edinburgh.

Figure 10. Distribution of Glasgow data zones by deprivation decile over time

Distribution of Glasgow datazones by deprivation decile over time
Source: Scottish Indices of Multiple Deprivation (SIMD); Annual Population Mid-Year Estaimtes
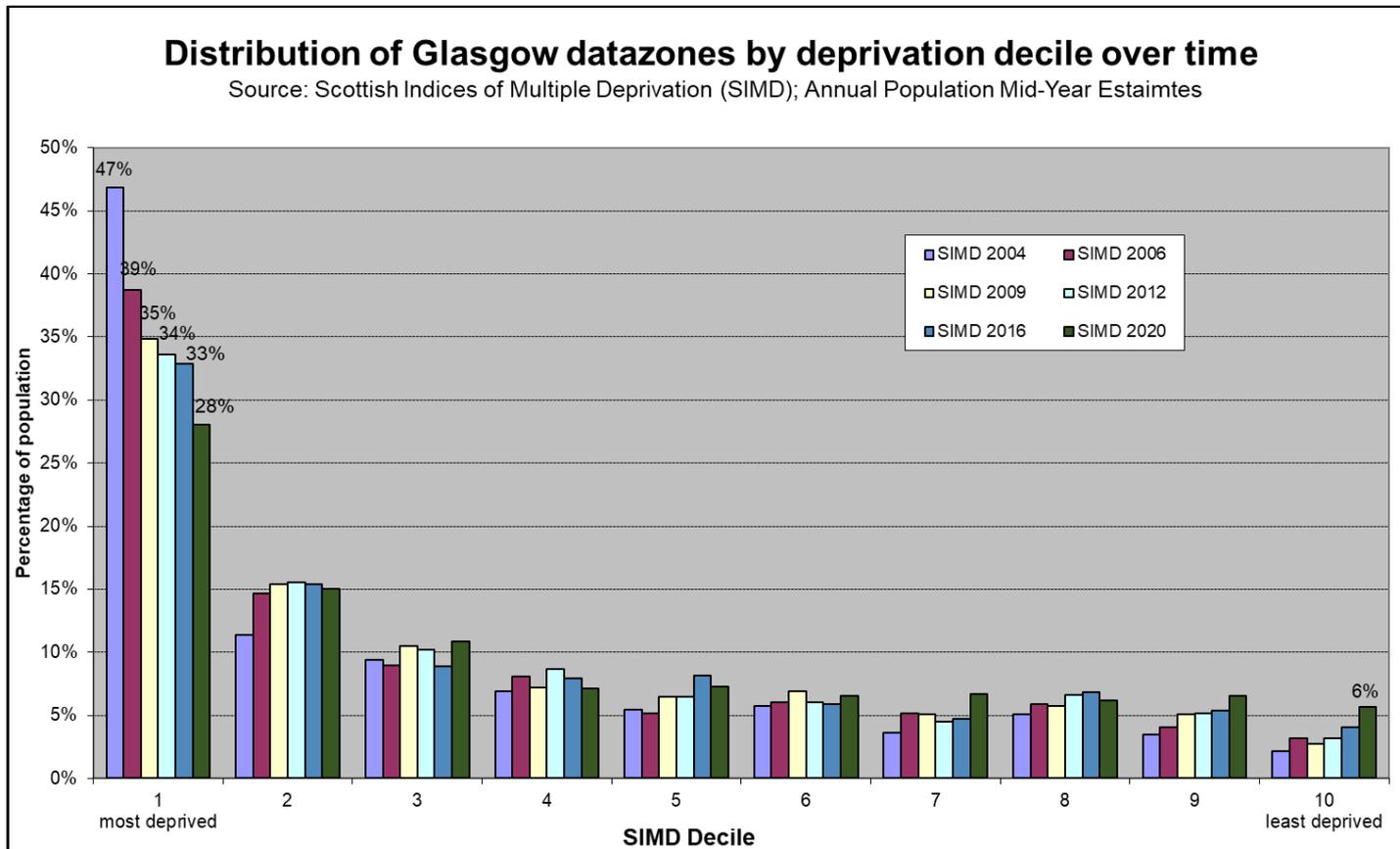
Using data zone level population estimates, it is possible to see how different age groups within the city are distributed (Figure 11). Over 35% of children (under 15) live in the most deprived decile, compared with around 30% of those over 45 years old. This proportion drops to around 27% for those aged 25-44 and to under 25% for 15–24-year-olds. The youngest working age category (15-24 years) is notably differently distributed among the deprivation deciles – with greater proportions living in the least deprived areas than in any other age group. Splitting older age groups into 65-79 and 80+ shows that there is a higher proportion of those over 80 living in the second and third most deprived deciles, and a very slightly lower proportion living in the two least deprived deciles, than there is of 65–79-year-olds.

Figure 11. Population estimates: percentages of age group by deprivation decile, Glasgow, 2019

Figure caption within image: Population estimates: percentages of age group by deprivation decile, 2019. Source: National Records of Scotland and Scottish Index of Multiple Deprivation (SIMD 2020)
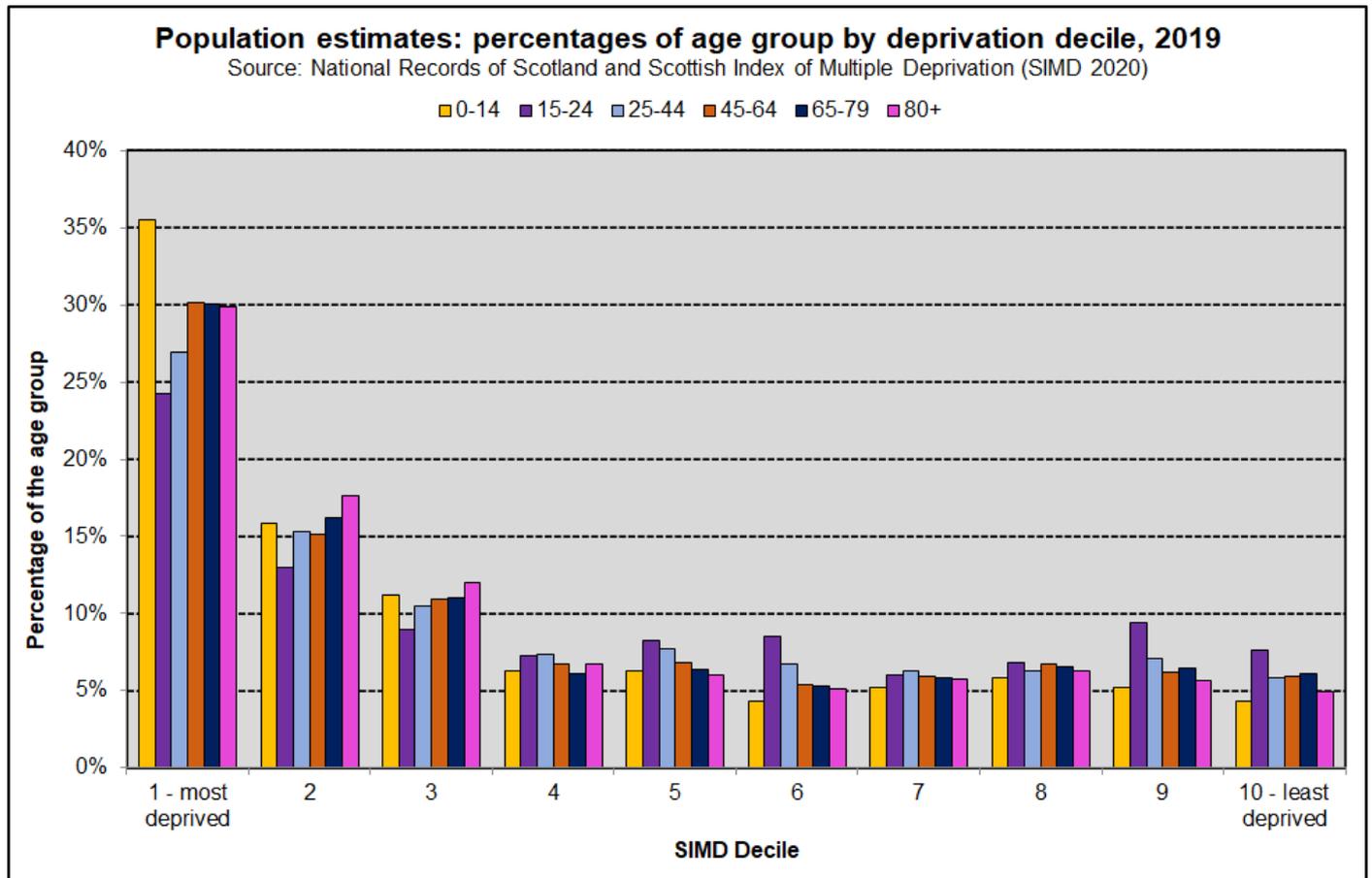
Deprivation in Glasgow relative to the rest of Scotland has improved, and this is also true for most of Glasgow's neighbourhoods. Figure 12 shows the change in average data zone ranking for each Glasgow neighbourhood[xiv]. The majority of neighbourhoods in Glasgow have improved their deprivation ranking (becoming less deprived) between SIMD 2004 and SIMD 2020. The largest improvement was in Dennistoun. Four neighbourhoods had worse average rankings in 2020 than in 2004.

Figure 12. Change in population and in SIMD ranking, Glasgow neighbourhoods
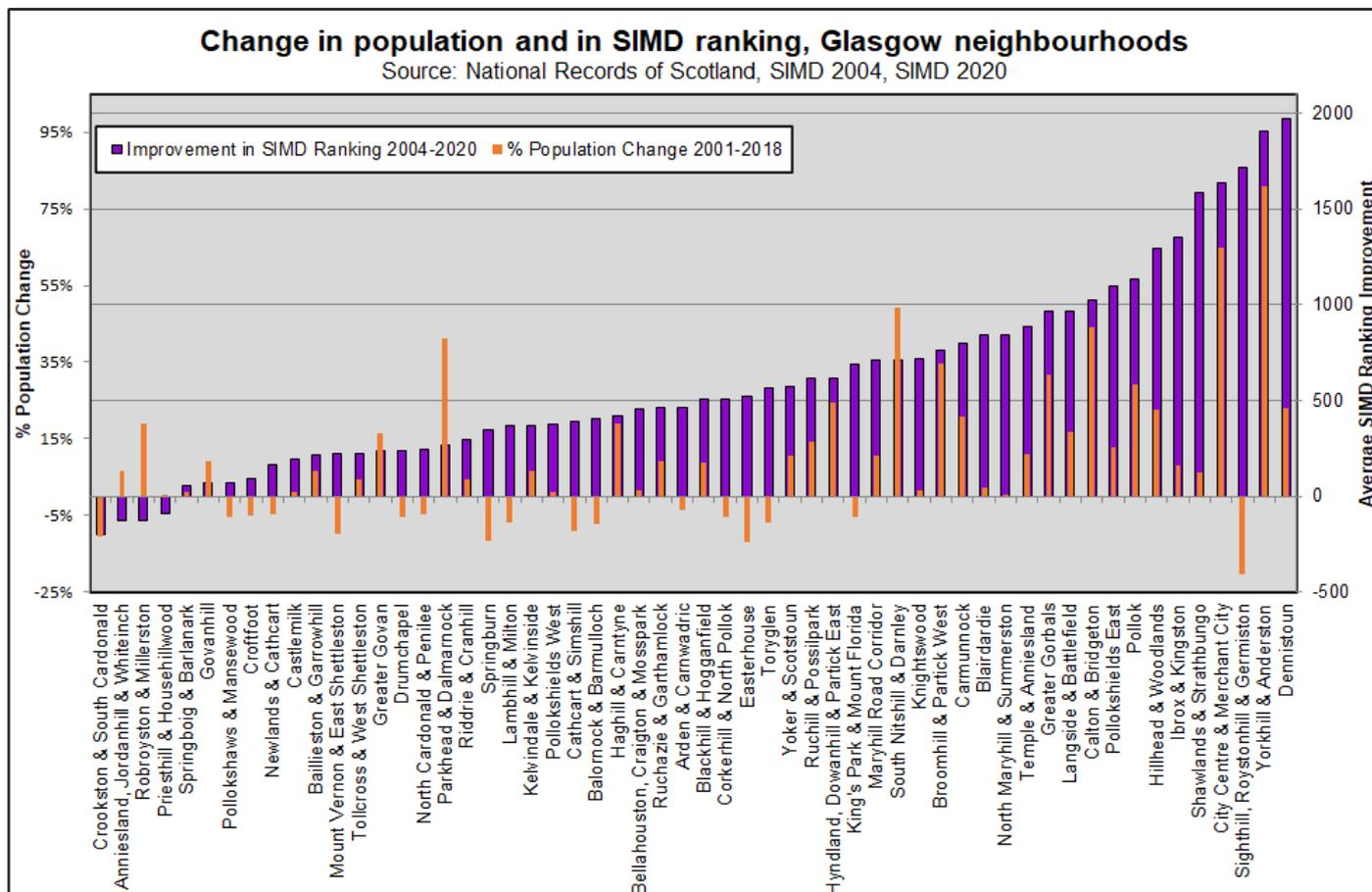
There is some association between improvement in deprivation ranking and increases in population, although not for all neighbourhoods. A similar relationship exists when comparing improvement in deprivation ranking with new house building. This may indicate that more affluent populations are moving into new or converted housing, increasing both the population and the affluence of the neighbourhood at the same time. Additionally, areas where deprivation is lessening over time are likely to attract new residents.

We have picked out two of the neighbourhoods to look closer at the changes in deprivation over time – Yorkhill and Anderston, with the second-highest improvement in deprivation and the highest increase in population; and Sighthill, Roystonhill and Germiston, with the third highest deprivation ranking improvement, but a reduction in population. These show contrasting ways in which deprivation rankings have improved within the city.

[xiv] Each of the 55 neighbourhoods of Glasgow listed in this chart holds between 4 and 25 data zones, an average of 14. Carmunock, which is currently just one data zone, has been excluded from this chart, because alterations to data zones since 2004 make accurate deprivation comparisons impossible for this area.

Yorkhill and Anderston has become less deprived and increased in population, and there has also been a gradual increase in housing over this time period. Figure 13 shows how many people living within Yorkhill and Anderston lived in each of the SIMD deciles in 2004, 2012 and, most recently, 2020. In 2004, most of the population lived in the more deprived half of the data zones in Scotland. By 2012, this was changing, with more people in the middle deciles. By 2020, the majority of the population lived in the least deprived half of Scottish data zones. However, there are still data zones in the area that remain in the more deprived deciles. The change is likely to be linked to population growth in the area, with improving data zones seeing larger student populations. Yorkhill and Anderston had 1,826 new houses built between 2001 and 2018, the fourth highest amount of any neighbourhood in Glasgow, with only 425 demolitions. The total number of dwellings rose from 4,689 in 2004, to 5,458 in 2012 and again, up to 5,733 by 2018.

Figure 13. Change in population distribution by deprivation decile in Yorkhill and Anderston, 2004, 2012 and 2020
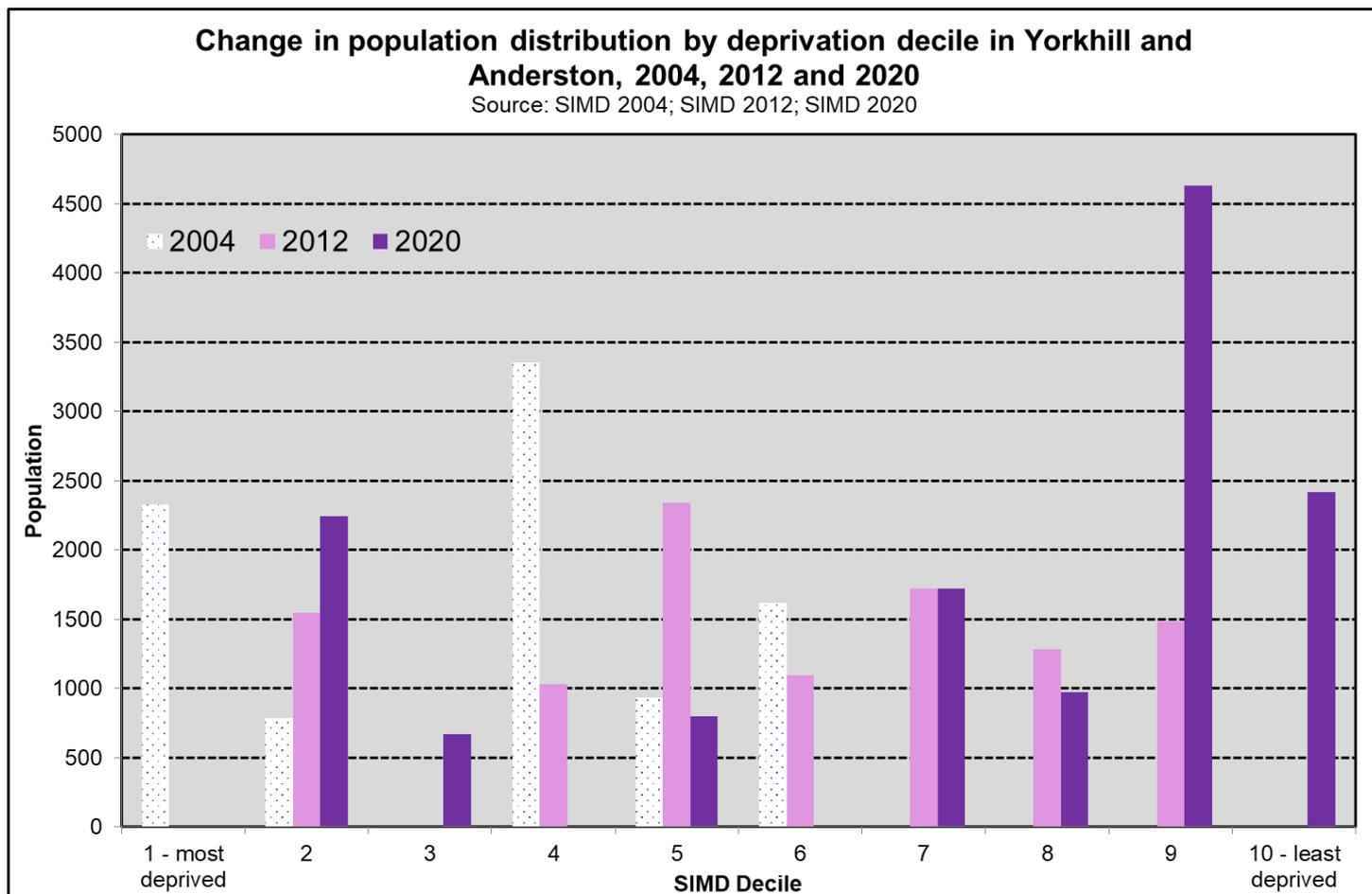
Sighthill, Roystonhill and Germiston had the third highest improvement in ranking, but, unlike most high improving neighbourhoods, it saw a drop in population from 2001 to 2020 (Figure 14). The entire neighbourhood was within SIMD1 – the most deprived decile – in 2004. By 2012, this had improved slightly, but the population were still living almost entirely in the three most deprived deciles. Comparing the 2012 to 2020 figures, the most notable change is a drop in population, which corresponds to the drop in housing in the area. There were 6,611 houses in the neighbourhood in 2001, and only 2,996 by 2018. The neighbourhood had the highest number of demolitions of any neighbourhood in Glasgow at this time, with 3,198 demolitions, mainly between 2007-2016. Over that same period, there have only been 723 new houses built.

Figure 14. Change in population distribution by deprivation decile in Sighthill, Roystonhill and Germiston, 2004, 2012 and 2020
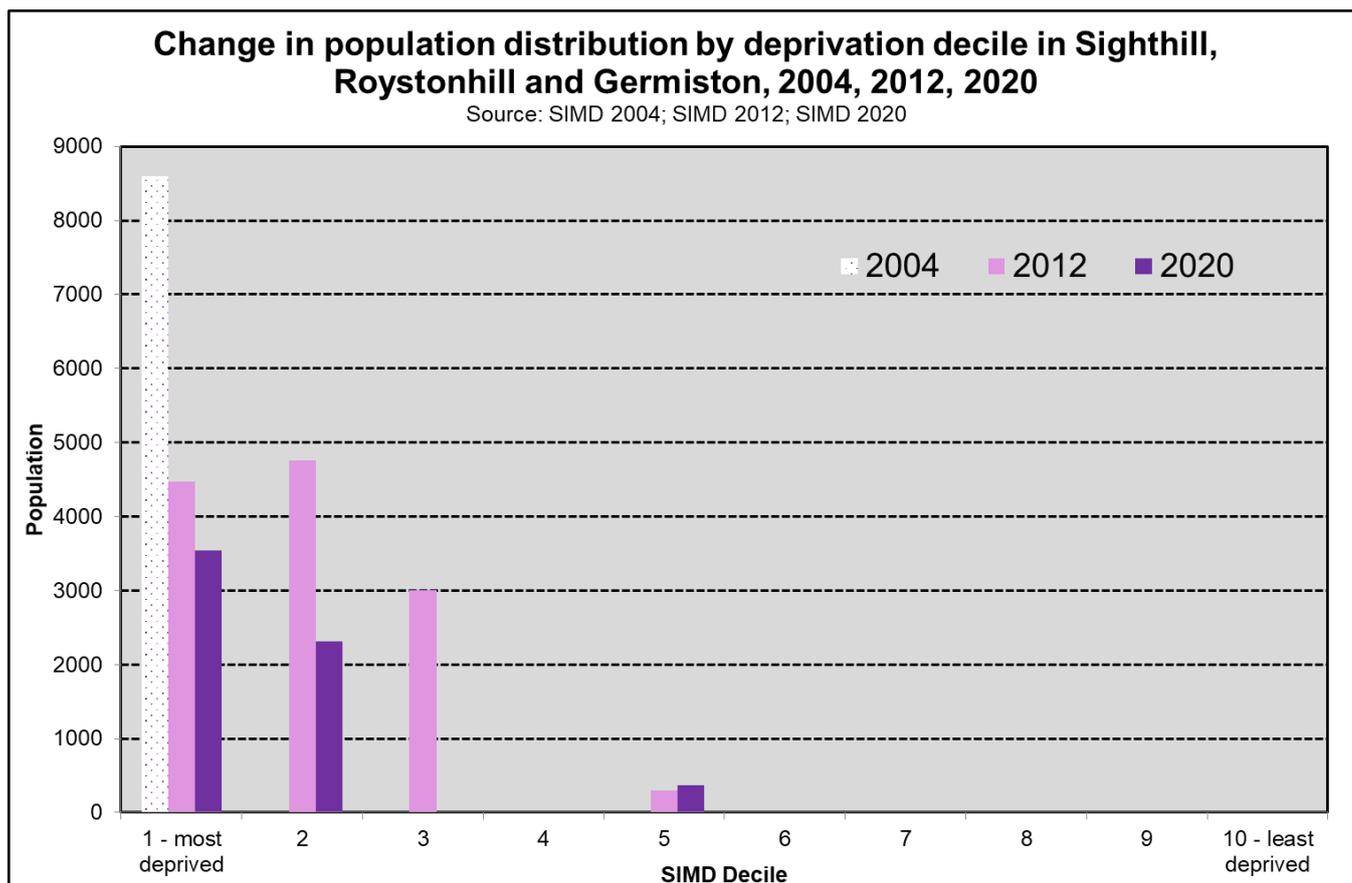
This neighbourhood, which currently has a low population and varying deprivation levels[44], is situated within the Sighthill Transformational Regeneration Area where the "largest regeneration project of its kind in Scotland" is underway[45]. This scheme will introduce new housing as well as new educational facilities, park space and new transport links into the city centre[46].

This explains the changes in housing levels and deprivation ranking that we see, which is different from other neighbourhoods in Glasgow. With developments still ongoing, we would expect to see further changes in the coming years. As population increases in the least deprived data zones, the balance of population by deprivation decile will shift. Better facilities in the more deprived data zones may also improve their ranking.

3.2.2 Poverty

3.2.2.1 Child poverty – City level, neighbourhood comparisons

Around 28% of children in Glasgow were living in low-income families in 2018/19, a higher proportion than in other Scottish cities or local authorities in the Glasgow City Region.

The percentage of children (aged 0-16 years) living in low-income families at a neighbourhood level varies widely across Glasgow, ranging from 2.7% in Carmunnock to 70.6% in Govanhill, with most neighbourhoods between 10% and 40% (Figure 15). Levels of children in low-income families were higher than the Scottish average in the majority of Glasgow's neighbourhoods. The five neighbourhoods with the lowest levels and the two with the highest levels have been consistently in these positions since 2013/14.

Figure 15. Percentage of children in low-income families, Glasgow neighbourhoods, 2018/19

Percentage of children in low income families, Glasgow neighbourhoods, 2018/9
Source: HM Revenue & Customs; National Records of Scotland
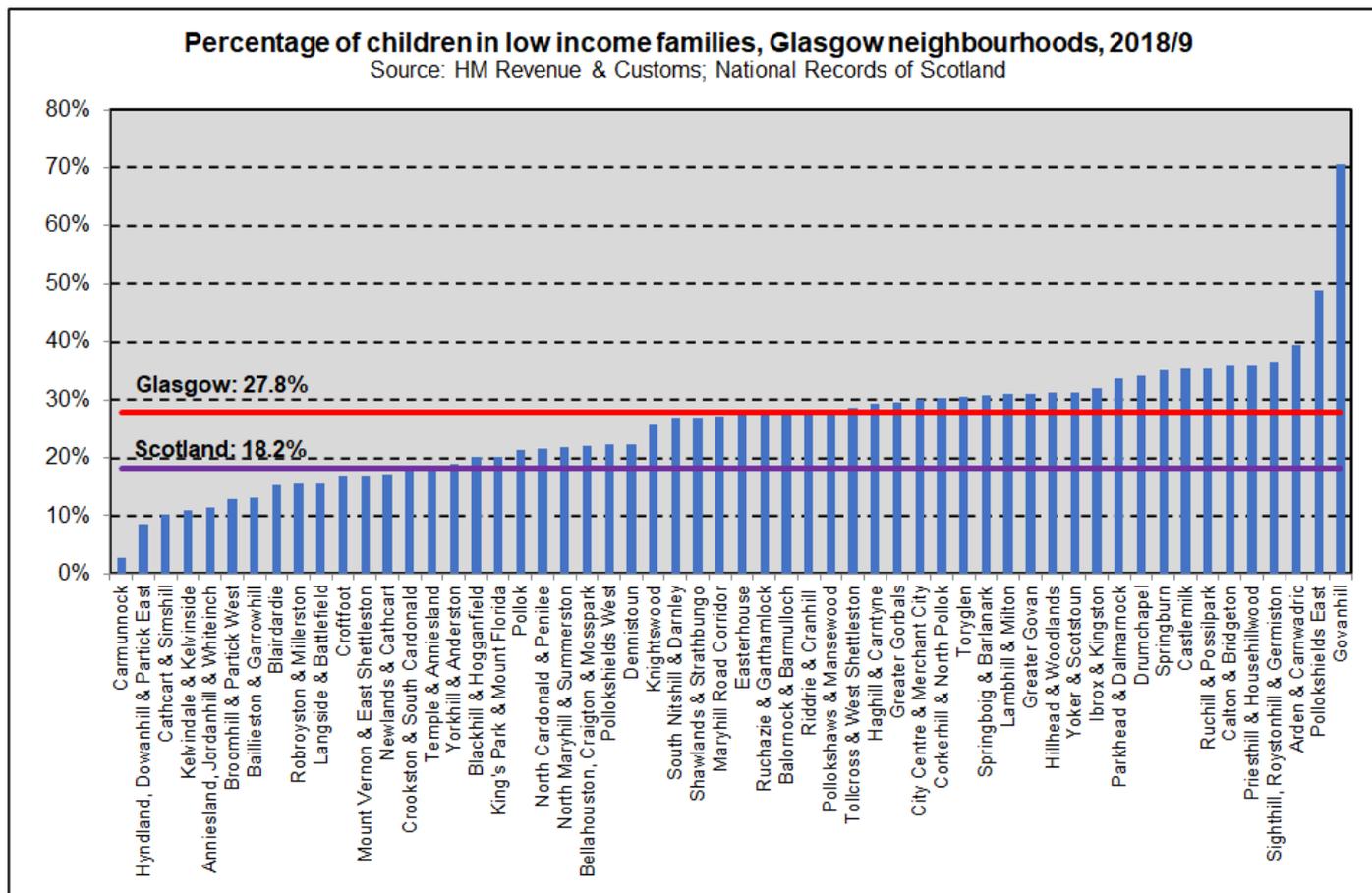
Glasgow City Council commissioned work in 2020 to better understand child poverty in the city, with a view to meeting Scottish Government targets for child poverty reduction[48]. Using data gathered in February and March 2020 from various local government systems, they estimated that over 36,000 children were living in poverty in Glasgow at that time, and that meeting the targets for 2030 would mean lifting over 25,000 children out of poverty. Over 16,000 of the children living in poverty lived in lone parent families, who were living on average £107 per week beneath the poverty line.

> *Covid-19 context*
> Over time, child poverty has risen, although the ordering of neighbourhoods has remained similar – with the same neighbourhoods having the highest and lowest estimates of children in low-income families each year. As with poverty more generally, without a change in policy responses we can expect to see heightening inequality and polarisation of wealth as we move through and beyond the Covid-19 pandemic. There are no child poverty figures available for the period since the beginning of the pandemic, but we do know that it had an unequal impact on children living in low income families. Although all children missed school during lockdown, those with lowest incomes had the most difficult time accessing online education or the resources required to learn at home[49]. Schools being shut also meant that some children could not access free school meals. Local authorities were given funds to compensate for this loss, which primarily impacted low income families, but support varied by location. Some local authorities gave families money directly, which is evidenced to be the best and least stigmatising way to support those on low income. Others asked families to travel to pick up meal replacements, or gave out vouchers, often limited to one supermarket which may not be accessible for all families[50.]

3.2.2.2 In-work poverty

Although work has traditionally been seen as a route out of poverty, we know that many families currently in poverty are working, often in insecure, low paid jobs. Estimates of how many people living in poverty are in work are only available at a Scotland level, but proportions have been growing over time, especially since 2011/12 – which is also when we start to see stalling life expectancy, which has been linked to austerity policies[xv]. In 2018/19, 63% of adults and 67% of children living in poverty were in working households. A recent report found that in-work poverty was increasing before the pandemic, with 14% of working households in Scotland living in poverty[51]. The Joseph Rowntree Foundation estimates that, of the over one million households who experienced destitution in the UK in 2020, one-in-seven were in paid work[28].

> *Covid-19 context*
>
> Universal Credit claimant data up to November 2020 showed a 127% increase in in-work Universal Credit claimants during the Covid-19 crisis (compared to a 71% increase in out-of-work claimants)[52]. This could indicate a likelihood of higher in-work poverty levels, as more people require Universal Credit support to top up their pay from employment. The economic participation section (3.2.3) looks in more detail at the changes to employment that Covid-19 continues to cause, which will influence the longer-term outcomes for in-work poverty.

3.2.2.3 Fuel poverty

Alongside measurements that focus on income, poverty measurements can also look at household outgoings, and how these vary across the country. One measure that is used comparatively is fuel poverty. Households are in fuel poverty when they need to spend at least

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[xv] https://www.understandingglasgow.com/indicators/poverty/in-work_poverty

10% of their income on fuel. Meanwhile, households where over 20% of household income is spent on fuel are defined as being in extreme fuel poverty.

The most recent local authority level data (from 2016-2018) shows that 25.2% of households in Glasgow were fuel poor and 11.4% were extremely fuel poor; both are similar figures to the Scottish average. Fuel poverty has been decreasing in both Scotland and Glasgow, but extreme fuel poverty has been rising.

> ### *Covid-19 context*
>
> This data is not yet up to date with the Covid-19 pandemic, but it is likely that households will have higher fuel and energy bills as people are spending more time at home due to lockdown restrictions and the move towards home working. Data from the winter months, when fuel bills are higher, should reflect these changes.

3.2.2.4 Food insecurity

As foodbanks have become a more visible part of our society, measurements of food insecurity have developed. The Food Foundation researched the relative costs of eating healthily for different families in 2020[53]. Households within the least deprived decile were able meet the recommended Eat Well guidelines of a healthy diet by spending only 6% of their disposable income[54]. Meanwhile, those in the most deprived decile needed to spend 76% of their disposable income to eat healthily.

Survey data has compared levels of food insecurity by asking respondents whether they had eaten less than they thought they should, or less healthily, because of a lack of money or resources, or were worried about running out of money for food. It also compared severe food insecurity levels, by asking respondents whether they had gone hungry or not eaten for a full day because of lack of money or resources.

Food insecurity in Glasgow is higher than in the nearby local authorities of East Dunbartonshire, Renfrewshire and Inverclyde. Data is not currently available to compare to other local authorities in the city region. Within Glasgow, in the neighbourhoods for which data is available, food insecurity was highest in Ruchill and Possilpark[xvi], where over 12% of households were food insecure and over 6% were severely food insecure (Figure 16).

[xvi] Due to how the survey was collated, figures are only comparable for a few of Glasgow's neighbourhoods. We have shown five of these alongside the figures reported for Glasgow as a whole and for the three sectors – South Glasgow, North East Glasgow and North West Glasgow.

Figure 16. Food Insecurity and Severe Food Insecurity in Glasgow

Food Insecurity and Severe Food Insecurity in Glasgow

Source: Greater Glasgow and Clyde Adult Health and Wellbeing Survey 2018

A bar chart showing percentage of population experiencing Severe Food Insecurity (blue) and Food Insecurity (orange) across Glasgow areas. The y-axis shows "Percentage of population" from 0% to 14%. Categories: Parkhead and Dalmarnock, Glasgow South, Garthamlock and Ruchazie, North East Glasgow, Greater Gorbals, Govanhill, North West, Ruchill and Possilpark, Glasgow.

> ### Covid-19 context
>
> The Food Foundation surveyed adults across the UK during lockdown and have been investigating the causes of food insecurity and what can be done to combat it[55]. Their surveys found that food insecurity quadrupled during the first UK lockdown, with people unable to access food due to availability, restrictions on movement and the economic instability that came from job losses and pay reductions. A more recent survey in January 2021, showed that food insecurity remained higher than before the first lockdown, with 9% of households experiencing food insecurity between August 2020 and January 2021. Households with medically vulnerable individuals were more likely to experience food insecurity, as were adults with disabilities, ethnic minority populations, households with children and households with food sector workers[56].
>
> Income loss and the need to self-isolate also created vulnerabilities. Those who lost employment and those on the furlough scheme were more likely than those in continued employment to face food insecurity between May and July 2020, although furloughed individuals were more protected than those who became unemployed[57].
>
> Data gathered by the Glasgow Disability Alliance during the Covid-19 lockdowns showed that disabled people were three times more likely to be food insecure, with almost half of disabled respondents worried about how they would access food. This particularly affected those who had specific dietary needs or who were worried about the risk of going to potentially busy supermarkets[58].

3.2.3 Economic participation

3.2.3.1 Employment

Job density figures show how many jobs are available divided by the number of working aged people living within an area. A job density higher than one would indicate that there was at least one job for every working aged person. The most recent available figures for job density are from 2019, and so do not show the impact of Covid-19. At that time, the UK had a job density of 0.87. Scotland's job density was lower, at 0.82, but the Glasgow City Region's (GCR) was similar to the UK figure. The city of Glasgow's job density was the highest within the GCR, at 1.04.

Between January and December 2020, the GCR had an employment rate of 72.2%, behind that of Scotland (73.5%) and of the UK (75.3%) (Figure 17). Within the City Region, Glasgow City had the second lowest employment rate, at 69.9%. Individuals on furlough during this period are counted as being employed.

Figure 17. Employment rates, Glasgow City Region Local Authorities and National Averages, 2020.

Employment Rates, Glasgow City Region Local Authorities and National Averages, 2020
Source: ONS Annual Population Survey
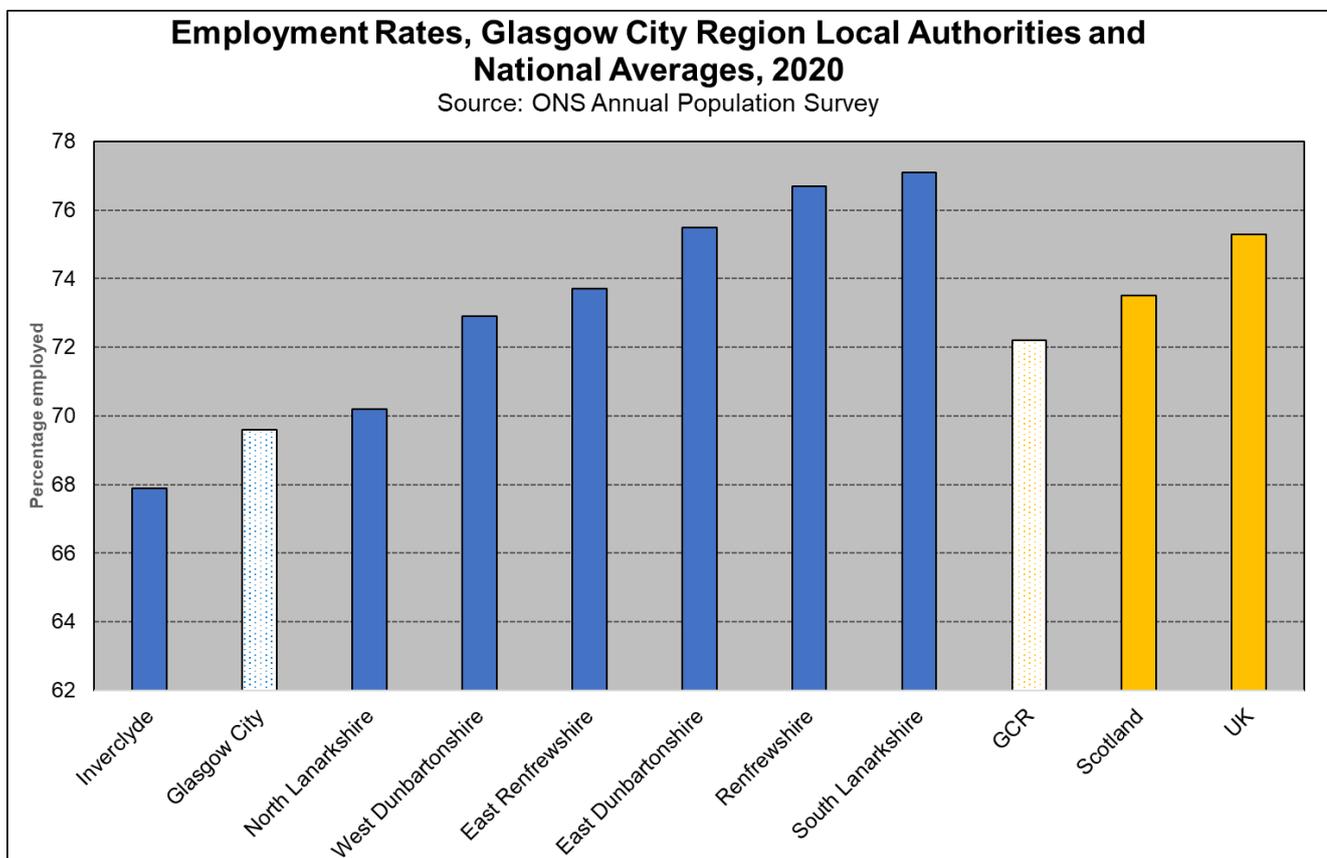
There have been consistent inequalities in employment rates in Glasgow and Scotland for different demographic groups. In 2019, Glasgow's employment rate for disabled people was 45.9%, nearly 20% lower than the average in the city (65.8%)[60]. For ethnic minorities, it was around 18% lower than the city average, at 47.8%[60]. These were all lower than the Scottish rates, but the inequalities among groups are also evident at the Scottish level.

Glasgow City Region's unemployment rate (4.6%) was equal to the UK average, and only slightly above that of Scotland (4.4%). The rate within Glasgow was below that of North Lanarkshire (6.1%), West Dunbartonshire (5.1%), Inverclyde (5.1%) and Renfrewshire (4.9%), but above rates in East Renfrewshire (3.9%), South Lanarkshire (3.5%) and East Dunbartonshire (2.4%). Both Glasgow and the GCR rates of unemployment have fallen since 2012/3.

3.2.3.2 Benefit claimants

Although Glasgow and the GCR have seen comparatively small changes to employment and unemployment during Covid-19, there has been a large impact on the number of people claiming employment-related benefits (a figure which now includes both unemployed and employed people, due to how Universal Credit is claimed)[xvii].

In 2019, Glasgow had the highest proportion of its population claiming Employment and Support Allowance (ESA)/incapacity benefits (9.8%) and employment-related benefits (15%) among the Scottish cities[xviii]. However, these percentages have declined since 2000, when 17.6% were claiming ESA/incapacity benefits and 29.5% were claiming employment-related benefits, and are falling faster than in the other cities and in the other local authorities within GCR[xix].

Figure 18 shows the increase in claimants in Glasgow between January 2020 and January 2021.

[xvii] Prior to the introduction of Universal Credit, the 'Claimant Count' referred only to those who were unemployed and claiming Jobseeker's Allowance (JSA). Since the introduction of Universal Credit, it now includes those claiming Universal Credit whose benefit is conditional on them seeking work. This means that some of the claimants now measured are in work (and are seeking more hours or increased pay). As more people transfer over from JSA to UC, the number has been increasing, but not as sharply as it did at the onset of the Covid-19 pandemic. Because of this, the claimant count is not comparable to the unemployment figures used in the previous section.
[xviii] https://www.understandingglasgow.com/indicators/economic_participation/benefits/out-of_work_benefits/scottish_cities
[xix] https://www.understandingglasgow.com/indicators/economic_participation/benefits/esa_and_incapacity_benefit/scottish_cities

Figure 18. Claimant Count in Glasgow, by age, January 2020 – January 2021
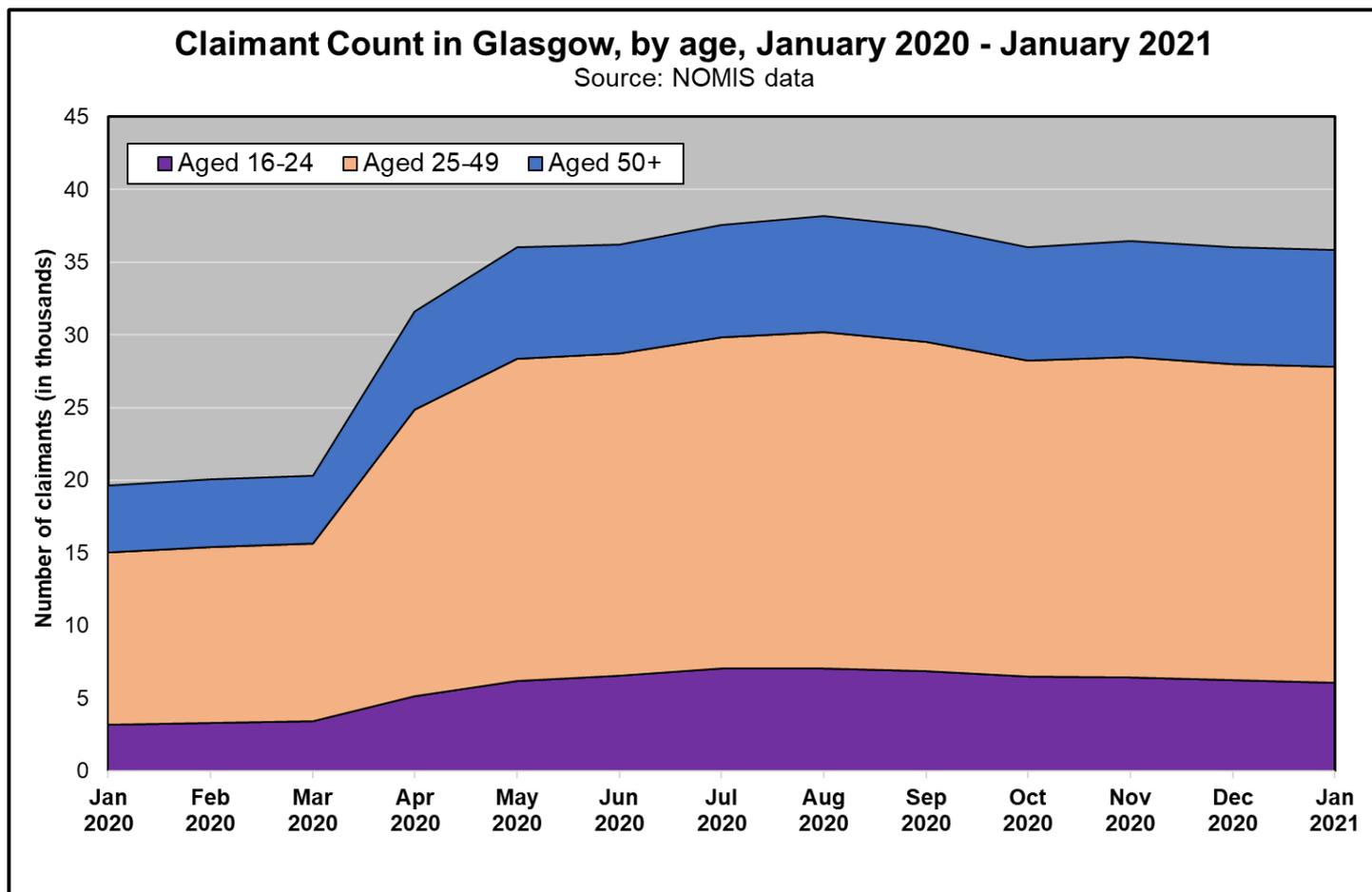
Before the Covid-19 pandemic, numbers were rising slightly, with around 20,000 claimants overall in the city. Between March and May 2020, as the effects of lockdown were being felt, that rose to over 35,000 claimants in the city. The number remained around that level until at least January 2021. By age, the largest group of claimants was and remains those between 25 and 49 years – the largest of the age groups overall. However, the younger age group (16-24 years) saw a higher proportional increase of 92% over the year. Claimants aged 25-49 years increased by 83% and those aged 50+ years increased their claims by 74%. These high figures suggest difficulties for every age group, but clearly young people felt the greatest impact.

There were other shifts in how Universal Credit was claimed across the population. Up until April 2020, women made up the majority of claimants. By July 2020, claims from men had overtaken those from women, because men made more claims at the beginning of the lockdown period. The proportion of claimants who were in work also increased to 34%, as workers saw their hours and income fall[51].

It is also possible to look at how the claimant count has increased for specific neighbourhoods over the same time period[xx]. Figure 19 compares claimant rates between January 2020 and January 2021 by neighbourhood, and arranges neighbourhoods by their earlier (January 2020) claimant counts.

[xx] Figures are published at a data zone level and numbers are rounded to the nearest 5 to protect anonymity in small areas, so these figures are not exact.

Figure 19. Claimant Count, Glasgow Neighbourhoods, January 2020 and January 2021

Claimant Count, Glasgow Neighbourhoods, January 2020 and January 2021
Source: NOMIS Data
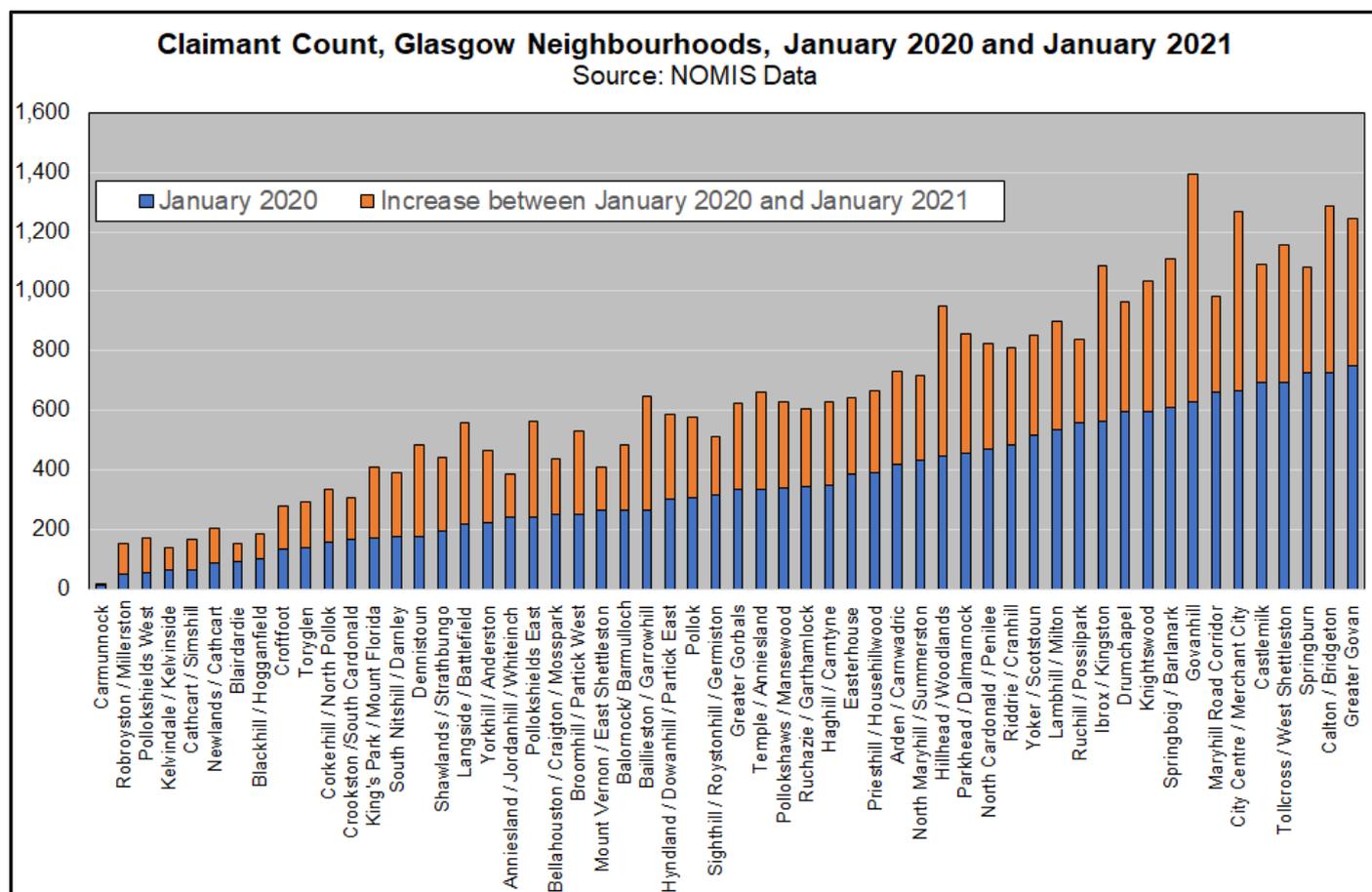
There was an increase in claimants in every Glasgow neighbourhood, although some saw more dramatic increases than others. Overall, areas with high claimant counts pre-pandemic were likely to experience the highest increases in case numbers. However, many of the largest proportional increases were in areas where the previous claimant count was lowest. The neighbourhoods with the highest proportional increase were Pollokshields West and Robroyston & Millerston, where previous levels were comparatively low, and then Dennistoun and Langside & Battlefield, where previous levels were slightly below average. Govanhill, which had the eighth highest claimant count in January 2020, had the highest count of all neighbourhoods by January 2021.

Covid-19 context

The Covid-19 pandemic and the imposed restrictions have impacted the UK/Scottish economy and particularly the 'social sectors', such as accommodation, food, art and culture, which have now faced two periods of complete shutdown[37].

Employment dropped in the UK by 0.3%, and in Scotland by 1.3%, between 2019 and 2020. The GCR levels remained the same, and employment in Glasgow rose by 2.3%. Glasgow's employment levels, however, remain low in the Scottish context, and the GCR continues to have low employment rates compared to other UK City Regions. Unemployment in the GCR rose by 0.6% between 2019 and 2020, which is the same as the UK average, although lower than that of Scotland (0.9%). It remained unchanged in Glasgow City.

By March 2021, Glasgow businesses had received £197 million in grants[61]. The City Region published a recovery response in December 2020[62], which recognised the challenges facing the GCR, and how these would impact particularly on its most deprived residents. It set out priorities for protecting jobs and businesses, re-skilling residents, stimulating new economic opportunities and supporting businesses and communities to adapt.

Covid-19 changed how people experienced both employment and being out of work. New groups emerged within employment: key workers, furloughed staff and those able to work from home. For those not receiving enough income from work, benefit entitlements also changed.

Drops in employment disproportionately affected young people, who lost jobs or struggled to begin employment as they finished education courses. This effect was even more pronounced for young Black people across the UK. Comparing the fourth quarter of 2019 to that of 2020, there was an average UK employment rate drop of 1%. For young people aged 16-24, the average drop was 4% and for young Black people it was 8%[63]. Job vacancy levels in Glasgow fell by almost 65% between March and July 2020[52,63].

Many who remained employed faced worsening job conditions, with 9% of workers in Britain being told to re-apply for their jobs under worse terms than previously. Again, this was higher for young people (18%), working-class people (12%) and minority ethnic groups (15%), and mainly impacted those already in low paid jobs[37]. Nearly half of Scottish workers saw their pay cut during the pandemic[64], and 24% of all workers said they had seen some downgrading of their terms since before the Covid-19 crisis[37,66]. Many of those remaining in work saw a drop in their working hours – meaning, for most, less pay[37].

One-third of workers in the GCR were key workers, with over 35% working in the health and social care sector. In Scotland, 8.2% of health and social care jobs were filled by non-UK nationals. Black and Asian workers were slightly more likely to be key workers, and deprived areas had higher proportions of people working in health and social care. Key workers were also more likely to be women[67], particularly in the two largest key worker groups: health and social care (81.2%) and in education and childcare (78.7%). Key workers in the GCR earned on average slightly higher than the median weekly wage for all workers in the GCR, but in some sectors they earned much less. Care workers' average earnings were below the weekly median. Food and necessary goods workers earned the least of all key workers, on average, around £200/week, less than half the median weekly pay of £480[67].

The government funded furlough scheme, provided a proportion of employee's wages, which employers could choose to top up. It meant that staff who could not work due to the pandemic would continue to have income, although largely at a lower rate than they had previously relied upon. The use of the furlough scheme varied dramatically by sector, with 71% of Scotland's accommodation and food workers being furloughed, but only 7-8% of IT workers[37]. Furlough protected many jobs, but some were still lost, and some population groups were more vulnerable than others. Across the UK, a fifth of minority ethnic workers who were initially furloughed had lost employment by September 2020 – more than twice the rate for the whole population[68].

Working from home also varied by job type. On average, 20.1% of non-key workers shifted to work from home, whilst 14.5% of key workers were able to do so. In information and communication roles, over 60% and, at one point, as much as 80% of workers worked from home. In accommodation and food, it was less than 10%[67].

The key changes within the benefits system, besides the furlough scheme, were an increase in Universal Credit payments and a pause on sanctions associated with work-related benefits. The rise in Universal Credit claimants has also occurred across the UK and can be expected to continue at least until restrictions have ended, and possibly longer if job losses continue.

Economic participation was unequally structured across different population groups before Covid-19. Although the protections offered made some attempts to balance vulnerability, some policy decisions exacerbated inequalities. Those with higher incomes were typically in jobs where they could work from home and continue to earn a full salary; while those in the lowest paid jobs were more likely to be furloughed, and receive a lower salary, or lose their jobs. Businesses which were closed during lockdown spent much of that extra funding immediately on debt repayment, rent or utilities. Thus, the financial, property and energy sectors, sectors of the economy which were relatively more protected than others from the economic impacts of the pandemic, directly benefitted from funding given to the hospitality and service sectors[37].

3.2.4 Education[xxi]

In 2019, there were over 10,500 children in Glasgow registered with an early learning or childcare centre. Of eligible three and four-year-olds in the city, 94% were registered for pre-school provision.

At school age, nearly 70,000 children were enrolled in school education[xxii] in Glasgow in 2019; 60% of pupils attended primary schools, 38% were in secondary education, and 2% were in schools which provide additional support for learning (ASL). Pupil numbers in Glasgow have risen since 2011 and by 2019 the overall school roll in Glasgow had increased by over 5,000 pupils: a rise of 8% in the period.

In 2019, 3.3% of pupils had a disability. Reflecting the increasing diversity of Glasgow's population, nearly a quarter (24%) of pupils come from a home where the main language is neither English nor Gaelic and 129 different languages are spoken by Glasgow's school pupils. During the same period, 2% of pupils were from asylum seeker families and 2.4% of pupils were refugees – totalling over 3,000 pupils.

The proportion of pupils from a minority ethnic community has increased steadily in Glasgow since 2012 (Figure 20)[xxiii]. In 2019, there were 16,600 pupils from a minority ethnic community: a rise of 5,500 (and up 50%) from 2012.

[xxi] The majority of statistics quoted in this section come from the Education and Children's Learning sections of Understanding Glasgow - https://www.understandingglasgow.com/indicators/education/overview & https://www.understandingglasgow.com/indicators/children/education/overview

[xxii] The school pupil figures include only pupils at schools run by Glasgow City Council and therefore do not include pupils in private and grant-aided schools.

[xxiii] In this case, the minority ethnic group includes all known categories other than White-Scottish, White - Other British, White - Other, White - Gypsy/Traveller, White - Irish, and White - Polish.

Figure 20. Pupils from a minority ethnic group as a percentage of all pupils in Glasgow, 2012-2019

Pupils from a minority ethnic group as a percentage of all pupils in Glasgow, 2012-2019
Source: Scottish Government Education Statistics
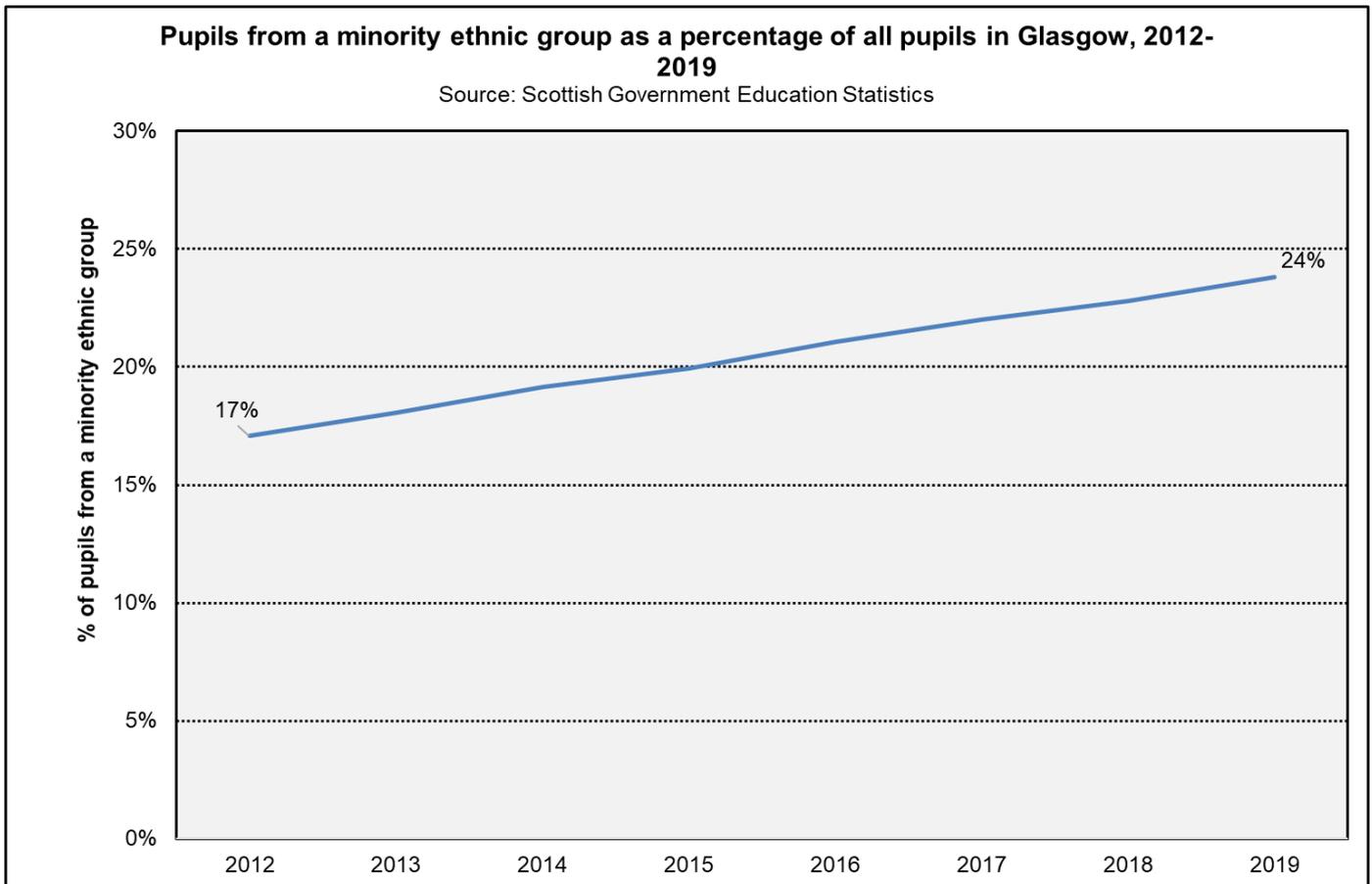
Attendance at primary school in Glasgow (93.5% in 2019) has remained slightly below the Scottish average over the last 15 years, while secondary school attendance increased from 86.6% in 2003/04 to 90.6% in 2019 and is now only marginally below the Scottish average.

The percentage of school leavers in Glasgow with qualifications at Standard Grade Credit level or above (i.e. including Standard Grades, Highers and Advanced Highers or their equivalent) has increased steadily in the last decade; in 2019/20, 82% of Glasgow's school leavers achieved this. In the same year, 92.8% of school leavers from the city had a positive destination[xxiv], a figure which is slightly below the Scottish average. This included 41% going onto Higher Education and 30.3% going onto Further Education. In 2018/19, only 3% of young adults (aged 16-19 years) who had left school were not in employment, education, or training: a proportion that has declined significantly over the last decade.

Around one-third (35%) of Glaswegian adults have a degree but a fifth (20%) have no qualifications. A slightly larger proportion of women have a degree than men (36% women, 33% men) and a higher proportion have no qualifications (23% women,16% men). There are wide inequalities in educational attainment across Glasgow neighbourhoods[3].

[xxiv] Positive destinations include: higher education, further education, training, employment, voluntary work and personal skills development.

> *Covid-19 context*
>
> During the course of the pandemic schools and nurseries closed or were only available for the children of key workers and for vulnerable children. Many children and young people have had to continue their school, college, or university learning at home by online learning. Parents, particularly of younger children, have had to take a much greater role in supporting their children's learning while in many cases home working themselves. These changes have impacted families differently dependent on their socioeconomic circumstances.
>
> Children living in high-income households were likely to take part in more home learning activities on a more frequent basis during lockdown; the same was true of children in two-adult households compared to children in one-adult households, while children in larger families took part in home learning on a less frequent basis than children in smaller families[69].
>
> Socioeconomic disadvantage is a clear driver of lower attainment. It is likely that school closures through lockdown and the requirement for home learning, which not all households have had the space, digital technology, and other resources to manage adequately, will have increased educational inequalities between high and low-income households. The impact of school closures on families with a disabled child may have been greater and thus may have contributed to widening the disability attainment gap. Similarly, disruption to schooling may have had a particularly damaging impact on Gypsy/Travellers, further exacerbating the considerable inequalities in educational outcomes that they already experience[15].
>
> The Equality and Human Rights Commission state that the response to the Covid-19 pandemic has affected the education of most children in Britain and that gaps in education threaten attainment at primary and secondary level. The Commission argue that inequalities in home-learning environments and changes to grading systems may exacerbate existing educational inequalities, "leading to a disproportionately severe impact on some groups including boys, Black pupils, Gypsy, Roma and Traveller pupils, pupils who need support in education and those who are socioeconomically disadvantaged"[65].
>
> Adults in deprived areas and on lower incomes are less likely to use the internet or to have home internet access, and for many people who previously had internet access outside their homes this may no longer be available. Disabled people have been particularly affected in this way during lockdown[70]. The developments in digital technology, sped up by the pandemic, could further widen this digital divide[15].

3.2.5 Social Capital[xxv]

Social capital is a concept that refers to connections among individuals, their social networks, and the norms of reciprocity and trustworthiness that arise from them. It can be seen as a measure of the connections within and between social networks, involving the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions.

A number of different dimensions of social capital are recognised, such as: social participation; reciprocity and trust; social networks and social support; civic participation; and views of the local area. Measures exist that can tell us about different dimensions of social capital in Glasgow and how these compare to other places.

[xxv] The majority of statistics quoted in this section come from the Social Capital section of Understanding Glasgow - https://www.understandingglasgow.com/indicators/social_capital/overview

3.2.5.1 Influence and voting

In 2018, a relatively low proportion (20%) of Glaswegian adults felt they could influence decisions in their local authority. This was the same level as in Scotland as a whole but a higher proportion than in most neighbouring local authorities with the exception of East Renfrewshire, where 23% of adults felt they could influence decisions in their area.

For the last 20 years, voter turnout at local and national elections has been lower in Glasgow than in other local authorities. That said, levels of voter turnout at UK General Elections and Scottish Parliamentary Elections have risen across Scotland and in Glasgow. Voter turnout in Glasgow has risen from 46% at the 2001 UK General Election to 60% at the 2019 UK General Election. After low turnouts between 2003 and 2011, voter turnout at Scottish Parliamentary elections increased across Glasgow from 41% overall in 2011 to 56% at the most recent election in May 2021[xxvi].

3.2.5.2 Reciprocity and trust

In a 2011 Health and Wellbeing survey[xxvii], 77% of Glaswegian respondents felt that they lived in "a neighbourhood where people look out for each other", but this was much higher (90%) in the least deprived areas. A similar proportion of Glaswegians (73%) felt they could trust people in their area, but there were lower levels of trust in the most deprived areas (58%) compared to the least deprived areas (95%).

3.2.5.3 Isolation and social contact

In the same 2011 survey, 10% of respondents from Glasgow said they felt isolated from their family and friends, with people in the most deprived group (quintile) more than twice as likely to have felt isolated than those in the least deprived group. In a 2011 study comparing Glasgow, Liverpool and Manchester, more respondents in Glasgow (79%) said they spoke to their neighbours most days than in Liverpool (73%) and in Manchester (68%).

3.2.5.4 View of local area and safety

In 2018, the vast majority of adults in Glasgow rated their neighbourhood as a good place to live (92%), although this was slightly lower than in Aberdeen and Edinburgh and only 86% of people from the 20% most deprived neighbourhoods of Glasgow felt this was the case. In 2017, 75% of Glaswegians felt safe walking alone in their neighbourhood at night, a lower proportion than in Aberdeen and Edinburgh and neighbouring local authorities, with the exception of West Dunbartonshire, where only 70% of people felt safe walking alone in their area at night. However, these figures also suggest that a quarter of Glaswegians and three out of ten residents in West Dunbartonshire feel unsafe walking alone in their neighbourhoods at night[xxviii].

3.2.5.5 Volunteering

In 2018, 22% of adults in Glasgow had volunteered in the last 12 months, which is lower than the figures for Scotland (26%) and Edinburgh (29%). Volunteering levels were notably lower among adults living in the 20% most deprived communities in Glasgow (16%) compared to the rest of the city (27%).

[xxvi]https://www.understandingglasgow.com/indicators/social_capital/voter_turnout/scottish_parliamentary_elections/glasgow_constituency_trends
[xxvii] This was a one-off survey and the survey question has not been repeated.
[xxviii] The related issue of women's safety is covered within the community safety section which follows.

Recent research complied by the Scottish Government provides some insights into the impact of Covid-19 on different aspects of social capital[71]. Forty percent of respondents to a Happiness survey undertaken in Scotland in late April to early May 2020 reported that they had felt lonely in the last week, which was almost double that of a benchmark figure of 21% from the 2018 Scottish Household Survey. In general, those in more deprived SIMD quintiles were more likely than those in less deprived quintiles to be more anxious, lonely, and less happy, while disabled respondents were more likely than non-disabled respondents to be feeling lonely and to find the restrictions on socialising difficult to cope with. Other research suggests that in the first seven months of the pandemic feelings of loneliness increased, feelings of belonging toward a person's immediate neighbourhood reduced, people meeting socially halved and far fewer people had someone they felt they could turn to for practical advice and help[72].

A recent review of Covid-19 volunteering in the UK put forward a more positive picture noting that thousands of mutual aid groups have been created and many people have helped with "providing information about Covid-19, shopping, packing and delivering food, fundraising and making donations, collecting prescriptions, dog walking, and offering emotional support through telephone helplines". Volunteers were more likely to be women, working-age people, and middle-class. In addition, higher levels of social support, cohesion and trust, and pre-existing social networks helped enable Covid-19 volunteering[73].

A report based on polls and survey responses from 160,000 individuals in the UK surmised that Covid-19 has brought people together and made communities more united: people have got to know their neighbourhoods better, looked out for isolated and vulnerable members of society and the relief effort crossed social divided[74]. It estimates that 12.4 million adults volunteered during the pandemic, of whom a third were first-time volunteers.

The report also notes more concerning changes that have occurred due to the pandemic. Covid-19 restrictions have increased levels of loneliness. During the pandemic we have relied far more on the internet to connect with others and to access services, but a quarter of the UK adult population are internet non-users, have limited access or lack digital skills. The impacts of lockdown have been more acutely felt by disabled people who are more likely to be socially isolated and to be digitally excluded[70].

There has been widespread concern about the impact of social media on the tone and nature of political discourse and about online hatred and 'fake news'. Changes to patterns of working have included a large shift from office to home working which could reduce bridging (inter-group) social contact among some sections of the workforce. Togetherness has not been evenly felt across all communities: one-in-eight people (13%) have felt that Covid-19 has made their community more divided[74].

3.2.6 Community safety

3.2.6.1 Crime[xxix]

Total recorded crime in Glasgow reduced steadily between 2007/08 and 2015/16, and since then has remained stable in the last few years. In 2007/08, there were just under 70,000 crimes recorded in the city; by 2018/19, this figure had reduced by 35% to almost 45,000.

[xxix] https://www.understandingglasgow.com/indicators/community_safety/overall_crime_rate

In 2018/19, the rate of all crimes recorded in Glasgow was 58% higher than the Scottish average, and higher than in other Scottish cities and in the rest of the Glasgow City Region.

The rate of violent crimes in Glasgow declined by 58% in the period 2009/10 – 2014/15; there was a similar but slightly lower decline in the Scottish rate of violent crime in the same period. However, since 2014/15 rates of violent crimes have increased modestly in all the Scottish cities (Figure 21) and in most local authorities within the Glasgow City Region (not shown).

Figure 21. Violent crimes and offences per 10,000 population, Scottish cities, 2009/10 – 2018/19
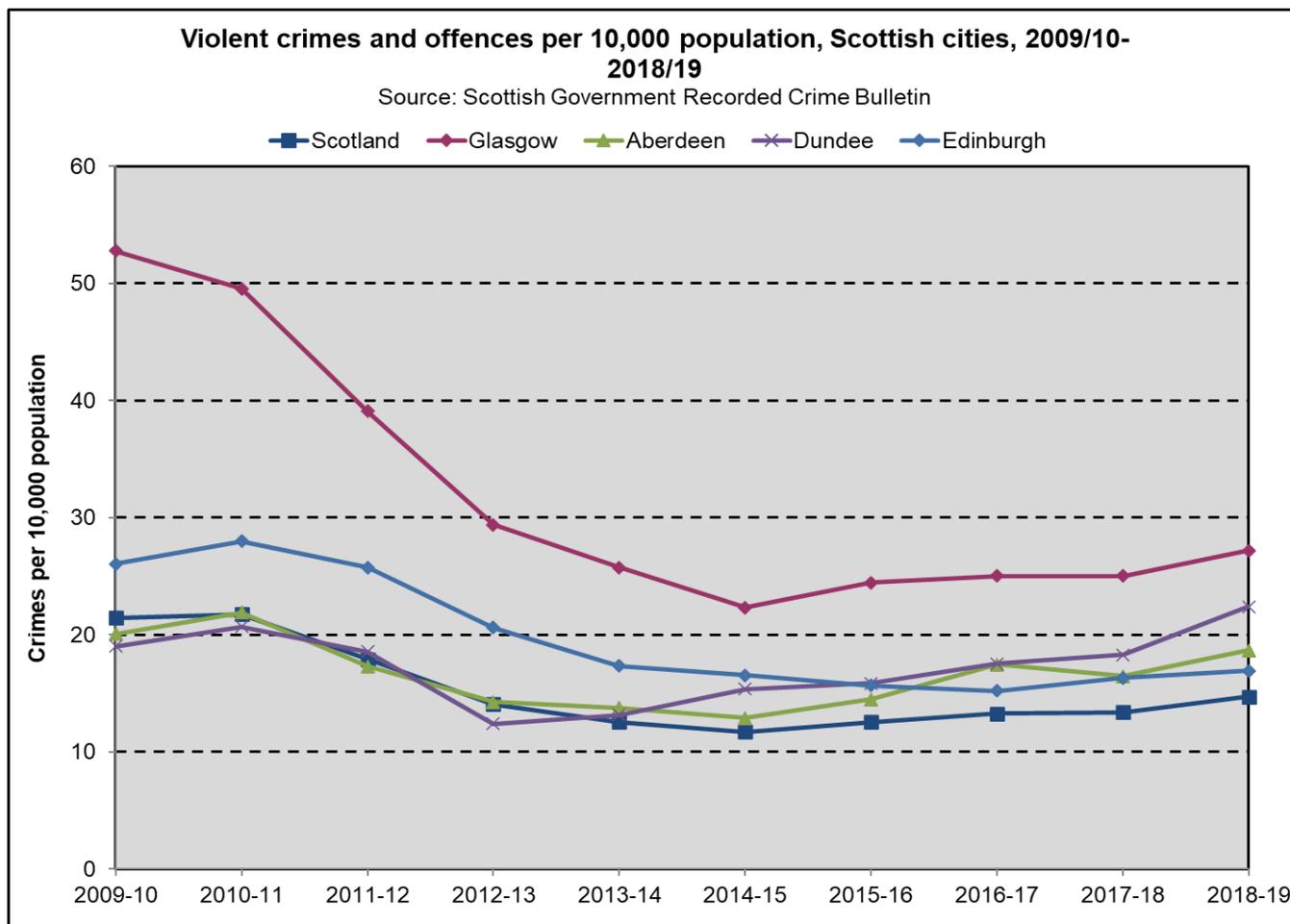
The level of acquisitive crime[xxx] has decreased significantly in the last 12 years in Glasgow. Since a peak of 27,500 incidents in 2011/12, the number of recorded acquisitive crimes in Glasgow has fallen by 35%, to just below 18,000 incidents in 2018/19.

Covid-19 context

During the Covid-19 pandemic the Police have been asked to play a direct role in supporting public health restrictions. There has been no detailed study of crime in the Glasgow area during the period of the pandemic. Nevertheless, some preliminary trends can be observed. Between April-December 2020, there were fewer reports of shop lifting, burglaries and vandalism in Glasgow, which may in part be related to Covid-19 restrictions and shop closures. Speeding offences also rose in this period compared to the previous year[75].

[xxx] Includes housebreaking, theft of opening a lockfast place, theft of a motor vehicle, shoplifting, and other theft.

3.2.6.2 Children's safety[xxxi]

A total of 2,640 children and young people in Glasgow were referred to the Scottish Children's Reporter Administration (SCRA)[xxxii] in 2019/20 because some aspect of their life was giving cause for concern. This represents 2.6% of children under 16 years, which is above the Scottish average, higher than in other large cities and is the highest rate in the Glasgow City Region (GCR). Referrals have fallen significantly since 2006/07, although there has been a rise in the last two years of recording. The most common reasons for referral were a 'close connection with a person who has carried out domestic abuse' and 'lack of parental care'. Similarly, Glasgow had a higher rate (and number) of looked after children[xxxiii] than other Scottish cities. However, the rate of children being looked after in Glasgow has reduced since 2011 and is now lower than West Dunbartonshire which has had a rising rate. In 2019, Glasgow had 414 children on its Child Protection Register, which represented 16% of all children on a local authority child protection register in Scotland. The most common reasons for being on the register were categorised as 'Neglect', 'Domestic Abuse' and 'Non-engaging family'.

> **Covid-19 context**
>
> Given that Glasgow already had high rates of children in need of social work support, coupled with the impacts of the pandemic, including disruptions to schooling and to the normal operations of social work services, there are reasons to be concerning over child welfare. There is an increased risk of online sexual exploitation during the pandemic, which, along with child abuse, may be more difficult to identify and prevent during lockdown. Evidence from England and Wales suggests that women of mixed ethnic, disabled women and those in a single-parent household are more likely to report experiencing domestic abuse. There is some evidence that reporting of domestic abuse has increased during the pandemic (although the majority of incidents are not reported)[15]; if there has been a rise, this will have further exacerbated the negative health and social impacts for victims and children exposed to it.

3.2.6.3 Women's safety

People experience public spaces differently based on their gender, sex, and sexuality; and women (including people who identify as women) have been found to experience increased vulnerability and discrimination in outdoor settings[76]. Women regularly and sub-consciously make decisions on how they travel and use public spaces based on their safety in a way in which men (in particular, White, cisgender[xxxiv], heterosexual men) typically do not, yet the murder of Sarah Everard in London in early 2021 demonstrated this is often in vain[77]. Sarah's death sparked a public outpouring of anger and grief against harassment and sexism and how these experiences are too often trivialised, followed by nationwide protests and vigils to 'reclaim the streets'[78-80]. Since then, there has an emphasis on gender inequalities in the experience of public spaces, and how the built environment heightens these inequalities.

[xxxi] https://www.understandingglasgow.com/indicators/children/safety/overview
[xxxii] Children aged 0-15 years can be referred to the SCRA as well as young people aged 16 and 17 years. Referrals comprise two broad categories: care and protection (the majority of referrals), where the welfare of the child is causing concern; and, offence, where the child is believed to have committed an offence.
[xxxiii] Children most commonly become 'looked after' following a referral to the Children's Reporter.
[xxxiv] A cisgender person is someone whose gender identity matches their sex assigned at birth. e.g. someone who identifies as a woman and was identified as female at birth, is a cisgender woman. It is the antonym of transgender and is not related to sexuality.

Even the *potential* threat of male violence is deeply embedded in the predominant narratives that females (across cultures) carry with them, to the extent that it shapes their everyday experiences and limits their choices, even in places where real danger is rare[81]. The Scottish Victimisation survey revealed that in 2020, there was no statistically significant difference in the likelihood of experiencing a crime between men and women, yet there was a difference in their perceptions of safety. While the overall majority (75%) of adults felt safe when walking alone in their local area after dark, women were less likely than men to feel safe (62% and 89% respectively). Women were also more likely than men to be worried about being a victim of crime in the future (20% and 10% respectively)[82].

The Women and Equalities Committee recognise that sexual harassment pervades the lives of females and is so deeply entrenched in UK culture that it has shaped an unconscious attitude among females that a certain level of sexual harassment should be tolerated[76]. A YouGov survey showed that in 2017, over 73% of women would report being flashed at, yet only 8% of women would report someone 'pinching or grabbing their bum'[83]. These findings suggest there is delineation in women's minds as to which forms of sexual harassment are acceptable (and almost inevitable) and therefore may not be taken seriously by the police, and which forms are not and ought to be reported.

Currently, sexual crimes account for 5% of all crimes recorded in Scotland[84]. In the period 2019-20 there were over 13,000 sexual offences recorded, which is more than double the amount recorded ten years earlier. Since 2008-09, sexual offences in Scotland have increased in almost every reporting year with a peak in 2018-19[85]. Data released by Police Scotland following a Freedom of Information (FOI) request from the Sunday Times newspaper revealed that the highest number (203) of recorded sexual offences in Scotland in 2020 were in the Anderston/City/Yorkhill areas of Glasgow, and adjusting for population, the highest rate of sexual offences was recorded in Fife (32.3 per 100,000)[86].

It is not possible to determine whether this data predates Covid-19 or includes the Covid-19 lockdown period. However, we do know that pre-Covid-19 there was a concentration of offences related to the night-time economy in the city centre of Glasgow, therefore a higher rate of offences might be expected in this area compared to other parts of the city and other parts of the country. Nevertheless, the actual number of sexual offences is likely to be higher as many offences go unreported. A UK-based survey revealed that 86% of women aged 18-24 years have experienced sexual harassment in public spaces, yet the majority (96%) did not report the incident and almost half (45%) believed that nothing would change if they had[87].

3.2.6.4 Prostitution

Currently, prostitution in Scotland is legal but certain aspects, such as soliciting on the streets and brothel keeping, are illegal[88]. Consequently, people working as prostitutes are forced to work in more isolated areas which puts them at greater risk of violence. The brothel keeping law further undermines individuals' safety by criminalising those living together and working from their shared home: a preferred set up for many as it instils a greater sense of safety[89]. There are currently no available robust data sources to say how many people are working as prostitutes in Scotland, but police recorded data does give an indication.

Over the ten-year period 2005-06 to 2014-15, the majority (97%) of reported crimes associated with prostitution were recorded in Edinburgh, Glasgow, Aberdeen, and Dundee; and during this period there was an overall decrease in crimes (Table 1)[90]. This reduction in prostitution-related

crimes in these cities has been linked to a growth in 'off-street prostitution'[xxxv] and in Aberdeen, improved access to drug treatment services[90].

Table 1. Offences related to prostitution 2004-05 to 2014-15

Local Authority	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Aberdeen	159	154	261	185	229	129	117	32	25	43	24
Dundee	19	32	17	16	36	42	29	21	25	7	18
Edinburgh	44	57	133	32	43	77	47	78	84	46	18
Glasgow	1168	441	307	290	221	168	158	211	214	197	119

Police recorded crimes associated with prostitution are useful in providing a sense of scale, however the data is limited, and it underestimates the true extent of crime. Experiences of violence and sexual victimisation are common among those working in prostitution, particularly in the off-street industry. Yet rates of reported crimes are low due to stigma, fear of complaints not being investigated seriously, fear of criminalisation, and people already being inured to a risk of violence while working in this industry[89]. Differences in operational approach, prosecution, and sentencing in relation to prostitution across Scotland could also provide a false estimate[90]. The NHS and third sector provide useful service-user data, but this data is also likely to underestimate true figures. For example, substance misuse services for people working in prostitution will likely only be accessed by this demographic[90]. The Glasgow-based 'Routes Out' organisation which supports women involved in prostitution has some data which helps build a picture of prostitution in the city. In the period 2013-14 to 2015-16 there was a reduction in women attending drop-in services (119 to 54 women) and a reduction in outreach sightings of women working in prostitution from 233 to 52. Most of the women sighted were aged 30-50 years[89] and there had been no change to the locations of street prostitution in recent years. However, because this data is based on a minority of women accessing the service and there is a reported reluctance among women to access support, the data is likely to be under-estimating the true numbers of people working in prostitution.

Given the limited data on how many people are working in prostitution in Scotland it is difficult to identify demographic groups, but evidence shows that people working in prostitution are an intersectional group including parents, students, and migrants. While men are involved in prostitution in Scotland, it is mostly women who are exploited through prostitution[89]. The majority (90%) of people working in prostitution are in the off-street industry but there is very little data available on the people involved in these settings, although it is suspected it may involve a high proportion of foreign nationals. Overall, austerity, poverty, and immigration policies are considered key drivers in how people become involved in prostitution[89].

The physical, emotional, and psychological impact of working in prostitution can be profound. Individuals are likely to have a range of complex needs and vulnerabilities, and typically come from backgrounds of abuse, trauma, being in care, homelessness or lack of secure accommodation, mental ill health, addiction, domestic abuse, poverty, and financial pressures. There are also increased sexual health risks from working in prostitution – particularly among individuals where English is not spoken – such as unintended pregnancy, sexually transmitted

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[xxxv] Off-street or indoor prostitution includes private flats, hotels, saunas, brothels, and hotels.

diseases and blood borne viruses; as well as long-term risks to mental health, including increased incidence of stress, anxiety, and depression. These issues can be further exacerbated by a fear of being outed, which could have deleterious effects on their lives such as victim blaming, physical and verbal abuse, evictions, deportation, extortion, and unemployability[89.]

Within the last five to ten years, the approach to support services for people working in prostitution in Glasgow changed from a centralised model of support – where health checks, methadone clinics, addictions and psychological support, social work, and housing etc were all accessed from one centralised location – to non-specialised mainstream services in the community. At the same time, support services in Glasgow shifted from passive support (i.e. minimising the harm from prostitution) to active support where people are now formally encouraged to exit prostitution through action plans. Consequently, there is no consistent service-user trend data available since this change and any reduction in street-based prostitution cannot be accurately quantified as the number of service users can no longer be compared[90]. Some argue this change in support has created a perception that Glasgow now has a zero-tolerance approach to prostitution, consequently people involved in prostitution are now more reluctant to access support services[90].

Covid-19 context

There are reports of women entering or re-entering prostitution because of the economic challenges arising from the impact of the Covid-19 pandemic[89]. This increase has created less demand and less income for women, which gives clients more power over women[89]. A survey of 78 UK-based women working in prostitution carried out in November 2020 revealed that loss of income impacted them the most during the pandemic, and of those women who reported a reduction or loss of income (89%), less than half (46%) reported receiving any form of financial support[89]. Women who continued to work throughout the pandemic reported having to work for lower rates and took more risks to earn money, and opportunistic robberies increased because women were less likely to report crimes during the lockdown periods[89]. The added fear of being criminalised not just from working in prostitution but now from breaking social distancing rules, as well as having restricted or no access to support services, meant women were experiencing greater mental health struggles[89].

3.2.6.5 Domestic abuse

Domestic abuse is gender-based violence perpetrated by partners or ex-partners, male or female, and can involve physical, sexual, psychological, and emotional abuse.

The rate of domestic abuse incidents in 2018-19 across Scotland was 112 per 10,000. The highest rates were recorded in Dundee City (157), West Dunbartonshire (148) and Glasgow City (147) (Figure 22)[91].

Figure 22. Incidents of domestic abuse recorded by the police per 10,000 population[1] by local authority, 2018-19. Source: Scottish Government
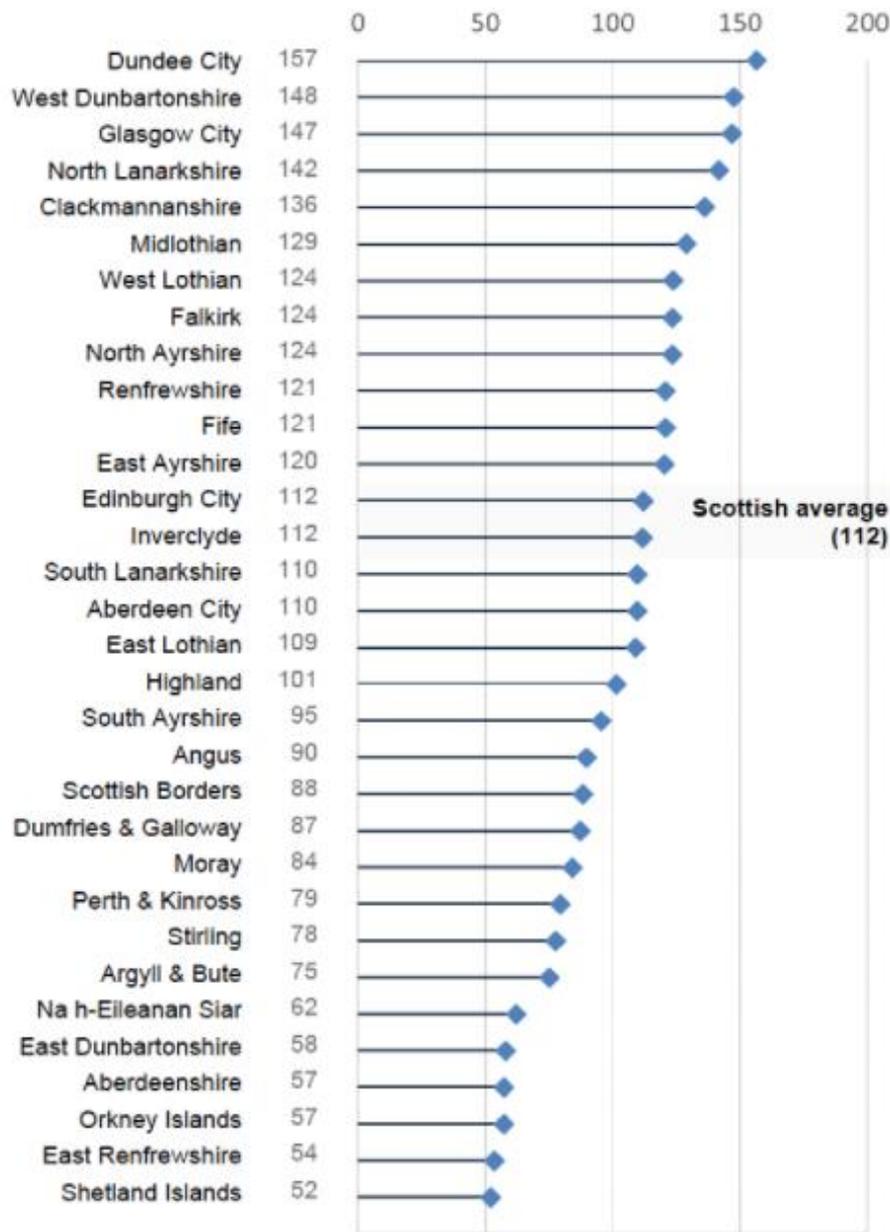
[1] Population estimates are at mid-year 2018 published by the National Records of Scotland

In 2019-20, there were 30,718 charges of domestic abuse reported to Scotland's Crown Office and Procurator Fiscal Service: the highest number reported since 2015-16 and 6% higher than the previous year. Of these charges, 16% were in Glasgow and Strathkelvin, but the highest proportion (23%) was in Tayside, Central and Fife[92].

Alongside an increase in charges for domestic abuse, in the period 2013-14 to 2019-20 there has also been an increase in the proportion of charges resulting in court proceedings[xxxvi]. A high proportion of the accused were male (88%) and aged between 21-40 years (77%)[92]. Meanwhile, the proportion of domestic abuse incidents which resulted in a crime report – less than half – has not changed in Scotland or in Glasgow[93].

[xxxvi] When consistent figures were available.

Demographics

In 2018-19, a high proportion of victims of domestic abuse were aged 26-30 years and the highest proportion of perpetrators were aged 31-35 years (263 and 246 per 10,000, respectively)[91]. Where gender was recorded, four-in-five reported incidents involved a female victim and male perpetrator, and 16% of incidents involved a male victim and a female perpetrator: these figures have remained stable since 2011-12[91]. In 2018-19, over half (51%) of domestic abuse incidents reported in Scotland were between current partners, the remainder were between ex-partners[91].

In 2018-19, men and women with a disability or long-term illness were more likely to experience domestic abuse than those without (14% with disability, 7% without disability)[94].

Evidence suggests that abuse within LGBTQ+ relationships is similar or slightly higher than heterosexual relationships. Survey data showed that 25% of bisexual and lesbian women and 80% of trans people experienced domestic abuse from their partner[95,96]. The percentage of gay or bi-sexual men who experienced domestic abuse was similar to heterosexual men (3%) while lesbian women (8%) and bisexual women (9%) experienced more domestic abuse compared to heterosexual women (6%)[94].

In the UK, women from minority ethnic groups are at less risk of domestic abuse compared to White women, however the form of abuse and perpetrator can vary. For example, domestic abuse among minority ethnic groups can include forced marriage, 'honour-based' violence, or female genital mutilation, and may be perpetrated by extended family members[97,98]. At present, neither Police Scotland nor the Scottish Government provide a breakdown of domestic abuse statistics by ethnicity. According to The Office for National Statistics for England and Wales, in the year ending March 2021, those of mixed ethnicity were significantly more likely to experience domestic abuse within the last year compared to people who identified as Black or Asian[99].

From their dataset of 42,000 cases, the UK based charity 'Safe Lives' highlighted women from minority ethnic groups suffered abuse for 1.5 times longer before getting help compared to those who identified as White British or Irish[98]. The reasons for this are complex and multi-faceted: women were unwilling or unable to seek support from statutory agencies due to fear of racism, and rejection or pressure from their community; and women whose first language was not English, who were seeking asylum or had refugee status experienced difficulties understanding and accessing the systems of support available, and had no recourse to public funds[97,98].

Impact of domestic abuse

Domestic abuse has multiple harmful psychological and physical impacts which can lead to poorer health, education, and employment outcomes. The impact on mental health, both on the victim and children and young people exposed to it, includes low self-esteem, anxiety, panic attacks, depression, fear, difficulty sleeping/nightmares, self-harm and suicide attempts.

Domestic abuse is also a major contributor to homelessness in Scotland. In January to September 2020, 26,453 homelessness applications were made in Scotland and 14% listed domestic abuse as the reason for the application[35]. Women (23%) were more likely than men (5%) to be homeless because of violence in the household[100]. The same patterning can also be seen in Glasgow. In 2018-19 one-fifth of applications for homelessness in Glasgow were for single women or female single parents and 18% cited domestic abuse as the reason[35]. However, this data is likely to significantly underestimate the scale of the problem for multiple reasons. Victims may not disclose the abuse at the time of application or may not recognise the behaviour as abusive. Victims fleeing abuse may not immediately make a homelessness application, and instead choose to stay with

friends and family, then later apply for support at which point the initial abuse may not be identified as the root cause of homelessness.

Covid-19 context

Globally, there have been significant increases in the number of reported domestic abuse incidents during the pandemic. The impact of self-isolation combined with the jobs crisis has disrupted livelihoods and household incomes, which has led to increased stress and the potential to exacerbate conflicts and violence. For people experiencing domestic abuse during the pandemic, the combined impact of isolation, lack of safe childcare options, and managing the risk of the virus has had an overwhelmingly negative impact on mental health and resilience. Support organisations have reported significant increases in victims experiencing suicidal ideation, depression, anxiety, increased substance misuse, and increased levels of fear (both due to the perpetrator and the virus)[101]. There has been an overall increase in the number of referrals among LGBTQ+, minority ethnic groups, people with disabilities, and women in prostitution[101]. Reduced income and/or unemployment caused by the pandemic has made it more difficult for victims to leave an abusive relationship[101]. Lockdown also had an impact on children being exposed to increased levels of abuse from perpetrators. In the initial phases of lockdown (mid-April to late July 2020), 75 children per week in Scotland were added to the child protection list and almost half (42%) had domestic abuse recorded as a concern[102]. Services have reported this has had a significant impact on children's mental health and wellbeing[101].

3.3   Environment

Scotland and Glasgow have challenging targets to reduce carbon emissions as part of the global effort to address our planet's climate change emergency. Glasgow aims to be carbon neutral by 2030[xxxvii] [103], while the Scottish Government's target is to be net-zero by 2045[104]. The corollary of these commitments is that the way we live and how we travel will have to change, to become much more sustainable. Alongside the need to reduce climate change emissions, there are related imperatives to reduce air pollution, travel more actively and sustainably, make housing more energy efficient, grow more food locally, reduce waste and make places more resilient to the impacts of climate change.

In this section we focus on a range of interlinked environmental issues that affect population health locally and globally: carbon emissions; air quality; active and sustainable travel; open space and paths, and vacant and derelict land.

This section does not have a specific sub-section on food, but food insecurity is discussed within the Poverty section. Additionally, Glasgow's new City Food Plan[59] is mentioned in our Discussion section. The plan considers how to tackle food waste, how to align city planning with community growing spaces and how the city can support local, sustainable, and organic food production.

[xxxvii] Carbon neutrality refers to the point at which carbon dioxide emissions emitted by the city are negated by the amount of carbon stored, offset, or sequestered by natural means.

3.3.1 Carbon emissions

CO_2 emissions[xxxviii] per person in Glasgow, measured as tonnes of CO_2 per person per year, reduced by 43% between 2005 and 2018. Based on this measure, in 2018, there were 4.1 tonnes of CO_2 produced per person in Glasgow. In the period 2005-2018, CO_2 emissions from all sectors reduced in Glasgow, with the largest reduction being in industrial and commercial consumption (-47%), followed by the domestic sector (-44%) and the lowest reduction being in the transport sector (-6.5%).

As CO_2 emissions have reduced, the contribution from transport has risen because the fall in transport emissions has been relatively less than that in the other two sectors. In 2018, 36% of Glasgow's CO_2 emissions came from the industrial and commercial sector, 30% were from the domestic sector and 33% were from the transport sector[xxxix].

> ### *Covid-19 context*
> In December 2020, the Scottish Government published 'Securing a green recovery on a path to net zero', an update to its climate change plan for the period 2018–2032[105]. This commits to a 'green recovery' from Covid-19 and an approach that "recognises climate change as a human rights issue and the transition to net zero as an opportunity to tackle inequalities". Among the proposals most relevant to health are that 50% of homes and non-domestic buildings should be converted to a low or zero carbon heating system by 2030, a commitment to reduce car kilometres by 20% by 2030 and changes to land use, including increases to woodland cover.
>
> A recent GCPH report, proposes a range of approaches to ensure a healthy, equitable and sustainable recovery from the pandemic in Glasgow. These include practical recommendations for actions related to housing, spatial planning, engaging with communities, sustainable transport interventions and supporting a green and locally sensitive economic recovery[106]. Glasgow City Council's Climate Emergency Implementation Plan sets out how the city aims to meet the 61 recommendations of the City's Climate Emergency Working Group[103] and to achieve carbon neutrality by 2030, while ensuring recovery from the Covid-19 crisis focuses on creating a healthier, more equitable and resilient city[107].

3.3.2 Air quality

Exposure to air pollutants is associated with increased overall risk of death and shorter life expectancy (particularly for people with poor heart or lung health) and can increase the risk of a range of other illnesses. Microscopic particulate matter (PM_{10} and $PM_{2.5}$) is among the most harmful of pollutants and a large proportion of this type of pollution is generated by road transport. Measurements of the annual mean concentration of PM_{10} show several sites in Glasgow breached

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[xxxviii] The data presented come from the Department for Business, Energy & Industrial Strategy. Emissions are allocated on an "end-user" basis where emissions are distributed according to the point of energy consumption (except for the energy industry where emissions from the production of goods are assigned to where the production takes place). As a consequence, the Glasgow's figures do not take account of the carbon footprint of imported goods, bought or consumed in the city. The figures also do not take account of personal air travel.

[xxxix] https://www.understandingglasgow.com/indicators/environment/co2_emissions

the maximum Air Quality Strategy target. Nevertheless, trends in the concentrations of these pollutants at monitoring sites do appear to be following a downward trajectory (Figure 23).

Figure 23. Annual mean PM$_{10}$ concentration at Glasgow monitoring sites, 2000-2019
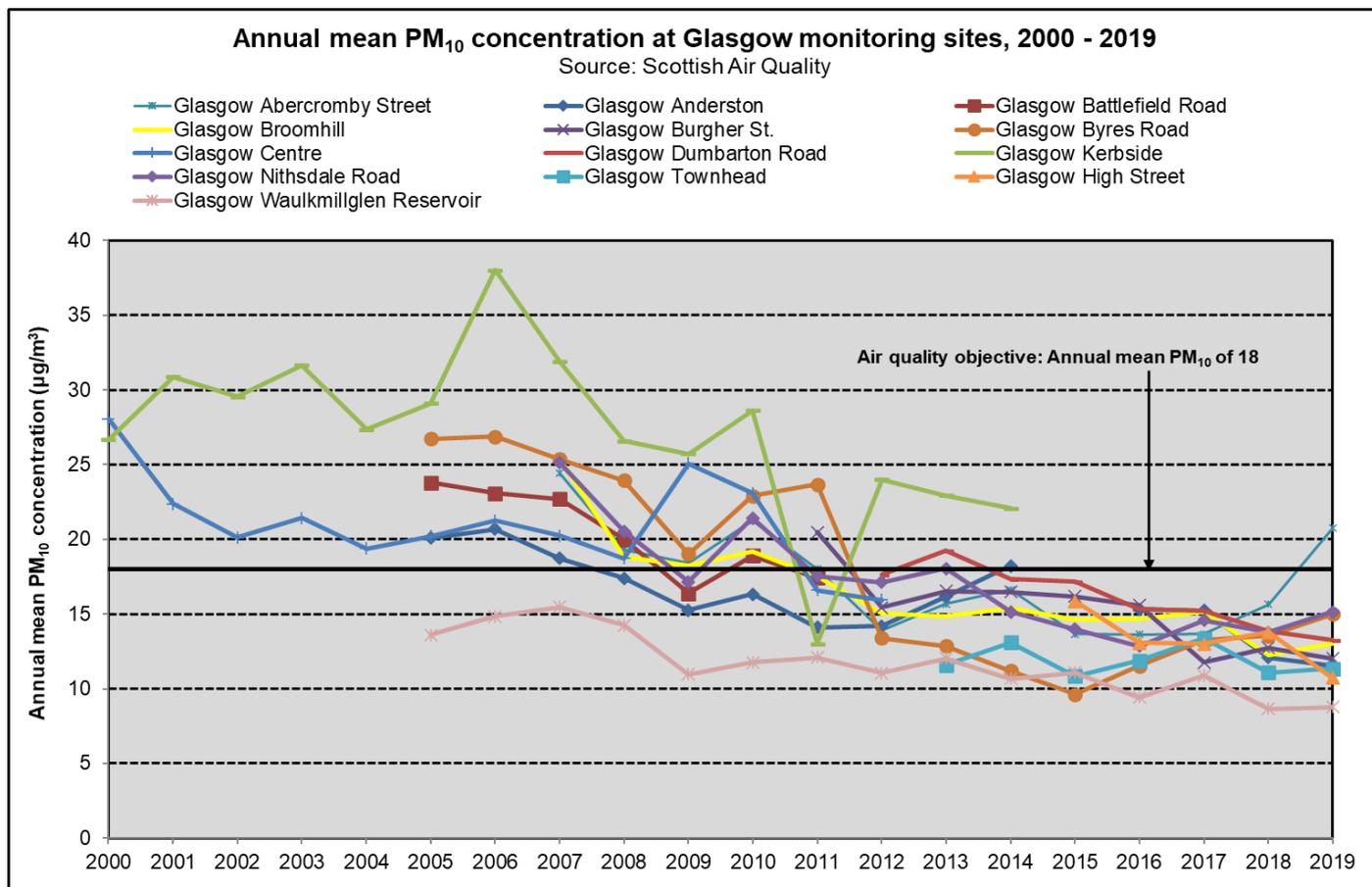
Approximately 50 deaths per 100,000 adults (aged 25 and over) were attributable to PM$_{2.5}$ in Glasgow in 2016[108]. This equates to an estimated 216 deaths attributable to exposure to PM$_{2.5}$ in Glasgow in 2016; rising to 627 attributable deaths[xl] across the whole of the Glasgow City Region (GCR) in that year.

Nitrogen dioxide (NO$_2$) is another atmospheric pollutant associated mainly with motorised road vehicles. Breathing in raised levels of NO$_2$ is linked to an increased likelihood of respiratory problems. Nitrogen dioxide inflames the lining of the lungs, and it can reduce immunity to lung infections leading to wheezing, coughing, colds, flu and bronchitis. Concentrations of NO$_2$ measured at sites across Glasgow have been falling. However, despite this trend, the Glasgow (Kerbside) site[xli] has recorded annual mean NO$_2$ concentrations exceeding the Air Quality Strategy objective for NO$_2$ of 40µg/m3 over a 22-year period since the site began recording in 1998[xlii].

[xl] Attributable Deaths: these are not actual deaths of specific individuals; these are modelled estimates of numbers of deaths that would be attributable to long-term exposure to PM2.5 at the defined concentrations – if PM2.5 exposure had been the sole cause of death.

[xli] The Kerbside site is located in an urban traffic environment on the pavement of Hope Street.

[xlii] https://www.understandingglasgow.com/indicators/environment/air_quality/no2/glasgow_trends

> **_Covid-19 context_**
>
> Lockdown restrictions led to a large reduction in traffic (see the transport sub-section for more details) and, as a result, NO_2 concentrations in Scotland were significantly lower in the 2020 lockdown period than in the previous three years. However, concentrations of fine particulate matter ($PM_{2.5}$) outdoors were at similar levels to those observed in 2017 and 2018, suggesting that traffic-related emissions do not explain the variability in $PM_{2.5}$ concentrations in outdoor air in Scotland[109].
>
> In Glasgow, the Scottish Environmental Protection Agency (SEPA) reported that in early April 2020 total traffic flow along key city centre streets decreased to the lowest levels recorded, including an 85% reduction along Hope Street, one of Glasgow's busiest and most congested streets. In the period April-August 2020, traffic related NO_2 concentrations on three of the main streets in Glasgow (Great Western Road, High Street and Hope Street) reduced to 60% of normal levels. Traffic levels increased steadily as lockdown restrictions were lifted and observed levels of pollution returned to typical levels for the time of year[110]. This report also pointed out that cleaner buses have a positive impact on air quality and that the lockdown experience demonstrated that an overall reduction in traffic reduces climate change emissions.
>
> During the pandemic the phased introduction of Glasgow's Low Emission Zone (LEZ) was paused temporarily, although there are now indicative dates to introduce LEZs in Glasgow, Edinburgh, Dundee and Aberdeen between February 2020 and May 2022.
>
> Direct links between Covid-19 and poor air quality have been shown. In the US, a nationwide study found that long-term average exposure to fine particulate matter ($PM_{2.5}$) is associated with an increased risk of Covid-19 death[111]. Another study in England concluded that even a small increase in air pollution leads to a large increase in the Covid-19 infectivity and mortality rate[112].

3.3.3 Active and sustainable travel[xliii]

Active and sustainable travel is good for population health and the environment. A sustainable and integrated transport system which supports active travel has been highlighted by public health leaders and politicians as a priority investment area. National and local policy in relation to climate change, transport, air quality, placemaking and health, increasingly recognises the co-benefits of active and sustainable travel and the need to make the shift to sustainable transport systems[113]. In this section we highlight key trends in relation to different modes of travel.

3.3.3.1 Traffic volume and mode of travel

Traffic volume in Scotland's four largest cities[xliv] has steadily increased in the last 19 years. Glasgow has the highest traffic volume, followed by Edinburgh[114]. Travel by car continues to be the predominant commuting method in all Scottish cities[114]. In the period 1975-2019 the number of motorised vehicles in Scotland more doubled from 1.3 million to over 3 million, a rise of 133%[114]. There has been an increase in the number of electric and hybrid vehicles in recent years, but these still account for less than 1.5% of all licensed vehicles[114].

[xliii] The majority of the transport statistics quoted in this section come from the Transport section of Understanding Glasgow - https://www.understandingglasgow.com/indicators/transport/overview

[xliv] Glasgow, Edinburgh, Dundee, Aberdeen

There appears to be a correlation between the development of new roads and increasing numbers of vehicles. For example, the year the Aberdeen City Bypass was completed there was a large increase in traffic volume; following completion of the M77 extension in April 2005, East Renfrewshire saw a large increase in traffic volume; and Glasgow, Renfrewshire, and South Lanarkshire all experienced rises in traffic when the M74 extension opened in 2011[114].

Glasgow has the highest percentage of households *without* access to a car (46%) yet, 41% of Glaswegians commute to work by car as either a passenger or driver[114]. Even though car ownership is higher in Edinburgh, Edinburgh has lower levels of car commuting compared to Glasgow[114]. Of the four largest cities in Scotland, Glasgow has the highest level of children being driven to school (26.7%)[114].

Almost one-third (30%) of Glaswegians commute to work using public transport (train, bus or underground)[114]. In the period 2001-2011, commuting via public transport in Glasgow changed in several ways: as a percentage of all commutes, train use increased from 5.5% to 7.7% and bus use reduced from 24% to 20%[114]. Glasgow has the highest proportion of commuters who travel by train, while Edinburgh has the highest proportion who commute by bus[114].

Between 2001 and 2011 there was a small increase from 1%-1.6% in commuting by bicycle in Glasgow[114]. Data from the annual Glasgow cordon count indicates that in the period 2009-2018, cycling trips in and out of city increased by 111%. Such an increase in cycling levels has been linked to developments in cycling infrastructure across the city and the introduction of Glasgow's cycle hire scheme – nextbike[114]. Analysis by GCPH demonstrated that nextbike was used predominantly for commuting within the city and that most users were Glasgow residents[115]. Pedestrian trips in and out of the city have also increased by 19% in the period 2009-2018, representing an annual rise of 2% each year[114], although commuting to work on foot reduced across seven of the eight local authorities in the GCR, including Glasgow, between 2001 and 2011[114].

In 2020, active travel to school across Scotland increased by 3.4% compared to the previous year, and more than half (51%) of all school pupils in the country travelled to school in an active way (walking 44%, cycling 3.8%, scooting 2.6%). At a local authority level, Edinburgh City had the highest proportion of active travel to school in 2020 (70%), representing an increase of 6% from the previous year. Meanwhile in Glasgow City, just over half (51%) of pupils used active means of travelling to school in 2020, which is a decrease of 2% from 2019[xlv] [116].

3.3.3.2 Safety

Road casualty rates in Glasgow have fallen considerably in recent years. In the period 1997-2001 to 2015-19, all road casualties reduced by 57% and the rate of casualties killed or seriously injured reduced by 64% (Figure 24)[114].

[xlv] The 2020 Hands Up survey was carried out between 7th - 11th September 2020 during which time the country was still under lockdown measures due to the Covid-19 pandemic, which included a nationwide 'work at home where possible' instruction from the Scottish Government. Therefore, any changes in active travel to school from the previous year must be interpreted with the Covid-19 lockdown measures in mind and how these impacted on travel during this time. For example, most parents were working from home and thus more likely to have time to actively travel with their children to school. Public transport services also reduced, and people were discouraged from using public transport unless they had no alternative.

Figure 24. Road casualties per 100,000 population in Glasgow by severity of injury, 1997-2001 to 2015-2019

Road casualties per 100,000 population in Glasgow by severity of injury, 1997-2001 to 2015-2019
Source: Police Statistics 19 data

—— All casualties   —— Killed or seriously injured

All casualties values: 487, 478, 458, 454, 451, 440, 423, 404, 377, 345, 316, 296, 270, 259, 254, 252, 239, 229, 211

Killed or seriously injured values: 77, 74, 68, 62, 59, 57, 53, 51, 49, 47, 42, 40, 33, 31, 30, 29, 27, 28, 28

Y-axis: Road casualties per 100,000 population (0 to 600)

X-axis (Five-year moving average): 97-01, 98-02, 99-03, 00-04, 01-05, 02-06, 03-07, 04-08, 05-09, 06-10, 07-11, 08-12, 09-13, 10-14, 11-15, 12-16, 13-17, 14-18, 15-19

Over the last two decades there has been a 70% decrease in the number of child road casualties per 100,000 in Glasgow. However, Glasgow still has the highest rate of child road traffic accident hospital admissions among the four largest Scottish cities. In the same timeframe, the rate of adult pedestrian road casualties in Glasgow has decreased while the rate of adult cyclist casualties has increased. Cycling casualties admitted to hospital have now overtaken pedestrian casualty admissions[xlvi].

3.3.3.3 Inequalities

A healthy and sustainable transport system should include a diverse range of travel options which are accessible to all. Transport systems which are not designed in this manner can widen socioeconomic inequalities by inhibiting access to services, employment, education, social interactions, and leisure. At present, not everyone has equal access to transport options and some demographic groups are at a higher risk of transport poverty than others. Low-income households, people with disabilities and chronic health problems, those working outside 'normal' hours, and older people and women with young children, all have access to fewer transport options[117-119]. Forced car ownership[xlvii] continues to be an issue in Glasgow, influenced by changes in household size, increased financial difficulties (specific to housing costs), and location of employment[120].

[xlvi]https://www.understandingglasgow.com/indicators/transport/road_casualties/adult_road_casualties/cyclists_and_pedestrians

[xlvii] This term describes the idea of owning or buying a car despite financial difficulties.

The relationship between transport poverty and income is compounded by geographical factors. Those living in urban communities are often at a higher risk of the harmful effects of transport, including increased risk of exposure to air and noise pollution, increased risk of traffic-related injury and fatalities, and community severance imposed by major infrastructure or traffic volume[121].

Across Scotland there are also clear links between socioeconomic status and active travel, particularly for cycling. Cycling rates and access to a bicycle remains higher among high income groups. In Glasgow in 2011, only 0.8% of commuters from the most deprived areas cycled to work/study compared to 2.7% of commuters from the least deprived areas[114]. Yet in countries with high cycling rates there is less of a socioeconomic divide in cycling uptake. For example, in Denmark, households with an income of less than $13,004 per year still make one quarter of their daily trips by bicycle[122]. There is the potential for active travel, in combination with public transport services, to address transport poverty by providing a viable alternative to driving to access local services, employment, and education[123].

> ### Covid-19 context
> The Covid-19 pandemic has had a considerable impact on the number of trips people make and their modes of travel. The most significant impact has been a large and continued reduction in the use of public transport and an increase in car travel, and there is clear evidence of an increase in cycling and walking for leisure in the early phases of the pandemic[124-126]. The Scottish Government invested in temporary active travel infrastructure (e.g. widening footpaths, introducing pop-up cycle lanes) in response to physical distancing restrictions and in order to make walking and cycling an attractive and viable choice for essential journeys and exercise, while easing the demand on public transport and reducing the necessity of car travel for short journeys[127].
>
> As Scotland began to ease Covid-19 restrictions after the first lockdown in June 2020, concerns surrounding the risk of virus transmission on public transport remained[128]. Since then, car use has increased (to close to pre-lockdown levels) while levels of active travel have reduced. The reduced capacity and use of public transport due to Covid-19 is likely to reduce transport options and add financial strain to many, but particularly for those without access to a car due to low income, age or disability, or who are dependent on public transport to access services, employment, education or social engagements and leisure. While physical distancing measures exist and concerns surrounding virus transmission influence how people choose to travel, cars will continue to be the dominant mode of transport and public transport services will struggle to attract passengers back. This will undoubtedly have a negative impact on active travel participation, vehicle emissions, road safety, and existing inequalities[129].

3.3.4 Open space and paths

Public access to open space[xlviii] provides physical and mental health benefits, facilitates exercise, sports, socialising, active travel and can be a key resource for children's development and learning. The benefits of living close to green space include reduced mortality[130] and mental wellbeing benefits such as greater life satisfaction, sense of worth, and happiness. In Scotland, while most adults (65%) live within a five-minute walk of their nearest area of green space, less

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[xlviii] Open space is a term used in planning to encompass green space (parks, playing fields, allotments/growing space, natural/semi-natural areas, etc), grey or civic space (squares, areas of urban realm, etc) and blue space (burns, rivers, lochs, bogs, etc).

adults in deprived areas live within a five-minute walk of their nearest greenspace compared to adults in the least deprived areas (58% compared to 68%)[131]. A recent Scottish study found that the population groups least likely to use the outdoors on a weekly basis include people with a disability, Muslims, residents of Scotland's most deprived areas, people of Black and other non-White ethnic groups and people aged 76 and over[132].

Glasgow's Open Space Strategy (OSS) aims to start a process to establish and meet the city's open space needs in a changing context by taking account of the changing role of open space[133]. Beyond the health and social benefits of open space, the strategy points to a range of specific roles for open space: helping the city adapt to climate change by dealing with surface water flooding; providing habitats for nature and helping to enhance biodiversity; connecting walking and cycling networks; enabling community food growing; helping mitigate climate change, the urban heat island effect and poor air quality; and contributing to a sense of place and a more attractive urban environment. Glasgow City Council have published an interactive map showing open space and vacant and derelict land, including core paths, cycle routes and allotments. An image of that map is shown in Figure 25.

Figure 25. Open Space Map of Glasgow including Vacant and Derelict Land, paths, cycle routes and allotments – to access the interactive map click here
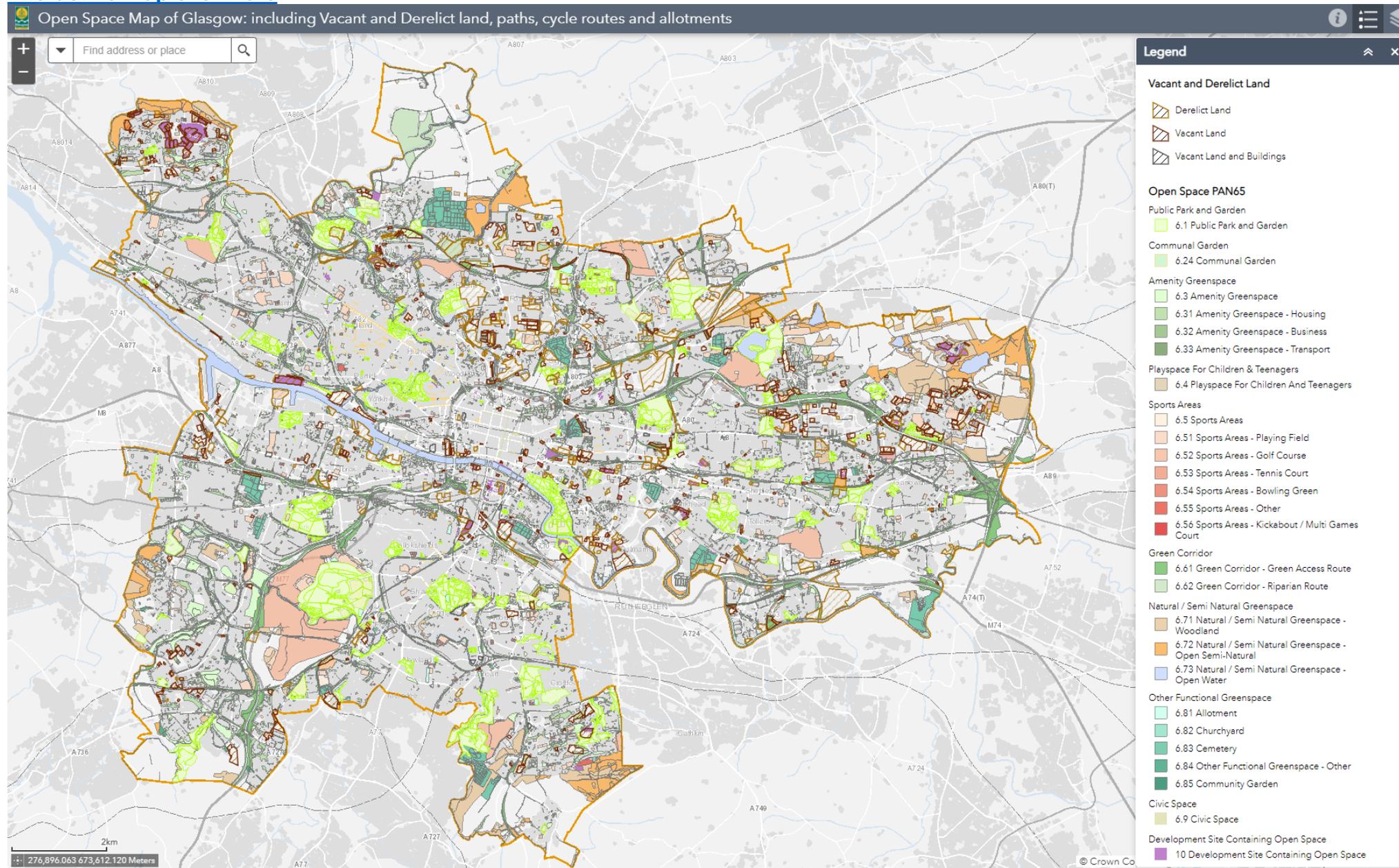
There are 17,635.6 hectares (ha) of land in Glasgow in total; protected open space comprises 30% of this. There are 91 public parks, covering over 1,000 ha and representing over 5.7% of land in Glasgow. Additionally, there are 32 allotments which support community growing across the city –21 are owned by Glasgow City Council (GCC) and 11 are privately owned – covering 32.3 ha. Over 900 hectares of land are used for outdoor sports, approximately 5% of the total land area.

There is currently no consistent or comprehensive approach to assessing the quality of open space across Scotland. However, within Glasgow City, a quality assessment matrix[133] has been developed to produce a map of quality assessed open space. A recent GCPH project provided an example of how such a resource might be used to assess children's access to good quality greenspace in Glasgow[134].

Paths in Glasgow are an important part of the transport network within the city and are a resource for health, enabling people to move around actively – on foot, by bike, in a wheelchair or using other non-motorised means for leisure, shopping and work. Glasgow has a Core Paths Plan which records important paths and routes[xlix]. There are 307.1km of designated core paths in the city (excluding waterways), although these represent only a fraction of the wider paths network in Glasgow.

There are currently 395.3 km of cycle paths designated by Glasgow City Council. One-third of these are on-road (133.2 km) routes and two-thirds are off-road (262.1 km) routes[l]; 69% are considered traffic free and on 31% cyclists may encounter some traffic e.g. on quiet streets.

> ### Covid-19 context
>
> There are well known health benefits from spending time in natural outdoor environments. Research by NatureScot conducted in late May and early June 2020 found that many people reported benefits from the time they spend outdoors and the other ways in which they enjoyed nature during lockdown. Nearly two-thirds of respondents reported mental health benefits, with 63% stating that their experiences had helped to de-stress, relax and unwind. Meanwhile, 58% stated that spending time outdoors had made them feel energised and revitalised[135]. However, research conducted with UK adults during the pandemic shows almost two-thirds of people (63%) spent less time visiting green spaces following movement restrictions in the first lockdown period, which began on 23rd March 2020. Inequalities in green space use were sustained, and may even have been exacerbated, as a result of lockdowns and restrictions in movement. People from more socially disadvantaged backgrounds were less likely to visit green space than more socially advantaged individuals before and following movement restrictions. Adults over 65 years-old also reported visiting green spaces less often after restrictions were in place than their middle-aged counterparts[136].

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xlix The core paths network includes paths or routes, including waterways, to facilitate the exercise of public access. The core paths presented in the Open space map are based on information collated in 2012.

l Many cycle routes may also be designated core paths. It should also be noted that many people cycle on roads and other routes that are not designated specifically for cycling.

3.3.5 Vacant and derelict land (VDL)

In 2019, there was 954.4 ha of vacant and derelict land in the city, representing 5.4% of land in Glasgow. Six out of ten people in Glasgow live within 500m of vacant and derelict land, a figure that is at least double that in other cities in Scotland and which has remained steady for nearly a decade. Within the city region, it is notable that the proportion of people living close to derelict land has risen in recent years in Inverclyde and North Lanarkshire. In 2018, North Lanarkshire, Glasgow, Inverclyde and West Dunbartonshire were the local authorities with the highest proportions of people living near derelict sites[li].

People living in deprived areas are more likely to live close to vacant and derelict land. Over half of people living in the most deprived decile in Scotland were estimated to live within 500 metres of derelict land in 2019 (55%), compared to one-tenth of people in the least deprived decile (11%)[138]. In the GCR, 74% of VDL sites are located within the 10% most deprived data zones[139].

[li] https://www.understandingglasgow.com/indicators/environment/proximity_to_derelict_sites/glasgow_clyde_valley

The creation of new open spaces in Glasgow will be needed in the future for a range of purposes: for food growing; for outdoor sport; for children to play in; to create new habitat and active travel links; to manage flood risk; and to mitigate climate change. The city is also committed to significantly increasing the number of trees over the next five years. Appropriately local areas of vacant and derelict land have the potential to provide new open spaces that can meet such needs[133].

Working with the Centre for Local Economic Strategies (CLES) and the Scottish Government, the Glasgow City Region Recovery Plan team have committed to taking a community wealth building approach to economic development. This will include a focus on the socially productive use of land and property. To support this, CLES have published a report on how vacant and derelict land in the region can be reduced and brought back into socially productive use. The work acknowledged the significance of the pandemic in shaping public appreciation of greenspaces and the need to better understand access to these spaces across different population groups. It has also been given impetus by local, regional and national political commitment to mitigate climate change. The report suggests that there is an opportunity for community wealth building "to look at how sites might be brought into productive use to reduce inequality and deliver on some of the wider environmental ambitions of the region in areas such as access to safe greenspace, community gardens, planting and local food growing and climate adaptation strategies". Its recommendations include: adopting a holistic notion of land in the Glasgow City Region (GCR); thinking of land stewardship, rather than ownership and use; enabling access to all safe sites; prioritising carbon capture through peatlands, tree planting and rewilding; and stemming the flow of new VDL[140]. These recommendations accord with the City Region's recovery plan which highlights the importance of "breaking the link between our most deprived communities and the proximity to vacant and derelict land" and bringing these sites back into productive use for the benefit of communities[139].

3.4 Health

In this section we focus on mental health, healthy life expectancy, life expectancy and health-related behaviours to highlight key health trends and health inequalities pertaining to Glasgow and Scotland.

3.4.1 Mental health

Globally, mental illness is one of the leading causes of years lived with a disability and the life expectancy of people with a serious mental health disorder is 10-20 years lower than the general population[141]. In Scotland, mental ill health is a growing public health concern and mental health support has been overstretched and underfunded, which has been exacerbated by the Covid-19 pandemic. In this section we highlight the key indicators in relation to the mental health and wellbeing of people living in Scotland.

In 2019, the Scottish Health Survey revealed that mental ill health was at its highest level since 2008-09. Mental wellbeing was lowest among 25–34-year-olds and those living in the most deprived areas (SIMD1), and women (19%) were more likely than men (15%) to report poor mental health[142]. In Glasgow, the rate of prescriptions for anxiety, depression, and psychosis in

2018-19 was 10% higher than the national rate; and the rate of psychiatric patient hospitalisations was 18% higher than the national rate[143].

Half of all mental ill health experienced in adulthood begins before the age of 14-years and age 15-years is reportedly when mental ill health in adolescence peaks[144,145]. The experience of mental ill health in adolescence can increase the risk of mental ill health later in life, and negatively impact on health, social, and economic outcomes as an adult[144]. The 2015 Glasgow City Schools Health and Wellbeing Survey highlighted that in 2015, 5% of adolescents had a mental health or emotional illness[146]. Results from the recent 2020 survey are still to be published, but it is likely the pandemic will have contributed to an increased prevalence of mental ill health within this population.

3.4.1.1 Suicide

Suicide is the leading cause of death in Scotland among 15-34-year-olds and since the early 1990s, Scotland has had a higher suicide rate than the UK overall[147]. In Scotland, 833 suicides were registered in 2019[148] reflecting a 6% increase from the previous year, however, examining deaths by suicide over three-year periods from 2011[lii] shows a more nuanced picture.

There are clear divergent trends in the rate of suicide by socioeconomic status in Glasgow. For the last two decades male suicide rates have remained approximately three times higher in the most deprived quintile compared to the least deprived quintile in Glasgow. Rates did drop significantly between 2005-07 to 2013-15, but since then the rate of male suicide has increased in both the most and least deprived areas of Glasgow (Figure 26)[149.]

This trend in suicide rates by socioeconomic status, whereby rates are gradually levelling off in the least deprived quintiles but increasing in the most deprived deciles, is also found across Scotland.

[lii] In 2011, National Records of Scotland implemented new rules for coding the causes of death. Drug abuse and acute intoxication deaths were henceforth classified as 'poisoning' therefore would be counted as probable suicides or accidental deaths. Unless NRS are informed the overdose was accidental or deliberate, it would be categorised as probable suicide[148].

Figure 26. Males, all ages, suicide: European age-standardised mortality rates (EASR)
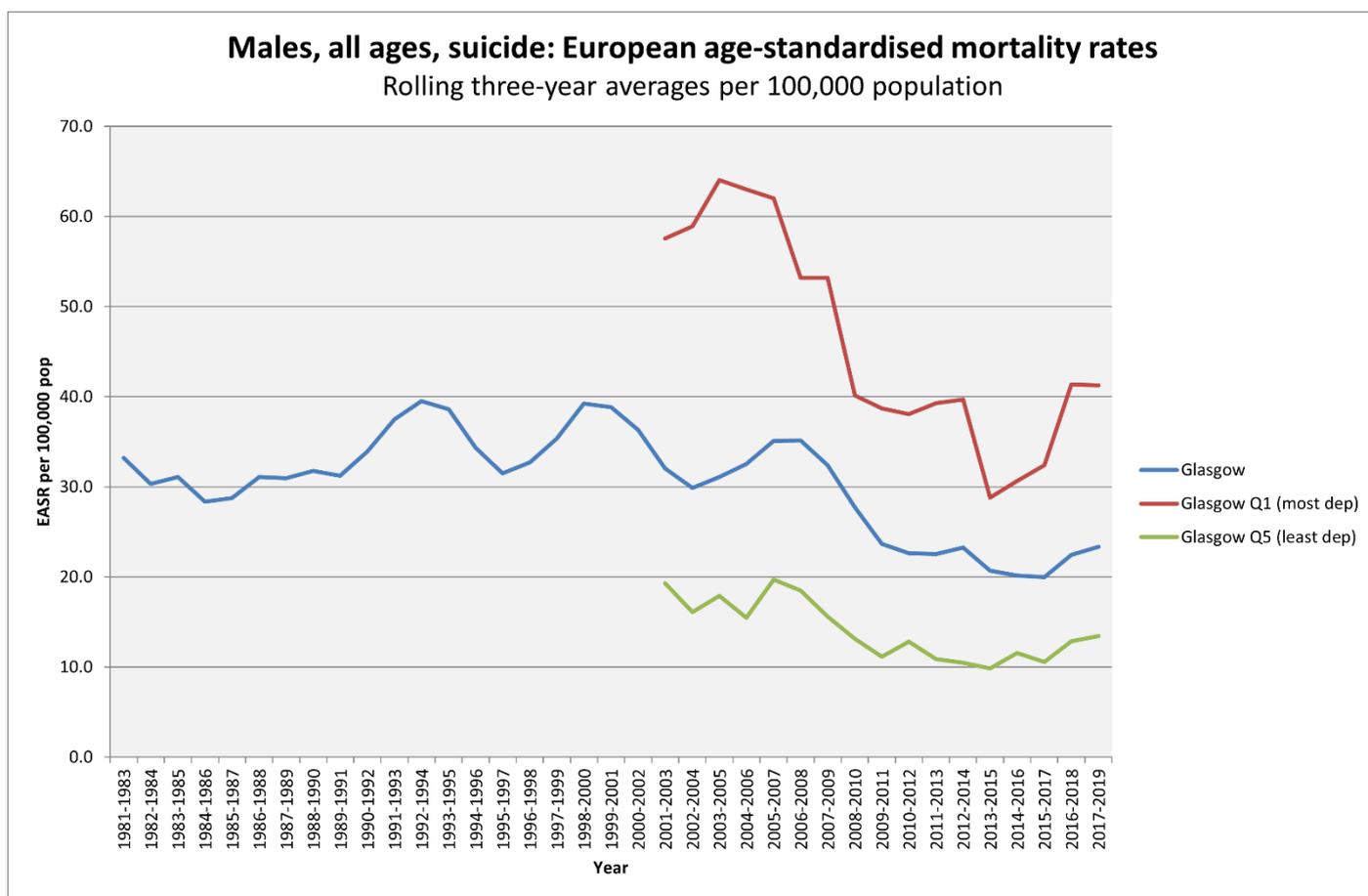
The rate of female suicide in Glasgow (data not shown) has decreased overall in the last three decades. Rates have more than halved in the most deprived quintile between 2001-03 to 2013-15 but have since increased. There have been fluctuations in female suicide rates in the least deprived quintile over the last three decades, with a peak between 2014-18, and recent figures show these are continuing a downward trend[149] [liii].

3.4.1.2 Self-harm

Research shows that one-in-six people in Scotland aged 18-34 years have self-harmed at some point in their lives[150]. Using data from the Scottish Health Survey, Samaritans Scotland reported that the proportion of adults who say they had ever self-harmed more than doubled from 3% in 2008-09 to 7% in 2018-19[151]. This question was not included in the 2020 Scottish Health Survey.

Self-harm is often carried out in private, and many people do not seek help for it. There is therefore a lack of reliable data on the extent of self-harm in Scotland[150,152]. Hospital admissions where a diagnosis of intended self-harm was recorded can be used a proxy measure of prevalence, however people are less likely to present to hospital following a self-harm episode, and the type of self-harm can determine whether they present at hospital. For example, a high proportion of self-harm related hospital admissions are for poisoning, yet people who self-harm are more likely to engage in self-injury than poisoning[150]. Therefore, hospital admission data is likely to underestimate the prevalence of self-harm in Scotland.

[liii] The suicide data does not include confidence intervals, therefore the difference in suicide rates between the most and least deprived quintiles may not be as large, but still points to a disparity.

People who self-harm are at an increased risk of suicide and the risk is further elevated in those repeating self-harm and adopting dangerous methods. Survey data among 18–34-year-olds living in Scotland showed the first episode of self-harm typically preceded the first suicide attempt by two years[151].

3.4.1.3 Demographics

There are extensive inequalities in the experience of mental ill health and in mental health outcomes associated with gender, age, socioeconomic status, and ethnicity. Age is not a driver of mental ill health but there is an increased likelihood of psychopathology among adults, and adult suicide commonly occurs in the context of a pre-existing and/or comorbid mental ill health. Meanwhile young people who die by suicide have lower rates of psychopathology: only one-third of young people who died by suicide had a detectable mental health issue at the time of their death[153,154].

Young people are also more likely than older adults to report having ever self-harmed (16% of 16–24-year-olds, 0% of 75+ year olds)[142]. Suicide incidences however increase with age, and in recent years suicides in Scotland have peaked in the 45-49 years age group (Figure 27)[148].

Figure 27. Number of deaths by suicide by age group registered in Scotland, 2015-19
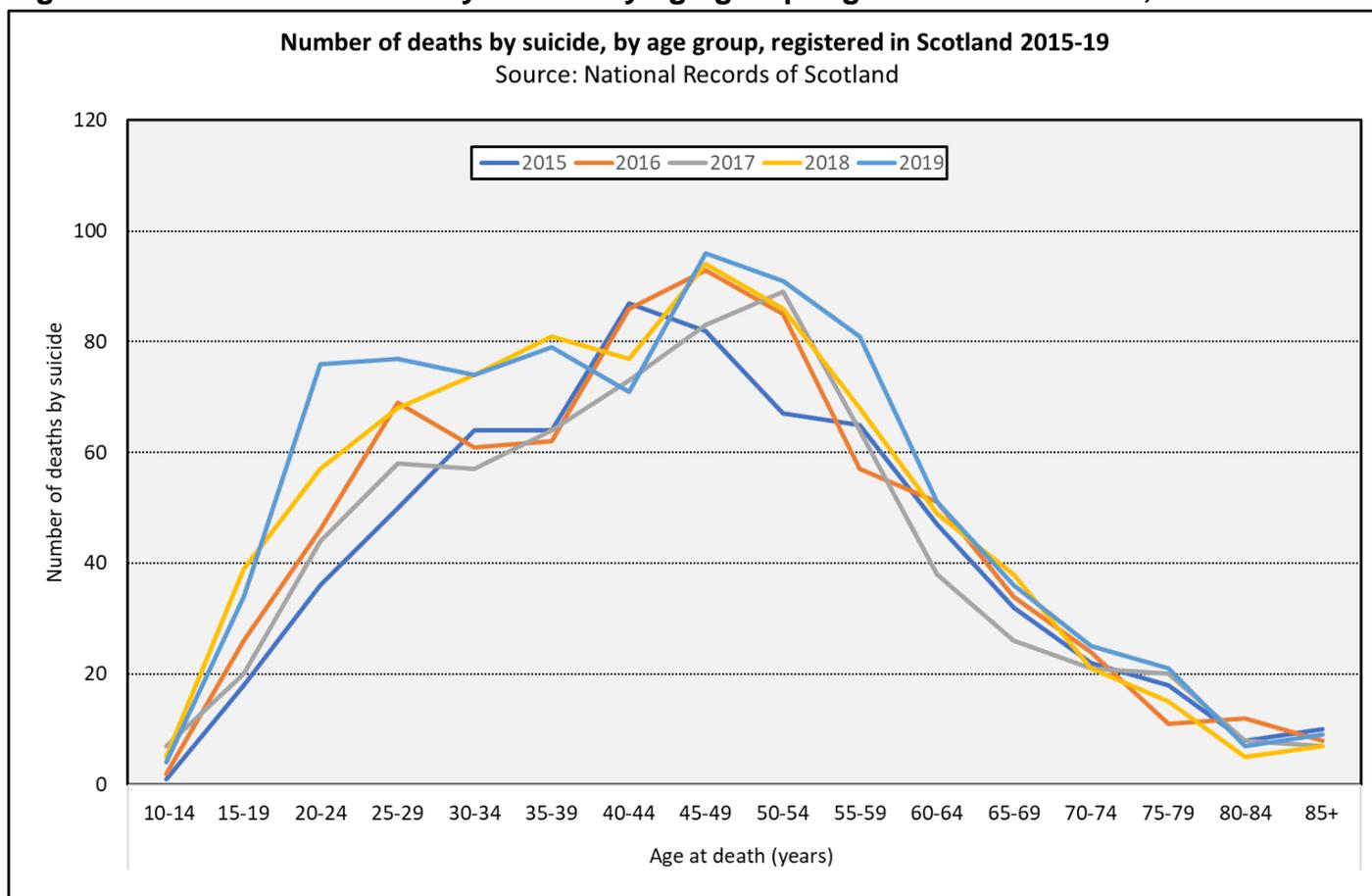
Findings from the Scottish Health Survey revealed that in 2019 women (19%) were more likely than men (15%) to record scores indicative of a possible psychiatric disorder[142] and among Glasgow secondary pupils in 2015, girls (7%) were more likely than boys (3%) to have a mental health or emotional illness[146]. There are also gender differences in self-harm and suicide. In Scotland, approximately three-quarters of all probable suicides involve men: 74% in 2019 and 70-77% in every year since 1986[148]. Despite this, the age of onset of suicide attempts or self-harm is

younger among females compared to males[150]. Females are also more likely than males to report ever having self-harmed[142].

The Scottish Health Survey revealed that in 2019 adults living in the most deprived areas of Scotland (SIMD 1) were twice as likely to have mental health problems compared to those living in the least deprived areas (SIMD 5)[142.] The rate of prescriptions for mental health problems in 2018-19 in Scotland was 42% higher in SIMD 1 compared to SIMD 5; and psychiatric patient hospitalisations were 85% higher in SIMD 1 compared to SIMD 5[155]. There are also clear links between deprivation and suicide and self-harm. In 2018, the suicide rate across Scotland (and in Glasgow), was three times higher in the most deprived areas compared to the least deprived[147]. The Scottish Health Survey showed that in 2019, incidences of self-harm were more than twice as high in SIMD 1 compared to SIMD 5[142]. Given the extent of poverty and child poverty in Glasgow, as highlighted earlier in this report, socioeconomic status as a contributor to mental ill health is a significant concern.

As highlighted by The Scottish Health and Ethnicity Linkage study globally, migrant and minority ethnic groups have an increased risk of hospitalisation from psychosis across generations. These excess trends have been reported consistently across three decades[156,157]. There is also evidence of unequal patterns of psychiatric hospitalisations by ethnic groups in Scotland whereby south Asian and Chinese groups tend to access mental health services late or not at all[156,157]. Despite policy and legislative commitments by the Scottish Government, mental ill health and service use among minority ethnic groups living in Scotland remains under-researched[156,158].

Covid-19 context

On a global scale, there has been an increase in mental ill health across many population groups, but the following sub-groups have been reported to be at a higher risk[159-161]:

- 18-24 and 25-34-year-olds
- People living with young children
- Women
- Minority ethnic groups
- Low-income households
- People who were unemployed or in economically inactive roles before lockdown (including students)
- People with pre-existing mental ill health, chronic health problems or disabilities
- People affected by violence or experiencing homelessness
- People with lower educational attainment
- Frontline workers

Notably, the Scottish Health Survey revealed that in 2020 mental wellbeing among adults was *higher* and rates of depression had decreased slightly compared to the previous year, suggesting a minimal impact of Covid-19 on mental health. However, responses from people living in the most deprived areas of Scotland was lower than usual in the 2020 survey. In addition, the survey methodology changed from face-to-face to telephone, which could make comparison of trends problematic. Findings did indicate that mental wellbeing increased with frequency of contact with friends, family or neighbours and that adults in the shielding groups (the clinically extremely vulnerable) reported lower mental wellbeing than those who were not[162].

The Covid-19 pandemic has disrupted and changed delivery of NHS and social care services and has made it increasingly difficult for people living with mental ill health to access support. Findings from a survey by the Scottish Association for Mental Health of people receiving mental health support in Scotland pre-Covid-19 highlighted that almost half (43%) of respondents felt the quality of their treatment worsened and became less frequent because of the pandemic[163]. This may be because of changes in working practices within the NHS due to staff redeployment and the move to online appointments which led to fewer people starting treatment during this time. Services supporting new mothers and babies have also been under increasing strain during lockdown, and the risk of poor mental health among new and expectant mothers has increased. Women are more likely to experience depression, anxiety, loneliness and suicidal thoughts than before the pandemic, and women from minority ethnic groups and disadvantaged backgrounds are at an increased risk[164].

The impact of Covid-19 on mental health and service delivery has increased the pressure on mental health services. It is reported that 25,000 calls to the NHS 24 mental health hub went unanswered between March 2020 to March 2021, and that the average waiting time for support increased from less than one minute to almost 15 minutes within this period[165]. There has also been increasing concerns surrounding children and young people accessing mental health support during the pandemic.

Pre-Covid-19, the majority (70%) of children and young people in the UK who experienced mental ill health did not receive an appropriate intervention at a sufficiently early age[166]. In Scotland, children and young people are also less likely to receive treatment at a sufficiently early stage compared to adults. The Scottish Government target is that 90% of people should start mental health treatment within 18 weeks of referral. Yet in NHS Greater Glasgow and Clyde, between October to December 2020, adults (89%) were more likely to receive treatment within 18-weeks compared to children and young people (61%), despite there being fewer children and young people referred for treatment[167,168.] Furthermore, children and young people waited seven times longer than adults to start treatment in this health board (Table 2). Similar patterning has been found across Scotland[167,168].

Table 2. Waiting times for people who started mental health treatment from Oct-Dec 2020 in NHS Greater Glasgow and Clyde by age group. Source: Public Health Scotland.

Age group	Total number of people seen	People seen within 18 weeks (%)	Median wait (weeks)
Adults	3953	89%	1
Children and adolescents	1452	61%	7

The negative impact that the pandemic and subsequent lockdown measures have had on young people's mental health, combined with difficulties in accessing services and the longer waiting times compared to adults, are likely to have further exacerbated young people's mental ill health.

3.4.2 Healthy life expectancy[liv]

Healthy life expectancy (HLE) is an estimate of the number of years lived in 'very good' or 'good' general health. In Glasgow in the period 2017-19, female HLE was estimated to be 57.6 years, three years longer than for men who were estimated to live in good health on average for 54.6 years. Glasgow has the lowest HLE among Scottish local authorities for both women and men. In the Glasgow City Region (GCR), East Dunbartonshire had the highest male healthy life expectancy at birth (69.8 years), which was approximately 15 years longer than for men in Glasgow. Among women in the region, East Renfrewshire had the highest female HLE at birth (67.2 years), approximately nine years longer than in Glasgow.

At a national level, HLE has reduced in recent years for men and women and the gap in healthy life expectancy between men and women has narrowed. In 2017-19 in Scotland, female healthy life expectancy (61.9 years) remained slightly higher than male healthy life expectancy (61.7 years)[169].

3.4.3 Life Expectancy[lv]

3.4.3.1 Long-term life expectancy trends

The graph below (Figure 28) shows estimates of life expectancy at birth for men and women in Glasgow over the last 200 years. In the early 1800s, life expectancy in the city, and in Scotland as a whole, was much shorter than it is currently. It was not until the mid-1870s onwards that life expectancy started to improve and has followed a consistent upward trajectory, with the exception of the war years, until approximately 2012-14 when further improvement stalled[lvi].

[liv] Graphs of these figures can be found within the health section of Understanding Glasgow - https://www.understandingglasgow.com/indicators/health/trends/male_healthy_life_expectancy/scottish_cities/males
[lv] These are estimates of life expectancy at birth and are calculated assuming that mortality rates for each age group in the time period (e.g. 2017-2019) are constant throughout a person's life. Thus, future changes in medicine, life circumstances, etc. are not taken into account and this measure should not be considered an accurate prediction of how long a person will actually live. It is nevertheless a useful measure of population health.
[lvi] This point on stalling life expectancy trends is expanded upon in the next sub-sections.

Figure 28. Male and Female Life Expectancy, 1821 - 2017/19, Glasgow

Male and Female Life Expectancy, 1821 - 2017/19, Glasgow
Sources: Reports of the Medical Officer for Health, Glasgow (1820-1920), National Records of Scotland reports
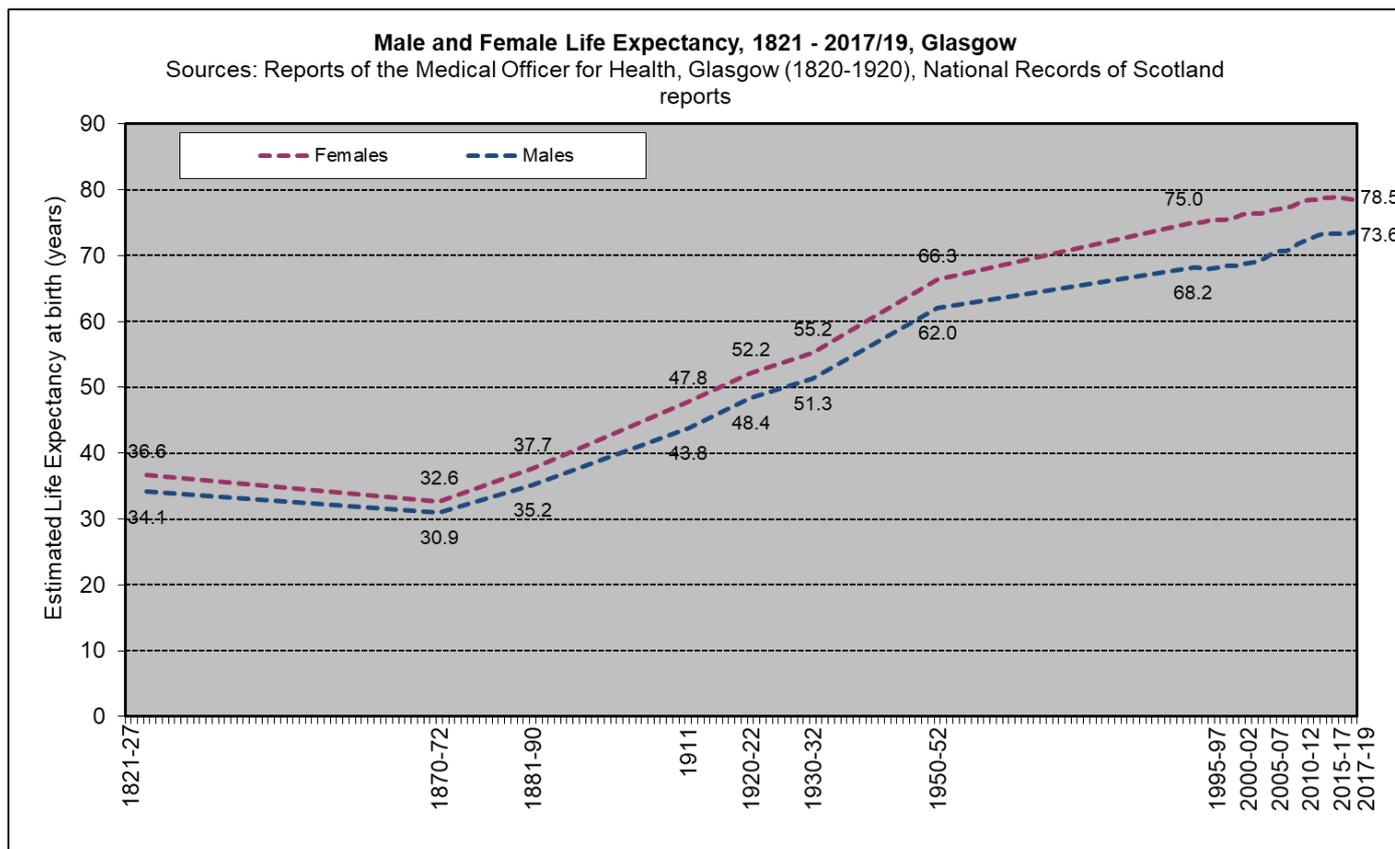
3.4.3.2 Life expectancy trends in Glasgow compared to other places

Further analysis of life expectancy trends for Glasgow in comparison to Scotland, other Scottish Cities, the Glasgow City Region (GCR) and selected UK cities is presented in selected figures[lvii] below (Figures 29-30). The main points that arise from these analyses is summarised as follows:

Scotland and Glasgow

- In 2017-19, male life expectancy at birth in Glasgow was 73.6 years and female life expectancy was 78.5 years.
- Life expectancy in Glasgow has been consistently lower than in Scotland. In 2017-19, the gap in life expectancy between Glaswegian and Scottish males was 3.6 years and for women was 2.6 years.
- Women generally live longer than men, but in recent years the gap has started to narrow. In 2000-02 female life expectancy at birth in Glasgow was 7.4 years longer than male life expectancy at birth, but by 2017-19 this gap had reduced to 4.9 years.
- There have been little if any improvements in female and male life expectancy in Scotland and in Glasgow since 2012-14. For women in Glasgow, life expectancy has fallen in recent years.

[lvii] Selected charts have been used in this report but all the data referred to can be viewed in the health section of Understanding Glasgow - https://www.understandingglasgow.com/. These estimates are taken from recent NRS and ONS life expectancy publications.

Scottish cities

- Male life expectancy in Glasgow has risen by more than five years in the last 25 years but remains considerably lower than in other Scottish cities; in 2017-19 male life expectancy at birth was 4.8 years less than in Edinburgh.
- Despite improvements over the last 25 years, female life expectancy in Glasgow remains lower than in other Scottish cities – in 2017-19, female life expectancy in Glasgow was four years less than in Edinburgh.
- Since 2012-14, female life expectancy improvements have stalled in Scotland and life expectancy has reduced in Dundee (from 2013-15) and in Glasgow (from 2014-16) (Figure 29).
- Male life expectancy (not shown) has increased only very marginally in Scotland and Glasgow since 2012-14 and has reduced by over a year in Dundee in this period.

Figure 29. Female life expectancy at birth, selected Scottish cities, 1991-93 to 2017-19
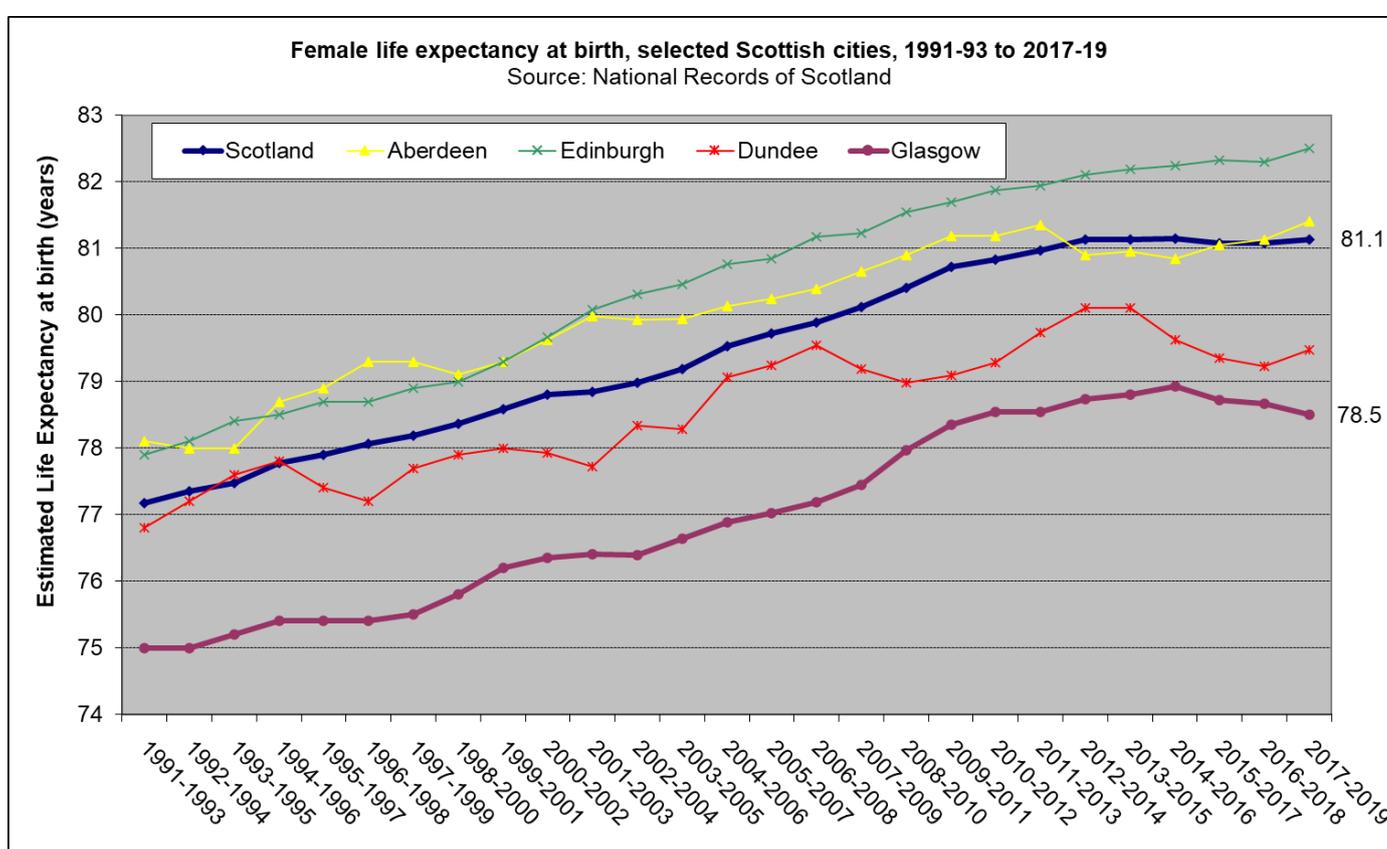
Glasgow City Region (GCR)

- Male and female life expectancy increased in every local authority in the GCR over the period 1991-93 to 2017-19, but that improvement has stalled in recent years.
- Glaswegian men are still likely to have shorter lives than men in other parts of the region. In 2017-19 male life expectancy in East Dunbartonshire (80.5 years) was estimated to be 6.9 years longer than in Glasgow (73.6 years).
- In several authorities in the region, including Glasgow and, most notably, in Inverclyde, female life expectancy has reduced (Figure 30).
- Female life expectancy in East Renfrewshire (84 years) was estimated to be 5.5 years longer than in Glasgow (78.5 years) in 2017-19.

Figure 30. Female life expectancy at birth, Glasgow City Region Local Authorities, 1991-93 to 2017-19
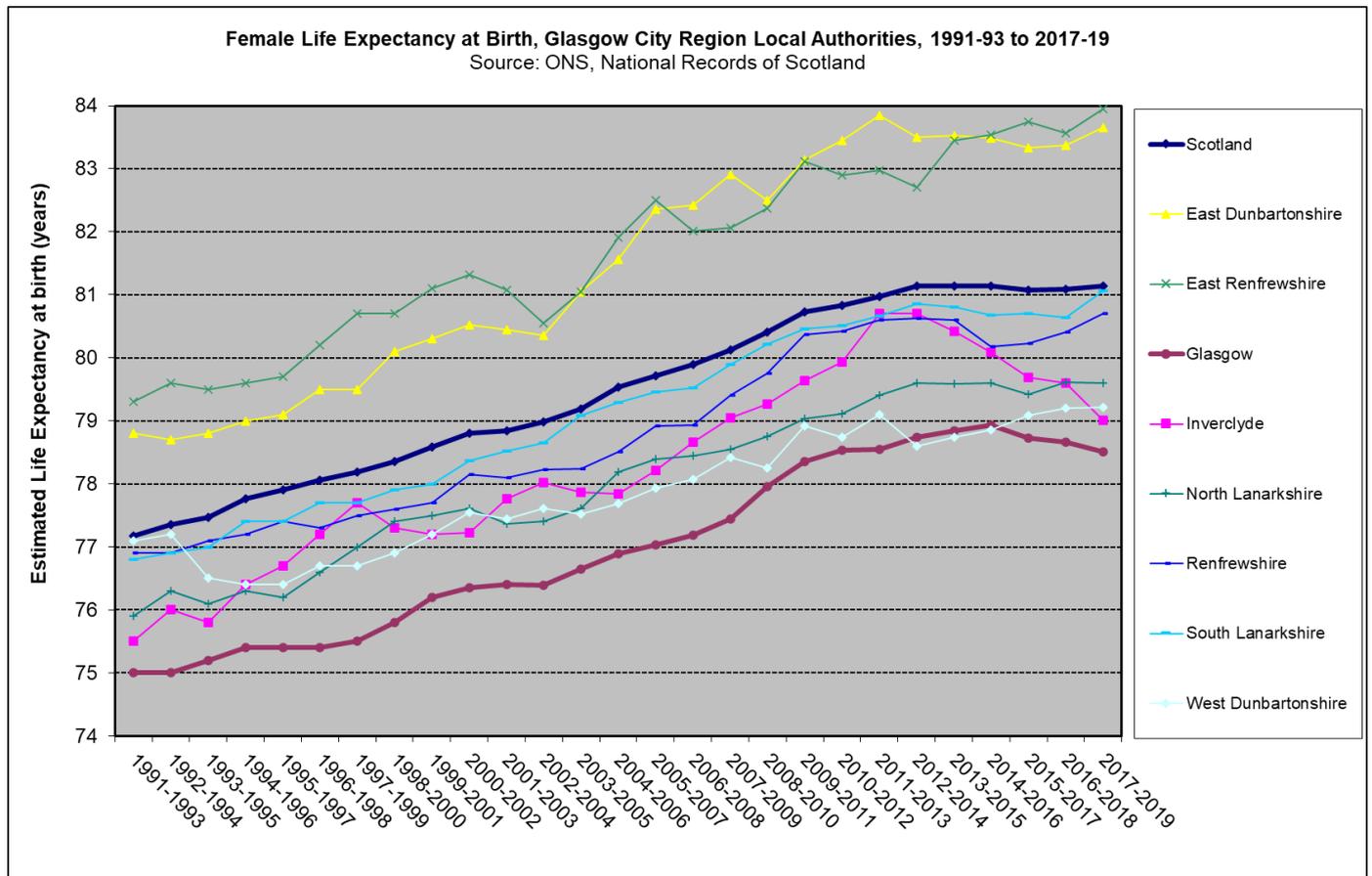
UK cities

- Despite increases in life expectancy over the last 25 years, male and female life expectancy in Glasgow remains lower than in other cities in the UK. For example, in 2017-19, male life expectancy at birth in Glasgow (73.6 years) was 2.8 years less than in Manchester (76.4 years) and 5.7 years less than in Sheffield (79.3 years).
- In many UK cities improvements in life expectancy have levelled off in recent years and in some it has reduced.

3.4.3.3 Life expectancy trends within Glasgow

The following section provides a description of life expectancy trends within Glasgow from the beginning of the 2000s by deprivation decile and by neighbourhood. These estimates of life expectancy have been made by GCPH using the Chiang II methodology[20] applied to population estimates and death registration data provided by National Records of Scotland.

The estimates made for Glasgow deciles of deprivation[lviii] are based on SIMD 2016 and 55

[lviii] These deciles (labelled as GIMD1, GIMD 2, etc.) are specific to Glasgow, using Glasgow data zones and are based on the Scottish Index of Multiple Deprivation (SIMD). By doing so, life expectancy estimates for deprivation deciles of equal population size (with approximately 60,000 people in each decile) have been created.

Glasgow neighbourhoods[lix]. In some graphs NRS estimates of life expectancy for Glasgow and Scotland are presented for comparison. For clarity of display in most graphs, the 95% confidence intervals around each estimate of life expectancy are not shown. However, it is worth bearing in mind that each life expectancy figure is an estimate and, in some cases, particularly at a neighbourhood level, the confidence limits around an estimate are very wide[lx].

Deprivation trends

Between 2000-02 to 2017-19, male and female life expectancy has increased in every deprivation decile in Glasgow, but more so in the less deprived deciles than in the more deprived areas (Figure 31). Improvements in life expectancy have started to level off in recent years and in at least half of the deciles female life expectancy has reduced in the last three to five years (data not shown). On average, over the whole period, life expectancy for Glaswegian women improved by just over two years compared to over four years for men.

Figure 31. Changes in male and female life expectancy, Glasgow deprivation deciles, 2017-19 versus 2000-02
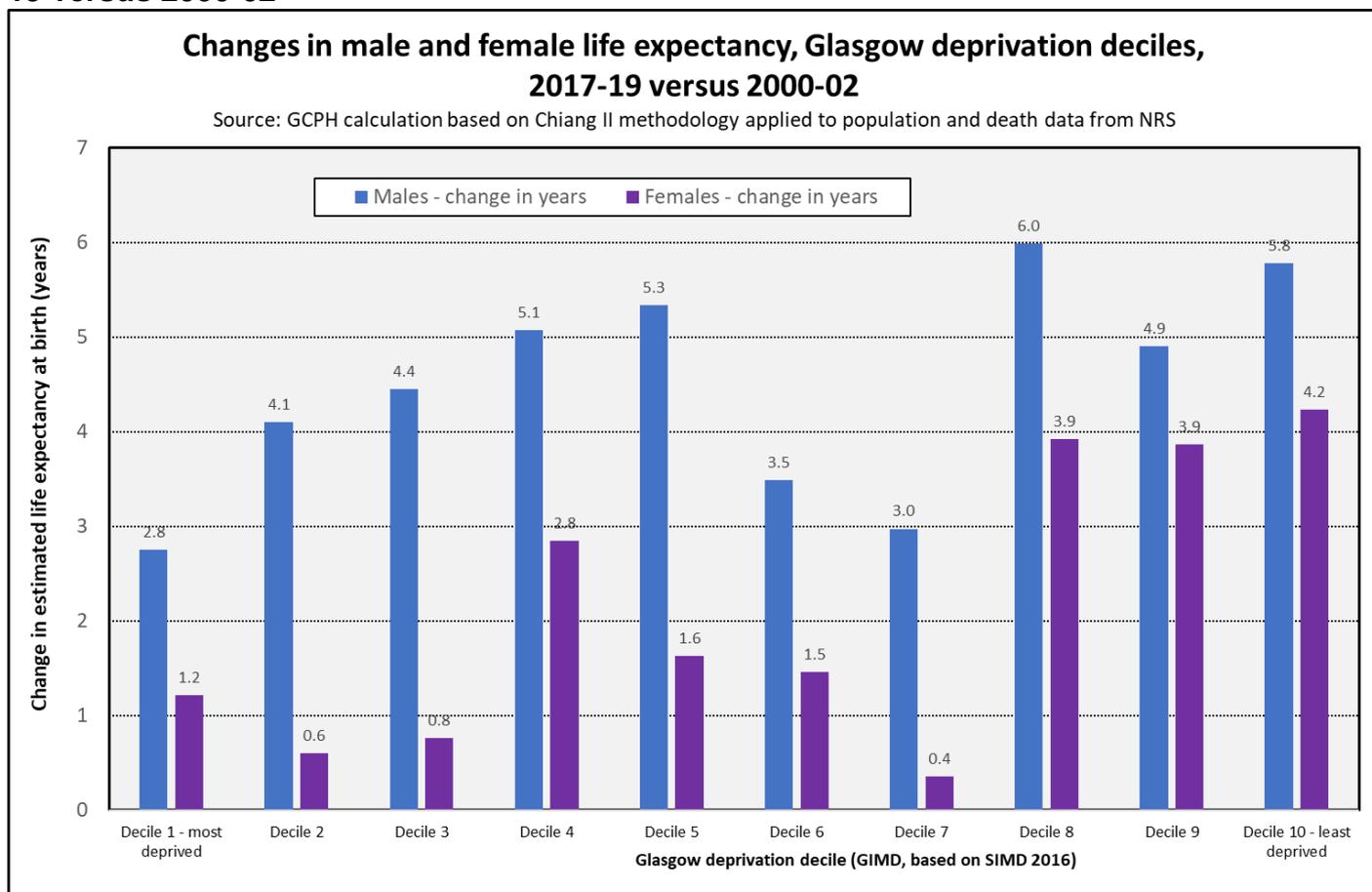
Most significantly, the gap in life expectancy between the least and most deprived deciles in Glasgow has gradually widened over the 18-year period for both men and women: for men from 12.4 years in 2000-02 to 15.4 years in 2017-19 (Figure 32a); and for women from 8.6 years to 11.6 years over the same period (Figure 32b).

[lix] One Glasgow neighbourhood, Carmunnock, is not included due its small population, for which it is not possible to calculate a robust life expectancy estimate.
[lx] The full tables of life expectancy estimates with confidence intervals for Glasgow deprivation deciles and neighbourhoods are available from the authors on request.

Figures 32a and 32b. Male and female life expectancy trends compared between the most deprived (GIMD 1) and the least deprived deciles (GIMD 10) in Glasgow, 2000-02 to 2017-19

a. Males
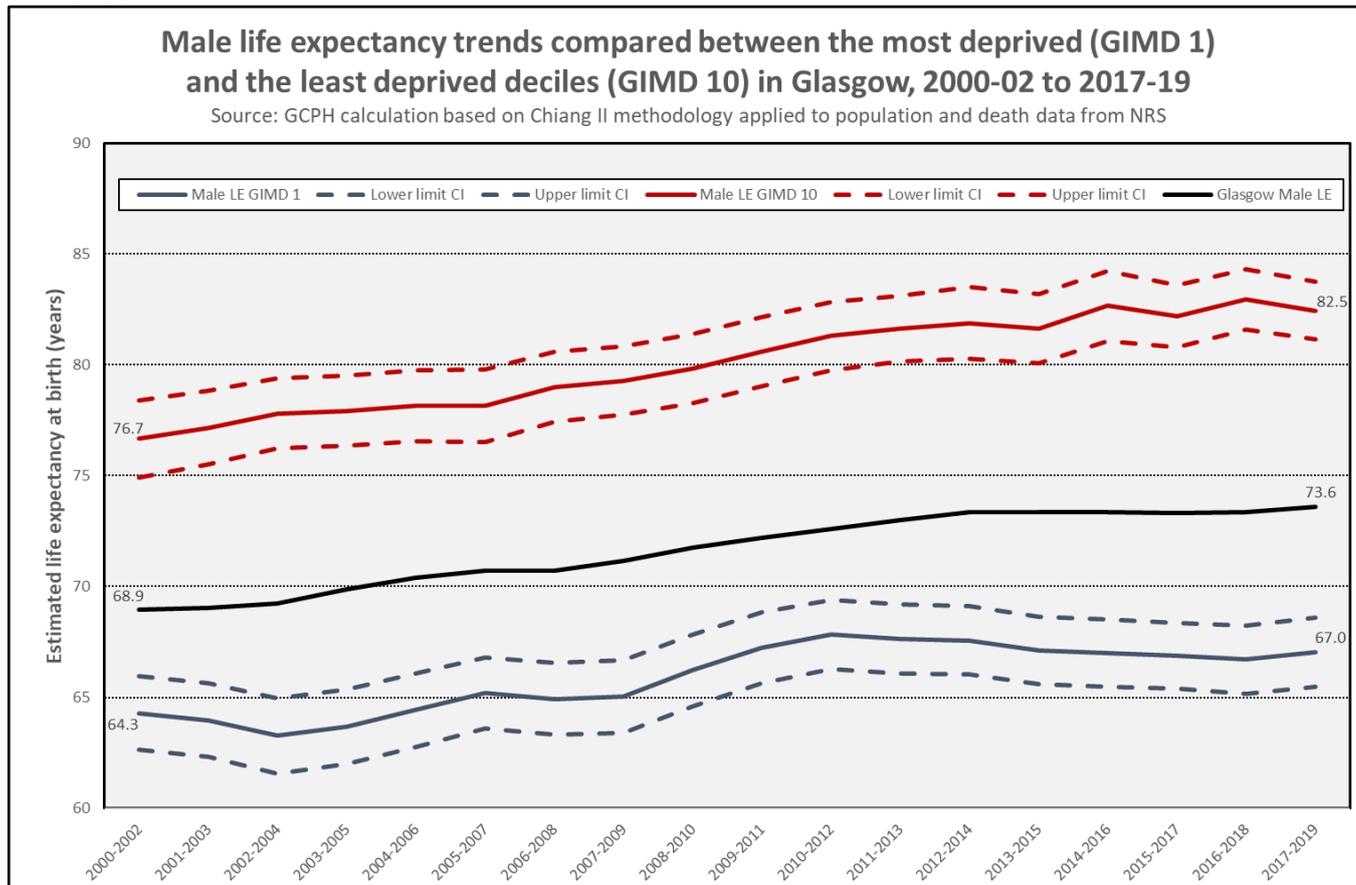
b. Females
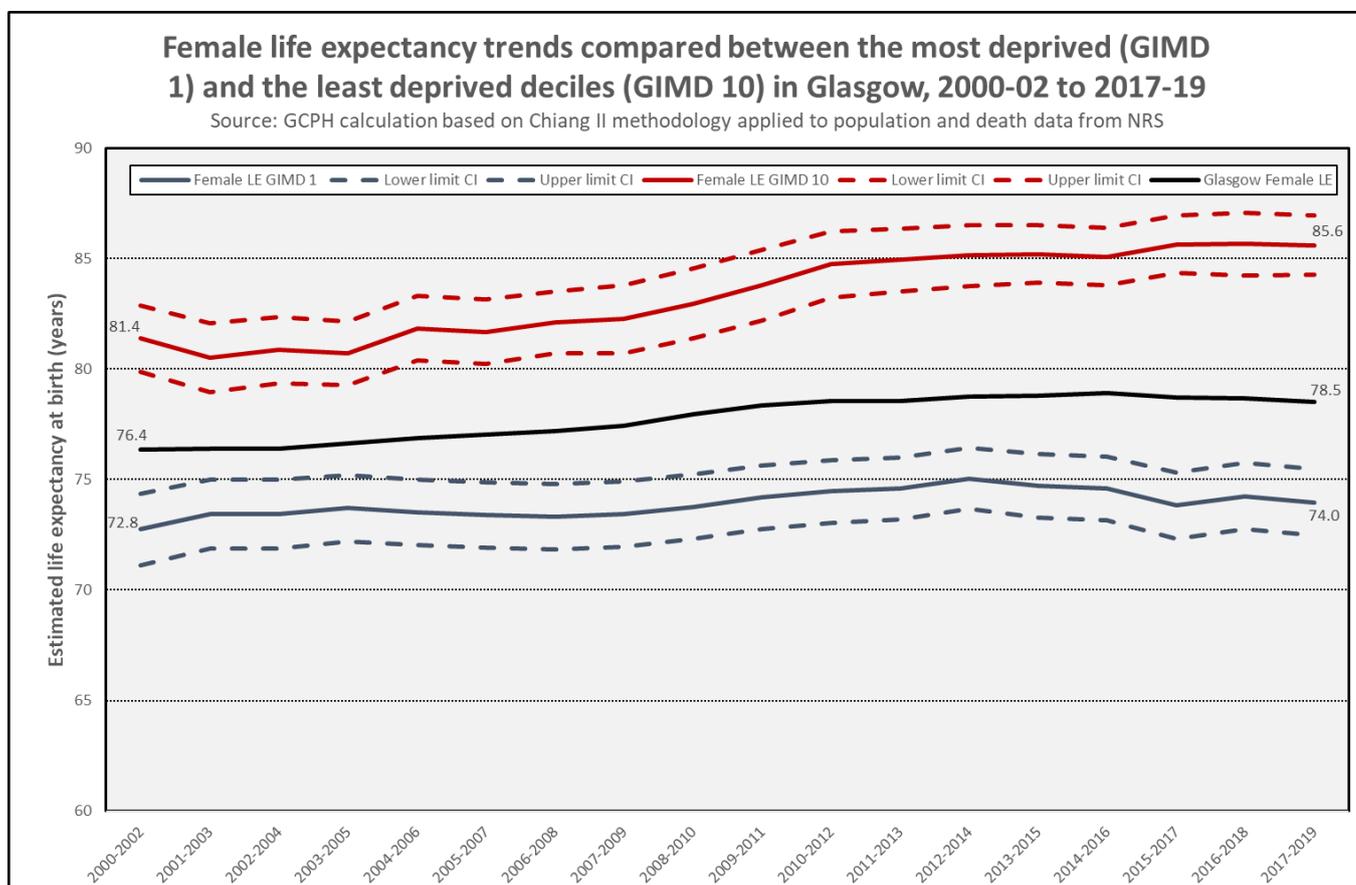
The differing levels and trajectories of life expectancy in the most and least deprived areas can be illustrated further by comparing trends by gender within the most and least deprived deciles (Figures 33a and 33b).

In the most deprived decile (Figure 33a), the gender gap in life expectancy has narrowed from 8.5 years to 6.9 years due to greater improvements in male life expectancy. Male and female life expectancy in this decile has remained unchanged or reduced in the last five to seven years.

In contrast in Glasgow's least deprived decile (Figure 33b), gains in life expectancy have been broadly similar for men and women and the gender gap in life expectancy, which is much narrower than in the more deprived deciles, has remained just over three years. There is also evidence of a slow-down of the improvement in life expectancy from 2010-12 onwards.

Figure 33a and 33b. Male and female life expectancy trends in: (a) the most deprived decile and (b) the least deprived decile, 2000-02 to 2017-19

a. Most deprived decile
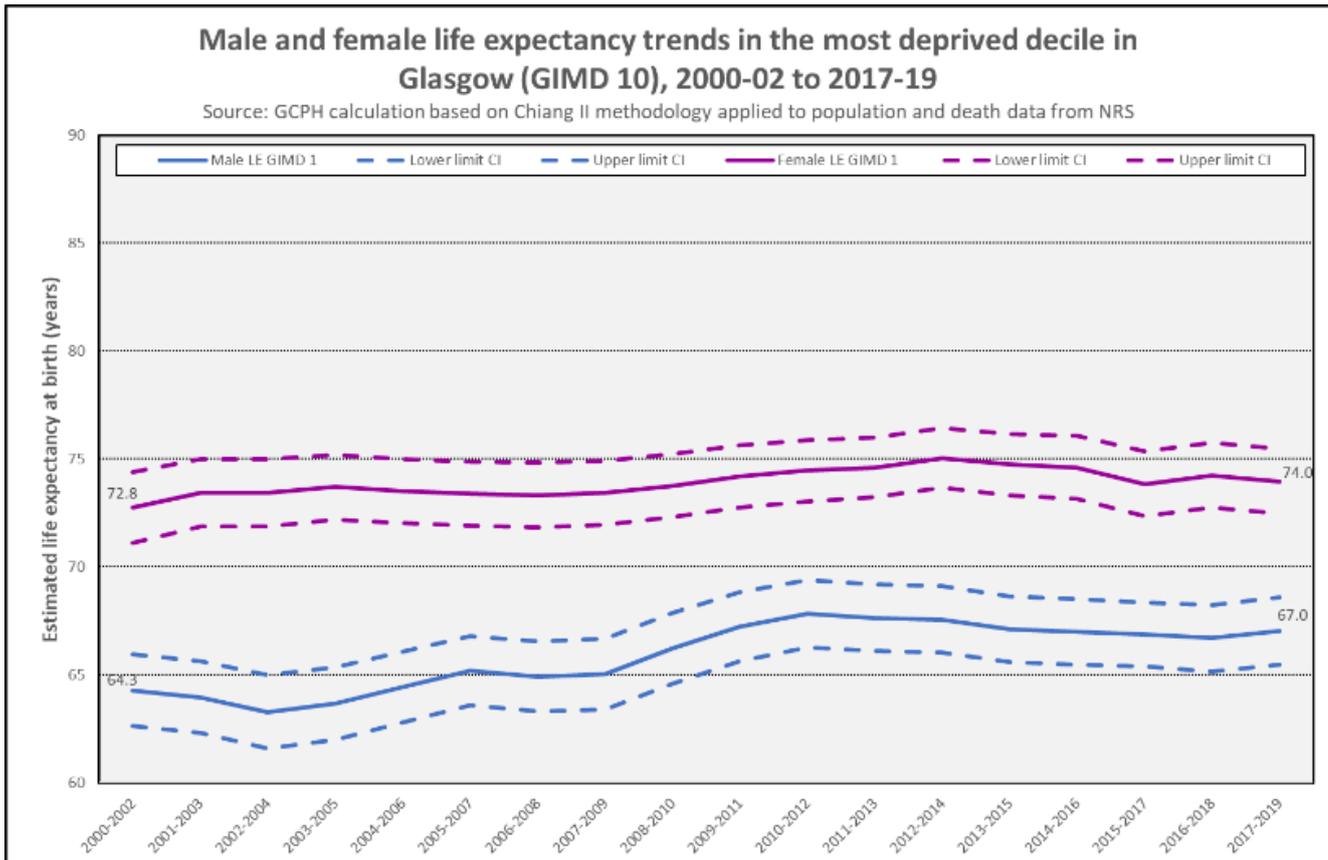
b. Least deprived decile
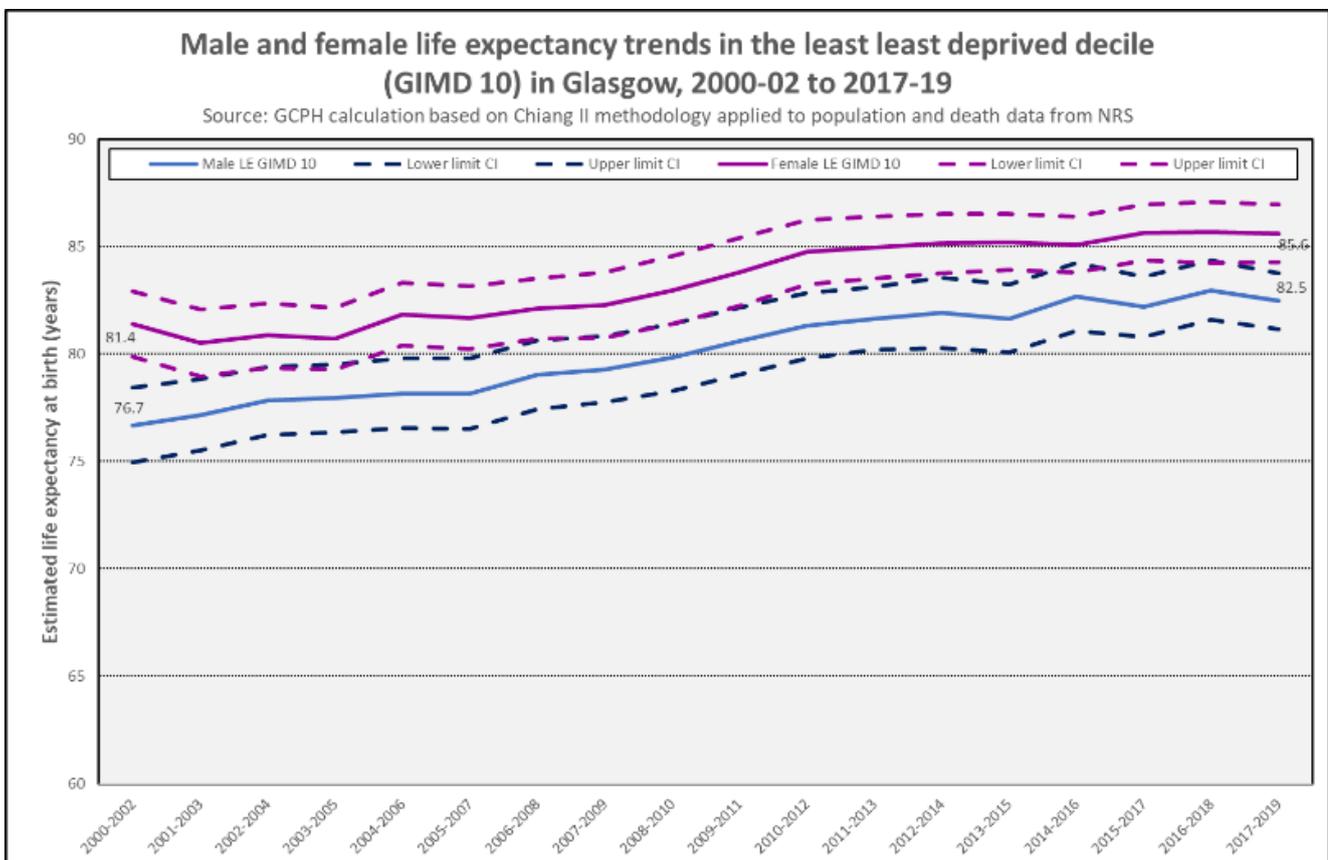
Neighbourhood trends

In 2015-19, the lowest estimate of male life expectancy at birth was in Greater Govan (65.4 years), while the highest was in Pollokshields West (83 years). This represents a gap in male life expectancy of 17.6 years across Glasgow's neighbourhoods (Figure 34). The gap between the neighbourhoods with the highest and lowest life expectancy has widened over time; the equivalent gap in 2001-05 was 15.3 years.

Figure 34. Male life expectancy, Glasgow Neighbourhoods, 2015-2019
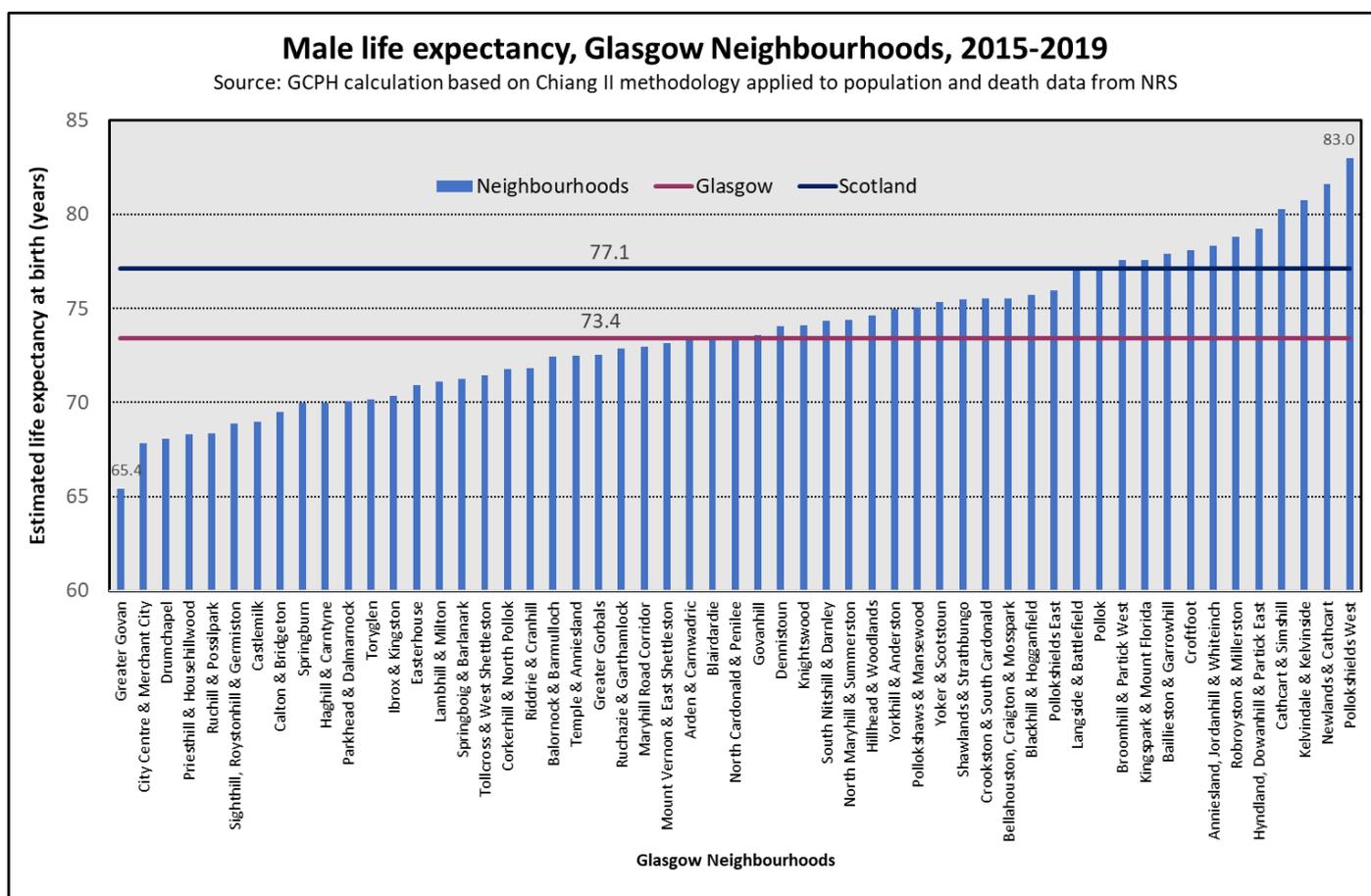
Male life expectancy increased in all but three of Glasgow's neighbourhoods in the period 2001-05 to 2015-19 (data not shown). In six neighbourhoods, estimates of male life expectancy increased by more than seven years. In this period the largest increase was in Greater Gorbals (+9.6 years) while the largest decline was in Blardardie (- 2.5 years).

In 2015-19, female life expectancy at birth was 13.4 years higher in Anniesland, Jordanhill & Whiteinch (86.1 years) than in Ruchill & Possilpark (72.7 years) (Figure 35). This gap between the neighbourhoods with the highest and lowest life expectancy has widened over time; the equivalent gap in 2001-05 was 11.1 years.

Female life expectancy increased in all but three of Glasgow's neighbourhoods in the period 2001-05 to 2015-19 (data not shown). In four neighbourhoods estimates of female life expectancy increased by more than five years. In this period the largest increase was in Pollok (+6.2 years) while the largest decline was in Toryglen (- 2.3 years).

Figure 35. Female life expectancy, Glasgow Neighbourhoods, 2015-2019
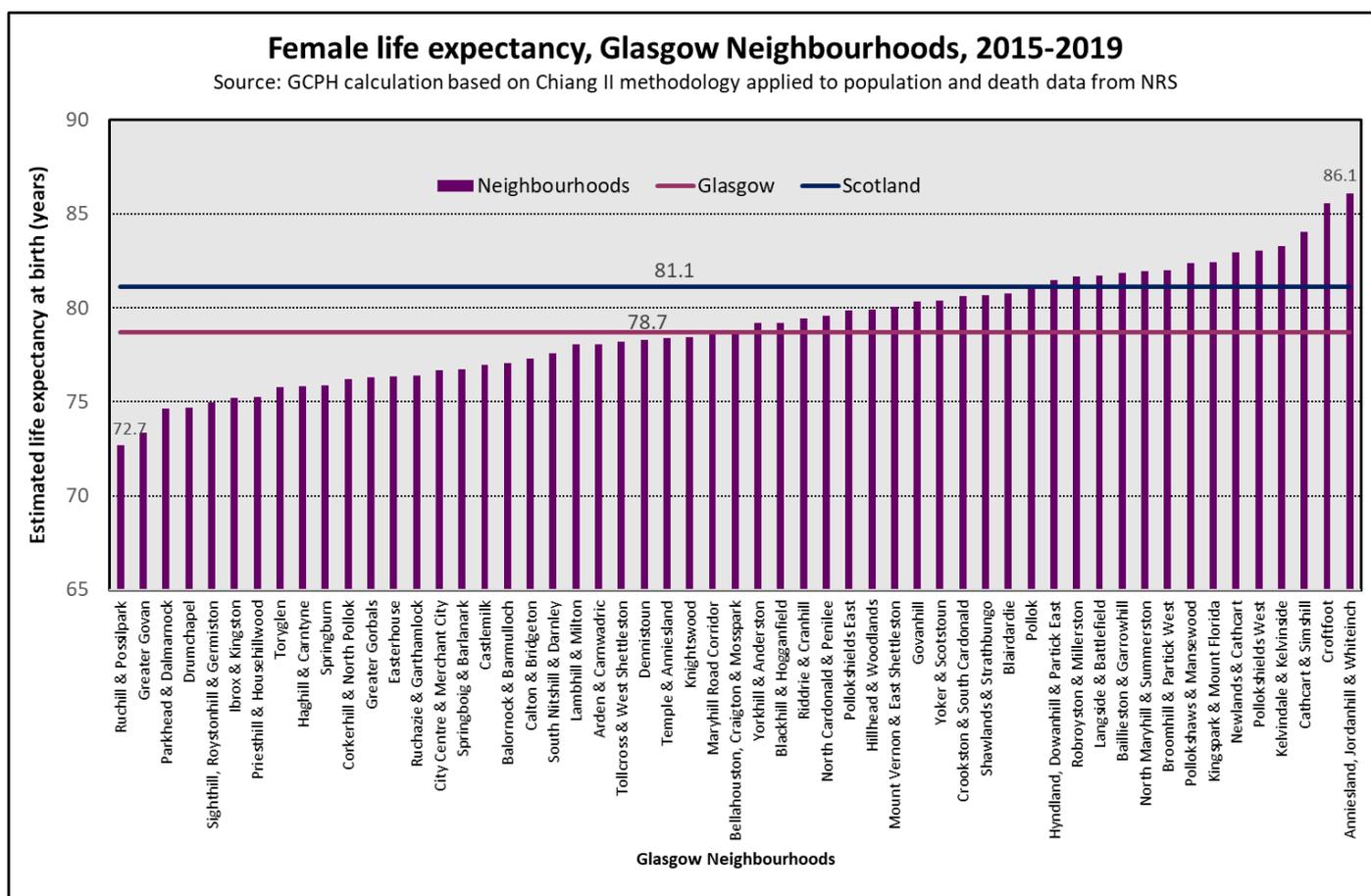
3.4.4 Health-related behaviour trends[lxi]

Health-related behaviours can have positive and negative impacts on health and can moderate or exacerbate the risks of developing a range of chronic diseases. A number of damaging health-related behaviours have a high prevalence in Glasgow, and this is reflected in the city's high mortality rates.

Adult smoking rates have reduced over the last two decades. Nevertheless, just over a fifth of adults in Glasgow are still regular smokers.

It is estimated that six in every ten adults (62%) in Glasgow achieve the recommended weekly levels of moderate/vigorous physical activity. Obesity rates have risen over the last 20 years in Scotland and in Greater Glasgow and Clyde. In the period 2016-19, 28% of adults in Greater Glasgow and Clyde were estimated to be obese.

Alcohol-related death rates in Glasgow rose steeply from the early 1990s, peaking in 2005 and subsequently reducing. In recent years almost 200 people have died of alcohol-related causes each year in Glasgow. Glasgow and Inverclyde have the highest rates of alcohol-related deaths in the city region.

Drug-related death rates have more than doubled in the last five years in Glasgow. In 2019, 279

[lxi] The majority of the figures quoted come from the lifestyle section of Understanding Glasgow - https://www.understandingglasgow.com/indicators/lifestyle/overview

people died due to drug-related reasons, representing 22% of all Scottish drug-related deaths; twice as many men as women died from drug-related causes[170]. The impacts of a range of damaging behaviours, including smoking, violence and alcohol and drug-related harm, have been shown to be more pronounced in the more deprived areas of Glasgow[21 23].

Covid-19 context

The health trends described above precede the Covid-19 pandemic, which has led to large increases in hospitalisations and mortality and has affected certain population groups disproportionately.

By the beginning of August 2021, over 7,900 confirmed Covid-19 deaths had been reported in Scotland[10] and over 10,300 deaths had been registered where Covid-19 was mentioned on the death certificate[9].

Older people have been much more likely to develop serious illness requiring hospital treatment and to die from Covid-19. Despite more women than men having tested positive for Covid-19, the death rate is greater for men than it is for women[171].

The risk of being infected with Covid-19, being hospitalised and dying has been much higher for people who live in more deprived areas[171] and people from the most deprived areas have been more likely to die in hospital when admitted to intensive care than those from the least deprived areas[172].

The Build Back Fairer report highlights that pre-existing inequalities in social and economic conditions before the pandemic contributed to the high and unequal death toll from Covid-19, noting that in England the social gradient in deaths from Covid-19 is almost identical to that for deaths from other causes[173].

Across the UK, people from an ethnic minority background have been shown to be most likely to test positive for Covid-19 and to be more likely to require critical care than White people. In Scotland, in the first wave of the pandemic, people of South Asian background were twice as likely to die as White people[14].

Public Health Scotland showed that during the first and second waves of infection people of South Asian ethnicity were more likely than White people to require hospital treatment, and subsequently die from Covid-19[174]. In England, the mortality risks from Covid-19 are much higher among many ethnic minority groups than they are for the White population[173].

Disabled people experience elevated clinical risk from Covid-19[171] and people living with learning disabilities have been shown to be more likely to test positive for Covid-19, to be hospitalised and to die from the infection[175].

4. Discussion and policy recommendations

In our discussion we summarise the key findings, Covid-19 responses and policy context for each topic covered in the report. We also make specific policy recommendations in relation to most of the topics covered, where we believe there is evidence to support the implementation of new policy.

4.1 Demography

Glasgow's population has grown by over 64,000 people since 2006 and in 2019 stood at 633,000. The greatest growth across all age groups has been in the least deprived areas of the city. The age structure of the population has gradually changed. For the last four decades the proportions of children and older people in the city have reduced as the working age population – those aged 16-64 years – has increased, and now represents 71% of the population. Life circumstances vary markedly across the city. For example, in 2019, 39% of Glasgow's 100,000 children lived in the 10% most deprived areas of Scotland while only 4% lived in the least deprived decile.

It is estimated that 18% of Glasgow's population was born outside the UK in 2019/20. Data from schools reveals further how Glasgow has become more diverse. In 2019/20, pupils from minority ethnic communities accounted for nearly one-quarter of all pupils in Glasgow's schools and 4% of pupils were from asylum seeker or refugee families representing over 3,000 pupils.

In the majority of Glasgow's neighbourhoods, the population has increased in the last 20 years, with the largest rises in the city centre and areas close to the centre. Increases in housing stock are associated with these population increases. In many communities across the city there has been investment in housing, regeneration and neighbourhood renewal – which has been documented by the GoWell research programme[lxii]. Regeneration activities continue in areas like Sighthill and in the east of the city through the work of Clyde Gateway[lxiii].

In 2018, across Glasgow 45% of dwellings were owner occupied, 20% were privately rented and 36% were socially rented. However, the mix of tenure varies considerably at a neighbourhood level and there has been a clear increase in private rented accommodation in the last two decades. Approximately 44% of households were single-person households across Glasgow in 2018.

Official NRS population projections from 2018-2043 forecast 6% growth in Glasgow's population over the next 25 years. Separate research projections have predicted that the non-White minority ethnic population of Glasgow could grow to 19% by 2031[176]. However, these estimates were made without knowing the full impact of Brexit and pre-date Covid-19. The pandemic has limited population movement since March 2020 and may have longer terms impacts which are difficult to predict.

Notwithstanding these caveats, it is likely that Glasgow's population will become older, with the most recent forecast that the population over 50 years of age could rise to represent 36% of the population by 2043. Over the same period the number of households and single-adult households

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[lxii] https://www.gowellonline.com/
[lxiii] https://www.clydegateway.com/

are forecast to increase, although these trends are highly correlated with population, housing and economic trends which are less certain as a result of Brexit and Covid-19.

This report has highlighted inequalities in health, economic opportunity, housing and poverty experienced by minority ethnic communities both prior to and during Covid-19. However, detailed demographic data, including ethnicity and other aspects of people's lives, are only collected once every ten years via the national census and data on ethnicity is often missing or incomplete in many administrative systems. This prevents routine analysis of data by ethnicity and comparisons across ethnic groups. In addition, there is a lack of information on asylum seekers and refugees, thousands of whom have been housed in Glasgow over the last decade. More comprehensive and accessible information on ethnicity and asylum seekers and refugees across the public sector would provide better intelligence for assessing need and planning services. The routine collection of better and quality data would help to understand the needs of all communities in the city and plan for better services.

There remains a persistent tendency to define race and understand racial differences in terms of underlying genetic homogeneity and innate biological differences. While there may be biological aspects to race, genetic or biological factors are not the central defining characteristics of race and are unlikely to be the primary sources of racial differences in health[177]. Racial discrimination is a recognised social determinant of physical and mental health, and a driver of ethnic inequalities in health at a structural and individual level[178]. Yet, studies of the relationship between racial discrimination and health, particularly in a UK context, are still in their infancy and subject to several limitations. For example, many studies rely solely on single-item measures of discrimination or are focusing exclusively on major experiences of discrimination and not recurrent microaggressions[177,178]. While these studies are indeed invaluable to furthering research and understanding of the experience of racism, overall, the data collected does not fully represent the lived experience of all aspects of racial discrimination nor does it provide opportunities for comparable statistical information[179].

The absence of systematic data on ethnicity and racial discrimination in research serves to dismiss the lived experience of people from a non-White or minority population and inhibits further understanding of the drivers of health inequalities. Categorisation by ethnicity alone can serve to dilute and disguise disparities between ethnic groups but its collection in conjunction with data on racial discrimination (for example, using the Everyday Discrimination Scale[180]) has the potential to strengthen understanding of the diverse range of experiences. It is imperative that we better understand the impact of racial discrimination on access and service use across the city, however collection of better and good quality data is only one aspect and action is required across the systems to dismantle systemic racism and drive the development of equitable policy and services. Ultimately, minority ethnic people and communities should be closely involved in any initiatives for improving ethnicity and racial discrimination recording and in the re-design of services.

> **Policy recommendation**
>
> To enable a better understanding of the experiences and needs of people from minority ethnic groups and to plan services equitably, we recommend the following:
>
> 1. Make ethnicity a mandatory field on public records with data quality monitoring at local and national levels to ensure good quality data.
> 2. Researchers, planners, and policy makers adopt measures of racial discrimination (such as the Everyday Discrimination Scale) to assess the impact of racism on physical and mental health.
> 3. Data linkage to the census would allow for long-term monitoring and research of ethnic inequalities in health. Caldicott Guardians should be supported to understand how racism and racialisation plays out in the systems of data collection and analysis to inform their responsibilities regarding the lawful and ethical processing of information[181].

4.2 Housing and homelessness

There were over 5,200 households assessed as homeless or threatened with homelessness in Glasgow in 2020/21, accounting for 7,632 people. Children represent 25% of people assessed as homeless, which is a disproportionately high figure. There are also high numbers of people facing destitution and multiple disadvantage, particularly in Glasgow. Even for those who are housed, around a third do not have access to affordable, safe and secure housing – and this disproportionately impacts Black and Asian families, disabled people, single mothers and the LGBTQ+ community.

Affordable housing and homelessness are issues of priority in policy. In March 2021, the Scottish Government published their vision for housing for the next 20 years with an overall aim that everyone should have "a safe, good quality and affordable home". Within this strategy are commitments to expand social and affordable housing stock (by building a further 100,000 affordable homes by 2032), to decarbonise the heating of homes, to legislate to strengthen tenants' rights and to improve the housing rights of people experiencing domestic abuse[182].

The government has also committed itself to deliver on the Ending Homelessness Together action plan produced by the Homelessness and Rough Sleeping Action Group in 2018[183]. The plan focused on ending rough sleeping, moving activity and funding towards prevention, with rapid re-housing and less emphasis on temporary accommodation. The goal was to get households with low support needs into appropriate, permanent, and secure housing as quickly as possible, and for those with higher support needs to be placed in 'Housing First' projects[lxiv].

This emphasis on preventing homelessness was taken forward by the Prevention Review Group[184], who produced recommendations for prevention in February 2021[185]. These focused on: the collective responsibility of all public services to prevent homelessness; the need for interventions to happen as early as possible; and the importance of giving people choice over their housing situation. They also recognised equalities issues, which groups were most likely to experience homelessness and what types of homelessness issues different groups faced. The recommendations of both the Homelessness and Rough Sleeping Action Group and the

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[lxiv] Housing First also offers permanency and security of tenure, but with personalised support which continues for as long as it is required in order to help tenants maintain their tenancy.

Prevention Review Group have incorporated the voices and insights of people who have experienced homelessness themselves and of front-line workers in housing and homelessness.

The action plan was updated during the pandemic. It included a range of measures that place even greater emphasis on the prevention of homelessness and built on the collective response to Covid-19, which resulted in a dramatic reduction in rough sleeping[186].

During lockdown, evictions were paused across the UK, preventing homelessness for many of those struggling to pay rent. However, rent was still due, and so tenants who could not afford rent due to reductions in their income have either accrued arrears or taken on debt. Some organisations have expressed concern that when lockdowns come to an end and evictions are again allowed, this will result in a surge in homelessness[187]. The Scottish Government is working with stakeholders to develop a Rented Sector Strategy and has committed to reform Rent Pressure Zone legislation to help combat high rents in a localised way[182]. This may improve affordability in the longer term.

Locally, Glasgow faces particular challenges due to the scale of homelessness in the city. Glasgow City Council work in partnership with registered social landlords to prevent homelessness and to rehouse those who are homeless. Glasgow City Council appointed the Glasgow Alliance to End Homelessness in 2019, after a tendering process[189]. The Alliance was formed by experts across the third sector, from social housing, support organisations and lived experience groups. The group works alongside the Council and the Health and Social Care Partnership, sharing their duties and responsibilities to provide and commission services to reduce homelessness[190].

Glasgow's Housing Strategy 2017-2022 outlines the city's existing housing priorities, which include: promoting area regeneration and enabling investment in new build housing; maintaining and improving the existing housing stock; raising management standards in the private rented sector; tackling fuel poverty, energy inefficiency and climate change; improving access to housing across all tenures; and promoting health and wellbeing[191].

The city's rapid re-housing plan set targets for 2024[188]. These aimed to reduce the average time spent in temporary accommodation from 40 weeks to 17 weeks. This had fallen to 33 weeks in 2020, although that was an increase on the 2019 figure. The plan also detailed the commencement of 612 new Housing First tenancies. As of 30th June 2021, there had been 214 Housing First tenancies started in the city (the target for the end of 2021 is over 300), with an 82% sustainment rate (compared to the Scottish average of 84%) and zero evictions[192]. Lastly, the rapid re-housing plan included the building, as a 'minimum target', of at least 7,500 new affordable homes. By the end of 2020, over 3,000 had been built, with 4,700 more planned by the target date of 2024[193]. As we emerge from the pandemic, homelessness policy will need to balance maintaining the positive changes that saw rough sleeping numbers drop during the pandemic, whilst reducing waiting times throughout the system. Across the UK, during the pandemic, house prices continued to rise while the economy shrank[37]. This protected homeowners, but could result in a deeper affordability crisis, particularly for tenants in the private rented sector who lost income during the pandemic. As the halt on evictions is ended, housing affordability will need to be addressed to prevent homelessness in the longer term.

Policy recommendations

Provision of affordable housing and addressing homelessness are clear policy priorities for the Scottish Government and Glasgow City Council. Our recommendations build on the positive work that is already being undertaken.

1. Access to safe, affordable housing needs to be improved and made more equal. Work on housing building and on improving the quality of existing housing is required, but there is also a need to look at how the housing economy is structured and how housing costs are determined. This must work alongside changes to the wider economy that can give people better and more equal access to secure and good quality work, which pays enough to keep them out of poverty.

2. Housing and homelessness prevention policy needs to support people struggling financially in their tenancies beyond the end of the halt on evictions, and to use homelessness statistics to target prevention work where it is most needed.

3. Maintaining the reduction in rough sleeping seen during the pandemic and reducing time spent in temporary accommodation will require continued funding for prevention, rapid re-housing, and accelerating the availability of affordable homes.

4.3 Socioeconomic circumstances

Recent revisions to the Scottish Index of Multiple Deprivation show that Glasgow has become relatively less deprived compared to other parts of Scotland. The majority of Glasgow's neighbourhoods have improved their deprivation ranking and there is some association between such improvements and increases in population and new housing being built, although not for all neighbourhoods. Despite this trend, Glasgow remains the most deprived city in Scotland, with 28% of residents living in the most deprived decile in Scotland.

Levels of in-work poverty in Scotland have increased over time, particularly from 2012 onwards, reflecting zero-hours contracts, low pay, and precarious employment. The most recent estimates (from 2016-18) suggest that 25% of households in Glasgow were fuel poor and 11.4% were extremely fuel poor.

Food insecurity has emerged as a key manifestation of poverty. Recent research showed that people in the most deprived decile in England/UK needed to spend 76% of their disposable income to eat a healthy diet. Covid-19 further compromised people's access to food, with food insecurity rates rising during lockdowns. This particularly affected people who had lost work, disabled adults, households with children and food sector workers.

Between January and December 2020, Glasgow had an employment rate of 69.9%. In contrast, the employment rate in Glasgow City Region was 72.2%, lower than in Scotland (73.5%) and the UK (75.3%). However, Glasgow's rate had risen by 2.3% since 2019, whereas that of the GCR had remained the same and those of Scotland and the UK had dropped during the pandemic. Employment rates in Glasgow, and throughout the UK, have been consistently lower for disabled people and for ethnic minorities.

In 2019, Glasgow continued to have the highest proportion of population claiming out-of-work benefits among the Scottish cities, but this proportion had been falling. During Covid-19, Universal Credit claims rose sharply across the UK, increasing by 82% in Glasgow, and particularly for young people aged 16-24 years.

Covid-19 and the associated restrictions changed the nature of economic participation in several ways. Some employees faced job losses and reduced income on furlough schemes; others were able to adjust and work from home. These impacts were felt unevenly – with those already in the lowest paid jobs most negatively affected financially. Young people, Black and Asian workers and women were most likely to work in the sectors and jobs that were hardest hit.

Although Covid-19 has had a huge economic impact, which will continue to be felt for years to come, many of the issues that Glasgow, the GCR and Scotland face were already evident before the pandemic. Poverty has been getting worse across Scotland in recent years, with larger proportions of children and pensioners experiencing poverty, and figures for those of working age showing no improvement[39]. This is also unequally experienced by different groups, with disabled people and ethnic minorities more likely to experience poverty. In-work poverty has been increasing; fuel poverty has been decreasing, but extreme fuel poverty is rising; and food insecurity has become both more visible and more prevalent.

There is evidence that these worsening poverty trends are associated with effects of the UK Government's austerity policies, which in turn have been linked to stalling life expectancy improvements across the UK, rises in mortality rates in deprived areas and widening health inequalities.

Economic planning at a regional level is done by the Glasgow City Region Cabinet. By 2019/20, over £275 million had been spent on the City Deal programme. This money went to infrastructure and business support, as well as to skills and employability projects, with the aim of adding £2.2 billion into the GCR economy per year[194]. In line with national plans, there has been a focus on making the economy more inclusive and more sustainable.

Recovery planning advice has been given from various perspectives. Third sector groups such as the Poverty Alliance[195] and JRF[39] have set out priorities, considering the need to increase and extend support given during the pandemic, extend access to basic services and look at progressive reforms to taxation. JRF also argue that, "Scotland's recovery, if it is to be successful, must be shaped directly by those with experience of living in poverty, at every stage, as equal partners"[39].

The Scottish Economic Advisory Group, convened by the Scottish Government, produced a paper with 25 recommendations[196]. These focused on a high-level financial strategy, such as a need for greater fiscal flexibility and changes to investment strategy, and on committing to Fair Work and prioritising green investment and Community Wealth Building strategies. They highlight issues in the care sector and the importance of digital investment, to tackle the digital exclusion which has become an even more acute problem during Covid-19. The Connecting Scotland programme has offered £26 million of funding between May and July 2021, for organisations that can provide devices, data and training in online skills to digitally excluded people[197].

The Social Renewal Taskforce's report 'If Not Now, When?'[68] also noted the importance of a Green and Fair Work based recovery. It drew attention to the need for extended free childcare and reductions in the barriers to employment that bring about inequalities. It called for a Minimum Income Guarantee for all and debt-write-off schemes to combat unsustainable debt taken on during the pandemic. It summed up the task of renewal as one of accelerating the system change that was previously planned, rather than using the pandemic as a reason to postpone it.

At the city region level, the GCR's interim recovery report[62], produced in December 2020, prioritised: protecting jobs and businesses, re-skilling residents, stimulating new economic opportunities – including a focus on green economic growth, with plans to begin a housing

retrofitting programme – and supporting businesses and communities to adapt – including taking a Community Wealth Building approach to vacant and derelict land.

The Glasgow Economic Recovery Group[61] was convened to give more local recommendations for the city of Glasgow. This focused on targeted employment schemes such as the Young Person's Guarantee, Partnership Action on Continued Employment – to target the newly unemployed in older age groups –, and the European Social Fund.

All noted the continued importance of planning for a sustainable economy, Fair Work and Community Wealth Building. Priorities for a green economy and Community Wealth Building are described in the environment section of this report.

Most recommendations highlighted a need for secure employment, of good quality, that pays enough to keep people out of poverty and meets Fair Work requirements. Recommendations have asked that employability schemes be targeted towards those groups who already faced barriers to employment before the pandemic, and who have had the worst experiences during it[196,68,62]. This includes: women, and particularly women from ethnic minority communities, who have been more likely to work in care, cleaning and retail; minority ethnic groups, who were more likely to work in the 'shut down' sectors during Covid-19 across the UK, particularly hospitality; and disabled people, who reported additional employment barriers, and frustration that flexibilities were only offered when the pandemic meant than non-disabled workers needed them also[58,68]. The Glasgow Economic Recovery Group also highlighted the need to reduce barriers to employment for lone parents, people with long-term health conditions, ex-offenders and people who had experienced homelessness or addictions.

Young adults, and in particular young adults from an ethnic minority community, were most susceptible to job losses and worsening employment conditions. These outcomes are likely to have long-reaching scarring impacts throughout their careers, if not mitigated. The Young Person's Guarantee is designed to target this group. The Guarantee will mean £120m of spending in Scotland, with £4.3m spent in Glasgow in 2020/21, and will guarantee that young people aged 16-24 years have an opportunity to either learn or gain work experience[198].

Other recommendations focused on employment sectors, such as the care sector, where changes to structure, funding and regulation could better align care work with Fair Work standards[195]. The 2021 SNP manifesto committed to creating a new National Care Service for Scotland which it states will improve standards, enhance pay and conditions and provide better support for unpaid carers[199]. Several of the recovery recommendations also highlight the need for wider recognition, and higher benefits support, for unpaid carers[199]. More generally, increases to benefits made during the pandemic could help mitigate inequalities over a longer period if kept in place or extended[39].

The Glasgow City Food Plan[59] has various recommendations which are relevant to poverty and the economy. In total there are 76 actions across six themes. The food poverty section supports cash-first interventions, which give people the money to choose and buy food, rather than providing food directly, as is done in food banks. The food industry in Glasgow is a huge employer which provides over 5000 jobs (or 8% of employment) in the city. However, these jobs are not always well-paid. This contributes to issues of affordability, both of food and of other essential living costs.

4.4 Child poverty

The 2017 Child Poverty Act[200] has targets to reduce child poverty in Scotland. By 2030, there should be less than 10% of children living in relative poverty. Strategies and theories of change focus on three key drivers: maximising income from employment, maximising income from benefits, and reducing the cost of living[201].

Research undertaken in 2020 found that there were around 36,000 children living in poverty[48], while the 2019/2020 child poverty action plan for Glasgow[202] estimated that without intervention the number of children in poverty in Glasgow could increase to 50,000 by 2021.

Before Covid-19, child poverty was rising across Scotland[203,204]. A Joseph Rowntree Foundation (JRF)[39] report published during the pandemic found that, despite its commitments, the Scottish Government was not on course to meet its interim child poverty targets – which required a fall of a quarter by 2023.

A key part of Scottish Government policy to address child poverty has been to introduce the Scottish Child Payment (SCP) for low-income families. This payment was initially set at a rate of £10 per week per child. By May 2021,17,330 applications had been made in Glasgow[205]. The SNP 2021 manifesto committed to doubling this payment[199].

JRF[39] calculate that the interim Child Poverty targets could be met if the SCP is increased to £30, and the Universal Credit increases introduced by the UK Government as a response to Covid-19 are maintained. However, they point out that the 2030 targets are more ambitious and will require structural changes – such as affordable housing and better working conditions[206].

The Fraser of Allander Institute also noted the importance of social housing and free childcare policies to the long-term reduction of child poverty[207]. The Scottish Government had initially intended to extend the funded early learning and childcare from 600 hours to 1,140 hours per year (for all children aged three and four years, and some eligible two-year-olds) which was paused due to the pandemic but will come into force from August 2021[208]. The Social Renewal Taskforce called on the Government to increase funded childcare to 50 hours per week for all children aged six months to five years[68]. There is strong evidence that free or affordable childcare reduces household costs in the immediate term, and can help reduce barriers to employment and study, particularly for women. This improves household income, reduces poverty in the long-term, and can have a positive impact on gender inequalities in the workplace and the gender pay gap[209].

The Glasgow City Food Plan theme on 'children and young people' considers how children can be given the chances to eat more healthily and to be more involved in decisions made around their diets, both in and around school, and at home.

Post-Covid-19 planning for the city and region has focused on the need for a just and sustainable economy, prioritising secure and Fair Work that can keep people out of poverty and is targeted at groups which face additional barriers to employment. Some sectors of employment, such as care and the food economy, do not provide sufficiently well paid and secure jobs for all workers and so contribute to in-work poverty, despite being identified as essential during the pandemic. We support the long-term aims of the newly launched food plan, which include improving access to healthy affordable food and building a thriving local food economy which promotes fair work and principles of sustainability. A greener, more sustainable economy is also needed, supported by the principles of Community Wealth Building.

Policy recommendations

Given the connection between health and the economy, we have included recommendations about the direction of economic policy in the health section. However, the discussion within this section has also highlighted these specific policy recommendations:

1. Policy needs to re-evaluate how to better compensate workers in the sectors of the economy that society deems to be essential (in particular in the care and food sectors) which do not currently offer people a wage they can live on.

2. Community Wealth Building and sustainable policies need to be put into practice more widely in economic planning, incorporating economic solutions that prioritise the common good and are not wholly reliant on growth.

3. Benefit increases and the pausing of benefit sanctions, which were instated during the pandemic (e.g. the Scottish Child Payment, increases to Universal Credit) need to be maintained, and to target groups we know are worst hit (e.g. lone parents); but economic policy also needs to take a longer-term, more structural approach to reducing and ending poverty, that encompasses work and housing.

4. To ensure that economic planning works as effectively as possible to reduce poverty, those with direct experience of poverty must be included in decision making.

4.5 Education

Glasgow's school roll has risen to nearly 70,000 pupils in line with growth in the city's overall population and nearly a quarter of pupils come from a minority ethnic group. There have been expansions to pre-school education and by 2019 there were over 10,500 children in Glasgow registered with an early learning or childcare centre. The percentage of young people in Glasgow leaving with good qualifications has increased steadily in the last decade. In 2019/20, 92.8% of school leavers from the city had a positive destination and 71% went onto Higher or Further Education. Covid-19 related disruptions to schooling, including school closures, the requirement to learn on-line and not being able to mix with other pupils are likely to have affected many pupils' ability to learn, their educational performance and their mental health in the short-term; longer-term impacts may become apparent over time.

A government economic advisory group warned of the risk of the socioeconomic gap in educational achievement widening as a result of the pandemic restrictions and disruptions, advising on the need to assess learning loss and ensure that pupils are fully supported as schools return, in order to mitigate the risk of reduced educational attainment, particularly among disadvantaged groups[196].

A previous report by GCPH looked in-depth at childcare provision in the east end of Glasgow. This study made a number of recommendations about the expansion of childcare – which accord with points made earlier in the child poverty discussion – and which have wider relevance in the context of building back fairer beyond Covid-19. These included: increasing the capacity of

childcare services to meet demand, providing flexible childcare options for families, and extending funded Early Learning and Childcare (ELC) to children who are not currently eligible[209]. These

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Policy recommendations

These recommendations are aimed at national and local government and are about creating a fairer and more resilient learning and childcare environment for the future. Additional actions will clearly be needed to tackle educational and work-related inequalities and to adapt to the increasing diversity of school populations.

1. The capacity of childcare services needs to increase, more flexible childcare options are needed for families and funded Early Learning and Childcare (ELC) should be extended to all children aged six months to five years. This will improve the affordability of ELC for low-income groups and help increase women's participation in the workforce.
2. Steps should be taken to mitigate the impacts of digital exclusion in education for at risk families by ensuring affordable access to digital technology and by enhancing digital skills among those most in need.

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changes would improve the affordability of ELC for low-income groups, one-parent households, and families with multiple children, as well as increasing women's participation in the workforce.

4.6 Social capital

Prior to Covid-19, only one-fifth of Glaswegians felt they could influence decisions in their local authority and democratic participation in elections has been lower than in other parts of Scotland for a long time. Additionally, people's levels of trust, participation in volunteering and their views of local areas differ greatly across communities, especially in relation to deprivation. Lower levels of trust, satisfaction with local neighbourhood and volunteering, and greater social isolation are reported in the most deprived areas.

During the pandemic, direct social interaction decreased as a result of restrictions on work and travel, and social distancing rules. Consequently, feelings of loneliness and anxiety increased during this period. Feelings of loneliness and social isolation were greater among disabled people and people living in more deprived communities. People with limited or no access to digital media and those lacking digital skills have been excluded from these means of communications and ways of accessing services; disabled people have been particularly affected in this way during lockdown[70]. Economic advice to the government on how to manage a resilient recovery has also focused on the need for a systematic approach to addressing barriers to digital inclusion, including affordability, skills and access to devices[196].

There is some UK-wide evidence that the pandemic has brought people and communities together. Volunteering has increased with thousands of mutual aid groups being set up and other pandemic related volunteering programmes. Higher levels of social support, cohesion and trust, and pre-existing social networks helped enable this in some areas but increases in volunteering have not been evenly distributed across the population.

Interestingly, levels of democratic engagement do not seem to have been negatively affected by the pandemic. Turnout for the Scottish Parliamentary election rose to its highest ever level in May

2021 and increased across all eight constituencies within Glasgow; this election[lxv] also saw two ethnic minority women elected to the Scottish Parliament for the first time and the number of female parliamentarians rise to 58, representing 45% of all MSPs[210].

During the pandemic other forms of engagement and protest have emerged, even in a period when meeting together has been difficult or prohibited. Protests against racial discrimination and racially motivated violence have found a focus through the 'Black Lives Matter' movement both globally and locally[lxvi]. In separate circumstances, the well-publicised community protest against attempts by Home Office immigration officials to detain two Indian immigrants in Pollokshields in

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Policy recommendations

1. There is an opportunity to harness and build on these examples of solidarity and community cohesion during the pandemic to enhance and build greater cohesion and trust across all communities.
2. Similarly, to tackling digital exclusion in education, Government needs to tackle the digital deficit across society to ensure that there is comprehensive and affordable access to digital technology and that there are alternative ways of providing services and information for those people who face difficulties using digital media.

Glasgow in mid-May 2021 provides a clear demonstration of community solidarity against a perceived wrong[211].

4.7 Community safety

There has been relatively little analysis of crime trends in Glasgow during the period of the pandemic, but preliminary evidence suggests that there have been fewer reports of shop lifting, burglaries and vandalism, which may in part be related to Covid-19 restrictions[93]. Recorded crime trends in England and Wales show similar trends with overall recorded crime reducing by 8% in 2020, reductions of over a quarter in thefts, shoplifting and burglary, and more modest reductions in violent crimes. These reductions largely coincided with periods of the national lockdown[212].

The number of domestic abuse charges across Scotland is also at its highest since 2015-16, and there has been an increase in the proportion of charges resulting in court proceedings. The number of reported sexual harassment offences in Scotland have more than doubled in the last ten years, with the highest numbers occurring within areas of Glasgow. On the other hand, there has been a reduction in reported crimes associated with prostitution.

At first glance these findings suggest an increase in gender-based crimes in Scotland and a reduction of violence within the prostitution industry and although these are possibilities, these fluctuations are instead likely to be influenced by the *reporting* of crimes.

The legislative change in 2019 to the Domestic Abuse (Scotland) Act has made positive inroads into redefining domestic abuse by acknowledging that coercive control and psychological and emotional abuse are also forms of violence (the law previously focused solely on physical violence)[213]. It is notable that the increase in reported incidents of domestic abuse and in prosecution of perpetrators seen in Scotland since 2019 coincides with this change to the law and associated police officer training[214,215].

[lxv]https://www.understandingglasgow.com/indicators/social_capital/voter_turnout/scottish_parliamentary_elections/glasgow_constituency_trends
[lxvi] https://www.bbc.co.uk/news/av/uk-scotland-52959331

Despite an increase in reported offences, sexual harassment remains widely under-reported, and this appears to be heavily influenced by how sexual harassment is perceived among victims (typically females)[87]. For example, research shows that some actions are widely considered among females as obvious sexual harassment (e.g. up-skirting and flashing), while other actions (wolf whistling, commenting on women's appearance) divide opinion. These differences in perceptions of what constitutes sexual harassment are most apparent across the generations, and between men and women[83]. Generational differences could be connected to a shift in social perceptions in recent years. In the same way that the Black Lives Matter movement has helped progress the understanding of systemic racism and the more subtle and nuanced racisms that exist in society (i.e. unconscious bias, gaslighting, microaggressions), the #MeToo movement has also helped to shape public understanding of similar and more subtle instances of sexual harassment[216].

The reduction in reported crimes associated with prostitution suggests a reduction in violence within the industry but it is more likely that this reduction is because of the growth in 'off-street' prostitution. As brothel-keeping is illegal in the UK then any form of indoor prostitution carries a greater risk of criminalisation, which in turn impacts on the reporting of crimes. In short, people are less likely to report a crime associated with prostitution if they are working within conditions which are associated with illegal activity. The experience of violence and sexual victimisation within prostitution is commonplace yet rates of reported crimes are low due to stigma, fear of criminalisation, and the assumption that complaints will not be taken seriously by the police. Fears surrounding criminalisation are more pronounced among females with children who are reluctant to seek support due to fear of child protection issues[217]; and females from minority ethnic groups as they may have experienced racism from public services when working in prostitution and in their private lives[89]. Some suggest the so-called 'Nordic' model, which criminalises the clients rather than the individuals working as prostitutes, has the potential to improve working conditions for people involved in prostitution[218]. Yet, after Ireland introduced the Nordic model in 2017 there was a 92% increase in violent crime associated with prostitution. It is argued this model gives clients stronger bargaining power therefore people working in prostitution are more likely to take increased risks to adapt to client demand: thus, trapping them in a cycle of criminalisation, marginalisation, victimisation, and social exclusion[89,218]. Evidence surrounding the negative impact of the Nordic model is unclear and needs further examination, particularly in partnership with people working in prostitution.

Under-reporting of crimes is not exclusive to women in Scotland, but it does appear to be connected to sub-groups of the population who experience marginalisation or discrimination. The recent publication by the HM Inspectorate of Constabulary of Scotland has highlighted that under-reporting is also prevalent among hate crimes and some of the key issues which contribute to this include: a lack of, or inadequate, police officer training; limitations of IT systems; problems with data collection; and a general under-reporting among the population[219]. Learning from this report, including the recommendations put forward, is likely to be transferable to the under-reporting of domestic abuse, sexual harassment, and crimes relating to prostitution.

The (2018) Scottish Government's Equally Safe strategy acknowledges that gender-based violence can damage health and wellbeing, limit freedoms and potential and is a violation of human rights[220]. In recent years multiple policies have supported this perspective to make Scotland a safer place for women. As society moves out of the lockdown measures arising from Covid-19, recovery plans present an opportunity for a concerted cross-stakeholder effort to enhance female safety in all aspects of their lives. Yet, until every area of Government and wider society prioritise and address systematic gender inequalities, then it will be impossible to fully eliminate harassment and violence from females lives in the long-term.

Policy recommendations

1. The Scottish Government should lead a national inquiry into sexual harassment in all aspects of females lives in Scotland (including those who identify as female), like that carried out in Australia in 2020[221.] This should capture the lived experience of females and offer strategies in tackling this issue in the long-term such as confidential reporting mechanisms within the workplace, schools, public spaces etc that give people the confidence that reporting would prevent it happening again. In the interim, preventative educational measures which frame sexual harassment as gender-based violence should be introduced into the curriculum for excellence. It is not only necessary that educational measures change the attitudes and behaviours which drive sexual harassment among young people but that these measures also *shape* the attitudes and behaviours of future generations.

2. A greater focus on gendered perspectives and lived experience is necessary when planning public spaces, transport systems, services etc, and can be achieved via place-based participatory planning with women and girls from the local community. This same approach should be adopted when planning services and proposed legislative change for people working in prostitution. By excluding the very people whom the law is designed to protect or excluding those who use the services or public spaces, contributes to defining them as the problem and the key issues in their lives become overlooked.

4.8 Environment

Scotland's environmental policy is driven by the climate change emergency. The strategies to achieve the Scottish Government target of net zero emissions of all greenhouse gases by 2045[222] demonstrates how interlinked environmental, health, transport, and social policy have become. Despite this, a recent assessment of the climate challenges for the Glasgow region suggests that, without mitigation, it is the poorest communities, who are least equipped to cope, who will be worst affected by the impacts of increased heatwaves, flash floods, drought and severe weather events[223].

We face many challenges in reducing our emissions of which decarbonising transport is arguably the largest. In the last two decades, car use has continued to grow while bus use has dropped steadily and levels of active travel (in terms of modal share)[lxvii] have remained relatively low, particularly cycling.

Transport accounts for 36% of Scottish greenhouse gas emissions[105] and across Scotland travelling by car continues to be the primary mode of commuting. However, for Scotland and Glasgow to achieve their ambitious climate change targets, reducing the number of vehicles on the road will need to be prioritised if transport emissions are to be reduced. Linked policy to tackle air pollution led to Scotland's first ever Low Emissions Zone (LEZ) being brought into Glasgow city centre in December 2018, and the Scottish Government have committed to phasing out the sale of new petrol and diesel-powered vehicles and are incentivising the use of electric vehicles[224]. However, replacing petrol and diesel-powered vehicles with electric vehicles may not have as significant an effect on reducing air pollution as expected. A review of electric vehicle emissions found that PM_{10} and $PM_{2.5}$ emissions from electric vehicles were very similar to those from modern petrol and diesel-powered vehicles[225]. Furthermore, Transport for Quality of Life reported that

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[lxvii] Modal share in terms of transport is the proportion of overall travel undertaken by each mode (e.g. car, bus, walking, bike)

rather than incentivising the use of electric-powered cars Government action should instead focus on e-bikes which are a better value, more equitable, and healthier alternative[226]. To meet climate change targets in an equitable, accessible and sustainable manner, future government policy must move away from contributing to a car-dominant society and instead prioritise and promote active and sustainable travel over private motor traffic.

There is some limited evidence that active travel has increased over the last decade, linked to investment and infrastructure development. However, safety concerns pertaining to active travel remain. While the rate of cyclist casualties in Scotland has more than halved in the last two decades, in the last 15 years there have been rises in cyclists who were 'killed or seriously injured' [129]; a trend which can be observed in Glasgow also[lxviii]. Additionally, a recent study of pedestrian casualties in Great Britain found that deprived ethnic minority pedestrians are over three times more likely to be a casualty than White non-deprived pedestrians[227]. Previous research in Scotland showed that adult pedestrian casualty rates were 2.4 times higher in the most deprived areas compared with the least deprived, and 3.2 times higher for children[228].

The safety of cyclists, pedestrians and other vulnerable transport users clearly needs to be given higher priority. Scotland's new Road Safety Framework which sets out a vision that no-one, whatever their mode of transport, is seriously injured or killed on Scotland's roads by 2050[229], should help. At a local level, developments such as 20mph speed limits have the potential to protect vulnerable road users from motorised traffic and to encourage more active travel[230,231], but will need to be implemented on a much more comprehensive basis to have a significant impact.

The pandemic has had short-term impacts on transport and emissions. The reduction in carbon emissions is likely to have been linked to work and travel restrictions. We know that car travel and public transport use reduced sharply during the first lockdown and cycling for leisure purposes rose in this period, but these changes have not been sustained. Car use has risen back to close to pre-pandemic levels, public transport has remained low due to concerns over catching Covid-19 on services, and by August 2020 cycling had returned to close to seasonal levels. Levels of air pollution reduced during the pandemic but are unlikely to remain as low as the economy reopens. While new temporary infrastructure for active travel has been built as a result of the need for physical distancing, other larger scale developments such as Glasgow's 'Avenues' programme[lxix] have been paused, in part due to Covid-19, but also to avoid disrupting COP26. More positively, Covid-19 related changes to work patterns, including more home working and on-line meetings, are likely to persist and reduce transport demands, and, if well-managed, could enable a better work-life balance for people.

There is already strong evidence of the health benefits that can accrue from increased active travel[232]. The impact of Covid-19 has shown the importance of our local neighbourhood environments and has brought the relationship between health and wellbeing and place-making back into political discourse, including the concept of 20-minute neighbourhoods[233]. Investment in active travel benefits communities by improving the local economy, increasing social interaction, strengthening physical and mental health and is a key component of place making and community regeneration. Examples such as South City Way[lxx] and the pilot 'avenue' on Sauchiehall Street[lxxi] in Glasgow's City Centre demonstrate what public spaces, the environment and transport could

[lxviii]https://www.understandingglasgow.com/indicators/transport/road_casualties/adult_road_casualties/cyclists_and_pedestrians

[lxix] https://glasgow.gov.uk/avenues

[lxx] https://www.glasgow.gov.uk/index.aspx?articleid=19365

[lxxi] https://glasgow.gov.uk/article/25020/Sauchiehall-Avenue-now-complete

look like if they were designed to support the health of people and communities, rather than prioritising cars. However, disabled groups have raised concerns about safety and a lack of consultation over the introduction of some of the temporary active travel infrastructure brought in during the pandemic[234], illustrating the importance of meaningful early engagement with all communities before changes are introduced.

Access to greenspace and the outdoors have become much more valued over the pandemic period and the mental health benefits of time spent in natural environments has been widely reported[235]. However, this period has emphasised the inequalities in access and use of greenspace experienced by many: people from more socially disadvantaged backgrounds and older people were even less likely than before the pandemic to access green spaces during restrictions, and nearly a fifth of Scottish adults with long-term health conditions or disabilities felt prevented from enjoying nature due to not feeling physically safe/safe from harm[235]. Children with the fewest resources and least access to outdoor space at home have been most affected by closures of play areas. Safety is another factor that may contribute to some people feeling it is not safe to access outdoor spaces. As pointed out earlier, people living in deprived areas are less likely to feel safe walking alone in their local neighbourhood after dark and women feel more vulnerable than men.

There have been many calls for a green and just recovery as society opens up after the pandemic in order to respond to climate change, reduce inequality and achieve long-term economic stability[106]. Recent surveys suggest there is desire among many people to spend more time outdoors for leisure and exercise and to walk and cycle more[136]; 60% of adults surveyed in a public attitudes survey in Scotland conducted over the pandemic consistently say they will walk and cycle more[127]. Plans to make more socially productive use of vacant and derelict land in the Glasgow City Region could, if well-planned with local communities, play a part in reducing inequalities, by providing wider access to safe green space, community gardens and local food growing. In related plans, the Clyde Climate Forest initiative plans to plant 18 million trees in the Glasgow City Region over the next decade in response to the climate emergency[236].

It is also worth noting that people's experience of climate change will be shaped by pre-existing social and health inequalities and the effects of climate change will therefore affect people unequally. People from lower income groups, people who are isolated, people living in more deprived areas and immigrants with limited language skills and local knowledge often face the greatest challenge in being able to adapt[15].

The Fairer Scotland Duty that came into effect in April 2018 placed a legal responsibility on public bodies (including Transport Scotland) to actively consider how they can reduce inequalities of outcome caused by socioeconomic disadvantage when making strategic decisions[237]. There are also calls for the Scottish Government and Transport Scotland to adopt a rights-based approach to transport which recognises that access to suitable transport, no matter income or geographical location, is a necessary requirement to achieve other human rights such as the right to work, the right to education, the right to take part in cultural and public life[238]. Transport inequalities need to be considered and addressed as a priority in policy. More detailed information needs to be collected to be able to monitor increased investment in active travel trends and better transport information on different equalities dimensions is required to enable a better understanding of transport inequalities. To give one example, ethnicity is not recorded on the Stats19 form used by the police to record road traffic casualties[129].

The Scottish Government most recent climate change plan promises a 'green recovery' from

Covid-19[105] and Glasgow's own climate plan echoes similar commitments in its approach to achieving carbon neutrality by 2030, emphasising that the recovery from the Covid-19 crisis needs to focus on creating a healthier, more equitable and resilient city[107].

The SNP manifesto transport pledges included extending free bus travel to everyone under 22 years of age, removing the majority of fossil fuel powered buses in public transport by 2023, and increasing the amount spent on active travel to 10% of the transport capital budget by the end of the parliament term in 2026[199]. If this last commitment is endorsed by the new Scottish Government, it would represent a substantial increase in active travel investment in Scotland – the current active travel budget accounts for just over 3% of the total transport budget[lxxii] – and would bring Scotland's spending on active travel much closer to that of countries with high levels of cycling such as the Netherlands and Denmark[239]. However, progress in building new active travel infrastructure is slow and, as noted above, has been disrupted by the pandemic and other events. As Ian Findlay, the late Chief Executive of Paths for All, talking about active travel in Scotland stressed "the pace and scale of change needs to accelerate considerably"[240]. As we emerge from the pandemic, concerted and coordinated efforts will be needed to encourage people back onto public transport, to drive less and walk and cycle more, if we are to meet our targets for reducing climate change emissions.

Current policy is focussed on a just and green recovery from Covid-19, recognising that climate change is a human rights issue and that the transition to net zero is an opportunity to tackle inequalities. Elsewhere in this report, we have noted the importance of creating a greener, more sustainable economy and local food system. The following recommendations mainly relate to making the shift to a safer, more sustainable transport system and improving access to greenspace.

Policy recommendations

1. Equitable access to good quality greenspace is needed in every community.
2. An equitable geographic distribution of new facilities and infrastructure for active travel, supported by meaningful community engagement and additional support for 'behaviour change', is required to enable people from all communities to shift to more sustainable transport modes.
3. In order to increase safety in travel we need to make progress in a number of areas, including: better designed, safe and accessible cycle routes and paths; reduced speed limits on roads; and, comprehensive safety awareness training for all road users.
4. Improved information on transport users and their equalities characteristics is required to enable a better understanding of transport inequalities, to monitor increased investment in active travel and to gain a better understanding of the risks associated with different modes of transport.
5. Progress needs to be accelerated on changing our transport systems, including building active travel infrastructure, and the repurposing of vacant and derelict land for more socially productive and sustainable purposes.
6. Post-Covid-19, concerted efforts will be needed to encourage people back onto public transport and to drive less, if we are to meet our targets for reducing climate change

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lxxii Our calculation based on the Scottish Budget 2021 to 2022 - https://www.gov.scot/publications/scottish-budget-2021-22/pages/11/

4.9 Mental health

In 2019, mental ill health was at its highest level in Scotland since 2008-09. Suicide is the leading cause of death in Scotland among 15-34-year-olds and the proportion of adults in Scotland who have ever self-harmed has doubled within the last ten years. The rate of prescriptions and psychiatric hospitalisations associated with mental ill health were higher in Glasgow than the national rate. There are clear divergent trends in the experience of mental health and in mental health associated with gender, age, socioeconomic status, and ethnicity. Yet, mental ill health and service use among minority ethnic groups remains disproportionately under-researched.

Pre-Covid-19, children and young people were less likely to receive an appropriate intervention at a sufficiently early stage compared to the adult population. The pandemic has placed additional pressure on an already strained mental health care system and in Autumn 2020, children and young people in Glasgow waited seven times longer than adults to start mental health treatment.

Prior to the pandemic, GPs were already bearing the brunt of the mental health demand, particularly for individuals who did not meet the criteria for specialist care[241]. At the same time, community support for those experiencing mental ill health and who were waiting for treatment has been criticised for being overstretched and underfunded.

In 2017, the Scottish Government recognised that children and young people had disproportionately high rates of mental ill health, behavioural difficulties, physical comorbidities, adverse life events, and poverty compared to the adult population[242]. There are also more referrals to Child and Adolescent Mental Health Services (CAMHS) compared to adult mental health services and yet children and young people are waiting longer than adults to access treatment. Furthermore, there are fewer CAMHS inpatient facilities than adult facilities[lxxiii]. Consequently, children and young people with mental ill health are forced to remain at home, often with their condition deteriorating and with the family reaching crisis point, because there are no spaces in a specialist unit available. Young people who are admitted to inpatient units may be living far from home, leaving them at risk of isolation from friends and family which could be detrimental to their recovery. Alternatively, children and young people may be admitted to an adult mental health facility or paediatric ward which is inappropriate for their circumstances.

If demand for specialist inpatient facilities for children and young people had already exceeded supply in 2016, as the Mental Welfare Commission reported[243], then it is expected this demand will have been heightened by the pandemic. As CAMHS are unable to meet the demands of children and young people in Scotland it creates an inequality of service provision between them and adult groups.

CAMHS has also been historically and disproportionately underfunded compared to adult mental health services, particularly community services. The £1.4billion investment in 2015-2020 by the Scottish Government was less than 1% of the total NHS budget and 8% of the NHS mental health budget[244]. There is considerable variation in spending on CAMHS between health boards although due to variability in how health boards report their spending, figures are not wholly comparable[245.] The longer waiting times, underfunding or lack of suitable services, and lower levels of psychopathology among children and young people compared to adults means there is a risk that the mental health needs of young people will be left behind.

[lxxiii] Across Scotland there are three specialist mental health units, comprised of 28 beds, to cater for young people aged 12-18 years; and one specialist unit for children aged under 12 years. There are no specialist facilities for children and young people in Scotland with learning disabilities[243]

Mental wellbeing, including early intervention and prevention, has been a key public health priority of the Scottish Government as outlined in the 2017-27 mental health strategy[245]. The Scottish Government has further prioritised mental health services in their Covid-19 transition and recovery plan to include[246]:

- Expansion of NHS 24 mental health hub available 24 hours a day, seven days a week.
- Introduction of mental health assessment centres for anyone in mental health crisis or distress, to provide quicker access to specialist services while removing pressure from emergency services.
- Expansion of digital services to support a minimum of 10,000 people.
- Working with equalities and mental health organisations to look at the causes of mental health inequality, specifically minority ethnic groups and LGBTQ+, at structural and individual level.
- Making mental health training and learning resources available to all school staff.

At a local level, in the summer of 2020, Glasgow City Council established a multi-agency Social Recovery Taskforce to "build back fairer the quality of life of the people living in Glasgow". With regards to mental health, the taskforce highlighted that alongside crisis prevention and specialist care, there ought to be an equally strong emphasis on preventative action to addressing mental health. This could be achieved through a population health approach which recognises and addresses the drivers of mental ill health. Among their recommendations was the need for strategic multi-agency partnership (at city and neighbourhood level) for mental health and wellbeing with an emphasis on preventative action towards mental ill health and promotion of positive mental health. The following recommendations endorse the approach of the Social Recovery Taskforce but also highlight key areas for crisis and specialist service provision.

Policy recommendations

1. Increased investment in community-led groups and organisations, including the youth work sector, to support positive mental health and support people before they hit crisis point.
2. A national mental health training programme should be made available to support organisations. This should be modularised from low-level general mental health awareness training to high level crisis management and suicide prevention. This ought to be renewed regularly and given the same status as First Aid training.
3. There needs to be greater and sustained investment in community mental health care to cope with rising cases of mental ill health across the population and alleviate the pressure on existing mental health services. This should include criteria free community-based therapies for all, including family therapy for children and young people and their families.
4. It is vital that the number of regional CAMHS inpatient facilities is increased to ensure children and young people are not living far from home, isolated from friends and family, when receiving mental health treatment
5. The 18-week wait for mental health treatment ought to be reassessed, particularly the inequalities in waiting times for treatment between children and young people and adults. In the interim the following should be introduced:
   (a) Protocols for community health monitoring by primary and secondary care providers during the waiting period to ensure individuals' mental health does not deteriorate further.
   (b) More immediate monitoring of rates of anxiety, depression, self-harm and other mental health issues at local and national level to better understand the mechanisms and inform interventions, particularly for minority groups and those worst affected by Covid-19.

4.10 Life expectancy

Prior to the Covid-19 pandemic, there were concerning health trends in Scotland and in Glasgow relating to healthy life expectancy, life expectancy, mortality and widening health inequalities.

Glasgow has the lowest healthy life expectancy (HLE) in Scotland for men and women. In the period 2017-19, women in Glasgow were estimated to be in good health on average for 57.6 years of their lives while HLE for men was three years less (54.6 years). At a national level, HLE has reduced in recent years for men and women.

In terms of overall life expectancy at birth, Glasgow has lower life expectancy for men and women than in other Scottish cities and in the rest of the Glasgow City Region and continues to have the lowest life expectancy in Scotland. As an example, male life expectancy in Glasgow has risen by more than five years in the last 25 years but remains 4.8 years less than in Edinburgh, while female life expectancy is four years less than in Edinburgh.

Within Glasgow, male and female life expectancy has increased in every deprivation decile in the last 20 years but more so in the less deprived areas. There have been differences by gender: in the period 2000-02 to 2017-19 life expectancy in Glasgow increased by four years for men compared to just over two years for women.

It is notable that since approximately 2011 there have been no further improvements in life expectancy in the most deprived decile in Glasgow and indeed both male and female life expectancy have reduced. As result of these trends the gap in life expectancy between the least and most deprived deciles in Glasgow has widened; by 2017-19, the life expectancy gap for males had increased to 15.4 years, while for females the gap rose to 11.6 years. This has fed through to a widening gap in life expectancy between the least and most deprived neighbourhoods across Glasgow.

Stalling improvements in life expectancy have been reported across Scotland (including many local authorities where life expectancy has reduced) since 2012-14. Life expectancy improvements in the UK and its constituent countries have slowed since 2011 compared with previous decades[247]. Stalling life expectancy trends, pre-dating Covid-19, have been seen in the UK, parts of Europe and the USA and have been related by many researchers to the impacts of austerity policies implemented after the financial crisis of 2007/08[248,249].

The 'Marmot review 10 years on' report points out that in England not only has life expectancy stopped improving and health inequalities grown wider, in parts of England, particularly among women in deprived communities and the north, life expectancy has fallen[250]. Smaller improvements in life expectancy in Scotland between 2012–14 and 2015–17 have been related to worsening mortality trends for almost all age groups and for most cause of death groups[251]. Further evidence shows that mortality decreases slowed throughout the UK from around 2011/2013 for all adult age groups and in more recent years mortality has increased among the most deprived populations across UK countries and cities (including Glasgow) leading to widening inequalities for most causes of death. The timing, geographical coverage and socioeconomic gradients associated with these changing mortality trends suggest that these trends are at least partly a consequence of UK Government austerity measures, which have disproportionately affected the poorest[5].

A number of damaging health-related behaviours have a high prevalence in Glasgow and this feeds through to higher mortality rates. One of the most concerning trends has been the rise in drug-related deaths which have more than doubled in the last five years in Glasgow and

accounted for 279 deaths in the city in 2019[170].

The health trends described above precede the Covid-19 pandemic. The full impact of the pandemic will take years to assess, but it is very clear from currently reported Covid-19 deaths and estimates of excess mortality that the pandemic will have significantly reduced life expectancy in Scotland and in Glasgow. Additionally, there is growing evidence that the pandemic has exacerbated existing health inequalities and exposed the vulnerability of some population groups to adverse shocks[15]. Not all excess deaths were directly attributable to Covid-19, around 18% had other causes and these were not distributed equally across society. For some causes of death existing inequalities related to deprivation have widened, such as for Alzheimer's, dementia, and deaths from 'external and ill-defined causes'[252]. There is more positive evidence suggesting that people in Scotland and in England & Wales were drinking at reduced levels in the early months of the Covid-19 pandemic, when restrictions included the closure of licensed premises, compared to the same months in previous years; although this analysis did not examine variations in consumption among different population groups[253].

Lockdowns and social distancing measures implemented to stem the transmission of the virus and to reduce Covid-19 hospitalisations and deaths, while effective, have caused other indirect harm. These include severely reduced access to routine health services, disruption to young people's education and learning, potential increases in gender-based violence in the home, significant economic hardship, including job losses now and in the future – which may impact differentially on women – and mental health impacts related to loneliness and isolation[19].

The 'Build Back Fairer' report[173] points to four ways that the pre-pandemic situation in England has contributed to the high and unequal toll on health during the pandemic and will continue to beyond the pandemic. These include that:

- A governance and political culture both before and during the pandemic has undermined trust and de-emphasised the importance of the common good.
- Widening inequities in power, money and resources between individuals, communities and regions have generated inequalities in the conditions of life.
- Government policies of austerity reduced public expenditure in the decade before the pandemic.
- Health had stopped improving, and there was a high prevalence of the health conditions that increase case fatality ratios of Covid-19.

The Scottish Government has arguably taken a more open and collaborative approach in its communications with the public during the pandemic, emphasising the importance of collective responsibility and effort across the country, and since the financial crisis of 2007/08 has strongly criticised the UK Government's austerity policies and taken steps to mitigate their impacts. Nevertheless, the impacts of austerity policies linked to stalling life expectancy, widening health inequalities and worse health outcomes particularly for the poorest, have been as bad or worse in Scotland, leading to a greater vulnerability to the direct and indirect impacts of the pandemic.

Our study highlights the continuing detrimental influence of structural and material inequalities on health[254], which in a Scottish context we know have particularly impacted Glasgow due to historic factors and policy decisions[4]. It is worth noting too that while the mortality risk from Covid-19 is substantial, the impact of recurrent deaths due to inequality will quickly surpass those from Covid-19[255].

In building back fairer, an economic recovery that focuses on reducing inequality-related deaths

will be as important for population health in the future as physical distancing is now[255]. The 'Build Back Fairer' report notes that good government decision-making in relation to the pandemic will allow the economy to recover better, that to create a fairer society multi-sector action is required at all levels of government, and that long-term policies with equity at the heart will be required to reduce health inequalities, including those exacerbated by the pandemic. The authors call for a commitment to the common good, stating that a socially cohesive society with concern for the common good is likely to be a healthier society, and are explicit that austerity policy harmed health and the lesson from this is to not reimpose austerity when the economy is struggling[173].

Countries with social democratic regimes, higher public spending, better access to health care, high-quality affordable housing and lower income inequalities have better health[256]. Progressive policies for the common good are needed to tackle poverty, social exclusion, and thus, health inequalities. A previous GCPH report, explaining excess mortality in Scotland and Glasgow, included 26 separate policy recommendations of this type, including: national economic policies to redistribute income and wealth to narrow economic inequalities (e.g. progressive taxation, a comprehensive social security system); improvements to housing (e.g. expansion of social housing, affordable heating systems) and the physical environment (e.g. improving access to greenspace); and other actions for local government (e.g. poverty-proofing policies)[4].

A follow-up report in 2020[257] assessed what progress had been made in fulfilling these recommendations, pointing to some positive developments: the Child Poverty Act and the Scottish Child Payment have been brought in, funded early learning and childcare is being expanded, good progress has been made on affordable housing provision and equity in public sector pay. In some areas, there has been very little progress (e.g. in relation to the 'poverty premium') or changes have arguably not gone far enough (e.g. the income tax system, which is only marginally more progressive than in the rest of the UK). In many areas, it will take more time to assess the impact of new policies. However, the authors question the extent to which the Scottish Government and indeed local authorities can effectively influence employment practice, fiscal policy and many aspects of the social security system, given most of these powers are reserved to the UK government; a government that has pursued austerity-related policies that have led to the further widening of health inequalities.

Elsewhere we argue for policies to build back fairer and greener in recovering from the impact of Covid-19, and while that is important, we still need to tackle pre-existing structural inequalities in society which Covid-19 may have made worse. Although the UK Government holds the most important fiscal policy levers, the Scottish Government and local government have opportunities to shape many aspects of devolved policy, including the redistribution of income and wealth, to mitigate the effects of austerity-related policy, and to improve the lives of the most vulnerable in society.

Policy recommendations

These recommendations for *population health* focus on addressing structural inequalities in society and mark a shift away from austerity policies that have contributed to widening health inequalities toward policies that commit to the common good for all in society.

1. Progressive fiscal and welfare policies and more radical action from the Scottish and UK governments are needed to reduce educational, income and wealth inequalities.
2. A range of local policies built upon the principles of social inclusion, poverty reduction and sustainability need to be enacted, including support for living wage employment, income maximisation initiatives, poverty-proofing policy, proportional targeting of services and investment, inclusive housing and regeneration strategies, improvements to the built and natural environment and accelerated investment in active and sustainable travel for all communities.

5. Conclusions

The aim of this report was to document demographic, socioeconomic, environmental, and health trends in Glasgow. Six years on from our original report which focused on widening health inequalities in the city[3], this report highlights the health and social issues which continue to impact on Glasgow residents' lives, alongside new and emerging issues, including tackling gender-based, ethnic and racial inequalities and accelerating action on climate change. We also reflect on the impact of the Covid-19 pandemic.

Since the last report was published many trends have continued in the same direction. Glasgow's population has carried on growing and has become significantly more diverse. Projections suggest that the age profile of the city, although young compared to the rest of Scotland, is likely to get older in the next 25 years. Although Glasgow has become less deprived in comparison to the rest of Scotland over the last two decades, child poverty remains high, food insecurity is increasing, and more working households are experiencing poverty. Homelessness has been decreasing over the last decade but has risen again in recent years. Improvements in life expectancy have stalled in Glasgow, as in many other parts of the UK, and, in recent years, life expectancy has dropped for both female Glaswegians and those living in the most deprived areas of the city. The consequences of these trends are that health inequalities have widened, and Covid-19 is likely to further exacerbate this.

This report also focused on some areas of concern that were not previously highlighted. Several sections found that there were either greater impacts of negative trends on minority ethnic communities, or that there was not enough data collected to determine the impact on these communities. The report has noted the gender differences in experiencing public spaces – with women in particular feeling less safe than men.

The report also considered mental health, finding that prior to Covid-19 the NHS was already experiencing a high mental health burden: GPs were experiencing a high demand for mental health support; community support was overstretched and underfunded; and specialist facilities for children and young people had exceeded demand. Since Covid-19, there have been fewer mental health services available to children and young people than to adults, and young people are having to wait far too long for treatment. The impact of Covid-19 on mental health at a population level is substantial and may take years before it is fully understood.

Throughout the report the intersectional impact of a range of inequalities is apparent. Women, children, young people, disabled people, people living in deprived circumstances and people from an ethnic minority have experienced multiple and complex disadvantage both before and during the pandemic.

The priority given to environmental issues has increased greatly since the last report was published. Increasing recognition of the global climate emergency has given impetus to efforts to reduce carbon emissions and to the related necessities of improving air quality, establishing a more sustainable transport system, designing more liveable neighbourhoods, and creating a fairer and more sustainable food system. However, progress on these issues is still slow.

The impact of the pandemic on people's lives and population health has been profound, and many areas of government policy had to be rapidly redesigned. One key positive of the pandemic has been the demonstration of how rapid policy changes can be implemented when required. We can learn from areas where that was successful, but also from where there were unintended consequences.

In some areas, we saw rapid progress in a short space of time, for example the initiative to reduce rough sleeping across the UK was largely successful, due to increased funding and working in partnership with the third sector and people with experience of homelessness. In other areas, the protections offered did help, but not enough to mitigate the impact of the pandemic. Many workers kept their jobs because of the Furlough Scheme, but a proportion still lost work, and many more saw a worsening of their working conditions. The pandemic also further highlighted previously existing inequalities. There was already a growing digital resource divide, but the social distancing necessitated by the pandemic meant that those who did not have digital access became even further excluded from work, healthcare, and social connections.

Over the longer term, beyond Covid-19, there are areas where policy shows signs of progress. Plans are becoming more holistic in their approaches, for example the Glasgow City Food Plan, which covers health, economy, Fair Work, sustainability, education, and waste. There are shifts in how women's safety and sexual harassment are being understood and, therefore, reported. Homelessness policy is increasingly focusing on prevention and is being made in partnership with third sector organisations and with people who have directly experienced homelessness, meaning that it is more responsive to people's housing needs. Scotland is committed to reducing child poverty and has introduced new financial supports for families with young children, while, at a local level, Glasgow City Council has analysed the depth of child poverty and which types of families are most likely to experience it. Policy is increasingly recognising the necessity and benefits of decarbonisation and there is a focus on a just and green recovery in recognition that the transition to net zero is an opportunity to tackle inequalities and to create places that are salutogenic – that support the health and wellbeing of residents.

However, despite good policy, progress is happening too slowly. Scotland will not meet its climate change targets without accelerating progress in transport, food, air quality, land use, and planning. It will fall short of its child poverty targets if it cannot improve underlying structural conditions, such as housing affordability and fairer employment. Covid-19 has brought up new challenges for housing affordability, with many renters falling into arrears due to loss of income throughout the pandemic, whilst house prices continued to rise, meaning rent is likely to continue to increase. Women's safety depends on changes in attitudes, which require societal-level shifts.

This report recognises the massive impact of Covid-19 on almost every aspect of people's lives globally. However, it also acknowledges that health inequalities in Scotland, as elsewhere, are largely driven by structural inequalities in access to power, wealth, and opportunity, which predated the pandemic, and which shaped how people experienced and were impacted by the pandemic.

This is why we reiterate the need for more progressive fiscal and welfare policies from national government and, in particular, more radical action to reduce income, wealth, and educational inequalities. Continued mitigation of the impacts of austerity-related policy is required, along with local policy actions focussed on social inclusion, poverty reduction and sustainability.

Alongside all of this, we need to address the systemic inequalities faced by various groups within our society. We are seeing large scale societal discussions about racism and harassment, indicating that societal and cultural views are changing. Yet, racial discrimination continues to affect people's health, and women's safety remains under threat.

We need to address these issues in an intersectional way. The employment impacts of the pandemic disproportionately affected younger people, women, ethnic minorities and the lowest paid. Many people are in one of these groups, but some people are being impacted by several inequalities at once, and policy must target support where it is most needed.

Marginalisation also separates people from power, and not including people in decision-making further exacerbates unequal power relationships. Public spaces that are planned without the involvement of disabled people often do not meet their requirements, causing exclusion and worsening wellbeing and health. In order to address inequalities, people with direct experience of marginalisation must be involved in policy and planning – in roles with decision-making power.

There is also a need to move beyond policy rhetoric – beyond what some have called the 'implementation gap' – to ensure that the policies that we know are required to address inequalities are properly resourced and enacted. We need to act swiftly, to shift 'from word to deed'.

References

1. Walsh D, Bendel N, Jones R et al. It's not 'just deprivation': Why do equally deprived UK cities experience different health outcomes? *Public Health* 2010;124(9):487-495. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0033350610000338# (accessed May 2021)

2. Hanlon P, Walsh D, Whyte B. *Let Glasgow Flourish.* Glasgow: GCPH; 2006. Available at: https://www.gcph.co.uk/publications/86_let_glasgow_flourish (accessed May 2021)

3. Whyte B. *Glasgow: health in a changing city.* Glasgow: GCPH; 2016. Available at: https://www.gcph.co.uk/assets/0000/5516/Glasgow_-_health_in_a_changing_city_final.pdf (accessed May 2021)

4. Walsh D, McCartney G, Collins C et al. *History, politics and vulnerability: explaining excess mortality.* Glasgow: GCPH; 2016. Available at: https://www.gcph.co.uk/publications/635_history_politics_and_vulnerability_explaining_exces s_mortality (accessed May 2021)

5. Walsh D, McCartney G, Minton J et al. Changing mortality trends in countries and cities of the UK: a population-based trend analysis. *BMJ Open* 2020;10:e038135. Available at: https://bmjopen.bmj.com/content/10/11/e038135 (accessed May 2021)

6. Scottish Government. Welfare Reform (Further Provision) (Scotland) Act 2012: annual report 2017. Edinburgh: Scottish Government; 2017. Available at: https://www.gov.scot/publications/welfare-reform-further-provision-scotland-act-2012-annual-report-2017 (accessed May 2021)

7. Fenton L, Wyper GM, McCartney G et al. Socioeconomic inequality in recent adverse all-cause mortality trends in Scotland. *J Epidemiol Community Health* 2019;73:971–4.doi:10.1136/jech-2019-212300pmid: Available at: https://jech.bmj.com/content/73/10/971 (accessed May 2021)

8. Stuckler D, Reeves A, Loopstra R et al. Austerity and health: the impact in the UK and Europe. *Eur J Public Health* 2017;27:18–21.doi:10.1093/eurpub/ckx167pmid: Available at: https://researchonline.lshtm.ac.uk/id/eprint/4552690/1/Austerity%20and%20health.pdf (accessed May 2021)

9. GOV.UK *Coronavirus (COVID-19) in the UK.* Available at: https://coronavirus.data.gov.uk/details/deaths (accessed May 2021)

10. Public Health Scotland. *Covid-19 in Scotland.* Available at: https://public.tableau.com/profile/phs.covid.19#!/vizhome/COVID-19DailyDashboard_15960160643010/Overview (accessed May 2021)

11. Aburto JM, Kashyap R, Schöley J et al. Estimating the burden of the COVID-19 pandemic on mortality, life expectancy and lifespan inequality in England and Wales: a population-level analysis. *J Epidemiol Community Health* 2021 jech-2020-215505. doi: 10.1136/jech-2020-215505. Available at: https://pubmed.ncbi.nlm.nih.gov/33468602/ (accessed may 2021)

12. Burton JK, Bayne G, Evans C et al. Evolution and effects of COVID-19 outbreaks in care homes: a population analysis in 189 care homes in one geographical region of the UK. *The Lancet Healthy Longevity* 2020 1(1); e21-e31. Available at: https://www.thelancet.com/journals/lanhl/article/PIIS2666-7568%2820%2930012-X/fulltext (accessed May 2021)

13. Mutambudzi M, Niedzwiedz C, Macdonald EB et al. Occupation and risk of severe COVID-19: prospective cohort study of 120 075 UK Biobank participants. *Occupational and Environmental Medicine* 2021;78**:**307-314

14. National Records of Scotland. *Analysis of deaths involving coronavirus (COVID-19) in Scotland, by ethnic group.* 2020. Available at: https://www.nrscotland.gov.uk/files//statistics/covid19/ethnicity-deceased-covid-19-june20.pdf (accessed May 2021)

15. Scottish Government. *Coronavirus (COVID-19): impact on equality (research)* 2020. Available at: https://www.gov.scot/publications/the-impacts-of-covid-19-on-equality-in-scotland/ (accessed May 2021)

16. Bray I, Gibson A, White J. Coronavirus disease 2019 mortality: a multivariate ecological analysis in relation to ethnicity, population density, obesity, deprivation and pollution. *Public Health* 2020 185; 261-263. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7340023/ (accessed May 2021)

17. Kwong ASF, Pearson RM, Adams MJ et al. Mental health before and during the COVID-19 pandemic in two longitudinal UK population cohorts. *Br J Psychiatry.* 2020 Nov 24 1–10. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7844173/ (accessed May 2021)

18. O'Connor RC, Wetherall K, Cleare S et al. Mental health and well-being during the COVID-19 pandemic: longitudinal analyses of adults in the UK COVID-19 Mental Health & Wellbeing study. *Br J Psychiatry.* 2020 Oct 21 : 1–8. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7684009/ (accessed May 2021)

19. Douglas M, Katikireddi S V, Taulbut M et al. Mitigating the wider health effects of covid-19 pandemic response *BMJ* 2020; 369 :m1557 doi:10.1136/bmj.m1557. Available at: https://www.bmj.com/content/369/bmj.m1557 (accessed May 2021)

20. Chiang CL *Life table and mortality analysis.* World Health Organisation, 1979

21. Glasgow Centre for Population Health. *Community Health and Wellbeing Profiles for Greater Glasgow and Clyde.* Glasgow: GCPH; 2008. Available at: https://www.gcph.co.uk/assets/0000/0390/GCPH_briefing_paper_FS_14_Web.pdf (accessed May 2021)

22. Understanding Glasgow. *Neighbourhood profiles.* GCPH; 2014. Available at: https://www.understandingglasgow.com/profiles/neighbourhood_profiles (accessed May 2021)

23. Understanding Glasgow. *Children and young people's profiles.* GCPH; 2016. Available at: https://www.understandingglasgow.com/profiles/children_and_young_peoples_profiles (accessed May 2021)

24. National Records of Scotland. *Population by Country of Birth and Nationality, Scotland, July 2019 to June 2020.* NRS 2021. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/population-by-country-of-birth-and-nationality/jul-19-jun-20 (accessed May 2021)

25. Glasgow City Council. *Housing Stock Estimates – Neighbourhood Tables.* GCC 2020

26. Scottish Government. *Homelessness in Scotland: 2020 to 2021.* 2021 Available at: https://www.gov.scot/publications/homelessness-scotland-2020-2021/ (accessed July 2021)

27. Bramley G and Fitzpatrick S. *Hard Edges Scotland*, Lankelly Chase 2019. Available at https://lankellychase.org.uk/resources/publications/hard-edges-scotland/ (accessed May 2021)

28. Fitzpatrick S, Bramley G, Blenkinsopp J et al. *Destitution in the UK*, JRF 2020. Available at: https://www.jrf.org.uk/report/destitution-uk-2020 (accessed April 2021)

29. Harper A. *Now is the time to fight for home* blog, Shelter 2021. Available at: https://blog.shelter.org.uk/2021/05/now-is-the-time-to-fight-for-home/ (accessed July 2021)

30. Bulter P. '*Black, Asian and disabled tenants "more likely to face housing discrimination"*' The Guardian 2021. Available at: https://www.theguardian.com/society/2021/may/26/black-asian-disabled-tenants-more-likely-face-housing-discrimination (accessed June 2021)

31. Shelter Twitter. 2021 https://twitter.com/Shelter/status/1397499409974317056/photo/4

32. Fitzpatrick S, Mackie P, Watts B et al. *The COVID-19 crisis response to homelessness in Great Britain*, CaCHE 2021. Available at: https://housingevidence.ac.uk/wp-content/uploads/2021/02/12544_UoG_CaCHE_Covid_Homelessness_Report-Final.pdf (accessed June 2021)

33. Scotland in Lockdown. Left out and locked down: impacts of Covid-19 lockdown for marginalised groups in Scotland. Scotland in Lockdown 2020. Available at : https://scotlandinlockdown.files.wordpress.com/2020/12/scotlock_project_report_full_dec2020-2.pdf (accessed July 2021)

34. Scottish Government. *Tackling homelessness in Scotland following the coronavirus pandemic- Recommendations from Homelessness and Rough Sleeping Action Group*, 2020, available at: https://www.gov.scot/publications/homelessness-and-rough-sleeping-action-group-final-report-tackling-coronavirus/ (accessed May 2021)

35. National Statistics. *Homelessness in Scotland: Bi-annual update to 30 September 2020* Scottish Government 2021. Available at: https://www.gov.scot/publications/homelessness-scotland-update-30-september-2020/ (accessed April 2021)

36. The Coronavirus (Scotland) Act 2020 (Eviction from Dwelling-houses) (Notice Periods) Modification Regulations 2020. Available at https://www.legislation.gov.uk/ssi/2020/270/made (accessed May 2021)

37. Macfarlane L and Berry C. *Who is winning from Covid-19?* Scottish Trade Union Congress 2021. Available at: http://www.stuc.org.uk/files/Policy/Research-papers/Who_is_winning_from_covid.pdf (accessed July 2021)

38. Joseph Rowntree Foundation. *A Just Recovery for Renters Briefing* JRF 2021. Available at: https://www.jrf.org.uk/report/just-recovery-renters (accessed July 2021)

39. Joseph Rowntree Foundation. *Poverty in Scotland 2020: The independent annual report*. JRF 2020. Available at: https://www.jrf.org.uk/report/poverty-scotland-2020 (accessed April 2021)

40. National Records of Scotland. *Population Projections for Scottish Areas (2018-based)*. NRS 2020. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-projections/sub-national-population-projections/2018-based (accessed May 2021)

41. National Records of Scotland. *Household Projections for Scotland, 2018-based.* 2020. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/households/household-projections/2018-based-household-projections (accessed May 2021)

42. National Records of Scotland. *Migration Statistics Quarterly Summary for Scotland.* 2021. Available at: https://www.nrscotland.gov.uk/files/statistics/migration/quarterly-summary/miration-statistics-quarterly-summary-february-2021.pdf (accessed May 2021)

43. Scottish Government. *Scottish Housing Market Review. 2020.* Available at: https://www.gov.scot/publications/scottish-housing-market-review-2020/ (accessed May 2021)

44. Scottish Government. *SIMD: Scottish Index of Multiple Deprivation 2020* Map available at: https://simd.scot/#/simd2020/BTTTFTT/9/-4.0000/55.9000/ (accessed April 2021)

45. Transforming Communities Glasgow. *Sighthill Regeneration Questions and Answers.* Available at: https://www.glasgow.gov.uk/CHttpHandler.ashx?id=38531&p=0 (accessed April 2021)

46. Glasgow City Council. *Sighthill TRA: What Is It?* GCC 2021. Available at: https://www.glasgow.gov.uk/sighthill (accessed April 2021)

47. Carnegie Trust. *Good Work for Wellbeing in the Coronavirus Economy* Carnegie Trust UK 2020. Available at: https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2020/10/27154455/Good-Work-for-Wellbeing-in-the-Coronavirus-Economy-Full-report.pdf (accessed June 2021)

48. Centre for Civic Innovation. *Child Poverty in Glasgow Report 2020.* Glasgow City Council 2020.

49. BBC News. *'Generation Covid' hit hard by the pandemic, research reveals* BBC News 2020. Available at: https://www.bbc.co.uk/news/uk-54662485 (accessed April 2021)

50. Treanor M. *Covid-19 crisis measures, poverty and free school meals in Scotland* Morag Treanor Blog 2020. Available at: http://www.moragtreanor.co.uk/?p=380 (accessed May 2021)

51. MacNeil C, Parkes H, Garthwaite K et al. *'No Longer Managing': the Rise of Working Poverty and Fixing Britain's Broken Social Settlement.* Institute for Public Policy Research, 2021. Available at: https://www.ippr.org/research/publications/no-longer-managing-the-rise-of-working-poverty-and-fixing-britain-s-broken-social-settlement?mc_cid=b8b5c22e54&mc_eid=9ab2c8af65 (accessed July 2021)

52. Weakley S. *The COVID-19 Crisis and Universal Credit in Glasgow: January 2021* Policy Scotland 2021. Available at: https://policyscotland.gla.ac.uk/the-covid-19-crisis-and-universal-credit-in-glasgow-january-2021/ (accessed March 2021)

53. Food Foundation. *The Broken Plate 2020: The State of the Nation's Food System* Food Foundation 2020. Available at: https://foodfoundation.org.uk/wp-content/uploads/2020/09/FF-Broken-Plate-2020-DIGITAL-FULL.pdf (accessed April 2021)

54. Public Health England. *The Eatwell Guide* Public Health England 2016 (last updated 2018). Available at: https://www.gov.uk/government/publications/the-eatwell-guide (accessed February 2021)

55. Loopstra R. *Vulnerability to food insecurity since the COVID-19 lockdown: Preliminary Report* King's College London 2021. Available at: https://foodfoundation.org.uk/wp-content/uploads/2020/04/Report_COVID19FoodInsecurity-final.pdf (accessed June 2021)

56. Goudie S and MacIntyre Z. *A Crisis within a crisis: The Impact of Covid-19 on Household Food Security* Food Foundation 2021. Available at: https://foodfoundation.org.uk/food-foundation-release-new-report-showing-pandemic-effect-on-food-insecurity-remains-a-crisis/ (accessed June 2021)

57. Loopstra R, Reeves A, Lambie-Mumford H. *COVID-19: What impacts are unemployment and the Coronavirus Job Retention scheme having on food insecurity in the UK?: Brief Report* Food Foundation 2020. Available at: https://foodfoundation.org.uk/wp-content/uploads/2020/09/BriefReport_Unemployment_v5.pdf (accessed June 2021)

58. Glasgow Disability Alliance *Supercharged: A Human Catastrophe Inequalities, Participation and Human Right before, during and beyond COVID19* GDA 2020.

59. Boyle S, Gonzalez R, Hammond E et al. *Glasgow City Food Plan.* 2021 Available at: http://goodfoodforall.co.uk/home/glasgow-city-food-plan (accessed June 2021)

60. Understanding Glasgow. *Employment within Glasgow.* Available at: https://www.understandingglasgow.com/indicators/economic_participation/comparisons/within_glasgow/employment_with_disability & https://www.understandingglasgow.com/indicators/economic_participation/comparisons/within_glasgow/employment_by_ethnicity (accessed July 2021)

61. Glasgow City Council. *Council update on economic recovery progress and plans in Glasgow* Glasgow Economic Recovery Group, Glasgow City Council 2021. Available at: https://www.glasgow.gov.uk/index.aspx?articleid=26836 (accessed May 2021)

62. Glasgow City Region Cabinet. *Recover Rebuild Renew: Glasgow City Region's economic recovery plan in response to Covid-19* Glasgow City Region 2020. Available at: https://glasgowcityregion.co.uk/wp-content/uploads/2021/04/GCR-RecoverRebuildRenew-09Dec2020.pdf (accessed May 2021)

63. Glasgow City Region. *Covid-19 Economic Briefing No.9 – Week Beginning 26.04.21.* GCR 2021

64. STV News. *Almost half of workers see their pay cut due to pandemic* STV News; 28 Oct 2020. Available at: https://news.stv.tv/scotland/almost-half-of-workers-see-their-pay-cut-due-to-pandemic (accessed May 2021)

65. Equality and Human Rights Commission. *How coronavirus has affected equality and human rights.* Equality and Human Rights Commission 2020. Available at: https://www.equalityhumanrights.com/sites/default/files/equality_and_human_rights_commission_how_coronavirus_has_affected_equality_and_human_rights_2020.pdf (accessed May 2021)

66. Glasgow Centre for Population Health, Policy Scotland and Wise Women. *COVID-19 Micro Briefing 2: Consequences of the COVID-19 pandemic: exploring the unequal social and economic burden on women* GCPH, Policy Scotland and Wise Women, May 2021. Available at: https://policyscotland.gla.ac.uk/covid-women/ (accessed June 2021)

67. Glasgow City Region. *The Importance of Key Workers to the Glasgow City Region Economy* GCR 2020

68. Scottish Government Recovery Task Force. *If not Now, When?* Scottish Government 2021. Available at: https://www.gov.scot/publications/not-now-social-renewal-advisory-board-report-january-2021/ (accessed May 2021)

69. Public Health Scotland. *COVID-19 Early Years Resilience and Impact Survey (CEYRIS): Report 4 – full findings.* Edinburgh: Public Health Scotland; 2020. Available at: https://www.publichealthscotland.scot/media/2934/covid-19-early-years-resilience-and-impact-survey-ceyris-report-4-final-findings-dec2020-english.pdf (accessed May 2021)

70. Policy Scotland. *COVID-19 Micro Briefing 1: The disproportionate impacts of the COVID-19 pandemic on disabled people.* January 2021 Available at: https://policyscotland.gla.ac.uk/covid-disability/ (accessed May 2021)

71. Scottish Government. *Coronavirus (COVID-19): impact on wellbeing – research*, 2020. Available at: https://www.gov.scot/publications/impact-covid-19-wellbeing-scotland/pages/1/ (accessed May 2021)

72. Ben Cavanagh. *Scottish Government research in the pandemic.* SRA Scotland webinar: 2021 Available at: https://the-sra.org.uk/SRA/Events/Archive-of-presentations/SRA/Events/Archive-of-presentations.aspx?hkey=5585b053-e9b5-499f-8714-a2272a08081c (accessed May 2021)

73. Mao G, Fernandes-Jesus M, Ntontis E et al. *What have we learned so far about COVID-19 volunteering in the UK? A rapid review of the literature.* 2020. [Pre-print] doi: https://doi.org/10.1101/2020.11.22.20236059

74. The Together Initiative. *Our chance to reconnect: final report of the Talk/together project.* (March 2021) Available at: https://www.britishfuture.org/wp-content/uploads/2021/02/Our-Chance-to-Reconnect.Final7MB.pdf (accessed May 2021)

75. Police Scotland. *Management Information. Council area report: Quarter 3 2020/21* pp 93-98. Available at: https://www.scotland.police.uk/spa-media/eayb1bam/management-information-council-area-report-quarter-3-2020-21.pdf (accessed May 2021)

76. House of Commons. *Women and Equalities Committee. Sexual harassment of women and girls in public spaces. Sixth report of session 2017-19.* Available at: https://publications.parliament.uk/pa/cm201719/cmselect/cmwomeq/701/701.pdf (accessed May 2021)

77. The Guardian. *Sarah Everard died from compression of the neck, say police.* Available at: https://www.theguardian.com/uk-news/2021/jun/01/sarah-everard-died-from-compression-of-the-neck-say-police (accessed May 2021)

78. Slate. *It feels like it's just us.* Available at: https://slate.com/news-and-politics/2021/03/sarah-everard-london-murder-sexism-protest-notallmen.html (accessed May 2021)

79. ABC News. *What happened to Sarah Everard? The murder what triggered a global outpouring of grief and rage.* Available at: https://www.abc.net.au/news/2021-03-20/sarah-everard-death-one-week-on/13261376 (accessed May 2021)

80. Forbes. *How Sarah Everards disappearance sparked a social media movement.* Available at: https://www.forbes.com/sites/carlieporterfield/2021/03/11/how-sarah-everards-disappearance-sparked-a-social-media-movement/ (accessed May 2021)

81. Behavioural Scientist. *How better urban planning can improve gender equality.* Available at: https://behavioralscientist.org/how-better-urban-planning-can-improve-gender-equality/ (accessed May 2021)

82. Scottish Government. *Scottish Victimisation Telephone Survey 2020: main findings.* Available at: https://www.gov.scot/publications/scottish-victimisation-telephone-survey-2020-main-findings/pages/8/ (accessed May 2021)

83. YouGov. *Sexual harassment: how the genders and generations see the issue differently.* Available at: https://yougov.co.uk/topics/lifestyle/articles-reports/2017/11/01/sexual-harassment-how-genders-and-generations-see- (accessed May 2021)

84. Scottish Government. *Recorded crime in Scotland, 2019-20.* Available at: https://www.gov.scot/publications/recorded-crime-scotland-2019-2020/pages/3/ (accessed May 2021)

85. Statistica. *Number of sexual offences recorded in Scotland from 2002/03 to 2019/20.* Available at: https://www.statista.com/statistics/328110/sexual-offences-in-scotland/ (accessed May 2021)

86. The Sunday Times. *Measures needed to cut persistent sexual violence.* Available at: https://www.thetimes.co.uk/article/measures-needed-to-cut-persistent-sexual-violence-w6kvcngcj?utm_medium=Social&utm_source=Facebook&fbclid=IwAR31jvnL-viHxGhxcPHmVRhUQKl5X4KwIXx8wgGXCvk2MrxBtDPOlNDG-Vg#Echobox=1619333361 (accessed May 2021)

87. All-Party Parliamentary Group for UN women. *Prevalence and reporting of sexual harassment in UK public spaces.* Available at: https://www.unwomenuk.org/site/wp-content/uploads/2021/03/APPG-UN-Women_Sexual-Harassment-Report_2021.pdf (accessed May 2021)

88. The Ferret. *Scotland urged to reject sex work policy linked to violent crime increase in Ireland.* Available at: https://theferret.scot/scotland-sex-work-nordic-model-violent-crime-ireland/ (accessed May 2021)

89. Bowen R, Redman S, Swindells, K et al. *Sex Workers Too: Summary of evidence for VAWG 2020-24 Consultation.* Available at: https://e7cb27be-607e-4c1c-960b-0e3aae2f2302.filesusr.com/ugd/063c2f_3f44eed5f59042239c1d2440fd17eb60.pdf (accessed May 2021)

90. Scottish Government. *Exploring available knowledge and evidence on prostitution in Scotland via practitioner-based interviews.* Available at: https://www.gov.scot/publications/exploring-available-knowledge-evidence-prostitution-scotland-via-practitioner-based-interviews/pages/5/ (accessed May 2021)

91. Scottish Government. *Domestic Abuse: statistics 2018-19.* Available at: https://www.gov.scot/publications/domestic-abuse-scotland-2018-2019-statistics/pages/2/ (accessed May 2021)

92. Crown Office and Procurator Fiscal Service. *Domestic abuse and stalking charges in Scotland 2019-20.* Available at: https://www.copfs.gov.uk/images/Documents/Statistics/Domestic%20Abuse/Domestic%20Abuse%20and%20stalking%202019-20.pdf (accessed May 2021)

93. Police Scotland. *Management Information: Council Area report: Quarter 2020-21*. Available at: https://www.scotland.police.uk/spa-media/eayb1bam/management-information-council-area-report-quarter-3-2020-21.pdf (accessed May 2021)

94. Mankind Initiative. *Male victims of domestic abuse and partner abuse: 50 key facts.* Available at: https://www.mankind.org.uk/wp-content/uploads/2020/03/50-Key-Facts-about-Male-Victims-of-Domestic-Abuse-and-Partner-Abuse-March-2020-final.pdf (accessed May 2021)

95. Stonewall Scotland. *Domestic Abuse*. Available at: https://www.stonewallscotland.org.uk/help-advice/criminal-law/domestic-abuse-1 (accessed May 2021)

96. Scottish Trans Alliance. *Out of Sight, Out of Mind? Transgender peoples experiences of domestic abuse*. Available at: https://www.scottishtrans.org/wp-content/uploads/2013/03/trans_domestic_abuse.pdf (accessed May 2021)

97. Women's Aid. *Women from Black, Asian, and ethnic minority communities.* Available at: https://www.womensaid.org.uk/the-survivors-handbook/women-from-bme-communities/ (accessed May 2021)

98. Safe Lives: Ending domestic abuse. *Supporting B&ME victims – what the data shows.* Available at: https://safelives.org.uk/practice_blog/supporting-bme-victims-%E2%80%93-what-data-shows (accessed May 2021)

99. Office for National Statistics. *Domestic abuse victim characteristic, England and Wales: year ending March 2020.* Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/domesticabusevictimcharacteristicsenglandandwales/yearendingmarch2020#ethnicity (accessed May 2021)

100. Scottish Government. *Homelessness in Scotland: Equalities Breakdown 2019-20.* Available at: https://www.gov.scot/publications/homelessness-scotland-equalities-breakdown-2019-20/ (accessed May 2021)

101. Scottish Government. *Coronavirus (COVID-19): Domestic abuse and other forms of violence against women and girls during Phases 1, 2, and 3 of Scotland's route map (22nd May to 11th August 2020).* Available at: https://www.gov.scot/publications/coronavirus-covid-19-domestic-abuse-forms-violence-against-women-girls-during-phases-1-2-3-scotlands-route-map-22-11-august-2020/pages/3/ (accessed May 2021)

102. Scottish Government. *The impacts of covid-19 on equality in Scotland.* Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2020/09/the-impacts-of-covid-19-on-equality-in-scotland/documents/full-report/full-report/govscot%3Adocument/Covid%2Band%2BInequalities%2BFinal%2BReport%2BFor%2BPublication%2B-%2BPDF.pdf

103. Glasgow City Council. *The report and recommendations of Glasgow City Council's climate emergency working group.* Available at: https://www.glasgow.gov.uk/councillorsandcommittees/viewDoc.asp?c=P62AFQDN0GZ30GT1NT (accessed May 2021)

104. Scottish Parliament. *Climate Change (Emissions reductions targets) (Scotland) Bill.* Scottish Parliament 2019. Available at: https://www.parliament.scot/parliamentarybusiness/Bills/108483.aspx (accessed May 2021)

105. Scottish Government. *Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update.* 2020. Available at: https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/ (accessed May 2021)

106. Yates G. *Changing urban contexts: Delivering a healthy and inclusive green recovery for Glasgow.* 2021. Available at: https://www.gcph.co.uk/assets/0000/8116/Changing_urban_contexts_report.pdf (accessed May 2021)

107. Glasgow City Council. *Climate Emergency Implementation Plan 2021.* Available at: https://www.glasgow.gov.uk/CHttpHandler.ashx?id=50623&p=0 (accessed May 2021)

108. Health Protection Scotland. *Air Pollution and Health Briefing Note. Mortality Associated with exposure to fine particulate matter (PM2.5 Attributable Mortality) in Scotland. 2018.* Available at: https://www.hps.scot.nhs.uk/web-resources-container/air-pollution-and-health-briefing-note-mortality-associated-with-exposure-to-fine-particulate-matter-pm25-attributable-mortality-in-scotland/ (accessed May 2021)

109. Dobson R, Semple S. Changes in outdoor air pollution due to COVID-19 lockdowns differ by pollutant: evidence from Scotland. *Occupational and Environmental Medicine* 2020; 77:798-800. https://oem.bmj.com/content/oemed/77/11/798.full.pdf

110. SEPA. *Glasgow's Low Emission Zone.* 2020. Available at: https://www.lowemissionzones.scot/uploads/docs/Glasgows-LEZ-prepared-by-SEPA.pdf (accessed May 2021)

111. Wu X., Nethery RC , Sabath B et al. *Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study.* Available at: https://www.medrxiv.org/content/medrxiv/early/2020/04/27/2020.04.05.20054502.full.pdf (accessed May 2021)

112. Travaglio M, Yu Y, Popovic R et al. Links between air pollution and COVID-19 in England. *Environmental Pollution.* Volume 268, Part A, 1 January 2021, 115859 https://doi.org/10.1016/j.envpol.2020.115859

113. Davis A & Whyte B. Making the shift to sustainable transport in Scotland. *Cities and Health.* 2020. https://www.tandfonline.com/doi/full/10.1080/23748834.2020.1812332

114. Understanding Glasgow. Glasgow Indicators. Transport. https://www.understandingglasgow.com/indicators/transport/overview

115. McPherson K. Glasgow's public cycle hire scheme: analysis of the usage between July 2014 and June 2016. Glasgow: GCPH; 2017. Available at: https://www.gcph.co.uk/publications/697_glasgow_s_public_cycle_hire_scheme_analysis_of_usage_between_2014_2016 (accessed July 2021)

116. Sustrans. *Travel to School in Scotland. Hands Up Scotland Survey 2020: National Summary report – Provisional release.* Available at: https://www.sustrans.org.uk/media/8765/hands-up-scotland-survey-2020_national-summary-report-provisional-rele.pdf (accessed July 2021)

117. Kenyon S., Lyons,G. & Rafferty J. Transport and social exclusion: investigating the possibility of promoting inclusion through virtual mobility. *Journal of Transport Geography.* 10(3), 2002, 2017-219. https://www.sciencedirect.com/science/article/pii/S0966692302000121

118. Social Exclusion Unit, 2003. Making the connections: final report on Transport and social exclusion. Final report to Prime Minister, UK. Available at:

http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_policy/---invest/documents/publication/wcms_asist_8210.pdf (accessed July 2021)

119. Audit Scotland. 2011. *Transport for Health and Social Care.* Audit Scotland. https://www.audit-scotland.gov.uk/docs/health/2011/nr_110804_transport_health.pdf

120. Curl A, Clark J & Kearns A. Household car adoption and financial distress in deprived urban communities: a case of forced car ownership. *Transport Policy.* 2018. 65, 61-71 http://eprints.gla.ac.uk/134312/

121. Velaga NR, Beecroft M, Nelson JD et al. Transport poverty meets the digital divide: accessibility and connectivity in rural communities. *Journal of Transport Geography* 2012: 21, 102-112. https://www.sciencedirect.com/science/article/pii/S0966692312000026#b0165

122. Aldred R. *Benefits of investing in cycling.* Available at: http://asociacionambe.es/wp-content/uploads/2014/12/BENEFITS_OF_INVESTING_IN_CYCLING_DIGI_FINAL.pdf (accessed July 2021)

123. Campaign for Better Transport. *Transport and Poverty: a literature review.* 2012. Available at: https://bettertransport.org.uk/sites/default/files/research-files/transport-and-poverty-literature-review.pdf (accessed July 2021)

124. Cycling Scotland. 2020. *Cycling sees modal share in Scotland increase five fold.* Available at: https://www.cycling.scot/news-article/cycling-sees-modal-share-in-scotland-increase-five-fold (accessed July 2021)

125. GCPH. Cycling through a pandemic. 2020. Available at: https://www.gcph.co.uk/latest/news/942_cycling_through_a_pandemic (accessed July 2021)

126. GCPH. Walking during lockdown in Scotland. 2020. Available at: https://www.gcph.co.uk/latest/news/946_walking_during_the_lockdown_in_scotland (accessed July 2021)

127. Transport Scotland. 2020. Success for £30 million pop up infrastructure initiative. Available at: https://www.transport.gov.scot/news/success-for-30-million-pop-up-infrastructure-initiative/ (accessed July 2021)

128. Transport Scotland. 2020. COVID-19 public attitudes survey data: wave 3. Available at: https://www.transport.gov.scot/publication/covid-19-public-attitudes-survey-data-wave-3/ (accessed July 2021)

129. Young M & Whyte B. Cycling in Scotland: review of cycling casualties. Glasgow: GCPH; 2020. Available at: https://www.gcph.co.uk/publications/924_cycling_in_scotland_review_of_cycling_casualties (accessed May 2021)

130. Rojas-Rueda D, Nieuwenhuijsen MJ, Gascon M et al. Green spaces and mortality: a systematic review and meta-analysis of cohort studies. *Lancet Planetary Health* 3-11, E469-E477, 2019

131. Scottish Government. *Scottish Household Survey 2018: annual report.* 2019. Available at: https://www.gov.scot/publications/scotlands-people-annual-report-results-2018-scottish-household-survey/ (accessed May 2021)

132. Colley K & Irvine KN. *Investigating use of the outdoors across adult population groups in Scotland.* The James Hutton Institute, 2018. Available at:

https://www.hutton.ac.uk/sites/default/files/files/Fullreport-use-of-the-outdoors.pdf (accessed May 2021)

133. Glasgow City Council. *Glasgow's Open Space Strategy*. 2020. Available at: https://glasgow.gov.uk/CHttpHandler.ashx?id=47093&p=0 (accessed May 2021)

134. Whyte B. *Indicating the importance of children's access to greenspace.* 2019 Available at: https://www.ubdc.ac.uk/news-media/2019/february/indicating-the-importance-of-children-s-access-to-greenspace (accessed May 2021)

135. NatureScot. *NatureScot Research Report 1252 - Monitoring the impact of Coronavirus and social distancing.* 2020. Available at: https://www.nature.scot/naturescot-research-report-1252-monitoring-impact-coronavirus-and-social-distancing (accessed May 2021)

136. Burnett H, Olsen JR, Nicholls N et al. Change in time spent visiting and experiences of green space following restrictions on movement during the COVID-19 pandemic: a nationally representative cross-sectional study of UK adults. *BMJ Open* 2021;11**:**e044067 doi: 10.1136/bmjopen-2020-044067

137. Dodd HF, FitzGibbon L, Watson BE, Nesbit RJ. Children's Play and Independent Mobility in 2020: Results from the British Children's Play Survey. *Int J Environ Res Public Health*. 2021 Apr 20;18(8):4334. doi: 10.3390/ijerph18084334. PMID: 33923860; PMCID: PMC8073813

138. Scottish Government. *Scottish Vacant and Derelict Land Survey 2019.* 2020. Available at: https://www.gov.scot/publications/scottish-vacant-derelict-land-survey-2019/pages/10/ (accessed May 2021)

139. Glasgow City Region. *Recover Rebuild Renew. Glasgow City Region's Economic Recovery Plan in response to Covid-19.* 2020. Available at: https://glasgowcityregion.co.uk/wp-content/uploads/2021/04/GCR-RecoverRebuildRenew-09Dec2020.pdf (accessed May 2021)

140. CLES. Vacant and derelict land in the Glasgow City Region. February 2021

141. Audit Scotland. *Children and young people's mental health*. Available at: https://www.audit-scotland.gov.uk/uploads/docs/report/2018/nr_180913_mental_health.pdf (accessed July 2021)

142. Scottish Government. *Scottish Health Survey 2019 – Volume 1: main report.* Available at: https://www.gov.scot/publications/scottish-health-survey-2019-volume-1-main-report/pages/5/ (accessed May 2021)

143. ScotPHO Profiles. *NHS Greater Glasgow and Clyde. Health and Wellbeing.* Available at: https://scotland.shinyapps.io/ScotPHO_profiles_tool/ (accessed May 2021)

144. SAMH. 2017. *Going to be alright? A report on the mental health of young people in Scotland.* Available at: https://www.samh.org.uk/documents/Going_to_Be_All_Right_Jacki_Gordon_Report_2017.pdf (accessed July 2021)

145. Inchley, J et al. 2020 *Health behaviour in school-aged children (HBSC) 2018 survey in Scotland: national report.* Available at: https://www.gla.ac.uk/media/Media_707475_smxx.pdf (accessed July 2021)

146. NHS Greater Glasgow and Clyde. *Glasgow City Schools Health and Wellbeing Survey 2014-15.* Available at: https://www.stor.scot.nhs.uk/handle/11289/579794 (accessed July 2021)

147. ScotPHO. *Suicide, key points*. Available at: https://www.scotpho.org.uk/health-wellbeing-and-disease/suicide/key-points/ (accessed July 2021)

148. National Records of Scotland. *Probable suicides: deaths which are a result of intention self-harm or events of undetermined intent*. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/suicides (accessed July 2021)

149. Walsh, D (Glasgow Centre for Population Health). *Analysis of National Records of Scotland data*. Email communication to Bruce Whyte (Glasgow Centre for Population Health). 13th April 2021

150. O'Connor R, Wetherall K, Cleare, S et al. Suicide attempts and non-suicidal self-harm: National prevalence study of young adults. *BJPsych Open*, 2018. 4(3), 142-148. doi:10.1192/bjo.2018.14

151. Samaritans Scotland. *Hidden too long: uncovering self-harm in Scotland*. Available at: https://media.samaritans.org/documents/HiddenTooLong_uncoveringself-harminScotland.pdf (accessed July 2021)

152. UK Government Cabinet Office. *Risk behaviours and negative outcomes*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/452169/data_pack_risk_behaviours_and_negative_outcomes.pdf (accessed July 2021)

153. NHS Tayside. *Supporting Children and Young People at Risk of Self Harm and Suicide. Tayside multi-agency guidance*. Available at: https://www.pkc.gov.uk/media/1090/Self-Harm-Suicide-Support-Tayside/pdf/Self_Harm_Suicide_Support_Tayside.pdf?m=636099846929730000 (accessed July 2021)

154. Soole R, Kolves K & De Leo D. Suicide in Children: a systematic review. *Archives of Suicide Research*, 2015, 19(3), 285-304

155. ScotPHO profiles. *Inequalities*. Available at: https://scotland.shinyapps.io/ScotPHO_profiles_tool/ (Accessed July 2021)

156. Bansal N, Bhopal R, Netto G et al. Disparate patterns of hospitalisation reflect unmet needs: and persistent ethnic inequalities in mental health care: the Scottish health and ethnicity linkage study. *Ethnicity and Health.* 2012. 19(2), 217-239

157. Bhopal R, Fischbacher C, Povey C et al. Cohort profile: Scottish health and ethnicity linkage study of 4.65 million people exploring ethnic variations in disease in Scotland. *International Journal of Epidemiology*. 2010. 40(5), 1168-1175

158. Netto G, Arshad R, De Lima, P et al. *Audit of research on minority ethnic issues in Scotland from a 'race' perspective*. Edinburgh: Scottish Executive (2001). Available at: http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.578.6053 (accessed July 2021)

159. Pierce M, Hope H, Ford T et al. Mental health before and during the covid-19 pandemic: a longitudinal probability sample survey of the UK population. *The Lancet Psychiatry*, 2020, 7(10), 883-892

160. Public Health Scotland. *Rapid Review of the impact of COVID-19 on mental health. June 2020*. Available at: http://www.healthscotland.scot/media/3112/rapid-review-of-the-impact-of-covid-19-on-mental-health-july2020-english.pdf (accessed July 2021)

161. Mental Health Foundation Scotland. *Impacts of lockdown on the mental health and wellbeing of children and young people.* Available at: https://www.mentalhealth.org.uk/sites/default/files/MHF%20Scotland%20Impacts%20of%20Lockdown.pdf (accessed July 2021)

162. Scottish Government. *Scottish Health Survey – telephone survey – August/September 2020: main report.* Available at: https://www.gov.scot/publications/scottish-health-survey-telephone-survey-august-september-2020-main-report/ (accessed July 2021)

163. SAMH. *Impact of the pandemic on mental health services revealed.* Available at: https://www.samh.org.uk/about-us/news-and-blogs/coronavirus-research (accessed July 2021)

164. Health and Care Scotland. *Warning siren over new mums' mental health.* Available at: https://healthandcare.scot/default.asp?page=story&story=2517%C2%A0 (accessed July 2021)

165. Health and Care Scotland. *Delays are nearly 2 million seek mental health help.* Available at:https://healthandcare.scot/default.asp?page=story&story=2528 (accessed July 2021)

166. Mental Health Foundation. *Mental health statistics: children and young people.* Available at: https://www.mentalhealth.org.uk/statistics/mental-health-statistics-children-and-young-people (accessed July 2021)

167. Public Health Scotland. *Psychological therapies waiting times in NHS Scotland – Report Publication. Quarter ending 31st December 2020.* Available at: https://beta.isdscotland.org/find-publications-and-data/conditions-and-diseases/mental-health/psychological-therapies-waiting-times/ (accessed July 2021)

168. Public Health Scotland. *Child and adolescent mental health services (CAMHS) waiting times.* Available at: https://beta.isdscotland.org/find-publications-and-data/conditions-and-diseases/mental-health/child-and-adolescent-mental-health-services-camhs-waiting-times/ (accessed July 2021)

169. NRS. *Healthy Life Expectancy in Scotland, 2017-2019.* 2021. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/life-expectancy/healthy-life-expectancy-in-scotland/2017-2019 (accessed May 2021)

170. NRS. Drug-related deaths in Scotland in 2019. 2020. Available at: https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/2019/drug-related-deaths-19-pub.pdf (accessed July 2021)

171. Priestley A. *Health inequality and Covid-19 in Scotland.* Scottish Parliament. Available at: https://digitalpublications.parliament.scot/ResearchBriefings/Report/2021/3/23/ee202c60-93ad-4a27-a6e7-67613856ba24#0d404a12-bfdd-4d6b-b532-74f97b666c0e.dita (accessed May 2021)

172. Lone N, McPeake J, Stewart N et al. 2020. Influence of socioeconomic deprivation on interventions and outcomes for patients admitted with COVID-19 to critical care units in Scotland: A national cohort study. *The Lancet Regional Health - Europe.* doi: https://doi.org/10.1016/j.lanepe.2020.100005

173. Marmot M, Allen J, Goldblatt P et al. *Build Back Fairer: The COVID-19 Marmot Review.* The Health Foundation 2020. Available at: https://www.health.org.uk/publications/build-back-fairer-the-covid-19-marmot-review (accessed May 2021)

174. Public Health Scotland. *COVID-19 Statistical Report as at 1 March 2021.* Available at: https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/covid-19-statistical-report/3-march-2021 (accessed May 2021)

175. Scottish Learning Disabilities Observatory. *The impact of COVID -19 on people with learning/intellectual disabilities in Scotland.* https://www.sldo.ac.uk/our-research/life-expectancy-and-mortality/covid-19/

176. Walsh D, Buchanan D, Douglas A et al. Increasingly Diverse: the Changing Ethnic Profiles of Scotland and Glasgow and the Implications for Population Health. *Applied Spatial Analysis and Policy.* 2019,12, 983-1009

177. Williams DR, Yu Y, Jackson JS et al. Racial differences in physical and mental health. Socioeconomic status, stress, and discrimination. *Journal of Health psychology.* 1997. 2(3), 335-351

178. Hatch SL, Gazard B, Williams DR et al. Discrimination and common mental disorder among migrant and ethnic groups: findings from a Southeast London Community sample. *Social psychiatry and psychiatric epidemiology.* 2016. 51, 689-701

179. European Network of Equality Bodies. *Why we need to reveal – views on racism and data collection in Europe.* Available at: https://equineteurope.org/2021/why-we-need-to-reveal-views-on-racism-data-collection-in-europe/ (Accessed July 2021)

180. Michaels E, Thomas M, Reeves A et al. Coding the everyday discrimination scale: implications for exposure assessment and associations with hypertension and depression across a cross-section of mid-life African American women. *Epidemiology and Community Health.* 2018, 73(6)

181. Scottish Government. *Expert Reference Group on COVID-19 and Ethnicity: recommendations to Scottish Government.* Available at: https://www.gov.scot/publications/expert-reference-group-on-covid-19-and-ethnicity-recommendations-to-scottish-government/ (accessed July 2021)

182. Scottish Government. *Housing to 2040.* 2021. Available at: https://www.gov.scot/publications/housing-2040-2/ (accessed May 2021)

183. Homelessness and Rough Sleeping Action Group. *Ending homelessness: the report on the final recommendations of the Homelessness and Rough Sleeping Action Group*; Scottish Government; 2018. Available at: https://www.gov.scot/publications/homelessness-and-rough-sleeping-action-group-final-report/ (accessed June 2021)

184. Scottish Prevention Review Group. *Preventing homelessness in Scotland. Recommendations for legal duties to prevent homelessness: a report from the prevention review group*, Feb 2021. Available at: https://www.crisis.org.uk/media/244558/preventing-homelessness-in-scotland.pdf (accessed June 2021)

185. Scottish Prevention Review Group, Crisis website, 2021. Available at: https://www.crisis.org.uk/ending-homelessness/scotland-prevention-review-group/ (accessed June 2021)

186. Scottish Government. *Ending homelessness together: updated action plan - October 2020* 2020. Available at: https://www.gov.scot/publications/ending-homelessness-together-updated-action-plan-october-2020/ (accessed May 2021)

187. Osborne H. *Rent arrears put thousands at risk as end of eviction ban in England looms*. The Guardian; 8 May 2021. Available at: https://www.theguardian.com/money/2021/may/08/rent-arrears-put-thousands-at-risk-as-end-of-eviction-ban-in-england-looms?CMP=Share_iOSApp_Other (accessed May 2021)

188. Glasgow City Health and Social Care Partnership. *Rapid rehousing transition plan*. Glasgow City HSCP 2019

189. Glasgow Alliance to End Homelessness *Glasgow alliance to end homelessness.* Available at: https://www.glasgowalliance.org/ (accessed May 2021)

190. Glasgow Alliance to End Homelessness *A Prospectus for Glasgow Alliance to End Homelessness: Your City, Your Home* Glasgow Alliance to End Homelessness 2019. Available at: https://www.yoursupportglasgow.org/media/25087/prospectus-for-the-glasgow-alliance-to-end-homelessness-outline-specification.pdf (accessed July 2021)

191. Glasgow City Council. *Glasgow's Housing Strategy 2017 – 2022.* 2017. Available at: https://www.glasgow.gov.uk/CHttpHandler.ashx?id=4584&p=0 (accessed May 2021)

192. Housing First Scotland. *Housing First tracker: progress to June 2021*; Homelessness Network Scotland 2021. Available at: https://homelessnetwork.scot/wp-content/uploads/2021/06/HF-Scotland-Monthly-Tracker-JUNE-2021.pdf (accessed June 2021)

193. Glasgow City Council. *Glasgow's Strategic Housing Investment Plan 2021-26* Glasgow City Council 2021. Available at: https://www.glasgow.gov.uk/councillorsandcommittees/viewSelectedDocument.asp?c=P62AFQDNDXDX2UZ3NT (accessed June 2021)

194. Glasgow City Region City Deal. *Annual Performance Report 2019-2020.* Available at: https://glasgowcityregion.co.uk/wp-content/uploads/2021/04/GCRCityDeal-APR2019-20-22Oct20.pdf (accessed June 2021)

195. Poverty Alliance. *A Scotland for All of Us: Poverty Alliance 2021 Scottish Parliament Election Manifesto* Poverty Alliance 2021. Available at: https://www.povertyalliance.org/wp-content/uploads/2021/03/A-Scotland-for-all-of-us-Poverty-Alliance-2021-Scottish-Parliament-election-manifesto.pdf (accessed June 2021)

196. Advisory Group on Economic Recovery. *Towards a robust, resilient wellbeing economy for Scotland: Report of the advisory group on economic recovery*. Scottish Government, Scottish National Investment Bank Directorate, 2020. Available at: https://www.gov.scot/publications/towards-robust-resilient-wellbeing-economy-scotland-report-advisory-group-economic-recovery/pages/6/ (accessed June 2021)

197. Scottish Government. *Supporting People to Get Online webpage* Scottish Government 2021 Available at: https://www.gov.scot/news/supporting-people-to-get-online/ (accessed June 2021)

198. Scottish Government. *Delivering the youth guarantee*. Scottish Government website, 2020. Available at: https://www.gov.scot/news/delivering-the-youth-guarantee/ (accessed June 2021)

199. Scottish National Party. *2021 Manifesto: Scotland's Future, Scotland's Choice*. SNP 2021. Available at: https://www.snp.org/manifesto/ (accessed May 2021)

200. Child Poverty (Scotland) Bill; 2017; Scottish Parliament. Available at: https://www.parliament.scot/bills-and-laws/bills/child-poverty-scotland-bill (accessed July 2021)

201. Scottish Government. Child Poverty Strategy Documents. Scottish Government 2019 https://www.gov.scot/publications/child-poverty-strategy-documents/ (accessed June 2021)

202. Glasgow City Council. Glasgow HSCP and NHS Greater Glasgow and Clyde. *Glasgow's Local Child Poverty Action Report 2019/2020*. Glasgow City Council, Glasgow HSCP and NHS Greater Glasgow and Clyde 2020. Available at: https://www.glasgow.gov.uk/CHttpHandler.ashx?id=52691&p=0 (accessed June 2021)

203. Davidson J. *Child poverty in Scotland increased even before pandemic.* Holyrood News 2021. Available at: https://www.holyrood.com/news/view,child-poverty-in-scotland-increased-even-before-pandemic (accessed June 2021)

204. Scottish Government. *Every child, every chance: tackling child poverty delivery plan 2018-2022*. Scottish Government 2018. Available at: https://www.gov.scot/publications/child-chance-tackling-child-poverty-delivery-plan-2018-22/pages/2/ (accessed June 2021)

205. Scottish Government. *Scottish Child Payment helps nearly 79,000 young people. Scottish Government 2021*. Available at: https://www.gov.scot/news/scottish-child-payment-helps-nearly-79-000-young-people/ (accessed June 2021)

206. Birt C. *Scotland's child poverty targets are possible - with political confidence and urgency*. Joseph Rowntree Foundation 202. Available at: https://www.jrf.org.uk/blog/scotlands-child-poverty-targets-are-possible-political-confidence-and-urgency (accessed June 2021)

207. Fraser of Allander Institute. *Election 2021: Child poverty consensus but more will be required to meet targets*. Fraser of Allander Institute, 2021. Available at: https://fraserofallander.org/election-2021-child-poverty-consensus-but-more-will-be-required-to-meet-the-targets/ (accessed June 2021)

208. Scottish Government. *Early education and care*. Scottish Government 2021 https://www.gov.scot/policies/early-education-and-care/early-learning-and-childcare/ (accessed June 2021)

209. Young, M. & Whyte, B. *An evaluation of childcare in the east end of Glasgow.* Available at: https://www.gcph.co.uk/assets/0000/7752/CHANGE_Year_3_Report.pdf (accessed July 2021)

210. BBC. *Scottish election 2021: Key points on the Holyrood vote.* May 2021. Available at: https://www.bbc.co.uk/news/uk-scotland-scotland-politics-57034429 (accessed July 2021)

211. BBC. *Police release men from immigration van blocking Glasgow street.* May 2021. Available at: https://www.bbc.co.uk/news/uk-scotland-glasgow-west-57100259 (accessed July 2021)

212. ONS. Crime in England and Wales: year ending December 2020. 2021. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingdecember2020#main-points (accessed May 2021)

213. Scottish Women's Rights Centre. *6 things you need to know about Scotland's new domestic abuse law.* Available at: https://www.scottishwomensrightscentre.org.uk/news/news/7-things-to-know-about-scotlands-new-domestic-abuse-law (accessed July 2021)

214. Safe Lives. Domestic Abuse Matters. *Domestic abuse matters Scotland evaluation shows major shift in policing nationwide regarding domestic abuse.* Available at: https://safelives.org.uk/DA_Matters_Scotland_evaluation (accessed July 2021)

215. Domestic Abuse Matters Scotland. *Evaluation Report.* Available at: https://safelives.org.uk/sites/default/files/resources/Domestic%20Abuse%20Matters%20Scotland%20-%20Evaluation%20Report.pdf (accessed July 2021)

216. BBC News. *What has #MeToo actually changed?* Available at: https://www.bbc.co.uk/news/world-44045291 (accessed July 2021)

217. Umbrella Lane. *STI testing for sex workers in Scotland during Covid-19.* Available at: https://e7cb27be-607e-4c1c-960b-0e3aae2f2302.filesusr.com/ugd/063c2f_a9d9490bae3140f0a459a235b9cc8e75.pdf (accessed July 2021)

218. Global Network of Sex Work Projects. *Challenging the introduction of the Nordic Model.* Available at: https://www.nswp.org/sites/nswp.org/files/sg_to_challenging_nordic_model_prf03.pdf (accessed July 2021)

219. HM Inspectorate of Constabulary in Scotland. *Thematic Inspection of Hate Crime. June 2021.* Available at: https://www.hmics.scot/sites/default/files/publications/HMICS%20Thematic%20Inspection%20of%20Hate%20Crime%202021.pdf (accessed July 2021)

220. Scottish Government. *Equally Safe: Scotland's strategy to eradicate violence against women.* Available at: https://www.gov.scot/publications/equally-safe-scotlands-strategy-prevent-eradicate-violence-against-women-girls/ (accessed July 2021)

221. Australian Human Rights Commission. *Respect@work. National inquiry into sexual harassment in Australian workplaces.* Available at: https://humanrights.gov.au/our-work/sex-discrimination/publications/respectwork-sexual-harassment-national-inquiry-report-2020 (accessed July 2021)

222. Transport Scotland. *Climate Change.* Available at: https://www.transport.gov.scot/our-approach/environment/climate-change/ (accessed July 2021)

223. England K, Pearce C & Wolstenholme R et al. *Climate Ready Clyde. Glasgow City Region Climate adaptation strategy and action plan 2020-2030: Choosing to flourish in our future climate.* Sniffer 2021. Available at: http://climatereadyclyde.org.uk/gcr-adaptation-strategy-and-action-plan/ (accessed July 2021)

224. Transport Scotland. *Over £20 million to support electric vehicles across Scotland.* Available at: https://www.transport.gov.scot/news/over-20-million-to-support-electric-vehicles-across-scotland (accessed July 2021)

225. Timmers, VRJH & Achten PAJ. Non-exhaust PM emissions from electric vehicles. *Atmospheric Environment.* 2016: 134, 10-17

226. Bicycle Association. *E-bike incentives over twice as effective as e-car grants.* Available at: https://www.bicycleassociation.org.uk/news-press/e-bike-incentives-over-twice-as-effective-as-e-car-grants/ (accessed July 2021)

227. Living Streets. *Road traffic and Injury risk of ethnic minority populations*. May 2021. Available at: https://www.livingstreets.org.uk/media/6335/road-traffic-injury-risk-amongst-gb-black-and-ethnic-minority-populations.pdf (accessed July 2021)

228. Whyte B, Waugh C. *Pedestrian and cyclist casualty trends in Scotland.* GCPH: 2015. Available at: https://www.gcph.co.uk/publications/572_pedestrian_and_cyclist_casualty_trends_in_scotland (accessed July 2021)

229. Transport Scotland. *Go Safe on Scotland's roads, its everyone's responsibility. Scotland's Road Safety Framework to 2020.* Available at: https://www.transport.gov.scot/media/29622/j243698.pdf (accessed July 2021)

230. Edinburgh City Council, Transport and Environment Committee. *Evaluation of the 20mph speed limit roll out.* 2019. Available at: https://democracy.edinburgh.gov.uk/documents/s9492/Item%207.3%20-%20Evaluation%20of%2020mph%20with%20appendices.pdf (accessed July 2021)

231. Glasgow City Council. *20mph should be default speed limit for Glasgow says Council Committee.* Available at: https://www.glasgow.gov.uk/article/25328/20mph-Should-Be-Default-Speed-Limit-for-Glasgow-Says-Council-Committee   (accessed July 2021)

232. Baker G, Pillinger R, Kelly P, et al. Quantifying the health and economic benefits of active commuting in Scotland. *Journal of Transport & Health*, 2021: https://doi.org/10.1016/j.jth.2021.101111

233. O' Gorman S & Dillon-Robinson R. *20 Minute Neighbourhoods in a Scottish Context.* climatexchange: 2021. Available at: https://www.climatexchange.org.uk/media/4661/cxc-20-minute-neighbourhoods-in-a-scottish-context-march-2021.pdf (accessed May 2021)

234. Elliot, S. *Disability charities demand rethink on Edinburgh's spaces for people scheme.* The Scotsman. Available at: https://www.scotsman.com/news/politics/council/disability-charities-demand-rethink-on-edinburghs-spaces-for-people-scheme-3276016 (accessed May 2021)

235. Mental Health Foundation Scotland. *Nearly two thirds of adults in Scotland say: 'Being close to nature improves my mood'.* 2021. Available at: https://www.mentalhealth.org.uk/news/nearly-two-thirds-adults-scotland-say-being-close-nature-improves-my-mood (accessed May 2021)

236. GCV Green Network. *Clyde Climate Forest: The right trees, in the right places.* 2021. Available at: https://www.gcvgreennetwork.gov.uk/clyde-climate-forest accessed May 2021)

237. Scottish Government. *Fairer Scotland Duty: interim guidance for public bodies.* 2018. Available at: https://www.gov.scot/publications/fairer-scotland-duty-interim-guidance-public-bodies/pages/2/ (accessed May 2021)

238. Poverty and Inequality Commission. *Transport and Poverty in Scotland.* 2019. Available at: https://povertyinequality.scot/wp-content/uploads/2019/06/Transport-and-Poverty-in-Scotland-Report-of-the-Poverty-and-Inequality-Commission.pdf (accessed May 2021)

239. Fishman E, Scheperes P, Kamphuis CBM. Dutch cycling: quantifying the health and related economic benefits. *American Journal of Public Health* 2015;105(8):13-15

240. Ian Findlay. *Provocation on active travel*. RSGC. Climate Emergency Summit on Transport 2021. Available at: https://vimeo.com/513829857 (accessed May 2021)

241. Health and care Scotland. *GPs facing "rising tide" of mental health problems.* Available at: https://healthandcare.scot/default.asp?page=story&story=2321 (accessed July 2021)

242. Scottish Government. *Child and adolescent mental health services: inpatient report.* Available at: https://www.gov.scot/publications/ld-camhs-inpatient-report/pages/3/ (accessed July 2021)

243. Mental Welfare Commission. *Statistical Monitoring. Young person monitoring report.* Available at: 2016-17. https://www.mwcscot.org.uk/sites/default/files/2019-06/young_person_monitoring_report_2016-17.pdf (accessed July 2021)

244. Audit Scotland. 2018. *Children and young people's mental health.* Available at: https://www.audit-scotland.gov.uk/uploads/docs/report/2018/nr_180913_mental_health.pdf (Accessed July 2021)

245. Scottish Government. *Mental Health Strategy 2017-2027.* Available at: https://www.gov.scot/publications/mental-health-strategy-2017-2027/ (accessed July 2021)

246. Scottish Government. *Coronavirus (Covid-19) mental health – transition and recovery plan.* Available at: https://www.gov.scot/publications/mental-health-scotlands-transition-recovery/pages/2/ (accessed July 2021)

247. ONS. *National life tables – life expectancy in the UK: 2017 to 2019.* 2020. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2017to2019 (accessed May 2021)

248. Dorling, Danny and Rigby, Jan. (2018) Recession, Austerity and Life Expectancy. *Irish Medical Journal* (P876). ISSN 0790-2905

249. Hiam L, Harrison D, McKee M, et al. Why is life expectancy in England and Wales 'stalling'? *J Epidemiol Community Health* 2018;72:404-408

250. Marmot M, Allen J, Boyce T et al. *Health Equity in England: The Marmot Review 10 Years On.* The Health Foundation 2020. Available at: https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on (accessed May 2021)

251. Ramsay J, Minton J, Fischbacher C, et al. How have changes in death by cause and age group contributed to the recent stalling of life expectancy gains in Scotland? Comparative decomposition analysis of mortality data, 2000–2002 to 2015–2017. *BMJ Open* 2020;10:e036529 doi:10.1136/bmjopen-2019-036529

252. Public Health Scotland. *Non-COVID-19 excess deaths by cause: Excess deaths by underlying cause and area deprivation 26 August 2020* 2020 Available at:

https://www.publichealthscotland.scot/publications/non-covid-19-excess-deaths-by-cause/non-covid-19-excess-deaths-by-cause-excess-deaths-by-underlying-cause-and-area-deprivation-26-august-2020/ (accessed July 2021)

253. Richardson E, Mackay D, Giles L et al. *The impact of COVID-19 and related restrictions on population-level alcohol sales in Scotland and England & Wales, March–July 2020.* Edinburgh: Public Health Scotland; 2021

254. Beeston C , McCartney G, Ford J, et al. *Health inequalities policy review for the Scottish ministerial task force on health inequalities*. Edinburgh: NHS Health Scotland, 2013

255. McCartney G, Leyland AH, Walsh D, et al. Scaling COVID-19 against inequalities: should the policy response consistently match the mortality challenge? *Journal of Epidemiology & Community Health* 2021;75:315-320. Available at: https://jech.bmj.com/content/75/4/315 (accessed May 2021)

256. McCartney G, Hearty W, Arnot J et al. Impact of political economy on population health: a systematic review of reviews. *Am J Public Health* 2019;109:e1–e12. doi: 10.2105/AJPH.2019.305001

257. Walsh D, Lowther M, McCartney G, Reid K. *Policy recommendations for population health: progress and challenges.* GCPH; 2020. Available at: https://www.gcph.co.uk/publications/944 (accessed July 2021)

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